

The Effects of Culture and Cohesiveness on Intragroup Conflict and Effectiveness

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ABSTRACT. To investigate the influence of culture and cohesiveness on intragroup conflict and effectiveness, the authors made comparisons among groups of U.S. friends and strangers and among groups of Chinese friends and strangers. Groups consisting of 5 members of the same culture engaged in a decision-making task. Among U.S. participants, task conflict and performance results tended to vary together. U.S. strangers reported little task conflict (disagreements about fact or opinion) and performed relatively poorly, whereas U.S. friends' performances benefited from an uninhibited exchange of individual ideas and opinions. In contrast, Chinese participants reported uniformly high levels of intragroup conflict and experienced relatively low performance. The results suggest that a *task conflict advantage*, with which group members feel comfortable enough to freely express and exchange opinions and disagree with each other to achieve optimal outcomes, might be culture specific.

Key words: collectivism, group cohesiveness, group performance, individualism, intragroup conflict

TO MEET MOUNTING ENVIRONMENTAL demands for improved flexibility, efficiency, and competitive advantage, organizations are increasingly using teams of people to do tasks that previously they would assign to individuals (Boyett & Conn, 1992). Although organizations use groups for a variety of reasons such as co-opting members from different organizational factions, gaining commitment for implementation of decisions, and social interacting, a more fundamental reason for forming work teams assumes that, under some circumstances, decisions that groups make are better than decisions that individuals working alone make. Unfortunately, the use of groups to achieve these improve-

ments has not always met expectations, and it appears that a number of intervening variables influence the effectiveness of group decisions (Gigone & Hastie, 1997; Hastie, 1986). The present study examined culture and cohesiveness as two variables that might have the potential to influence group effectiveness and intra-group conflict.

Group Effectiveness

Scholars have directed significant energy toward establishing group superiority in tasks requiring accuracy in judgment. What is the difference in accuracy between groups and the individuals composing those groups? In his literature review, Hastie (1986) concluded that there were few conditions in which groups outperformed their members on any consistent basis. In their literature review, Gigone and Hastie (1997) concluded that "for the most part, group judgments tend to be more accurate than the judgments of typical individuals, approximately equal in accuracy to the mean judgments of their members, and less accurate than the judgments of their most accurate member" (p. 153). The present study, like many of its predecessors, used a quantifiable laboratory exercise to make meaningful performance comparisons between and within groups. For purposes of this research, *group effectiveness* is defined as accuracy of a group's decision relative to a correct solution. Thus, we examined differences in process gains across groups.

Aside from bottom-line performance, we were concerned about the processes that groups used to make their judgments. Groups can use a variety of methods to arrive at a group decision. Methods include consensus, voting, and normative pressure by dominant group members. Consensus perhaps represents the most advanced and complex form of group deliberation and judgment because it requires cooperative social interaction (Delbecq, Van de Ven, & Gustafson, 1975). Consensus requires that members agree not only on the procedure of arriving at a decision but also on the substance of that group judgment. Even though groups might be explicitly instructed to operate on consensus, they can easily resort to voting or other decision-making techniques that are algorithmic in nature. In the present study, we examined the extent to which groups used the consensus method to make decisions.

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Cultural Effects on Group Effectiveness and Efficiency

Many researchers of cross-cultural phenomena have contributed to the theoretical and empirical framework of collectivist and individualist societies (Hui & Triandis, 1986; Triandis, 1988, 1994). Collectivists and individualists tend to exhibit different social behaviors, especially in relation to the groups to which they belong (*in-groups*) or do not belong (*out-groups*). Collectivists value security, obedience, and harmony within the group and maintain relatively fewer tightly knit or cohesive groups. Hofstede (1983) and Triandis (1988) have identified Hong Kong as one location where collectivism prevails as a cultural norm. On the other hand, individualists value pleasure, achievement, competition, and autonomy. Compared with collectivists, individualists usually have more *in-groups* but tend to be more casual and less emotionally involved with any one group. In-group relations among individualists tend to be more horizontal, and hence, individualists tend to be less subordinate to *in-group* authorities. Like collectivists, individualists tend to behave differently in the presence of *in-groups* and *out-groups*, although this effect is less pronounced among individualists (Triandis, 1994). North America has frequently been cited as having a highly individualistic culture (Triandis, 1988). In the present study, we used the collectivism–individualism construct as an explanation for expected cultural differences in task performance and efficiency.

Generally, collectivists tend to be highly conforming, and a harmonious relationship among group members is of utmost importance to group members (Hui & Triandis, 1986). In the collectivist Far East societies, groups assigned a common task would be expected by all people involved to avoid confrontation and conflict, emphasizing instead the maintenance of harmonious relationships (Westwood, Tang, & Kirkbride, 1992). The successful completion of a task would be secondary to the conciliatory image portrayed to other group members (Shenkar & Ronen, 1987). Conformity operating within a group context has the reputation of suppressing individual expression to the detriment of the decision quality (Krech, Crutchfield, & Ballachey, 1962).

However, among individualist groups, optimal performance tends to be of primary importance, and the group processes are more likely to be characterized by free expression and possibly direct confrontation (Nibler & Harris, 1994). Conciliation might be a low priority during group interaction. An individualist might be more task-oriented and concerned about portraying an image of intelligence and self-confidence, because those characteristics are often rewarded in individualist cultures (Triandis, 1988, 1994). Therefore, we anticipated that group effectiveness among collectivist Chinese would be lower than it would be among individualist U.S. citizens.

