# Conflict management between and within teams for trusting relationships and performance in China

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#### **Summary**

Trusting relationships are increasingly considered vital for making teams productive. We propose that cooperative management of conflict can help team members to be convinced that their teammates are trustworthy. Results from 102 organizations in China support the theorizing that how teams to manage conflict with each other affects within-team conflict management. Specifically, cooperative conflict between teams helps teams to manage their internal conflicts cooperatively that strengthens trust that in turn facilitates team performance. Results provide support for managing conflict cooperatively as a foundation for trusting, productive relationships in China as well as in the West. Copyright © 2008 John Wiley & Sons, Ltd.

# Introduction

Researchers in the West have joined those in the East in arguing that developing trusting relationships is key to understand organizational dynamics as well as promoting organizational productivity (Gersick, Bartunek, & Dutton, 2000; Kostova & Roth, 2003; Kramer & Tyler, 1996; Lewicki & Wiethoff, 2000; Rousseau, Sitkin, Burt, & Camerer, 1998). Strong, trusting relationships are expected to underline such critical areas as productive teamwork and effective leadership (Dirks, 2000, 1999; Hui & Graen, 1997). However, developing these relationships in teams can be quite challenging. Team members must cope not only with their own leaders and colleagues but also with the demands and behaviors of other teams.

This study argues that incompatible activities within teams can be handled in ways that help team members to strengthen their trusting relationships (De Dreu, Weingart, & Kwon, 2000; Lovelace, Shapiro, & Weingart, 2001). Longitudinal studies have shown that conflict influences trust, which in turn has an effect upon performance (Langfred, 2007). This study proposes that it is the way in which conflict is managed that influences trust within teams. How conflicts affect trust is a particularly significant issue within China where the data for this study were collected. Chinese people value trusting relationships very much but are wary of conflict and rely on conflict avoidance (Kirkbride,

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Tang, & Westwood, 1991; Leung, 1997; Triandis, McCusker, & Hui, 1990). This study uses Deutsch's (1973) framework of cooperative and competitive approaches to conflict to understand that how conflicts may contribute to, as well as undermine, trust between team members. In particular, we propose that team members who manage conflict cooperatively rather than competitively develop trust (Deutsch, 1973; McAllister, 1995). This study further proposes that the approaches in managing conflict between teams within an organization is a foundation upon which team members develop their approach to manage conflict within their teams.

This study adds value to our present knowledge in several ways. In addition to support research showing that productively managed conflict can strengthen trust between team members and thereby improve team performance, it suggests that the way in which teams manage conflict with other teams within the organization affects how team members deal with conflicts within their team (Kozlowski & Klein, 2000; Marks, DeChurch, Mathieu, Panzer, & Alonso, 2005). More generally, it supports Deutsch's (2005) argument that external conflict affects internal conflict, and in particular that conflict management between teams affects conflict handling within teams. Finally, this study adds value by empirically testing the extent to which the theory of cooperation and competition developed in the West is useful to analyze conflict within and between teams in Chinese organizations.

# The value of trust

Trust can be defined as perceived trustworthiness where people expect support and believe that they have a relationship where they can discuss issues and rely upon each other (Ferrin, Dirks, & Shah, 2006; Lewicki, McAllister, & Bies, 1998). McAllister (1995) has distinguished affect-based trust—feelings of emotional involvement and genuine caring for each other's welfare—and cognition-based trust—beliefs that others are responsible and competent—and argued that they are the foundations for collaboration in organizations.

In addition to being increasingly aware that groups have considerable potential for solving a range of critical organizational problems (Banker, Field, Schroeder, & Sinhan, 1997), researchers and practitioners appreciate that group members may suppress their ideas and fail to coordinate their expertise and that teams may undermine motivation and induce social loafing (Aldag & Fuller, 1993; Ilgen, 1999; Karau & Williams, 1993). Theorists have recently joined managers in arguing that the nature of interpersonal relationships among group members has dramatic effects on the coordination of resources needed for team effectiveness (Gersick et al., 2000; Kostova & Roth, 2003; Kramer & Tyler, 1996; Lewicki & Wiethoff, 2000; Rousseau et al., 1998).

In particular, researchers have argued that trusting relationships affect team processes and underlie team effectiveness (Langfred, 2007). Dirks (1999, 2000) found that trust facilitated team coordination and performance, whereas distrust led team members to focus on their individual performance. Relatedly, Edmondson (1999) found that "psychological safety", where team members accept rather than punish or reject well-intentioned action, helps team members to learn from their mistakes. Trust appears to be particularly useful for diverse teams where members belong to different departments and organizations (Aulakh, Kotabe, & Sahay, 1996; Krishnan, Martin, & Noorderhaven, 2006; Kumar, 1996).

The value of trusting relationships appears to be particularly true in China, where this study was conducted. Guanxi, relational bonds that consist of both affective and instrumental components, has been thought critical for doing business in China. As collectivists, Chinese people are theorized to value interpersonal relationships very much and avoid aggressive ways of working with others (Kirkbride et al., 1991; Leung, 1997; Morris et al., 1998; Triandis et al., 1990). Effective relationships

are especially useful in China because of the difficulties of applying legal remedies to grievances (Hwang, 1987; Zhang & Yang, 1998).

Based on the above reasoning, it is hypothesized that:

Hypothesis 1: Trust within a team promotes team performance.

# Conflict management and trust

Researchers have thought that conflict and trust are tightly related. Typically, conflict has been thought inimicable to trust. Researchers, using both qualitative (Barker, 1993) and longitudinal quantitative (Langfred, 2007) methods, have found that conflict within teams can reduce trust.

Conflict researchers have also argued that trust can affect how protagonists deal with their differences. Trust has been found to promote integrative negotiation where protagonists develop mutually beneficial solutions (Jehn & Mannix, 2001; Kimmel, Pruitt, Magenau, Konar-Goldband, & Carnevale, 1980; Lindskold & Han, 1988; Peterson & Behfar, 2003; Rao & Schmidt, 1998; Simons & Peterson, 2000). Trust has also been closely related in developing cooperative, strong relationships more generally (Deutsch, 1962; Williams, 2001). However, much less research has documented the effects of conflict on trust.

Although conflict itself has long been thought to disrupt trust, this study proposes that the way team members approach conflict with each other is an important basis upon which they decide whether they can trust each other (Beersma & De Dreu, 1999). Groups must contend with, among other issues, conflicts over such task issues as the effective and fair distribution of work and the best ways to accomplish their goals (Jehn, 1995) as well as relational issues such as social loafing and personal hostility (Wageman, 1995). Indeed, within an organization, teams are likely to be in conflict as they try to negotiate resources and influence top management (Eisenhardt & Bourgeois, 1988).

