

THE EFFECTS OF CONFLICT ASYMMETRY ON WORK GROUP AND INDIVIDUAL OUTCOMES

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We examine the consequences of an often ignored aspect of work group conflict— asymmetric conflict perceptions—for the effectiveness of individuals and groups. Tests of our multilevel hypotheses using data on 51 work groups showed that group conflict asymmetry (the degree to which members differ in perceptions of the level of conflict in their group) decreased performance and creativity in groups. In addition, individual conflict asymmetry (a member perceiving more or less conflict than other group members) explained reported performance and satisfaction with a group. Social processes and a positive group atmosphere mediated this effect.

One of the shortcomings of past conflict research is that it often rests on an assumption that all members of a group perceive the same amount of conflict, neglecting the view that members may have different perceptions about the amount of conflict that exists in their group (e.g., Amason, 1996; De Dreu & Weingart, 2003; Jehn, 1995). Much of group research focuses on *shared* team properties, or experiences and perceptions team members hold in common (Klein & Kozlowski, 2000; Mason, 2006), often ignoring the existence of variance within teams. To address this, we consider conflict asymmetry as a configural team property that reflects the variance in perceptions among team members (Colquitt, Noe, & Jackson, 2002; Dineen, Noe, Shaw, Duffy, & Wiethoff, 2007; Klein & Kozlowski, 2000).

Past research on group conflict has focused mainly on the average (or mean) level of conflict in a group, aggregating members' perceptions (e.g., Amason, 1996; Jehn, 1995). In this article, we take into account the mean conflict level in groups (e.g., task conflict, relationship conflict) but propose that the asymmetry of perceptions regarding conflict is critical to consider and has been relatively ignored in past conflict research (e.g., Amason, 1996; Jehn, 1995; cf. Jehn & Rispens, 2008). We thus examine two aspects of conflict in addition to the mean level focused on in past research: group conflict asymmetry and individual conflict asymmetry. In contrast to the mean conflict level (or the aggregate level of conflict in a group), *group conflict asymmetry* is a group-level construct that refers to the

degree to which a group's members differ in their perception of how much conflict there is in the group. In configural group property terms (Chan, 1998; Dineen et al., 2007; Klein & Kozlowski, 2000), this is the *dispersion*, or variation, of members' perceptions regarding conflict in the group. For example, although some members perceive a high level of conflict, others may perceive a low level; this dispersion of perceptions of conflict at the group level is the group's conflict asymmetry. *Individual conflict asymmetry* is an individual-level aspect of conflict asymmetry and refers to the direction of the effect: that is, whether a member perceives more (or less) conflict than other group members.

We examine how group and individual conflict asymmetry affect performance, creativity, and satisfaction with a team. The outcomes we consider in our study of group conflict were chosen for three reasons. First, in general, these variables are important work group outcomes that lead to the success and continuation of a work group (Balkundi & Harrison 2006; Hackman & Wageman, 2005). Second, given our relatively new approach to conflict in work groups (i.e., the asymmetry perspective), we wanted to consider variables that past conflict researchers have examined so that our findings could be compared with those of past studies that examine conflict as a shared team property (cf. De Dreu & Weingart, 2003). In addition, we advance the conflict literature by examining work group creativity (the production of novel and useful ideas in a work group [Amabile, 1988; Pirola-Merlo &

Mann, 2004]), a dependent variable that is quite relevant for organizations and influenced by interpersonal tensions (e.g., Beersma & De Dreu, 2002; DeFillippi, Grabher, & Jones, 2007) but has not been thoroughly studied in the conflict domain (for an exception, see De Dreu [2006]).

In addition to conflict asymmetry, another understudied aspect of conflict research that we consider is the set of factors that mediate the relationship between conflict and outcomes (cf. De Dreu & Weingart, 2003; Jehn & Bendersky, 2003). We examine the group atmosphere and social processes experienced by members as mediators of individual conflict asymmetry and outcomes. Jehn and Mannix (2001) examined group atmosphere (attitudes members have about their work group environment) as distinct from social processes in groups (e.g., communication and cooperation). Group atmosphere, which was introduced by Konar-Goldband, Rice, and Monkash (1979) to assess individuals' positive team attitudes, is similar to the construct of group states. Marks, Mathieu, and Zaccaro (2001) introduced the group states construct with the intent of clarifying how perceptions of a group environment (Mannix & Jehn, 2004; Nemeth, Personnaz, Personnaz, & Goncalo, 2004; Tidd, McIntyre, & Friedman, 2004), in addition to social processes, influence group outputs. Social processes reflect interactions among members (e.g., communication, cooperation), whereas group atmosphere reflects the attitudes of members about features of the environment in the group, such as the level of respect that has evolved and the commitment members feel toward one another (Mannix & Jehn, 2004). In this study, we examine members' views of the group atmosphere and social processes