Because collectivist groups generally are concerned with social issues pertaining to relationships among group members, it is likely that these social concerns will occupy a significant portion of group time. Kirkbride, Tang, and Westwood (1991) indicated that "the Chinese perceive time as polychronic, nonlinear,

repetitive, and associated with events, in contrast with . . . a 'Western' orientation where time is perceived as monochronic, sequential, absolute, and prompt" (p. 368). These differing conceptions of time might hold implications for the process and progress of Chinese and U.S. groups that need to perform the same task. Harris and Nibler (1998) indicated that Hong Kong groups took significantly more time to complete a group task than did their U.S. counterparts, without an accompanying improvement in task performance. In the present study, we expected to replicate that finding. The preceding review gives rise to the following hypotheses:

Hypothesis 1: The U.S. groups will be more effective in a decision-making task than will the Chinese groups.

Hypothesis 2: The U.S. groups will take less time to complete the task than will the Chinese groups.

Cohesiveness Level and Effectiveness

Prior researchers (Nibler & Harris, 1994; Harris & Nibler, 1998) have compared decision outcomes and process among U.S. and Chinese groups that were composed of individuals with little or no prior experience together. Yet, in organizational life and other real-world settings, group members have prior relationships with one another. For this reason, in the present study we chose to extend the current knowledge base by introducing another major variable of interest, group cohesiveness. Do groups of strangers behave and perform differently on a task than do groups of friends? Groups of strangers are composed of individuals who have had little or no prior interaction with each other. Consequently, there is not likely to be much mutual attraction among the group members. On the other hand, groups of friends are composed of individuals who have formed the group on the basis of their mutual personal attraction and ongoing interaction. Thus, these two types of groups differ according to their degree of *cohesiveness*, which Festinger (1950) defined as "the resultant of all the forces acting on members to remain in the group" (p. 272). These forces depend on the attractiveness or unattractiveness of the prestige of the group, on the personalities of the members in the group, and on the activities in which the group engages.

Over the past 50 years, many researchers (e.g., Mullen & Copper, 1994) have examined the effect of cohesiveness on group performance and have yielded a wide range of results. Consequently, scholars have tried to meta-analytically integrate this research domain. Although these meta-analyses have suggested that there is a moderate cohesiveness-performance effect, Mullen and Copper's (1994) thorough analysis provided a more precise summary of the overall strength of this effect and of some of the more important intervening variables. In their study, cohesiveness was most strongly associated with group performance in smaller groups (those with from three to seven members). Mullen and Copper

also reported a more significant cohesiveness–performance relationship in real groups than in the artificial groups of an experiment. Although their analysis found an overall relationship between cohesiveness and group performance to be significant, the magnitude was small. Jehn and Shah (1997) investigated the processes at work in the relation of interpersonal relationship and task performance, and their results suggested that friends engaged more in critical evaluation and task monitoring than did acquaintances. That difference resulted in significantly better performance in a decision-making task by the groups of friends than by the groups of acquaintances. In our literature review, we failed to uncover similar studies of decision making among Chinese friends and strangers. In the balance, primarily on the basis of the aforementioned research conducted with U.S. populations, we chose to hypothesize a cohesiveness advantage for the present study.

Hypothesis 3: Groups of friends will be more effective than groups of strangers.

Relation Between Intragroup Conflict and Group Effectiveness

Generally, group members experience varying degrees of conflict, and this conflict can influence the group's performance. Conflict appears to have a complex effect on group effectiveness, and theorists disagree about whether conflict enhances or undermines organizational functioning. Early researchers (Brown, 1983; Pondy, 1967) concluded that conflict thwarts organizational functioning and therefore should be resolved. In subsequent studies, researchers (Amason, 1996; Jehn, 1994, 1995; Jehn, Chadwick, & Thatcher, 1997) have found conflict to benefit group performance at least under some conditions.

Jehn (1994, 1995) has operationalized a bifurcated concept of conflict into dimensions of *relationship conflict* and *task conflict*, with the sum of these two dimensions being an indicator of overall conflict. Relationship conflicts are disagreements regarding personal issues that are not related to the group's task, such as personality clashes and annoying behavior of other group members. Task conflicts are disagreements among group members about opinions, ideas, and suggestions regarding the group's task (Jehn et al., 1997).

The literature indicates that relationship conflict hinders task performance (Amason, 1996; Jehn, 1994, 1995, 1997b). Personality clashes and tension can have a deleterious effect on the functioning of the group in its attempt to achieve an optimal resolution of its task. Empirical support for this position (Jehn, 1994, 1997b; Jehn et al., 1997; Shah & Jehn, 1993) reveals a negative association between relationship conflict and group performance.

Several investigators (Amason & Sapienza, 1997; De Dreu & Van de Vliert, 1997; Jehn, 1994, 1995; Jehn et al., 1997; Shah & Jehn, 1993) have predicted a generally positive relationship between task conflict and group effectiveness. In general, groups possessing norms that encourage open, honest debate and toler-

ance of differing views are likely to reap positive benefits such as improved performance (Jehn, 1997b). Investigators have proposed several variables as influencing the relationship between intragroup task conflict and performance, such as task type, conflict norms, and task interdependence (Jehn et al.); type of issue and size of conflict (Deutsch, 1994); demographic composition (Jehn et al.); parties' orientation (Deutsch); team size and openness (Amason & Sapienza); and friendship status among members (Shah & Jehn).