Conflicts appear to be important opportunities to develop or undermine trust (De Dreu, 2008; Tjosvold, 2008). Conflicts expose interpersonal and task difficulties and can develop the motivation and be the means by which these difficulties are considered and dealt with (De Dreu & Van de Vliert, 1997). Studies suggest that managing conflicts even about relational issues can strengthen relationship bonds (Tjosvold, 2002). Studies also indicate that open conflicts, such as voicing minority views and heterogeneity of perspectives, improve team problem solving (Peterson & Nemeth, 1996). The skilled discussion of conflicts can stimulate creative, motivated work that accomplishes common tasks as well as strengthens interpersonal relationships and teamwork (Tjosvold, 1998). This study proposes that the way in which group members approach and deal with their conflicts critically affects the outcomes of conflict.

# Approaches to managing conflict

Conflicts can disrupt trusting relationships as well as promote them. Considerable research has assumed that the behavioral strategy protagonists take affects much whether the outcomes of conflict are constructive or destructive (Elsayed-Ekhouly & Buba, 1996; Rahim & Mager, 1995). This study uses Deutsch's theory of cooperation and competition to examine how teams manage conflict influences trust.

Defining conflict as incompatible activities where one person's actions are interfering or obstructing another's, Deutsch (1973, 1980) proposed that protagonists' belief about the way that their goals are related strongly affects their interaction and outcomes as they deal with conflict. They may emphasize cooperative goals. In managing conflict cooperatively, people communicate that they believe their

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goals are positively linked so that as one person moves toward goal attainment, others move toward reaching their goals. They understand that others' goal attainment helps them; they can be successful together. Wanting each other to perform effectively, for such competence helps each person to be successful, they communicate that they seek to use the conflict to promote mutual goals and to resolve it for mutual benefit.

Protagonists may instead emphasize competitive goals in conflict. In competition, people believe that their goals are negatively related so that one's successful goal attainment makes others less likely to reach their goals. In managing conflict competitively, people believe that they are better off when others act ineffectively; when others are productive, they are less likely to succeed themselves. They convey that they want to use the conflict to promote their goals at the expense of the other. They want to "win" and have the other "lose".

Evidence indicates that to the extent to which protagonists take a cooperative and a competitive approach affects the dynamics and outcomes of conflict (Alper, Tjosvold, & Law, 2000; Deutsch, 1980, 1973; Lovelace et al., 2001; Tjosvold, 1998). Experiments and field studies have found that a cooperative approach to conflict encourages partners to express their views directly, listen open-mindedly, and accurately take each other's perspective (Tjosvold, 1998). As they understand each other and the opposing positions, they develop integrated, high quality solutions to problems. These solutions help protagonists act productively and bolster their confidence so that they can work together in the future. Studies have documented that the open-minded interaction improves interpersonal attitudes and the beliefs that they can solve future problems together (Tjosvold, 1998). Therefore, cooperative conflict is expected to help team members develop trust in each other (Williams, 2001).

In contrast, a competitive approach results in one-sided, imposed resolutions that fragment relationships. Although they may disagree directly and even develop an understanding of each other's position, studies indicate that they do not open-mindedly consider the views of others and fail to incorporate them into their own thinking (Tjosvold, 1998). Protagonists typically focus on the weaknesses in each other's positions and blame each other for mistakes (Tjosvold, Yu, & Hui, 2004). They try to impose their solution on each other and as a consequence often fail to reach mutually beneficial agreements. Imposed solutions and the failure to reach agreement frustrate their common action, leaving protagonists to doubt that they can work together. Competitive conflict is then expected to interfere with trust among group members.

#### Conflict management in the Chinese context

The empirical basis for concluding that cooperative conflict contributes in trusting relationships has been largely developed in North America. The utility of conflict, as well as the theories to analyze conflict, cannot be assumed to apply to a collectivist society like China (Hofstede, 1993).

Specifically, Chinese people, as collectivists who greatly value interpersonal relationships, are thought to avoid conflictful ways of working with others (Chan, 1963; Leung, 1997; Morris et al., 1998; Triandis et al., 1990). Friedman, Chi, and Liu (2006) found that Chinese people reported more conflict avoidance than Americans, and this cultural difference was partly connected with their higher concern for the other party and the belief that a direct approach would hurt their relationship.

The conflict avoidance tendency has been attributed to the Chinese value of interpersonal harmony that leads to smoothing over conflict to maintain relationships and protect social face (Gabrenya & Hwang 1996; Leung, 1997; Ting-Toomey, 1988). The Confucian "Doctrine of the Mean" emphasizes that harmony is "most precious" in relationships among people and with the external world (Chan, 1963). Individuals are to control their emotions and work with others in a harmonious manner. This

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reasoning suggests that Chinese conflict avoidance stems from social norms concerning relationship and harmony maintenance. Evidence that Chinese compared to Western managers endorse and rely upon conflict avoidance provides support for reasoning that conflict avoidance is functional and appropriate in China (Kirkbride *et al.*, 1991; Ting-Toomey, 1988).

Although studies have documented differences in conflict handling styles between Chinese and Western people, other researchers have not replicated these differences (e.g., Trubisky, Ting-Toomey, & Lin, 1991); some studies suggest that Chinese people compete aggressively in conflicts under certain contexts (Bond & Wang, 1983). It cannot be assumed that strong relational bonds are automatic or even highly prevalent in China. Chen, Peng, and Saparito (2002), for example, have proposed that collectivists more than individualists exploit people those are not considered part of their in-group.

Researchers have recently argued that Chinese people can alter their approaches depending upon situational cues (Chiu, Morris, Hong, & Menon, 2000; Fu, Morris, Lee, Chao, Chiu, & Hong, 2007; Hong, Morris, Chiu, & Benet-Martinez, 2000). Recent theorizing suggests that the direct, open discussion of conflict may also be useful in collectivist cultures (Ohbuchi, Suzuki, & Hayashi, 2001). Leung (1997, Leung, Koch, & Lu, 2002) has argued that, although Chinese people may use harmony-seeking behavior as a way to avoid potential problems, harmony also represents a genuine concern for feelings of intimacy, trust, compatibility, and mutually beneficial behaviors. With this motive, Chinese people discuss their conflicts openly to strengthen their relationships.