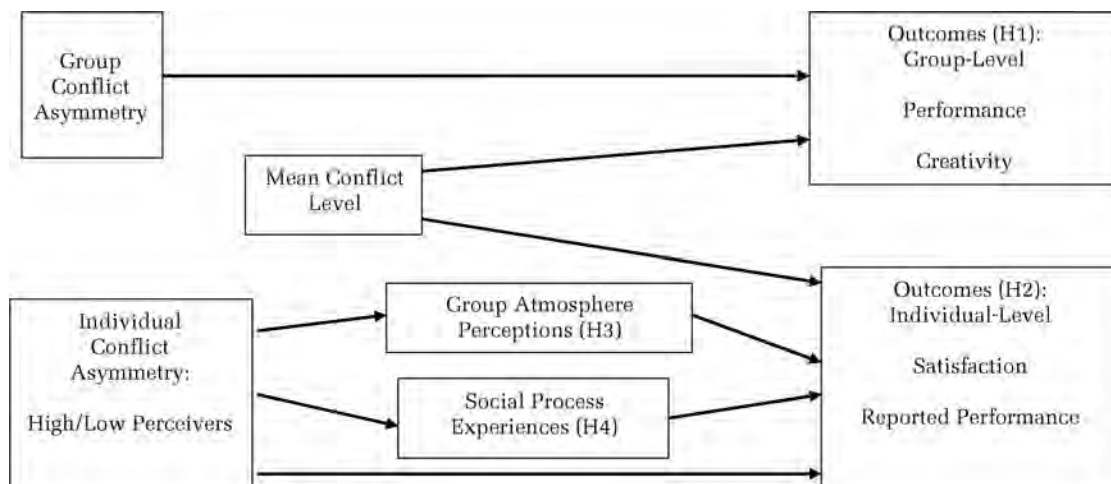
of their groups to provide a more thorough explanatory model of the effects of work group conflict on individuals than has been done in past research. Figure 1 is a visual representation of the hypotheses and arguments we provide in the next section.

GROUP CONFLICT AND PERCEPTUAL ASYMMETRY

The conflict asymmetry perspective suggests that it is not only the average amount of conflict that matters for group functioning, but the different perceptions of group members and how these influence group processes and the attitudes of members when they are working together. In past group conflict research it is often assumed that all parties involved in a conflict perceive the same amount of conflict in their group (cf. Jehn & Chatman, 2000). This assumption excludes the idea of asymmetrical conflict perceptions. Our concept of *group conflict asymmetry* takes into account the idea that a group's members perceive different levels of conflict; that is, there is variation, or dispersion, in members' perceptions of the level of conflict in their group.

Conflict *symmetry*, or low group conflict asymmetry, occurs when all members of a group perceive the same level of conflict. If members perceive different levels of conflict, there is high group conflict *asymmetry*, or asymmetrical views of conflict in the group. For instance, two group members may perceive that a conflict is present while the other group members may perceive that there is no or a very low level of conflict present. It is precisely these differences in perceptions of conflict that, we predict, will influence group functioning and mem-

FIGURE 1
Multilevel Model of Conflict Asymmetry, Mediators, and Outcomes



ber attitudes (going above and beyond the effect of the mean conflict level), and that have been relatively ignored in past research on conflict and group outcomes (for an exception, see Jehn and Chatman [2000]).

Varying Perceptions of Reality

The view that there are different perceptions of the same reality has been the basis for much social cognition research (Bruner, 1957; Searle, 1997). Social cognitive theory (cf. Bandura, 2001) and the social information processing approach (Salancik & Pfeffer, 1978) have been used to explain the different experiences of individuals in organizations. However, the assumption has been that groups possess shared properties (Klein & Kozlowski, 2000; Mason, 2006), such as emotions (cf. Mason, 2006; Totterdell, Kellett, Teuchmann, & Briner, 1998), attitudes (e.g., Mason & Griffin, 2003), and perceptions (e.g., Cannon-Bowers, Salas, & Converse, 1993; Klimoski & Mohammed, 1994). This may be a reasonable assumption given classical research showing that individuals often converge to a similar reality when placed in a social situation (Sherif, 1935). However, there is also a substantial amount of research indicating that asymmetries of perceptions and experiences exist in groups. Such differences have been found in social network studies of cognitive inconsistencies and dyadic asymmetries in relationships (Carley & Krackhardt, 1996; Casciaro, Carley, & Krackhardt, 1999), as well as in research showing individuals in negotiations and experimental games attach different interpretations to the same situation (Sattler & Kerr, 1991; Van Lange & Kuhlman, 1994) and that individuals with different levels of power have different experiences in a group during task performance (e.g., Galinsky, Magee, Ena Inesi, & Gruenfeld, 2006; Guinote, Judd, & Brauer, 2002).

Research on diversity and relational demography in organizations also suggests that employees have different responses to their surroundings (Chatman & Spataro, 2005; Cronin & Weingart, 2007; Tsui, Egan, & O'Reilly, 1992) because they may perceive them differently (Lawrence, 1997; Riordan, 2000). More specific to our interest in perceptions of conflict is research on diversity and relational demography showing that individuals in dyadic relationships (e.g., Bono, Boles, Judge, & Lauver, 2002; Hojjat, 2000) perceive conflict differently, as do members of different cultures (Fu, Morris, Lee, Chao, Chiu, & Hong, 2007; Gelfand, Nishii, Holcombe, Dyer, Ohbuchi, & Fukumo, 2001). Given the above research, we propose that it is important to consider different perceptions within groups to fur-

ther theory on groups and to advance explanatory theory on conflict in work groups.

Group Conflict Asymmetry

We draw on three main literatures to show why conflict asymmetry in groups is detrimental to group performance and creativity: the literatures on shared mental models, within-group consensus, and collective cognition. Research on shared mental models and group consensus indicates that agreement among members on information, ideas, and cognitive processes increases group outcomes such as performance. Shared mental models are the cognitive structures that team members develop and share that reflect the characteristics, duties, needs, and group processes of team member interactions, such as conflict (Cannon-Bowers et al., 1993; Mohammed, Klimoski, & Rentsch, 2000; Van Boven & Thompson, 2003).