The present article's foregoing discussion regarding relationship conflict and task conflict and their differing effects represents current knowledge about small group behavior among many U.S. and West European scholars. Although many scholars have featured the distinction between relationship conflict and task conflict, investigators have developed the empirical base substantiating that distinction almost exclusively from research on individualist populations. Whereas the U.S. task-oriented approach allows for open expression of differing viewpoints without necessarily damaging social relations, Chinese view this form of "honest confrontation" as aggressive, emotionally charged, and thus unacceptable (Shenkar & Ronen, 1987; Ting-Toomey, 1994). Chinese conflict-handling behavior is influenced by Chinese values, which emphasize conflict avoidance, emotional composure, and nonconfrontation (Kirkbride, Tang, & Westwood, 1991). Small groups that possess norms that stress only the potential harm of conflict and the avoidance of conflict at all costs are likely to experience only the negative effects of conflict on performance and member satisfaction (Jehn, 1997a). The literature suggests that collectivist Chinese are unlikely to perceive a distinction between relationship (bad) conflict and task (good) conflict. Groups operating within this culture are unlikely to reap the potential benefits of task conflict. Consequently, we formulated the following hypotheses:

Hypothesis 4: Among U.S. individualists, relationship conflict and group effectiveness will be negatively associated, and task conflict and group effectiveness will be positively associated.

Hypothesis 5: Among Chinese collectivists, both relationship conflict and task conflict will be negatively associated with group effectiveness.

Interactions of Culture, Group Cohesiveness, and Conflict

In the present study, we further considered the joint effects of culture and group cohesiveness on intragroup conflict. Harris and Nibler (1998) examined the decision-making process among Chinese and U.S. groups. In their study, Chinese participants reported that they were more rebellious, dominating, and pressured than did the U.S. participants. On the other hand, U.S. participants reported feeling more knowledgeable and respectful than their Chinese counterparts. This pattern of self-reports suggests that, regardless of actual conflict intensity level, the Chinese participants were inclined to perceive social interactions that involved

disagreement as intense and highly conflict-ridden. Similarly, Arunachalam, Wall, and Chan (1998) reported that after a simulated negotiation task, Hong Kong Chinese students depicted their own behavior and that of the opposing negotiator in a far more negative light than did U.S. students. At first glance, reports of intense conflict from participants representing a collectivist culture seem contradictory to collectivists' preference for restrained and moderate behavior (Shenkar & Ronen, 1987). However, the conflict measures obtained from the aforementioned studies were measures of the participants' perceptions of conflict. In the present study, we asserted that social situations of a confrontational nature will be perceived by collectivists, or anyone wishing to minimize dispute, in extremely negative terms. Given that our measure of conflict was a self-report, we anticipated that all Chinese participants, regardless of the group's cohesiveness, would convey greater perceptions of all forms of conflict than would their U.S. counterparts.

When considering the conflict patterns among U.S. participants, we had reason to believe that the conflict results would be differentiated by group cohesiveness level. That is, U.S. friends would respond to conflict scales differently than would U.S. strangers. In investigating the conflict levels among groups of friends and groups of acquaintances with strictly U.S. populations, Shah and Jehn (1993) found that friend groups displayed lower relationship conflict and higher task conflict. Shah and Jehn concluded that the U.S. friend groups' task performances benefited from the critical evaluation and questioning that characterizes task-related conflict. Our review of such research resulted in the following hypotheses:

Hypothesis 6: Chinese groups will report high levels of relationship conflict, regardless of group cohesiveness level, and U.S. stranger groups will report higher levels of relationship conflict than U.S. friend groups.

Hypothesis 7: Chinese groups will report high levels of task conflict, regardless of group cohesiveness level, and U.S. friend groups will report higher levels of task conflict than U.S. stranger groups.

Method

Participants

In the present study, it was necessary to form and select groups of strangers and groups of friends. All groups consisted of five members. We formed the U.S. groups of strangers by randomly placing student volunteers from a large psychology class containing a wide diversity of students into groups of five. On forming the 25 groups, the experimenter verbally confirmed that the members were strangers or had only very casual prior acquaintance. We formed the Hong Kong groups of strangers similarly: a research assistant constructed groups of strangers by selecting group members from various dormitories and years of study.

A small corps of undergraduate research assistants recruited the 25 groups of U.S. friends by word of mouth. The assistants contacted small groups of potential participants from classes, sororities, fraternities, residence halls, and student organizations. We used a similar method to recruit Hong Kong friend groups. A research assistant selected 25 groups of people who had considered themselves to be close friends for at least 1.5 years. Consequently, friend groups of both cultures were composed of individuals who had developed tight social bonds. Thus, we formed these groups on a voluntary basis of mutual attraction.

In other research, given their Chinese background, Hong Kong residents have scored high on collectivism (Hofstede, 1980; Triandis, 1988). U.S. citizens generally have scored high on individualism (Hofstede; Triandis). On the basis of the history of a wide difference in collectivism-individualism between these two geographical locations, in the present study we felt that samples drawn from the two locations appropriately represented the orientations of collectivism and individualism. Our treatment of all participants adhered to the ethical standards of the American Psychological Association and included both informed consent and thorough debriefing.

Task

Participants completed the *Lost at Sea* exercise in which group members first individually and then as a group rank 15 survival items to be taken aboard a life boat from a ship that is about to sink. With this exercise, investigators compare both individual and group rankings to a set of model answers to obtain an objective measure of performance. Investigators have used this exercise and exercises similar to it in other research involving intragroup and intergroup data (Harris & Nibler, 1998; Miner, 1984; Nemiroff & Pfeiffer, 1975; Yetton & Bottger, 1982).

In the present study, we administered the identical instrument and questionnaire in English to the Chinese and U.S. groups. University students in Hong Kong attending government-supported institutions, such as the one in the present study, must pass a comprehensive entrance English exam because their books and many of their courses are in English. In postexercise interviews, none of the Chinese subjects indicated that they experienced difficulty in understanding the instrument or the postexercise questionnaire.