Despite conflict not being generally valued in China, Chinese people can discuss conflict productively. In organizations, they can recognize that there are opposing opinions regarding how to get their assigned tasks and goals done and may try to approach conflicts. This study tests that conflict, when managed cooperatively, promotes relationships among team members in China. Studies have demonstrated that Chinese team members and even leaders and employees have been found to be able to manage conflicts constructively (Chen, Liu, & Tjosvold, 2005; Snell, Tjosvold, & Su, 2006; Tjosvold, Law, & Sun, 2006). Chinese people may try to manage some of their conflicts in organizations so that they can achieve their assigned goals. This study tests the extent to which the Deutsch's Western model of conflict management can be usefully applied to Chinese work teams.

# Conflict approaches and trust

The way in which conflict is managed may have an effect upon both affect-based trust and cognition-based trust. In adopting a cooperative conflict management strategy, team members are signaling to each other that they share a common sense of belonging and identity and can all share in the team's success. This sense that all team members can succeed together helps promote trust because members know that they can rely upon each other to work for mutual benefit. The trust resulting from team members resolving conflicts together enhances team performance.

In adopting a competitive conflict management strategy, team members communicate a quite different signal. When conflict arises, team members act to the disadvantage of the other team members to advance their personal aspirations. Frustrating each other's interests reduces trust.

Based on the above reasoning, it is hypothesized that:

Hypothesis 2: Team cooperative conflict management promotes team members'

(H2a) affect-based trust in each other and

(H2b) cognition-based trust in each other.

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Hypothesis 3: Team competitive conflict management reduces group members'

(H3a) affect-based trust in each other and

(H3b) cognition-based trust in each other.

## Conflict between teams

Teams confront considerable challenges as they try to manage their conflicts constructively. Researchers have long argued that even in the West organizational members are typically oriented toward avoiding difficult, emotionally charged issues that might question their underlying values and modes of working (Argyris & Schon, 1996). Organizations are thought to force conflicts to be hidden, making their management difficult (Kolb & Bartunek, 1992). Research is needed to identify major conditions that encourage teams to rely upon cooperative conflict management.

Researchers have typically examined conditions, such as trust, within the team that might help team members to be open and constructive (Kimmel, et al. 1980; Lindskold & Han, 1988). In addition, organizational conditions might affect within team conflict handling. For example, favorable organizational climates and relationships have been found to encourage organizational members to propose and defend controversial ideas (Ashford, Rothbard, Piderit, & Dutton, 1998). In addition, the way that organizations structure interdependence between teams has been found to affect within team dynamics (Kozlowski & Klein, 2000; Marks et al., 2005). How organizational teams manage their conflicts with each other may influence within team conflict management (Deutsch, 2005; LaBianca, Brass, & Gray, 1998).

Deutsch (2005) has recently argued that the management of internal and external conflict is highly related; ineffectively managed conflicts with others and unresolved conflicts within a person are mutually reinforcing. Research has generally focused on how internal conflict management affects external conflict management (Gelfand, Major, Raver, Nishii, & O'Brien, 2006; Pruitt & Carnevale, 1993). For example, individuals confronted with the internal conflict of being unable to prioritize their interests were found to have difficulty in negotiating with others (Bazerman, Tenbrunsel, & Wade-Benzoni, 1998). Cooperation within the group led to integrative negotiations between the groups in an experiment (Keenan & Carnevale, 1989), and similarly, examinations of labor negotiations reinforce the importance of within-group dynamics in influencing interactions with other groups (Friedman & Gal, 1991). These studies were explicitly designed to determine whether within-team processes can influence between-team processes, and did not examine the question of how between-team processes might influence within-team processes.

Indeed, it is often proposed that inter-group competition is an important strategy to develop within group cohesion, cooperation, and productivity (Sherif & Sherif, 1956). Recent research, however, has questioned whether this effect is as widespread as commonly believed. For example, groups that felt in conflict with other groups experienced low team cohesion (LaBianca et al., 1998) and considerable divisiveness (Bar-Tal, 1998). Meta-analysis results indicate that between group competitions generally results in lower group productivity than between group cooperation (Johnson, Maruyama, Johnson, Nelson, & Skon, 1981). Executives who had to deal with competitive bosses were found to have fragmented top management teams; they formed temporary alliances for self-protection (Eisenhardt & Bourgeois, 1988).

Studies have begun to identify the special conditions under which between group competition might induce within group cohesion and cooperation. For inter-group competition to be motivating and

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uniting, it seems that group members should believe that their group has strong relationships, a reasonable probability of winning, and that the competition is fair (Peterson & Behfar, 2003; Tjosvold, Johnson, & Sun, 2006). As developing these conditions for constructive competition between groups is difficult, members are tempted to pursue self-protection and their individual agendas rather than become a united team (Dirks, 1999; Eisenhardt & Bourgeois, 1988).

This study argues that the way teams within the organization manage conflict with other teams influences how they manage their internal conflicts. This process is in contrast to that proposed by researchers studying conflict during negotiations, where within-group cooperation or competition influenced negotiation behaviors between groups (c.f., Pruitt & Carnevale, 1993).

Competitive conflict between teams is a basis for within team competition. These organizational teams try to dominate each other in order to show that they are winners and other groups are losers. They blame each other and publicize each other's weaknesses in order to demonstrate their superiority, putting individual team members under considerable pressure to counter the charges laid by other teams. Further, complex conflicts that involve issues such as social face and right and wrong are usually more difficult to manage cooperatively than moderate ones (Deutsch, 1973; Tjosvold, 1984). With so much at stake, team members are tempted to try to protect their individual selves and blame other team members for exposing the team to criticism and making it vulnerable; under stress, individual team members may be highly fixed on their own ideas and insist that others agree with their position.

In addition, teams are modeling and reinforcing competitive conflict norms and values, such as showing that their team is strong and right, and competitive conflict strategies, such as blaming others first to protect oneself from being blamed. Thus, competitive conflict management between teams fosters competitive conflict within teams.

Based on the above reasoning, it is hypothesized that:

Hypothesis 4: Competitive conflict management between organizational teams

- (H4a) fosters competitive conflict management within teams and
- (H4b) inhibits cooperative conflict management between teams.

Cooperative conflict management between teams is expected to promote cooperative conflict within teams. Rather than blaming and finding weaknesses, organizational teams openly discuss issues, recognize each group's contributions, and integrate their ideas. Individual team members, under modest pressure, are motivated to propose various ideas and integrate them within their teams to develop fresh perspectives that will then be considered open-mindedly by other teams. In addition, teams are reinforcing cooperative conflict management norms and values, such as recognizing the utility of diverse ideas, and strategies, such as listening and incorporating other ideas into one's own thinking.

Based on the above reasoning, it is hypothesized that:

Hypothesis 5: Cooperative conflict management between organizational teams

- (H5a) fosters cooperative conflict management within teams and
- (H5b) inhibits competitive conflict management within teams.