Research on shared mental models has shown that consistency, or cognitive symmetry, in a work group or work team increases team performance (e.g., Marks, Sabella, Burke, & Zaccaro, 2002). For a group to perform well, members must share a common understanding of the information and goals of the group (Hinsz, Tindale, & Vollrath, 1997), which leads to social integration (Dineen et al., 2007). In this way, groups develop an organized structure of knowledge and duties that is predictable (Mohammed et al., 2000) and accurate (Smith-Jentsch, Campbell, Milanovich, & Reynolds, 2001). Thus, if members agree on perceptions of group processes, they are better able to accurately predict group interactions and therefore cooperate more effectively toward achieving group performance goals (Amabile, 1988; Carnevale & Probst, 1998; Hinsz et al., 1997; Mathieu, Heffner, Goodwin, Salas, & Cannon-Bowers, 2000).

The construct of shared mental models is similar to the concepts of collective cognition and negotiated belief structures (Walsh, Henderson, & Deighton, 1988). Most often related to group efficacy beliefs, this research suggests that although common beliefs are most useful for effective group functioning, members in the same social setting may view their experiences differently (Bandura, 1997). In fact, Klein, Conn, Smith, and Sorra's (2001) work on within-group agreement in employee perceptions showed that members do perceive their work group interactions (e.g., conflict) differently. Differing views of, for example, the level of conflict in a group are likely to decrease performance because discussions are ineffective: It is difficult to discuss a problem when some members may not even perceive that a problem exists.

Research suggests that if members do not have the same perception of whether a conflict exists, insurmountable communication problems may inhibit constructive resolution (Kluwer & Mikula, 2002; Major, 1987). If groups have conflict asymmetry, it will impede the information exchange (i.e., idea generation, novel contributions [Choi & Thompson, 2005; Ford & Sullivan, 2004]) necessary for high performance and group creativity (Amabile, 1988; Carnevale & Probst, 1998; Nemeth et al., 2004). Moreover, research has shown that when members agree on the quality of social interaction, even if they agree on a negative assessment, they produce higher-quality group work (Mason & Griffin, 2003). Therefore, it is better to agree on the level of conflict or competition in a group than to have differing viewpoints on what is occurring in the group regarding this process.

In addition, group members expect others to have the same perceptions as themselves (Burke & Stets, 1999; Swann, 1990; Swann, Polzer, Seyle, & Ko, 2004), and when this is not the case, confusion and inefficiencies in the group can occur (e.g., Milton & Westphal, 2005; Polzer, Milton, & Swann, 2002). These, in turn, interfere with the effective group processes (e.g., idea generation, cooperation) necessary for high performance and creative outcomes (Amabile, 1988; Choi & Thompson, 2005; McGrath, 1984; Steiner, 1972). On the basis of the above rationale, we propose that high group conflict asymmetry is negatively associated with group performance and creativity and explains the effects on these outcomes in excess of the mean level of conflict in a group (see Figure 1):

Hypothesis 1. Group conflict asymmetry is negatively associated with outcomes for a group (group performance and creativity), with the mean level of conflict in the group controlled for. That is, the more dispersion around conflict in the group, the lower the levels of group outcomes.

Individual Conflict Asymmetry: High and Low Perceivers

Focusing on the group level, we have argued that group conflict asymmetry (the degree of variance among a group's members regarding the level of conflict in the group) influences group outcomes. To determine what is specifically shaping this process, we investigated the phenomenon at the individual level. It is necessary to investigate individual cognitions and motivations to explain the occurrence of collective phenomena (Lindenberg, 2006) and to enable more accurate specification of

the mechanisms by which conflict asymmetry in a group influences individuals, their behavior in the group, and their attitudes about working in the group. The research that has examined the asymmetrical perspective on conflict in groups (Jehn & Chatman, 2000; Jehn, Rupert, & Nauta, 2006) has focused only on the magnitude of the asymmetry; it has not taken into account the differences between those members who perceive *more* conflict than the rest of their group and those who perceive *less* conflict than the rest of the group. Therefore, we introduce the concept of individual conflict asymmetry—that is, the direction of an individual's perceptions relative to the general group perception (e.g., perception as high). We draw on theories of cognitive processing, positive illusions, and social comparisons to demonstrate that perceptual differences regarding conflict lead to differences in reported individual performance and satisfaction with a team.

Drawing on the concept of positive illusions (Taylor & Brown, 1988, 1994) and the cognitive processing view of conflict (e.g., Carnevale & Probst, 1998), we propose that, regardless of the level of conflict, group members who experience less conflict than others in their group will be more satisfied and perform better (and perceive that they perform better) than the rest of the group. Positive illusions are defined as beliefs that depart from reality in an optimistic manner and can be related to the idea of group members as social perceivers and interpreters of group events (Taylor & Brown, 1988). If a group member perceives less conflict than other members of a group, it could be said that he/she has a more optimistic or positive view of the level of conflict in the group. People who hold a more positive view of a situation are more content and more considerate of others, and they have a greater capacity for productive work (Taylor & Brown, 1988). Positive illusions facilitate intellectual functioning by focusing recall on self- and task-relevant information (Greenwald, 1980), by increasing association of multiple cues or ideas in a complex environment regarding judgments and decisions (e.g., Isen & Daubman, 1984), and by enhancing motivation and persistence as people work harder and longer on tasks (e.g., Felson, 1984). Thus, it can be expected that a "positive perceiver" on a team will perform better and be more satisfied with the team experience. The anticipation of success that is associated with expectations of a positive environment (perceptions of relatively little conflict) also increases the likelihood that members will be more satisfied, despite the conflict-laden environment felt by others (Murray, Holmes, & Griffin, 1996). In addition, according to the cogni-