Procedure

We divided the study into three phases. In the first phase, each individual ranked the items. We permitted no communication during this phase. In the second phase, each group ranked the 15 survival items. We instructed all groups to use group consensus to develop their rankings; we explicitly discouraged voting and coercive measures. We imposed no time limits on the groups during any part of the study. In the third phase of the study, we administered to the individual

group members a postexercise questionnaire that was designed to measure certain aspects of the group process. Such aspects included individual time and group time to complete the exercise, demographic data, and attitudes. We had designed the postexercise questionnaire in part to validate the conflict dimensions and feelings that participants experienced during the group phase of the exercise.

Measures

We scored the *Lost at Sea* instrument by reference to the model ranking of the items reported by experts on sea disaster. These rankings have accompanied the instrument since its inception. In the present study, we calculated the absolute difference between the model ranking for each item and the individual ranking or group ranking, and we summed the 15 absolute differences to arrive at the score. Accordingly, the lower the score was, the closer the performance of the individual or group was to the model ranking. Investigators consider low scores to reflect better performances. Thus, we associated each individual with both their individual score and a consensus group score. We determined one measure of group effectiveness by calculating a *net gain score*, by subtracting the group score from the individual score. The higher an individual member's net gain score was, the greater the effectiveness of the group was relative to that of the individual member.

To tap the degree to which the group uses social interaction to arrive at their group score, we used a variation of the method that Yetton and Bottger (1982) used, in which we compared the group score against a *nominal score*. Yetton and Bottger obtained the nominal score by averaging each item in the exercise for all group members and then ranking the resulting averages from 1 to 15. The sum of these ranks became the nominal group score, which is the score resulting from simple statistical averaging and ranking, and did not involve the interaction of the group (Delbecq, Van de Ven, & Gustafson, 1975). Accordingly, investigators can then attribute group scores that are greater than the nominal group score to the effect of group interaction. For the present study, we will refer to this effect as *group interaction effect*. Thus, we calculated a second measure of group effectiveness by subtracting the consensus group score from the nominal group score. The higher this difference was, the more we can attribute the group score to the interaction of the group members.

A third measure of group performance in relation to the performance of its individuals was the number of instances in which an individual's group outperformed him or her. A highly effective group generally performs better than its individual members most of the time. We used this measure as another means of operationalizing group effectiveness.

We measured group efficiency as the time that groups took to complete the consensus task, to the nearest half of a minute.

We measured the intragroup conflict dimensions—relationship conflict and task conflict—by using Jehn's Intragroup Conflict Scale (Jehn, 1994; Jehn et al.,

1997; Shah & Jehn, 1993). The instrument consists of eight 7-point Likert-type items. The four items that composed the relationship conflict subscale included, for instance, "How much friction was there among the members in your group?" and "How much were personality conflicts evident in your group?" The four items that composed the task conflict subscale included, for instance, "How often did people in your group disagree about opinions regarding what activities the group would do?" and "How frequently were there conflicts about ideas in your group?" In prior research (Jehn, 1994; Jehn et al.; Shah & Jehn), this instrument has been used primarily with U.S. participants, so we examined its psychometric properties for the two countries separately to establish cross-cultural utility. Among Chinese participants, Cronbach's alpha for the entire scale was .87; Cronbach's alpha for the relationship conflict subscale was .80; and Cronbach's alpha for the task conflict subscale was .85. The correlation between subscales for Chinese participants only was $r = .62$. Among U.S. participants, Cronbach alpha for the entire scale was .94; Cronbach's alpha for the relationship conflict subscale was .92; and Cronbach's alpha for the task conflict subscale was .92. The correlation between subscales for U.S. participants only was $r = .73$. Thus, reliability estimates exceeded accepted standards among both culture samples.

A set of additional self-report items accompanied the conflict scale. First, participants estimated the percentage of decision-making time that they'd spent in using the methods of complete consensus, voting, majority rule, and reliance on the most knowledgeable group member. Next, process measures tapped participants' relative concerns regarding finishing the exercise promptly, performing well, communicating ideas well, presenting oneself appropriately, and trying not to appear too forceful during discussions.

Results

Group Effectiveness

Hypothesis 1 and Hypothesis 3 predicted main effects for both culture and group cohesiveness level. Specifically, we had hypothesized that Americans would perform the group decision-making task in a manner superior to that of the Chinese, and we expected friends to outperform strangers.

First, we measured effectiveness by the net gain score, or the difference between the group score and each individual's score in the group. That analysis revealed a significant main effect for culture, $F(1, 496) = 14.67, p < .01$. U.S. groups displayed a higher net gain ($M = 8.25, SD = 15.68$) than did Chinese groups ($M = 2.94, SD = 15.22$), thus supporting Hypothesis 1. But this analysis did not support Hypothesis 3 (for friends, $M = 5.58, SD = 15.50$; for strangers, $M = 5.60, SD = 15.87$).

Second, we explored group effectiveness by comparing group scores with the nominal score, as an indication of the extent to which groups relied on interper-

sonal interaction to arrive at decisions. Again, Hypothesis 1, which predicted a culture effect on performance, was supported. A two-way analysis of variance (ANOVA) revealed a main effect for culture, $F(1, 96) = 5.54, p < .05$. These results indicated that the Chinese groups ($M = 3.44, SD = 11.68$) might have relied more on decision-making techniques that were algorithmic, such as averaging the individual rankings among themselves, whereas the U.S. groups ($M = 9.12, SD = 12.26$) might have relied more on interpersonal interaction to make their group decisions. But this analysis yielded no support for Hypothesis 3 (friend groups would perform better than acquaintance groups; for friends, $M = 7.12, SD = 11.32$; for strangers, $M = 5.44, SD = 13.17$).