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The study tests a model linking conflict management between and within groups with trust in China. Rather than the traditional cross cultural research of comparing samples from different cultures regarding the strength and impact of values (Leung, 1997), we use the theory of cooperation and competition with universalistic aspirations to explore Chinese conflict management and trust development. Results could suggest that cooperative and competitive conflict is a useful framework for both Western and Chinese people in such settings as international joint ventures (Cox, Lobel, & McLeod, 1991).

## Method

## Research site

The data for this research were collected from multiple respondent surveys in high-technology firms in China as part of a larger study examining the management of professional employee teams in Chinese high-technology firms. These firms are from industries of information technology, telecommunication, electronic engineering, biological engineering, and related fields. We surveyed teams that consisted of three or more members, and with team members that have been together for over 3 months. To obtain access to teams, one of the researchers identified 280 high-tech firms from the relevant government offices, enterprise associations, and through MBA and EMBA alumni linkages. The researcher sent a letter describing the project to the targeted companies, seeking their participation, listing the criteria for team selection, and assuring them of anonymity. Companies were promised that an executive report with the findings of this research at the company and team levels, including results on how their firms and teams compared to the entire sample, would be delivered to assist the team development and management at the conclusion of the project. After firms agreed to participate in the project, we asked them to identify a person to coordinate the data collection task. Each coordinator was asked to approach work teams in his/her firm. A packet was mailed to the coordinator and he/she distributed the questionnaires to the team members and the corresponding team manager. Each participant in every firm was informed that individual responses would remain confidential.

#### Sample

Our original plan was to collect data from multiple teams within each company, concentrating upon teams consisting of professional employees. During preliminary data collection, it became clear that most of the target organizations only had a limited number of teams that matched our criteria of consisting of professional employees. Accordingly, in our main data collection efforts we requested that companies provide data from a single team consisting of professional employees. However, these organizations all had a large number of other teams that did not match our selection criteria, so that it is feasible to study conflict between teams.

Our final sample contained 102 teams from 102 companies with 560 individuals. The company-level response rate is 36.4%. The companies came from a number of different industries: 7 (6.8%) bio-technology companies, 30 (29.4%) software companies, 33 (32.4%) engineering companies, 15 (14.7%) information technology companies, and 6 (5.9%) other technology companies. The team size ranged from 3 to 8 members, with an average of 5.49 members (SD = 1.84). The average team tenure is 38.79 months (SD = 35.36 months). These teams are from different functions: 20 (19.7%) marketing or

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sales teams, 53 (52.0%) research and development teams, 12 (.8%) production or quality control teams, and 17 (16.7%) other function teams. Among the 560 individual respondents, 364 (65.0%) were males. Consistent with our request for teams consisting of professional employees, team members were highly educated people: 64.7% earned at least a 4-year college degree, and only 7.2% of them received education at the high school or lower level. Among these participants, 41.3% had a science or technical major.

In addition to team members, our sample also included 102 team managers. Eighty five (83.3%) of the team managers were males, 14 (13.7%) of them had a business degree, and 56 (54.5%) held a science or technical degree. As for their working experience, 47 (46.1%) had worked in state-owned firms, and 61 (59.8%) had only worked in private or joint ventures, while 5 (4.9%) of them had overseas working experience. <sup>1</sup>

# Measures and procedures

All measures used in this research were administered in Chinese. Two researchers who are native Chinese translated the questionnaires originally written in English into Chinese. To ensure conceptual consistency, the questionnaires were back translated into English to check possible deviation (Brislin, 1970). The questionnaires were pre-tested to make sure that respondents clearly understood every phrase, concept, and question. The original English versions of the measures are presented in the Appendix.

#### Level of analysis

The unit of analysis in this paper is the team level. Before aggregating data to the team level, we checked to see whether aggregation was appropriate. Table 1 shows the results for the variables measuring within-team cooperative and competitive conflict management strategies, and on affect-based and cognition-based trust. The first check was to conduct a one-way analysis of variance on each of the team constructs, which confirmed that the variance within teams was significantly less than the variance between teams. The second check was to examine interrater agreement (James, Demaree, & Wolf, 1984). The mean  $r_{\rm wg}$  values were uniformly much higher than the generally acceptable level for good agreement of .70, and were consistent with the more stringent criteria

Table 1.	Indices	of inter-member	agreement and	d inter-member	reliability

	Interrater agreement <sup>a</sup>		Intra-class correlations					
Variable	r <sub>wg</sub> —un	$r_{\rm wg}$ — $ss$	ICC(1)	df1	df2	F-values	ICC(2)	
Affect-based trust	.92	.85	.14	101	457	1.91***	.48	
Cognition-based trust	.95	.91	.19	101	457	2.27***	.56	
Cooperative conflict management within teams	.93	.91	.23	101	457	2.64***	.62	
Competitive conflict management within teams	.86	.91	.19	101	457	2.31***	.57	

 $<sup>^{</sup>a}r_{wg}$ —un is the mean  $r_{wg}$  based on the uniform distribution of responses, while  $r_{wg}$ —ss is the mean  $r_{wg}$  based on the slightly skewed null distribution of responses.

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<sup>\*\*\*</sup>p < .001.

<sup>&</sup>lt;sup>1</sup>The total percentage is more than 100% because some people reported diverse working experience.

recommended by Harvey and Hollander (2004). Further analysis of the data showed that it would be appropriate to calculate  $r_{\rm wg}$  assuming a slightly skewed null distribution of responses (Berkovitz, Hancock, & Nevin, 2000; LeBreton, Burgess, Kaiser, Atchley, & James, 2003) in order to ensure the robustness of results (James et al., 1984; Kozlowski & Hults, 1987). The third check was to calculate intraclass correlation coefficients (Bliese, 2000; McGraw & Wong, 1996) on the team-level variables. Overall, the results of these analyses suggest that individual team members' responses are very homogeneous and that aggregating their scores to team scores would be appropriate. Therefore, we aggregated individual members' responses to create a team score. We reported the reliabilities for these scales at the team level.

#### Controls for common method bias

The use of self-report data presents a potential for common method bias. Podsakoff, MacKenzie, Lee, and Podsakoff (2003) recommend several procedural remedies to help minimize the potential for bias. One recommendation is to collect data from different sources. Accordingly, data about between-teams constructs were collected from team managers, while data about within-team constructs were collected from team members. Team managers were asked to rate the conflict management strategy that their organization's work teams use when dealing with each other. Team members responded to measures of within-team conflict management strategies and affect-based and cognition-based trust.