tive processing view of conflict (Carnevale & Probst, 1998), members who perceive less conflict will not be distracted by the conflicts experienced by others; thus, their cognitive processes will be less burdened, allowing them to perform at a higher level. Finally, members who do not perceive the conflict experienced by their fellow group members will not be affected by the negative affect often associated with conflict and therefore will be more likely to be satisfied (Jehn & Bendersky, 2003; Pinkley, 1990; Thomas, 1992).

In contrast, the person who perceives more conflict than others is likely to spend her or his time and energy discussing, resolving, or ignoring the perceived conflict (Campbell, Simpson, Boldry, & Kashy, 2005; Jehn, 1995), rather than on performance-relevant tasks. Given that the other group members may not even perceive the conflict, this misspent effort used to resolve nonexistent conflicts will detract from the effort this group member exerts toward task completion and can also lead this member to experience dissatisfaction with the team. This group member's inability to communicate his/her views to the rest of the group regarding the perceived problems in the group can cause frustration and withdrawal (Swann, 1999).

In addition, members who perceive more conflict than the rest of a group may feel diminished and disrespected because they feel their concerns are not heard (Ellemers, Doosje, & Spears, 2004; Tyler, 1999). Research on romantic relationships indicates that those who perceive more conflict in a relationship are dissatisfied because of increased anxiety and distress about the future of the relationship (Campbell et al., 2005). This interferes with effective functioning (e.g., listening, direct communication, constructive support, and cooperation) in the relationship. Likewise, when a group member perceives a higher level of conflict than other members, he/she is less receptive to the ideas of other group members and communicates less, which interferes with constructive group processes and individual performance (Pelled, 1996). Therefore, we propose:

Hypothesis 2. A member who perceives more conflict than the other members of a group is less effective as a group member (has lower satisfaction with the group and lower reported performance) than a member who perceives less conflict than the rest of the group, regardless of the mean level of conflict in the group.

Mediating Factors

We examine two potential mediators of the effects of individual conflict asymmetry on out-

comes: individual's perceptions of group atmosphere and social processes. Jehn and Mannix (2001) used the concept of *group atmosphere* to assess the positive attitudes and cognitions of a group's members about levels of trust, respect, and commitment in their group. Earlier, Konar-Goldband et al. (1979) used group atmosphere to examine individuals' perceptions of a positive team environment. Research suggests that a positive group atmosphere, as well as social processes such as cooperation and communication, influence performance and member satisfaction with groups (Costa, 2003; Kanawattanachai & Yoo, 2002; Konar-Goldband et al., 1979; Langfred, 2007; Mannix & Jehn, 2004). We propose that individual conflict asymmetry influences outcomes via member's attitudes and cognitions about their group (group atmosphere) and the social processes experienced (e.g., cooperation, communication).

Commitment to a group is a motivational attitude regarding the group that positively influences members' satisfaction with the group and performance (Mannix & Jehn, 2004; Marks et al., 2001). Motivation increases member effort and task focus (Weldon, Jehn, & Pradhan, 1991). Members who perceive less conflict feel more group commitment and team identification, which increases their satisfaction with the group. When members are committed to a group, they strive to keep it intact and to reach group goals, thus focusing on member retention and satisfaction in the group (Choi & Thompson, 2005; McGlynn, McGurk, Effland, Johill, & Harding, 2004; McGrath, 1984).

Conversely, members who perceive more conflict than the rest of their group may experience disrespect (Ellemers et al., 2004; Simon & Stürmer, 2005; Tyler, 1999), another aspect of group atmosphere, because their views and concerns about conflict are not validated (Burke & Stets, 1999; Swann, 1990; Swann et al., 2004). When members perceive more conflict than others and their view is not reciprocated, they can interpret this as a lack of respect for their opinions, and this interpretation will cause negative affect (e.g., Sleebos, Ellemers, & De Gilder, 2006), decreased positive attitudes toward the group (De Cremer, 2003; Simon, Lucken, & Stürmer, 2006; Simon & Stürmer, 2005), and impaired performance (e.g., Brief & Weiss, 2002; De Cremer, 2002).

The distrust that can arise from asymmetric perceptions will also negatively affect the individual outcomes of members (Costa, 2003; Costa, Roe, & Taillieu, 2001; Kanawattanachai & Yoo, 2002; Klimoski & Karol, 1976; Mannix & Jehn, 2004). If members of a group have different perceptions of reality (asymmetric perceptions) and therefore are not

likely to validate others' perceptions, trust decreases, and its positive effect on outcomes such as satisfaction with the group and performance will disappear (Kirkman, Rosen, Tesluk, & Gibson, 2004; Mannix & Jehn, 2004; Mathieu, Gilson, & Ruddy, 2006). Chambers and Melnyk (2006) found that during political discussions, members who perceived more disagreement trusted others less. Distrust in uncertain situations (e.g., asymmetry) can lead a person to infer that other members have sinister intentions (Simons & Peterson, 2000). These individuals will spend extra time and energy attempting to protect themselves, efforts that detract from constructive performance efforts (Salas, Sims, & Burke, 2005). In sum, the potential for members to perceive a positive atmosphere is lost when group members are unable to trust others, and this lack of a positive atmosphere interferes with members' effective functioning. Therefore, we predict that:

Hypothesis 3. Members' perceptions of group atmosphere (commitment, respect, trust) mediate the effect of individual conflict asymmetry on individual performance and satisfaction. That is, members who perceive higher levels of conflict in a group are less likely to experience a positive group atmosphere and are thus less likely to experience increased performance and satisfaction with the group than members who perceive lower levels of conflict.