Third, another measure of group performance in relation to its individual members was the number of instances in which an individual member's group outperformed the individual. We conducted a chi-square analysis on the frequencies of superior groups in relation to its members among the four experimental conditions ($N = 125$ individuals compared with their respective groups per experimental condition). The frequencies were $f = 77$ individuals whose Chinese stranger groups outperformed them, $f = 73$ individuals whose Chinese friend groups outperformed them, $f = 87$ individuals whose U.S. stranger groups outperformed them, and $f = 96$ individuals whose U.S. friend groups outperformed them. The chi-square value emerged as significant, $\chi^2(1, N = 500) = 9.66, p < .01$. The frequencies indicated that friendship enhanced performance, but only among Americans. Friendship did not have the same positive effect among Chinese participants.

Efficiency

Hypothesis 2 predicted that Chinese groups would take more time to complete the task than would U.S. groups. We conducted a two-way ANOVA on the time for groups to complete the task, measured to the nearest half of a minute. The main effects for culture and for group cohesiveness reached significance. U.S. participants took less time to complete the group task ($M = 13.96, SD = 6.62$) than did the Chinese ($M = 25.76, SD = 15.10$), $F(1, 96) = 27.54, p < .01$. Strangers took less time ($M = 16.58, SD = 7.76$) than did friends ($M = 23.14, SD = 12.57$), $F(1, 96) = 8.51, p < .01$.

Relation Between Intragroup Conflict and Group Effectiveness

Hypothesis 4 predicted that U.S. participants would perform differently in response to relationship conflict and task conflict: the association between relationship conflict and group effectiveness would be negative, whereas the association between task conflict and group effectiveness would be positive. Hypothesis 5 predicted negative associations among the Chinese (a) between relationship conflict and group effectiveness and (b) between task conflict and group effectiveness. To examine Hypotheses 4 and 5, we computed the average relationship

conflict score for all five members of a group and correlated it with the group's net gain score. We conducted the same procedure to correlate average task conflict with net gain score.

We computed Pearson correlation coefficients, first for U.S. groups to test Hypothesis 4. The resulting correlations were $r = -.11$, *ns*, for the association of relationship conflict with group effectiveness, and $r = .03$, *ns*, for the association of task conflict with group effectiveness among U.S. participants. Next, we conducted a similar procedure solely for Chinese participants to test Hypothesis 5. The procedure yielded a correlation of $r = -.05$, *ns*, for the association of relationship conflict with group effectiveness and $r = -.10$, *ns*, for the association of task conflict with group effectiveness. Thus, we found no support for the prediction that intragroup conflict and performance would be related, when we tested for those associations for U.S. and Chinese participants separately.

To explore further, we followed the correlations testing Hypotheses 4 and 5 by conducting the same analyses with the data from both cultures combined. The resulting correlation for relationship conflict and group effectiveness was $r = -.20$, $p = .0517$. The resulting correlation for task conflict and group effectiveness was $r = -.11$, *ns*. So the overall correlation between relationship conflict and group effectiveness was marginally significant, offering some evidence that group performance is negatively related to conflict of a personal nature.

Effects of Culture and Cohesiveness on Intragroup Conflict

Hypothesis 6 predicted that Chinese groups would report high levels of relationship conflict, regardless of group cohesiveness level, and that U.S. stranger groups would report higher levels of relationship conflict than U.S. friend groups. To examine this hypothesis, we conducted a two-way ANOVA on scores that we had obtained from Jehn's Intragroup Conflict Scale (Jehn, 1994; Jehn et al., 1997; Shah & Jehn, 1993). We calculated relationship conflict as the sum of the scores on the first four items, which Shah and Jehn had developed to reflect that form of conflict. Results indicated main effects for both culture, $F(1, 494) = 116.97$, $p < .01$, and group cohesiveness level, $F(1, 494) = 29.50$, $p < .01$. Table 1 shows means for each experimental condition. Degrees of freedom vary slightly because of some responses that participants omitted. The means reveal that the Chinese participants reported greater personal conflict than did the U.S. participants. Also, friends reported greater relationship conflict than did strangers. Therefore, Hypothesis 6 was partially supported in that the Chinese reported the higher levels of relationship conflict.

Hypothesis 7 predicted that Chinese groups would report high levels of task conflict regardless of group cohesiveness level and that U.S. friend groups would report higher levels of task conflict than U.S. stranger groups. We calculated task conflict as the sum of the scores on the last four items of Jehn's Intragroup Conflict Scale (Jehn, 1994; Jehn et al., 1997; Shah & Jehn, 1993), which Shah and

TABLE 1. Intragroup Conflict Means and Standard Deviations

Type of conflict	Chinese				United States			
	Friends		Strangers		Friends		Strangers	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Relationship conflict	14.6	4.55	12.8	4.35	10.5	5.88	7.6	4.26
Task conflict	17.7	4.55 _a	16.0	4.21 _a	15.8	6.54 _a	11.9	5.39 _b

Note. *N* = 125 for each experimental condition. Means in the same row that do not share subscripts differ at $p < .05$ in the Scheffé procedure for comparing pairs of means (where interaction was significant).

Jehn had developed to reflect that form of conflict. ANOVA results uncovered main effects for both culture and group. More important, the interaction was significant, $F(1, 493) = 5.39, p < .05$. For means, see Table 1. Regardless of group cohesiveness level, Chinese participants reported consistently high levels of task conflict. Among the U.S. participants, the perception of high levels of task conflict appeared among friends, but the U.S. stranger groups reported little task conflict. These results fully confirmed Hypothesis 7.