Within-team conflict and trust were collected from team members, and so additional means were used to minimize common source bias. One method used, as recommended by Podsakoff et al. (2003), was to present questions for these two constructs in different sections of the survey, separated by other questions not relevant to this study. Additionally, to further prevent potential bias in the relationship between trust and within-team conflict management strategies, after testing within team agreement to determine that it was appropriate to create team-level measures, each team was randomly partitioned, with conflict management data provided by part of each team, and with trust data provided by the remaining team members.<sup>3</sup>

#### Approaches to conflict: within teams

A cooperative approach to conflict communicates the intention to seek mutually beneficial solution; a competitive approach indicates that protagonists are trying to win (Deutsch, 1973). Scales for cooperative and competitive conflict management approaches were developed from a previous questionnaire study conducted in North America (Alper et al., 2000). For the section in the questionnaire designed to measure conflict approaches, respondents were asked to use the items to indicate how team members negotiate their differences. The cooperative approach scale measured the emphasis on resolving issues for mutual benefit as they negotiated their differences. A sample item from the five items cooperative conflict scale is "team members treat conflict as a mutual problem to solve". Participants were asked to rate on a 7-point scale (1 = strongly agree, 7 = strongly disagree) their degree of agreement to the five statements. The competitive approach scale had four items with similar anchors to measure the emphasis on trying to win the conflict as team members negotiated their differences. A sample item is "team members treat conflict as a win-lose contest".

Confirmatory factor analysis exploring the acceptability of the two-factor solution was conducted, indicating that the cooperative and competitive conflict management strategies formed two unique

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<sup>&</sup>lt;sup>2</sup>The r<sub>wg</sub> under the slightly skewed null distribution was below the .70 level for the competitive conflict management strategy variable for five teams. All SEM analyses were duplicated without these teams in the sample, and the results highly similar to the full sample.

<sup>&</sup>lt;sup>3</sup>In the sample there were 14 teams with only three members, so partitioning resulted in a single team member's ratings being used to estimate team level responses. All SEM analyses were duplicated without these teams in the sample, and the results were highly similar to the full sample.

dimensions (CFI = .94, RMSEA = .09), and the two-factor solution was significantly better than the one-factor solution ( $\Delta \chi^2 = 50.62$ , p < .001).

#### Approaches to conflict: between teams

Team leaders provided the measures using highly similar items to assess the conflict management approach of groups with other groups. They were asked to indicate how groups within the organization negotiate their differences with each other. They rated on a 7-point scale (1 = strongly agree, 7 = strongly disagree) their degree of agreement to the five statements of the cooperative conflict scale and four items of the competitive conflict scale. Confirmatory factor analysis of the two-factor solution indicated that the cooperative and competitive factor solution was acceptable (CFI = .98, RMSEA = .05), and significantly better than the one-factor solution ( $\Delta \chi^2 = 61.97$ , p < .001).

#### **Trust**

We used McAllister's (1995) measures of affect-based and cognition-based trust. Affect-based trust is characterized by high emotional involvement and feelings of genuine caring and concern for each other's welfare. A sample item is "if I share my problems with other teammates, I know they would respond constructively and caringly". Cognition-based trust involves perceptions that the other person is responsible, reliable, and competent. A sample item is "my teammates approach their jobs with professionalism and dedication". Confirmatory factor analysis of the two-factor solution indicated that the affect and cognition of two-factor solution was acceptable (CFI = .96, RMSEA = .05), and significantly better than the one-factor solution ( $\Delta \chi^2 = 6.81$ , p < .01).

#### Team performance

Items used to measure team performance were taken from Ancona and Caldwell's (1992) criteria for team performance. Four items from Ancona and Caldwell's criteria related to team outcomes were used: efficiency, quality, technical innovation, and work excellence. Team managers or leaders were asked to evaluate team performance on a 7-point scale (1 = very poor; 7 = excellent). Coefficient alpha for the team performance measure is .77.

#### Control variables

Information on a variety of organizational and team level variables were measured. Potential control variables included: team age (in months), team size, and team functional area were collected from the team leader; organizational age (in years), size (number of employees) and industry were collected from the HR manager; and performance rating source. It is necessary to control for whether the rating source was a team manager or a team leader, since team leaders would more closely identify with the team and could be expected to provide inflated performance ratings.

#### Hypothesis testing

Correlation analyses were used as an initial test of the hypotheses. A two-step approach to SEM was adopted (Anderson & Gerbing, 1988), where the factor structure of all the variables in this study was examined to test the fit of the confirmatory factor analytic (CFA) model to the observed data. Next, the proposed structural model was examined, where between-groups conflict influenced within-group conflict, which in turn influenced team trust. The confirmatory factor analyses and structural equation modeling were conducted by using the Mplus statistical software package (Muthén & Muthén, 1998).

The sample size for this study was 102 companies, and seven latent constructs were estimated. Bentler and Chou (1987) have shown that structural equation modeling (SEM) is acceptable when the

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sample-to-parameter ratio is between 5:1 to 10:1, although fit indices might be biased downwards with smaller samples (Fan, Thompson, & Wang, 1999). It is thus possible to conduct SEM analysis with relatively small samples provided appropriate analytical strategies are adopted. Schneider, Ehrhard, Mayer, Saltz, and Niles-Jolly (2005) used bootstrap analysis to examine mediation effects with N = 56, a procedure Shrout and Bolger (2002) recommend for sample sizes between 20 and 80. Thompson (2005) used item parceling with N = 126, a sample size similar to ours, an analytical strategy that we also adopt.

Given our sample size, it is necessary to reduce the number of parameters to be estimated. The structural model was simplified by using item parceling to reduce the number of indicators to three for each construct. The use of three indicators for each construct yield a just-identified latent variable that has been argued to be better than an over-identified latent variable, and yields one unique solution that optimally captures the relations among items (Little, Cunningham, & Shahar, 2002).

Item parceling averages indicators "into subsets, which, in turn, are treated as indicators of the latent construct" (Landis, Beal, & Tesluck, 2000, p. 187). The number of indicators was reduced by combining the indicators with the highest and lowest loading by averaging, and repeated this until we had three indicators for each construct. Thus, items with the highest and the lowest loadings were averaged in order to form a new indicator. This approach is common in the factor analysis literature, and has been used by Mathieu and Farr (1991) and Mathieu, Hofmann, and Farr (1993), and allows conducting SEM analysis with relatively small samples. One potential danger with item parceling is that the procedure might suppress unrecognized multidimensionality in a scale (Thompson, 2005). However, our previous testing of the dimensionality of our scales indicates that this is not a problem in our data.