The second set of factors that mediate the relationship between individual conflict asymmetry and outcomes are social processes such as cooperation and communication. We propose that when a group member perceives more conflict than others in a group, the member's involvement in effective group processes is inhibited. The cooperation and communication that are facilitated by shared mental models and allow members to function effectively (Cannon-Bowers et al., 1993; cf. Mason, 2006; Salas, Dickinson, Converse, & Tannenbaum, 1992) will be lacking for individuals who perceive more conflict than others in their group. Specifically, individuals who hold more negative views (i.e., perceive more conflict) are less likely to consider others cooperative (Taylor & Brown, 1988) and to respond effectively. Negative perceivers have a restricted capacity to process positive information and, because of the depressive quality of their negative views, are less able to perceive their experiences and communication with others as positive and cooperative. Their performance expectations thus decline (Felson, 1984; Greenwald, 1980; Isen & Daubman, 1984). Individuals in relationships who perceive more conflict are also often

dissatisfied because of their increased anxiety and distress about the future. They often display withdrawal behaviors (Campbell et al., 2005) and perceive that others do not respond positively to them. Research on intragroup conflict has shown that when group members perceive a high level of conflict, they are less likely to believe in the cooperation and communication of others in their group, and this decreases their satisfaction with the group and their performance (Pelled, 1996). Therefore, we predict:

Hypothesis 4. Experienced social processes (communication, cooperation) mediate the effect of individual conflict asymmetry on individual performance and satisfaction. That is, members of a group who perceive higher levels of conflict in the group are less likely to experience positive social processes, and they are thus less likely to experience increased performance and satisfaction with the group than members who perceive lower levels of conflict.

METHODS

Participants

We tested our hypotheses in 51 organizational work groups comprising 167 employees from nine engineering firms (82%) and four investment banks (18%). The 167 employees participated in an executive education introductory organizational behavior course in their actual organizational work groups. The class task that provided data for our study was the first class exercise the groups participated in during the course, and the topic of conflict was not discussed prior to the exercise in this course or in other courses the students may have been taking simultaneously. The mean group size was 3.29 (s.d. = .78);¹ 82.6 percent of the respondents were male; and 76.5 percent were Caucasian. The main functional areas represented were engineering (42.4%), finance (23.9%), information technology (22.2%), and administration (9.6%); performance on the study exercise did not vary by functional group. Given that our intention was to examine peer groups with no formal leaders, we conducted analyses that indicated that the group members in each group did not significantly differ on general employment status (i.e., job rank/title; part-time versus full-time employment status, years in a current business unit, years on a current

¹ There were 42 three-person groups, 6 four-person groups, 1 five-person group, and 2 six-person groups. Group size was thus controlled for in the analyses.

team, years of previous work experience (e.g., Bunderson, 2003; Yukl & Falbe, 1991), nor did the engineering groups differ from the investment bank groups on the variables in our model (e.g., engineering groups did not perceive more conflict, or more asymmetry around conflict, than did the investment banking groups, nor did they perform better on the task). All participants attended class and did the exercise in their organizational work groups; if members were missing, the entire group was excluded from the analyses. Given that these were preexisting work groups entering the course, we examined whether any preexisting conditions influenced the groups differently. For a subset of the sample (18%), we had data from a different study with variables similar to those in the current model; these variables, which were related to the teams' real organizational work, had been measured one month prior to the groups entering the controlled classroom situation. We found no significant differences on conflict, conflict asymmetry, group atmosphere, and social processes; this absence of significant differences indicated that our groups had interaction processes in the controlled experiment similar to those in their real work environment.

Procedures and Tasks

In the first class session, demographic data were collected. During the second session, employees participated in a logic task (Jehn & Rispens, 2008). The participants were informed that the exercise was a venue for them to develop their group process skills and that their performance would be assessed and rewarded (members of the three top-performing groups would be rewarded with logo T-shirts from a top-five business school).

We designed this logic/information-sharing task with the help of other employees of the participants' organizations (individuals who did not participate in the study) to simulate actual organizational tasks the work groups were currently involved in. In the investment banks, work groups had recently been assigned the task of deciding how a pool of money donated by employees should be distributed to different charities. Employees were asked to provide information about charities that they were aware of and cared about so that donations could be distributed to charities meaningful to employees. The combined information about the charities was then distributed to work groups who were to decide which charities would be funded and for what amounts. Employees in the engineering firms had recently gone through a similar charity distribution task. This task had required

that a work group member provide information that was known only to him/her, learn about other charities from other employees, determine and evaluate overall group interests, and allocate resources. Likewise, the logic task used in our study required participants to share information, determine and evaluate the overall relevance of that information, and make decisions about how to use the information. Group members were given pieces of information (some of which were shared and many of which were not) regarding hypothetical work group members and their job, skills, work responsibility, and preferred outside interests and had to match the correct member with the correct job, responsibilities, and so forth. The only way for the work group to come to their final answers was to share all of the information and discuss it in a way that enabled them to evaluate the total information and come up with a solution, as in the charity task (and other tasks) that groups in these organizations were often involved in. This type of task was thus familiar to employees and considered important by top management, who helped us design the task as a means for developing effective work group functioning.