Additional Process Measures

To validate and perhaps shed more light on the results of the present study, we examined the process measures from the postexercise questionnaire. The postexercise questionnaire asked the respondent to estimate the percentage of time that they had devoted to making decisions using the following methods: *complete agreement*, *short discussion followed by a vote*, *long discussion followed by a vote*, *majority rule*, and *having the decisions made by the most knowledgeable person in the group*. We conducted separate ANOVAs on these five decision-making methods. Analyses revealed main effects for group cohesiveness level for the *short discussion followed by a vote* method ($M = 11.73$ for stranger groups, and $M = 8.38$ for friend groups), $F(1, 465) = 6.12, p < .05$, and for the *majority rule* method ($M = 28.78$ for stranger groups, and $M = 32.87$ for friend groups), $F(1, 465) = 3.88, p < .05$. We also found main effects for culture for the *complete agreement* method ($M = 34.66$ for Chinese groups, and $M = 47.93$ for U.S. groups), $F(1, 465) = 29.59, p < .01$; for the *long discussion followed by a vote* ($M = 9.14$ for Chinese groups, and $M = 4.69$ for U.S. groups), $F(1, 465) = 28.81, p < .01$; and for the *majority rule* method ($M = 33.00$ for Chinese groups, and $M = 28.65$ for U.S. groups), $F(1, 465) = 4.41, p < .05$. Overall, this pattern of responses supports the effectiveness results that indicated that

the U.S. groups were more inclined to use member interaction in their decision-making process. On the other hand, the Chinese groups were less inclined to seek complete consensus and more inclined to resort instead to more structured methods, such as voting, to reach agreements. Strangers were more likely to engage in a short discussion prior to a vote than were friends, whereas friends were more inclined to decide via majority rule than were strangers.

To examine some concerns that the group members might have had during the group part of the exercise, we asked each participant to rank the following concerns: finishing the exercise as soon as possible, performing well on the exercise, communicating their ideas to the group, presenting themselves in an appropriate manner, and trying not to appear too forceful in presenting their ideas. Participants ranked the items on a 5-point Likert-type scale, where 1 = *most important* and 5 = *least important*. We used the Kruskal-Wallis test to conduct separate group cohesiveness and cultural comparisons. Given the large sample size, the Kruskal-Wallis values approximated a chi-square distribution. The chi-square value for *finishing the exercise as soon as possible* was 15.41 ($p < .01$). U.S. friends ranked that item as more important than did other group's members (mean rank = 4.27); both Chinese groups ranked it as intermediate (mean rank for Chinese friends = 4.38, and mean rank for Chinese strangers = 4.41); and U.S. strangers ranked it as lowest in priority (mean rank = 4.74). The *performing well on the exercise* item also emerged as significant, $\chi^2(1, N = 500) = 20.05, p < .01$. U.S. groups prioritized the good performance item as higher (mean rank for U.S. friends = 2.72; mean rank for U.S. strangers = 2.78) than did the Chinese groups (mean rank for Chinese friends = 3.24; mean rank for Chinese strangers = 3.30). The item *presenting oneself in an appropriate manner* reached significance. Here, Chinese prioritized the item as higher (mean rank for Chinese strangers = 2.61; mean rank for Chinese friends = 2.66) than did the U.S. groups (mean rank for U.S. strangers = 2.82; mean rank for U.S. friends = 3.05). The trend among these items suggests that Chinese participants were most concerned about how they presented themselves in the presence of others, whereas the U.S. participants were more concerned about performing the task well.

Discussion

In one respect, investigators might construe the present study as an examination of differences between collectivist and individualist cultures. Indeed, several cultural effects emerged. Our findings confirmed our expectations that U.S. groups would perform better and be more efficient in the group decision-making task and that Chinese groups would report greater levels of intragroup conflict. Although less effective in realizing process gains for the sake of performance, Chinese groups might have been more attentive to managing the relational aspects of the group's well-being than were U.S. groups. Investigators should not interpret these observations as a value judgment regarding which approach to group tasks is bet-

ter. Rather, the findings expose the profound effect that cultural value systems can have on people's experiences and outcomes in a common social situation.

In the present research, we also set out to examine differences in group efficiency, which we construed as (a) the time used to complete the group task and (b) the relative performance level. Did more time spent on the task necessarily result in better performance? Our results replicated prior findings and suggest that efficiency is a salient issue in group decision making (Harris & Nibler, 1998). Chinese participants on average took roughly twice as much time to complete the group consensus task as did U.S. participants. Yet the greater time on the task did not enhance the group performance of Chinese participants. Process measures clearly indicated that U.S. participants were less concerned with communication issues and with presenting themselves in an appropriate manner, and the lesser concern might have fostered the effectiveness of the U.S. groups by allowing their members to focus their efforts on the task at hand. The issue of group efficiency is particularly pertinent in an increasingly results-oriented, team-oriented world of business. On the other hand, the Chinese groups' attentiveness to interpersonal issues might be regarded as more effective in real-world organizational settings because work teams would likely collaborate on multiple projects in the future.

The present research addressed another question: "Does cohesiveness help group effectiveness?" We found that cohesiveness effects were more likely to emerge in the process of decision making rather than in the outcome. The present study failed to verify our hypothesis that friendship ties would enhance group performance levels. However, unexpectedly, friends did report greater relationship conflict than did their stranger counterparts. Friends also reported relying more on majority rule in the decision process and less on voting after a short discussion. Also, friends took significantly more time to complete the group task than did strangers.

Another objective of the present study was to relate intragroup conflict and group performance. In other words, is relationship conflict detrimental to group-based outcome? The direct test of this question, correlating relationship conflict and performance for each of the country samples separately, yielded no significant results. However, on combining the data for the two countries, we did replicate prior studies indicating a negative correlation between relationship-oriented conflict and group performance. Further, comparing the conflict results with the group effectiveness results, we found that U.S. participants reported less relationship conflict than did Chinese participants, and U.S. participants performed better. This relation does partly seem to confirm the long-held notion that when disputes of a personal nature enter group discussions, the outcome might suffer as a result.