The final step in the analysis was the *post hoc* examination of organizational and team control variables. The final structural model, including various organizational and team control variables, was estimated to determine whether the appropriate control variables were included. This process is the opposite of the traditional moderated regression approach of entering control variables first, but was necessary since we first needed to establish the basic path model. Non-significant control variables (team age, size, and functional area; organization age, size, and industry) were then dropped in order to reduce the number of parameters being estimated.

# **Results**

#### Measurement model testing

The first step of the Anderson and Gerbing (1988) two-step approach is to examine the overall factor structure of all the research variables. The test of the hypothesized measure model provided an adequate fit to the data ( $\chi^2_{(120)} = 160.21$ , p < .01; CFI = .94, TLI = .92, RMSEA = .06), with each indicator loaded significantly on the appropriate factor with loading above .50. These results verify the posited relationship among indicators and constructs, validating the convergent validity of the constructs.

Zero-order correlations provide an initial examination of the hypotheses linking cooperative approach and competitive approach between groups as measured by the managers, cooperative approach and competitive approach within teams as measured by the members, and affect- and cognition-based trust as measured by team members (Table 2). In support of Hypothesis 1, team performance was significantly correlated with cognition-based trust (r=.25, p<.05), as well as

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Table 2. Means, standard deviations, intercorrelations, and scale reliabilities<sup>a</sup>

Variables	M	SD	1	2	3	4	5	6	7
1 Team performance	4.82	.75	.77						
2 Cooperative conflict management between teams	5.35	.84	.23*	.82					
3 Competitive conflict management between teams	3.05	1.00	$20^{*}$	43***	.81				
4 Cooperative conflict management within teams	5.47	.59	.17	.24*	$35^{***}$	.89			
5 Competitive conflict management within teams							.85		
6 Affect-based trust within teams					28**			.74	
7 Cognition-based trust within teams	3.70	.31	.25*	$.20^{*}$	24*	.30**	39***	.52**	.85

N = 102.

Bold figures on the diagonal are alpha reliabilities of measures. The reliability coefficients for cooperative and competitive conflict management between teams were calculated from individual data (team managers), and the reliabilities for other measures were calculated from data at the team level.

negatively correlated with competitive conflict both within (r=.-21, p<.05) and between (r=.-20, p<.05) teams. In support of Hypotheses 2 and 3, groups that reported that they relied on cooperative conflict reported higher levels of both affect-based (r=.37, p<.001) and cognition-based trusting relationships (r=.30, p<.01), whereas groups that relied on competitive conflict lacked both affect-based (r=.-25, p<.05) and cognition-based trust (r=.-39, p<.001) in their relationships.

In support of Hypotheses 4 and 5, teams where the managers reported that competitive conflict was adopted for conflicts between teams experienced higher levels of competitive conflict within teams (r=.35, p<.001) and lower levels of cooperative conflict within teams (r=-.35, p<.01). When cooperative conflict was adopted between teams, the teams reported greater reliance upon cooperative conflict within the team (r=.24, p<.05), but there was no significant correlation with the use of competitive conflict within the teams.

#### Structural model testing

Structural equation analyses were used to examine the hypothesized relationships. The hypotheses (H2 and H3) were that conflict management approaches within teams would influence the development of trusting relationships, which would in turn influence team performance (H1), while the conflict management approaches used within teams were influenced by the conflict management approaches used between teams (H4 and H5). Model fit was acceptable ( $\chi^2_{(194)} = 241.99$ , p < .01; CFI = .94, TLI = .93, RMSEA = .05), indicating that the model is a reasonable explanation of the relationship between these variables. In testing the final structural model, a variety of organizational and team level control variables were incorporated by using *post hoc* analyses. Control variables considered, and dropped from the final model due to non-significant results, were team age, team size, organization age, organization size, and industry. In the final model, the only control variable was rating source, whether the rating was provided by a team leader or manager. Figure 1 shows the results of the final model.

The first hypothesis, that trust within the team is associated with higher levels of team performance was partially supported, with cognition-based trust being significantly related to team performance ( $\beta = .50$ , p < .05), but with affect-based trust not being significantly related to team performance. The set of hypotheses relating within-team cooperative conflict management to trust is partially supported. The path coefficients indicate that a cooperative approach to conflict within teams

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<sup>&</sup>lt;sup>a</sup>Data source is the split sample. p < .05; \*\*p < .01; \*\*\*p < .001.

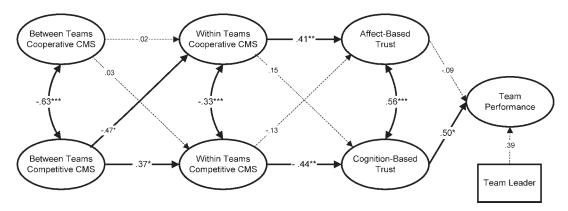


Figure 1. The effect of conflict management strategies (CMS) on trusting relationships. Note: p < .05, \*\*p < .01, \*\*\*p < .001. Standardized structural coefficients are reported. Model fit indices:  $\chi^2/df = 1.24$ ; CFI = .94; TLI = .93; SRMR = .08; RMSEA = .05

is associated with increases in affect-based trust ( $\beta$  = .41, p < .01), but has no significant relationship with cognition-based trust. The set of hypotheses relating within-team competitive conflict management to trust is also partially supported, with a competitive approach to conflict within teams being associated with decreases in cognition-based trust ( $\beta$  = -.44, p < .01), but has no significant relationship with affect-based trust.

The set of hypotheses relating competitive conflict between teams to the conflict management approach used within teams was fully supported. When teams adopted a competitive approach in managing conflict with other teams, there was a greater reliance upon the competitive management of conflicts within the team ( $\beta = .37$ , p < .05), and a reduced reliance upon the cooperative management of conflicts within the team ( $\beta = -.47$ , p < .01). The final set of hypotheses relating between-teams cooperative conflict management to within-team conflict management was not supported. Teams' reliance upon a cooperative approach in managing conflict with other teams had no significant relationship with the reliance on either cooperative or competitive approaches to conflict within teams.

To provide further empirical evidence for within-team conflict management's mediation of between-teams conflict management's effect upon trust, direct and indirect effects were requested in the SEM tests (MacKinnon, Lockwood, Hoffman, West, & Sheets, 2002) and bootstrapping was used to generate standard errors and 90% confidence intervals for these effects. The results showed that between-teams cooperative conflict management had no significant direct or indirect effects upon either affect-based or cognition-based trust. However, the indirect effect of between-teams competitive conflict management strategies upon both affect-based ( $\beta = -.24$ , p < .05) and cognition-based trust ( $\beta = -.22$ , p < .05) were significant, while the direct effects were non-significant. This provides support for our hypothesized model where within-team conflict management strategy fully mediates the effect of between-team conflict management upon trust.