Before groups started the exercise, they received introductory information regarding the logic task that they would be working on. Each group member received an equal number of unique clues regarding which of five employees had which job, which skills, which hobby, which work responsibility, and which charity preference; these clues were similar to those in the logic puzzles used in traditional "hidden profile tasks" (Stasser & Stewart, 1992), but more organizationally relevant. The group members had to exchange information from their clues (e.g., "One member's hobby is computer games," "Member D is not a financial analyst," "The member who is good at math is not responsible for making reports") to come to the correct solution about which job, work responsibility, and external interest belonged to which person. All participants were made aware that each group member had unique information and that information sharing was necessary to reach a group solution. There was no manipulation of the amount or content of information (i.e., these were held constant across all groups). Each group reported its solution on one "solution sheet"; thus, the result was a group outcome, rather than an aggregation of individual performance outcomes (Gibson, 1999; Quigley, Tekleab, & Tesluk, 2007).

Our goal with this task was to examine real work groups in a controlled setting performing a familiar task. We used this design for two reasons: (1) to have comparable objective group-level outcome

measures of a type we would not obtain when observing the groups in their “natural habitat” (i.e., comparable group outcome measures did not naturally exist in these organizations) and (2) to control for external circumstances in their work environment, such as organizational cultures promoting competition. For example, in competitive work environments employees are more likely to perceive conflict (Cohen, Birkin, Cohen, Garfield, & Webb, 2006) and the conflict variances leading to behavioral outcomes might be overshadowed by the environments. We structured the exercise so that it would provide an optimal solution with a range of low to high performance (McGrath, 1984). Thus, we could compare the groups on a common performance metric, which is often lacking in organizations. Performance was determined by the number of correct answers, or matches of the answer to the final solution set (a range of 0 to 30).

The task situation was also relevant for creativity as a dependent variable. For instance, there were a number of ways that group members could gather and aggregate information. Therefore, to complete the task, the groups needed to create procedures and, thus, there was the potential for them to generate new and useful ideas that would help them exchange meaningful information—that is, there was potential for creativity (Amabile, 1988; Nemeth et al., 2004; Pirola-Merlo & Mann, 2004). For example, one group created a mechanism for allowing members to talk uninterrupted for a specific amount of time by having a designated timekeeper who passed a pencil (or “talking stick”) to the member requesting to speak. The groups had 40 minutes to complete the task and were given notice when 5 minutes remained. In the following class session, groups were debriefed about the exercise and intentions of the study.

Measures

At the end of the exercise (before performance scores were reported), participants were asked to fill in a questionnaire containing items to assess conflict, group atmosphere, social processes, reported performance, and group creativity. All items were rated on a scale anchored by 1, “none,” and 7, “a lot.” We used Jehn’s (1995) scale of intragroup conflict to measure conflict. Five items were used to measure task conflict (e.g., “We fought about task matters”) and five items measured relationship conflict (e.g., “How much were personality clashes evident in this team during the exercise?”). Factor analysis with oblique rotation revealed two distinct factors with eigenvalues over 1 and factor loadings of .51 and above. The two factors matched

the distinction in conflict types found in past theoretical and empirical research (cf. De Dreu & Weingart, 2003), and thus we retained this distinction in our analysis. Cronbach’s coefficient alpha for task conflict was .82, and for relationship conflict it was .75.

Group conflict asymmetry. Following past research measuring concepts reflecting dispersion within teams (e.g., Dineen et al., 2007; Lindell & Brandt, 2000), we assessed group conflict asymmetry as the standard deviation among team members’ conflict scores (Harrison & Klein, 2007; Roberson, Sturman, & Simons, 2007). The larger the score, the bigger the differences in conflict perceptions of group members. Group conflict asymmetry ranged between 0.15 and 1.71 for task conflict asymmetry, and between 0 and 1.67 for relationship conflict asymmetry.

Individual conflict asymmetry. To assess the direction of the conflict asymmetry of individual group members, we followed a procedure of Jehn and Chatman (2000), who used a score based on the relational demography measure (Tsui & O’Reilly, 1989) to measure perceptual conflict composition (i.e., asymmetry of conflict perceptions). This measure uses the following equation: $[1/n \sum (x_i - k_j)]^{1/2}$, where x_i is the conflict score of a focal group member, k_j is the conflict score of group member j , and n is group size. This measure represents the asymmetric perceptions of a group member based on differences between his/her perceptions and those of each of the other group members. The original relational demography score created by Tsui and O’Reilly (1989) contains an absolute value operation. By deleting the absolute value in the above formula, we were able to create a directional score; a positive score means a member perceives more conflict than the other members in the group (i.e., he/she is a “high perceiver”) and a negative score means a member perceives less conflict than other members in the group (is a “low perceiver”). The individual conflict asymmetry values ranged between -1.60 and 2.15 for task conflict asymmetry and between -1.90 and 2.60 for relationship conflict asymmetry. We also conducted the individual variable analyses using centralized values and categorical variables (-1 = “low perceiver,” 1 = “high perceiver”), obtaining similar results, as would be expected.