For the connection between task conflict and performance, the results of the present study offer a more complex picture. Can task conflict produce a positive effect on group effectiveness? Our global measures of task conflict and group effectiveness did not correlate significantly. However, prior research (Jehn, 1994, 1995;

Jehn et al., 1997) has revealed that only when conditions are ripe for high levels of task-oriented conflict (i.e., disagreements about opinions, ideas, suggestions related to the task) can they enhance a group's outcome. Relationship-directed conflict tends to be aversive and a drain on performance for nearly all people, but task-directed conflict's effect on people and group performance might be more variable and more strongly influenced by situational demands. The present study indicated that culture and group cohesiveness are two potential influences on the relation between task conflict and group effectiveness. Specifically, U.S. participants demonstrated a tendency for task conflict and group effectiveness to vary together. The U.S. strangers reported a strong emphasis on task completion, which coincided with an almost blatant disregard for the well-being of other group members, whom they had never met and might never meet again. Consequently, their reports of task conflict—disagreements about facts, opinions, and suggestions—were low relative to all other experimental conditions. U.S. strangers' low task motivation accompanied lower performance than that of the U.S. friend groups, according to one measure of effectiveness. In contrast, U.S. friend groups showed the anticipated relation between vigorous, task-oriented discussion and superior performance. The U.S. friends reported high levels of task conflict and experienced high group effectiveness. In summary, friendship was beneficial in evoking task conflict and high performance, but only among U.S. participants.

The connection of task conflict and performance did not appear among Chinese participants. They reported uniformly high levels of all forms of conflict—both relationship- and task-oriented conflict—regardless of whether they were friends. Group effectiveness scores indicated that the Chinese participants, also, experienced relatively low performance. The Chinese might have been more sensitive to the potential for discord in this type of group-oriented task and displayed less performance gain by groups as a result. Thus, among the Chinese participants, high task conflict did not yield enhanced performance, as it did among some of their U.S. counterparts.

Therefore, it appears that the relation of task conflict to group effectiveness was a phenomenon observed only among the U.S. participants. This task conflict advantage, wherein group members felt comfortable enough to freely exchange opinions and disagreements to achieve optimal outcomes, might be culture specific. Individualistic cultures might more readily accept the potential advantages of conflict and view it as a mechanism to achieve that which is of greatest perceived importance in group situations: task accomplishment. Collectivist cultures such as that of China might be more inclined to view interpersonal conflict of any form as unwanted and harmful, given the greater value placed on harmonious relationships.

A common set of troubles plagues cross-cultural research of the type reported in the present article. When Western research paradigms are exported to the Far East, the issue of potential confoundings arises. Did our results derive from cultural differences as purported or from cultural bias in the task? Did U.S. participants have an advantage in the task that was due to greater familiarity with the

task content or process? To address this concern, Nibler and Harris (1994) used the same ranking task among similar samples of Chinese and Midwestern U.S. participants. Their comparisons of individual performers indicated that individual Chinese participants actually performed better on this task than did their U.S. counterparts, although that better performance did not transfer to the group phase of the task. Thus, the evidence indicated that, individually, the Hong Kong Chinese participants were more knowledgeable about survival at sea, perhaps because of their greater proximity to an ocean. The only certain means of refuting the possibility of task bias is to conduct similar research using different tasks, likewise designed to capture group decision-making processes and output relative to those of individual members.

Another weakness in the present study is the chance for alternative interpretations of the reported cultural effects. We chose to explain cultural differences as the consequence of individualism–collectivism, although we did not measure those constructs. It is possible that other features of Chinese and U.S. citizens account for the conflict and performance differences. Further, our self-report measures were vulnerable to possible cultural differences in response tendencies. Some research has indicated, for instance, that Americans are more inclined to use extreme points on scales and less likely to display a response set of acquiescence than are respondents of East Asian cultures (Hofstede, 1980; Triandis, 1988). These types of response sets compel us to interpret our self-report results with caution.

We would be remiss if we failed to identify other limitations associated with our sample and methodology. Experimental methods limit generalizability of the findings. Thus, our use of university students restricts our ability to generalize to other populations. Additionally, Hong Kong residents might differ in relevant ways from residents of mainland China (Tang & Tang, 2001).

Our next step of investigation is to examine the relation between perception and reality. The present investigation revealed that Chinese participants reflected on their group experiences and reported high-intensity, conflict-ridden discussions. Americans, particularly U.S. strangers, reported relatively little intragroup conflict. Is it possible that, when viewed by an objective outside observer, the discussions among the Chinese were no more intense than those of the Americans? Perhaps investigators could trace any heightened sensitivity of the Chinese to culturally instilled values that teach them to avoid conflict. If this was the case for the Chinese participants, their *supersensitivity* might have resulted in their overstating even minor levels of conflict. To examine an anticipated discrepancy between perceived and actual levels of conflict among Chinese participants, trained observers will gather and analyze behavioral data in the future. Investigators will further scrutinize this data for efficiency, by comparing time spent on task with time spent off task. Such investigations will contribute to scholars' understanding of the interrelationships among culture, cohesiveness, conflict, and group performance.