#### Discussion

The results support theorizing on the positive role of managing conflict for effective teamwork, specifically for developing the trusting relationships that lead to higher team performance levels. Teams adopting a cooperative approach to resolve conflicts reported higher levels of affect-based trust,

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although there do not appear to be any performance consequences of this. The competitive, win-lose, approach to conflict was negatively associated with cognition-based trust that reduced team performance. Results also support recent arguments of the close link between the way in which internal and external conflict are managed; how teams within an organization manage conflict with each other seems to affect within team conflict management. Managing conflict competitively between teams was found to predict lower levels of within-team cooperative conflict management and higher levels of within-team competitive conflict.

# Within-team conflict management, trust, and performance

This paper has built upon prior research showing that the way in which team conflict is managed very much affects team dynamics and outcomes (Alper et al., 2000; Deutsch, 1980, 1973; Tjosvold, 1998). In particular, our results indicate the cooperative and competitive conflict management strategies act to influence different types of trust. Western and Asian theorists have argued that relationships are critical for effective organizational work (Hui & Graen, 1997; Kramer & Tyler, 1996; Leung, 1997), but organizational members confront many obstacles and incompatibilities as they are pressed to get things done. This study emphasizes that dealing with conflicts openly and constructively is a viable, practical way to strengthen their trusting relationships.

Our results show that when teams rely upon a cooperative approach to manage conflict, then conflict can become an opportunity to increase affect-based trust within the team. The discussion of conflict for mutual benefit appears to convince team members that they can rely upon each other for concern and caring. The reliance upon competitive conflict management is associated with lower levels of cognition-based trust. When teammates view conflict as a win–lose situation, this communicates to them that they have reason to suspect that their teammates may pursue their own interests at their expense. As a result, they are convinced that they cannot trust their teammates.

The two approaches to conflict management appear to engage separate mental processes, with competitive conflict management engaging cognitive processes, while cooperative conflict management engages affective processes. In competitive conflict, one's attention is turned towards the actions and behaviors of other team members that are cognitively analyzed for threats or other personal implications. Although a competitive approach to conflict undoubtedly gives rise to affective responses, these affective responses are apparently unrelated to affect-based trust.

Teams that emphasize a cooperative approach to conflict perform behaviors that show concern and caring for other team members, and these behaviors can elicit emotional responses associated with affect-based trust. However, while these behaviors might promote affect-based trust, trusting a team member's intentions does not lead to a corresponding trust in that team member's abilities.

Results indicate that, at least in the context of the professional and knowledge teams in this sample, cognition-based trust has an important influence upon team performance outcomes, while affect-based trust appears to be unrelated to team performance. The teams examined here are all established teams consisting of professional employees, and thus had been created with a definite task objective in mind. Cognition-based trust, and the confidence that one can rely upon other team members' demonstrated abilities and reliability, appears to be a critical factor influencing the team behaviors that ultimately result in team performance on team tasks. By way of contrast, the good feelings towards other team members associated with affect-based trust might very well make team members feel better about their team, but these feelings evidently fail to translate to higher levels of team performance.

Given this, in an existing setting where definite task objectives exist, it would appear that experience-grounded cognitions concerning other team members' abilities and behaviors are much more critical than affective feelings of goodwill within the team. This conclusion is of particular

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interest given the sample of Chinese teams used in this study, since the prevailing view has emphasized the importance of interpersonal harmony and the affective component of relationships among Chinese (e.g., Gabrenya & Hwang, 1996; Hwang, 1987; Leung et al., 2002). In teams of Chinese faced with organization task-based objectives, the prevailing cultural norm of emphasizing affect and interpersonal harmony appears to have few performance implications.

Results support the theorizing that conflict management influences trust that in turn affects team performance. The alternative explanation is that trust levels within a team influence the conflict management approach adopted by the team that affects team performance, and team performance was significantly correlated with both cognition-based trust and within-team competitive conflict management. However, when we tested the alternative model where within-team conflict management (both cooperative and competitive) intervened between trust (both affect-based and cognition-based) and team performance, team performance was not significantly related to any trust or conflict management variables. These findings provide further support for our theorizing that the effect of conflict management upon trust is the primary dynamic, rather than the opposite, and is also consistent with prior research showing that conflict approaches and levels influence trust (Beersma & De Dreu, 1999; Langfred, 2007).

#### Between- and within-team conflict management

Another major finding of this research is that managing the inevitable conflicts between groups cooperatively is an important antecedent of team constructive conflict management within the group. The structural equation analysis provided good support for the proposed model where within-team conflict management mediated between-teams conflict management and trust. These results provide direct support for the theorizing on the reinforcing nature of internal and external conflict management (Deutsch, 2005; Kozlowski & Klein, 2000; Marks et al., 2005). How organizational teams handle their conflicts with each other may affect how team members deal with conflicts with each other. Findings suggest that organizational ways of dealing with conflict can strongly affect the interaction and relationships among team members.

In contrast to our theorizing that teams base their within-team processes upon the between-teams processes that they observe in their organization, researchers have proposed a bottom—up view where teams' external conflict and negotiation processes are modeled based upon internal processes (Gelfand et al., 2006; Pruitt & Carnevale, 1993; Keenan & Carnevale, 1989; Pruitt & Carnevale, 1993). Experimental findings indicate that within team conflict management affects between group conflict management (e.g., Keenan & Carnevale, 1989).

However, this study used field data drawn from teams and organizations that had existed for a significant period of time before this study was conducted. Unlike in an experimental study, in our field setting new teams operate within a pre-existing organization context and are influenced by prevailing organizational values and practices that exert an influence upon teams. This reasoning suggests that within-team conflict management approaches in organizations are influenced by between-teams approaches.

In addition to explore the links between conflict management at the inter-group and group level and trusting relationships, the study developed an appropriate method in that it allowed independent measures of conflict approaches and trusting relationship. Managers rated the conflict management between groups, whereas different team members were selected to rate trust and the extent that they take cooperative and competitive approaches to conflict. This study used questionnaires with a sample drawn from a large number of organizations to complement previous experimental previous research on cooperative and competitive conflict.

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The theory of cooperation and competition is hypothesized to apply in various cultures (Deutsch, 1973), but theories relevant to one culture cannot be assumed to be useful in another (Hofstede, 1993). It may seem that a Western-developed theory related to conflict could not be applied in Asia with its negative attitudes toward conflict (Kirkbride et al., 1991). However, the theory proved useful for identifying constructive conflict management both for within and between organizational teams. Although the data do not provide much evidence concerning how widespread is cooperative conflict, Chinese team members and teams can discuss their conflicts openly and constructively.