Group atmosphere. We measured individual’s perceptions of the group atmosphere (i.e., positive attitudes and cognitions of group members about their group) using a ten-item composite measure adapted from Jehn, Greer, Levine, and Szulanski (2008) and containing questions about respect, trust, and commitment (e.g., Ellemers et al., 2004;

Simons & Peterson, 2000; Tidd et al., 2004). Items included “Even when we disagree, I respected my team members during this exercise,” “I had a high regard for the other individuals in this team during the exercise,” “In general, I respect my team members,” “I felt very committed to this group during the exercise,” “I like the other members of this group,” “I will talk up this team to my friends as a great group to work in,” “To what extent did you trust your team members during this exercise?,” “To what extent did you feel comfortable delegating important functions to your team members?,” “To what extent did you feel that your team members could be counted on to help you?,” and “To what extent were your team members perfectly truthful and honest with you?” These items all loaded on one factor, and the Cronbach’s alpha coefficient for this scale was .87 (a value similar to those found in past research on social processes using composite scores; see below). We thus used this aggregate scale, as have past researchers investigating states and group atmosphere perceptions (e.g., Jehn et al., 2008).² The range of values was 2.9 to 7.

Social processes. Social processes were measured with a four-item scale reflecting members’ cooperation and communication experiences in their group. Items included “Did team members openly communicate with each other?,” “Was there a lot of communication in your team?,” “To what extent were your team members helpful?,” and “To what extent were your team members cooperative?” The factor analysis showed a one-factor resolution, and the reliability of this scale was .89. Thus, as have past researchers examining work groups’ social processes, we used a composite measure (Molleman, 2005; Polzer, Crisp, Jarvenpaa, & Kim, 2006; Van der Vegt & Bunderson, 2005). The range of values was 1.5 to 7.

Objective group performance. Group performance was assessed by the objective outcome of the logic task the groups had to perform as a whole. Each group provided a single answer sheet to be scored (Gibson, 1999; Quigley et al., 2007). Each match shown on a group’s sheet (e.g., matching the right name to the right job) gave the group a point. When groups correctly matched all information

(connected the right names to the right jobs, work responsibilities, charities, and hobbies), they received the maximum number of 30 points.

Group creativity. Following McGlynn et al. (2004), we measured creativity at the group level with self-reports (Miura & Hida, 2004; Pearce & Ensley, 2004). Two items common in past research on group creativity were used to capture the groups’ levels of creativity and innovativeness (e.g., De Dreu, 2006; Kurtzberg & Mueller, 2005; Miura & Hida, 2004; Pirola-Merlo & Mann, 2004): “My group was very creative during this exercise” and “My team was very innovative during this exercise.” The Cronbach’s alpha for this scale was .82, and the values ranged from 2.33 to 6. Before aggregating the individual scores, we calculated ICC(1), the intraclass coefficient, for creativity. This statistic estimates the proportion of variance in a variable between groups over the sum of between- and within-group variance. The ICC(1) value was significant ($= .10$, $F[1,167] = 5.78$, $p < .001$). In addition, we also calculated the mean level of within-group agreement ($r_{wg(j)} = .70$). The values of both the intraclass coefficient and the mean level of within-group agreement justified aggregation to the group level (Bliese, 2000; Klein & Koslowski, 2000).

Satisfaction with team. Individual group members’ satisfaction with their team was measured with a three-item scale: “I was very satisfied working with this team,” “I was happy working with this group,” and “How much did you enjoy working on this task with your team members?” ($\alpha = .82$). The range on this variable was 1 to 7.

Individual reported performance. We measured group members’ reported performance with the following two items: “I performed very effectively on this logic exercise” and “I think I performed effectively” ($\alpha = .88$). Self-reports are commonly employed for this specific type of task (see Stasser & Stewart, 1992), and they have been found to be reliable indicators of reported and actual performance in past research examining individual performance on a group task (e.g., Bandura, 1997; Baron, Byrne, & Johnson, 1998). The range was 1 to 7.

Control variables. In the group-level analyses, we controlled for gender diversity (e.g., Jehn, Northcraft, & Neale, 1999; Joshi, Liao, & Jackson, 2006) and group size, following past research (Hechter, 1987; Liden, Wayne, Jaworski, & Bennett, 2004); at the individual level we controlled for gender, which was coded 1 for male and 2 for female (Deaux & Emswiler, 1974; Thomas, Thomas, & Schaubhut, 2007). To examine the effects of the asymmetry variables above and beyond the mean level of conflict within the group, we

² Given the theory on combined aspects of group atmosphere (Jehn & Mannix, 2001), the factor analysis results, the Cronbach’s alpha, and past conceptualizations of group states and processes, we chose to use the composite measure. Note, however, that post hoc analyses indicated that the results were not significantly different when each scale was used separately in the analyses.

controlled for the mean levels of task and relationship conflict.

RESULTS

Table 1 and 2 present the means, standard deviations, and correlations among the constructs at the group and individual levels of analyses, respectively.