REFERENCES

- Amason, A. C. (1996). Distinguishing the effects of functional and dysfunctional conflict on strategic decision making: Resolving a paradox for management teams. *Academy of Management Journal*, *39*, 123-148.
- Amason, A. C., & Sapienza, H. J. (1997). The effects of top management team size and interaction norms on cognitive and affective conflict. *Journal of Management*, *23*, 495-516.
- Arunachalam, V., Wall, J. A., & Chan, C. (1998). Hong Kong versus U.S. negotiations: Effects of culture, alternatives, outcome scales, and mediation. *Journal of Applied Social Psychology*, *28*, 1219-1244.
- Boyett, J. H., & Conn, H. P. (1992). *Workplace 2000: The revolution reshaping American business*. New York: Penguin.
- Brown, D. L. (1983). *Managing conflict at organizational interfaces*. Reading, MA: Addison-Wesley.
- Delbecq, A. L., Van de Ven, A. H., & Gustafson, D. H. (1975). *Group techniques for program planning: A guide to nominal and delphi processes*. Glenview, IL: Scott, Foresman.
- De Dreu, C. K., & Van de Vliert, E. (Eds.). (1997). *Using conflict in organizations*. London: Sage.
- Deutsch, M. (1994). Constructive conflict management for the world today. *International Journal of Conflict Management*, *5*, 111-129.
- Festinger, L. (1950). Informal social communication. *Psychological Review*, *57*, 271-282.
- Gigone, D., & Hastie, R. (1997). Proper analysis of the accuracy of group judgments. *Psychological Bulletin*, *121*, 149-167.
- Harris, K. L., & Nibler, R. (1998). Decision making by Chinese and U.S. students. *The Journal of Social Psychology*, *138*, 102-114.
- Hastie, R. (1986). Experimental evidence on group accuracy. In B. Grofman and G. Owen (Eds.), *Decision Research* (Vol. 2, pp. 129-157). Greenwich, CT: JAI Press.
- Hofstede, G. (1980). *Culture's consequences: International differences in work-related values*. Beverly Hills, CA: Sage.
- Hofstede, G. (1983). National cultures in four dimensions: A research based theory of cultural differences among nations. *International Studies of Management and Organization*, *13*, 46-74.
- Hui, C. H., & Triandis, H. C. (1986). Individualism-collectivism: A study of cross-cultural researchers. *Journal of Cross-Cultural Psychology*, *17*, 225-248.
- Jehn, K. A. (1994). Enhancing effectiveness: An investigation of advantages and disadvantages of value-based intragroup conflict. *International Journal of Conflict Management*, *5*, 223-238.
- Jehn, K. A. (1995). A multimethod examination of the benefits and detriments of intragroup conflict. *Administrative Science Quarterly*, *40*, 256-282.
- Jehn, K. A. (1997a). Affective and cognitive conflict in work groups: Increasing performance through value-based intragroup conflict. In C. K. W. De Dreu & E. V. Van de Vliert (Eds.), *Using conflict in organizations*. London: Sage.
- Jehn, K. A. (1997b). A qualitative analysis of conflict types and dimensions in organizational groups. *Administrative Science Quarterly*, *42*, 530-557.
- Jehn, K. A., Chadwick, C., & Thatcher, S. M. B. (1997). To agree or not to agree: The effects of value congruence, individual demographic dissimilarity, and conflict on workgroup outcomes. *International Journal of Conflict Management*, *8*, 287-305.
- Jehn, K. A., & Shah, P. P. (1997). Interpersonal relationships and task performance: An examination of mediating processes in friendship and acquaintance groups. *Journal of Personality and Social Psychology*, *72*, 775-790.

- Kirkbride, P. S., Tang, S. F. Y., & Westwood, R. I. (1991). Chinese conflict preferences and negotiating behavior: Cultural and psychological influences. *Organization Studies, 12*, 365-386.
- Krech, D., Crutchfield, R. S., & Ballachey, E. L. (1962). *Individuals in society*. New York: Macmillan.
- Miner, F. C. (1984). Group versus individual decision making: An investigation of performance measures, decision strategies, and process losses/gains. *Organizational Behavior and Human Performance, 33*, 112-124.
- Mullen, B., & Copper, C. (1994). The relationship between group cohesiveness and performance: An integration. *Psychological Bulletin, 115*, 210-227.
- Nemiroff, P. M., and Pfeiffer, J. W. (1975). Lost at sea: A consensus-seeking task. In J. E. Jones and J. W. Pfeiffer (Eds.), *The 1975 annual handbook for group facilitators*. La Jolla, CA: University Associates Publishers.
- Nibler, R., & Harris, K. L. (1994). A comparison of group consensus decision-making: Chinese and U.S. cultures. *Research and Practice in Human Resource Management, 2*, 35-45.
- Pondy, L. R. (1967). Organizational conflict: Concepts and models. *Administrative Science Quarterly, 12*, 296-320.
- Shah, P. P., & Jehn, K. A. (1993). Do friends perform better than acquaintances? The interaction of friendship, conflict, and task. *Group Decision and Negotiation, 2*, 149-165.
- Shenkar, O., & Ronen, S. (1987). The cultural context of negotiations: The implications of Chinese interpersonal norms. *The Journal of Psychology, 44*, 491-504.
- Tang, T. N., & Tang, C. S. (2001). Gender role internalization, multiple roles, and Chinese women's mental health. *Psychology of Women Quarterly, 25*, 181-196.
- Ting-Toomey, S. (1994). Managing conflict in intimate intercultural relationships. In D. D. Cahn (Ed.), *Conflict in personal relationships*. Hillsdale, NJ: Erlbaum.
- Triandis, H. C. (1988). Collectivism vs. individualism: A reconceptualization of a basic concept in cross-cultural social psychology. In G. Verma and C. Bagley (Eds.), *Cross-cultural studies of personality, attitudes and cognition*. London: Macmillan.
- Triandis, H. C. (1994). *Culture and social behavior*. New York: McGraw-Hill.
- Westwood, R. I., Tang, S. F. Y., & Kirkbride, P. S. (1992). Chinese conflict behavior: Cultural antecedents and behavioral consequences. *Organization Development Journal, 10*, 13-19.
- Yetton, P. W., & Bottger, P. C. (1982). Individual versus group problem solving: An empirical test of a best-member strategy. *Organizational Behavior and Human Performance, 29*, 307-321.

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