## Limitations and future research

The sample and operations limit the results of this study. The data are self-reported and subject to biases and may not accurately describe the relationships, although research suggests that self-reported data are not as limited as commonly expected (Spector, 1992). These data are also correlational and do not provide direct evidence of causal links between conflict approaches, relationships, and outcomes. However, teams were partitioned so that different team members completed measures of conflict approaches and trust in relationships, while their managers completed the measure of team performance and conflict approaches between teams, helping to reduce the possibilities of same source method as an alternative explanation of the results (Podsakoff et al., 2003).

Another limitation is that the study did not collect data on distrust. Lewicki et al. (1998) have argued that distrust typically accompanies trust and that researchers should investigate their dual role on team performance and outcomes. Research is needed to investigate distrust directly.

Although the structural equation analysis is suggestive, the data do not provide strong evidence for the study's hypothesized causal relationships. Indeed, within-team conflict management may drive the choice of managing conflict between organizational groups rather than this study's theorizing of the role of inter-group conflict on team conflict management. More generally, studies with different kinds of teams and larger sample sizes in different cultures can test and potentially provide stronger support for the study's hypotheses. Spector and Brannick (1995) have argued that the most effective way to overcome recall and other methodological weaknesses is to test ideas with different methods. It would be desirable to provide direct experimental verification of the role of conflict approaches on trust in East Asian organizational settings.

Findings support the paper's basic theorizing that between-teams conflict management affects within-team conflict management, which in turn affects team trust and ultimately team performance. However, future research is needed to focus upon two specific ideas arising from our results, specifically, that affect- and cognition-based trust are influenced by different types of conflict management, and that between-teams competitive conflict influences within-team conflict management. Research is needed to develop greater theoretical understanding and empirical support for these ideas.

# Practical implications

In addition to develop theoretical understanding, support for the hypotheses may have important practical implications for structuring organizations and teams, especially in China and other collectivist cultures. Conflict can be both highly destructive and productive (De Dreu, 2008; Tjosvold, 2008). Developing a cooperative approach to conflict among teams may provide a constructive context in which team members can discuss their conflicts constructively and strengthen their trusting relationships. This

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approach to conflict may be particularly attractive to collectivists as it can strengthen relationships while also promoting task performance. Helping teams identify with the organization as a whole and employee compensation based in part on how groups working with each other can encourage teams to believe their goals are cooperative and that they want to resolve their conflicts for mutual benefit (Cheney, 1983; Hanlon, Meyer, & Taylor, 1994). Training sessions could orient all the teams in the organizations toward cooperative conflict and its skills of the self-expression, perspective taking, and integrative problem solving. Teams and members work to resolve the conflict so that both can benefit, not just themselves, and combine the best ideas to implement a solution that promotes mutual goals.

Most critically, the results underline the value of reducing competitive conflict that frustrates trust and team performance. Managers and employees should appreciate the costs of win-lose approaches, especially between teams, and receive feedback about their level of competitive conflict. They should recognize that the orientation and training in cooperative conflict provides them with a viable alternative in trying to win conflicts.

# **Concluding Comments**

Deutsch's cooperative and competitive approach identified conditions that affect the extent to which conflicts promote trusting relationships in China. As in the West, teams that rely on resolving issues for mutual benefit can develop affect-based trust. However, teams that take a competitive, win–lose approach to manage conflict develop low levels of cognition-based trust that in turn frustrates team performance.

This study contributes in theorizing by providing evidence that the way in which teams within an organization manage their conflicts with other teams can affect how members within the teams deal with their conflicts with other members (Kozlowski & Klein, 2000; Marks et al., 2005). Findings support Deutsch's (2005) argument that internal and external conflict are mutually reinforcing, in particular, that competitive conflict management between teams affects conflict handling within teams. The theory of cooperation and competition developed in the West was able to analyze conflict within and between teams in Chinese organizations. If the cooperative and competitive approach continues to prove useful both in the West and East, it could provide the basis for teams in such settings as Sino-Western joint ventures to deal with the many conflicts that threaten to divide them (Jassawalla & Sashittal, 1999).

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# Appendix: Scales Used in the Study

Team performance (7-point scale)

Please indicate your team's performance on the following criteria:

- Efficiency
- Quality
- Technical innovation
- Work excellence

Source: Ancona and Caldwell, 1992.

# Affect-based trust (5-point scale)

Please describe working relationships in your team:

• We have a sharing relationship. We can freely share our ideas, feelings, and hopes.

- I can talk freely to other teammates about difficulties I am having at work and know that they will want to listen.
- We would all fee a sense of loss if one of use was transferred and we could no longer work together.
- If I share my problems with other teammates, I know they would respond constructively and caringly.

Source: McAllister (1995).

# Cognition-based trust (5-point scale)

Please describe working relationships in your team:

- My teammates approach their jobs with professionalism and dedication.
- Given my teammates' track record, I see no reason to doubt their competence and preparation for our job.
- I can rely on my teammates not to make my job more difficult by careless work.
- Most people, even those who aren't close friends of my teammates, trust and respect them as coworkers.
- Other work associates who must interact with my teammates consider them to be trustworthy.

Source: McAllister (1995).

# Cooperative within-team conflict management (7-point scale)

Please describe how you feel when your group members handle disagreements:

- Our team encourages "we are in it together" attitude.
- Our team seeks solution that will be good for all of us.
- Our team treats conflict as a mutual problem to solve.
- Our team works so that to the extent possible they all get what they really want.
- Our team combines the best of positions to make an effective decision.

Source: Alper et al., 2000.

#### Cooperative within-team conflict management (7-point scale)

Please describe how you feel when your group members handle disagreements:

- Our team members demand that others agree to their position.
- Our team members want others to make concessions but do not want to make concessions themselves.
- Our team members treat conflict as a win-lose contest.
- Our team members overstate their position to get their way.

Source: Alper et al., 2000.

#### Cooperative between-teams conflict management (7-point scale)

Please describe how you feel when your team handles disagreements with other teams:

- Teams encourage "we are in it together" attitude.
- Teams seek a solution that will be good for all teams.
- Teams treat conflict as a mutual problem to solve.
- Teams work so that to the extent possible all teams get what they really want.

• Teams combine the best of positions to make an effective decision.

Source: adapted from Alper et al., 2000.

# Competitive between-teams conflict management (7-point scale)

Please describe how you feel when your group members handle disagreements:

- Teams demand that other teams agree to their position.
- Teams want other teams to make concessions but do not want to make concessions themselves.
- Teams treat conflict as a win-lose contest.
- Teams overstate their position to get their way.

Source: adapted from Alper et al., 2000.

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