Group Conflict Asymmetry

Recall that in Hypothesis 1 we predicted that group conflict asymmetry (the degree of dispersion in a group regarding conflict) would be associated with low group performance and creativity. The hierarchical regression results, which are presented in Table 3, partially support this hypothesis. High task conflict asymmetry was negatively associated with creativity ($\beta = -.39, p < .01$). The hierarchical regression indicated that this main effect of task conflict asymmetry explained a significant amount of variance in addition to that explained by the control variables, which included the mean level of conflict in the group ($\Delta R^2 = .33, p < .001$). There was no significant effect of task conflict asymmetry on performance. However, relationship conflict asymmetry was negatively associated with objective group performance ($\beta = -.58, p < .05$), and the hierarchical regression indicated that this main effect of relationship conflict asymmetry explained a significant amount of variance in addition to the control variables, again including the mean level of conflict in the group ($\Delta R^2 = .10, p < .05$). There was no significant effect of relationship conflict asymmetry on creativity ($\beta = -.27, p = .12$), although the sign of the regression coefficient was in the hypothesized direction and the overall equation was significant.

Individual Conflict Asymmetry

In Hypothesis 2, we predicted that group members who perceive more conflict than other mem-

bers in their group (individual conflict asymmetry) will be less effective than group members who perceive less conflict than the other members in the group. We conducted hierarchical linear modeling (HLM) analyses to test this hypothesis because the data were nested (i.e., individuals were nested within teams) (Bryk & Raudenbush, 1992; Hofmann, 1997; Hofmann, Griffin, & Gavin, 2000). Task conflict asymmetry was negatively associated with satisfaction with the team ($\gamma = -.22, p < .05$) and individuals' reported performance ($\gamma = -.34, p < .01$), supporting Hypothesis 2. Table 4 presents these results. That is, when group members perceived more task conflict than other members, they were less effective team members. Chi-square tests of the change in the deviance statistics between models with only the controls and the full models confirmed that including task conflict asymmetry significantly improved model fit for satisfaction with the team ($\chi^2 = 11.10, df = 3, p < .05$) and reported performance ($\chi^2 = 10.88, df = 3, p < .01$) over the effects of the mean level of conflict. Relationship conflict asymmetry was negatively associated with satisfaction with the team ($\gamma = -.21, p < .05$) and did not have an effect on reported individual performance ($\gamma = -.11, p = .19$).

Mediating Factors

We tested whether members' perceptions of their group's atmosphere mediated the relationship between individual conflict asymmetry and individual outcomes (Hypothesis 3) using the procedures suggested by Baron and Kenny (1986). First, perceiving more task conflict (independent variable) was negatively associated with the mediator of members' perceptions of their group's atmosphere ($\beta = -.17, p < .05$). Second, the results showed that perceiving more task conflict than other group members was negatively associated with our dependent variables: members' satisfaction with their team ($\beta = -.20, p < .05$) and reported performance

TABLE 1
Descriptive Statistics for Group-Level Study Variables^a

Variable	Mean	s.d.	1	2	3	4	5	6	7
1. Group size	3.27	0.78							
2. Gender heterogeneity	0.12	0.20	.38						
3. Task conflict	2.30	0.75	.30	-.11					
4. Relationship conflict	1.49	0.50	.20	.06	.60				
5. Task conflict asymmetry	0.33	0.18	.06	.15	.00	.07			
6. Relationship conflict asymmetry	0.28	0.20	.26	.19	.27	.63	.33		
7. Group performance score	16.44	3.03	.16	.05	.02	.19	.16	-.12	
8. Creativity	3.97	0.79	.30	.16	-.04	-.04	-.20	-.02	.17

^a $n = 51$ (groups). Correlations $\geq .27$ are significant at $p < .05$.

TABLE 2
Descriptive Statistics for Individual-Level Study Variables^a

Variable	Mean	s.d.	1	2	3	4	5	6	7	8	9
1. Group size	3.48	1.02									
2. Gender	1.83	0.38	-.42								
3. Task conflict	2.35	1.08	.25	-.06							
4. Relationship conflict	1.52	0.77	.11	-.09	.53						
5. Task conflict asymmetry	-0.13	0.97	.07	.05	.62	.22					
6. Relationship conflict asymmetry	-0.17	0.88	-.06	.06	.29	.58	.27				
7. Group Atmosphere	5.61	0.95	-.04	-.03	-.27	-.33	-.16	-.21			
8. Social processes	5.79	1.20	-.01	-.09	-.33	-.38	-.22	-.18	.69		
9. Reported performance	3.64	1.42	.12	-.11	-.01	.08	-.19	-.09	.16	.31	
10. Satisfaction with team	5.03	1.28	.02	-.06	-.30	-.27	-.20	-.17	.73	.62	.31

^a $n = 167$. Correlations $\geq .16$ are significant at $p < .05$.

($\beta = -.23$, $p < .01$). The effect of task conflict asymmetry on satisfaction with the team was fully mediated by members' perceptions of group atmosphere; that is, in the third step, when both task conflict asymmetry and group atmosphere were in the equation, the effect of task conflict asymmetry disappeared ($\beta = -.08$, n.s.) when group atmosphere perceptions ($\beta = .73$, $p < .01$) were included. The Sobel test indicated that the indirect effect of task conflict asymmetry via group atmosphere perceptions had a significant impact on satisfaction with the team ($z = -2.09$, $p < .05$). For individual reported performance, however, group atmosphere perceptions did not have a mediation effect. For conflict asymmetry regarding relationship conflict, perceiving more relationship conflict was negatively associated with positive group at-

mosphere perceptions ($\beta = -.21$, $p < .01$), and satisfaction was influenced by conflict asymmetry ($\beta = -.16$, $p < .05$); however, individual performance was not ($\beta = -.06$, n.s.). Perceptions of the group atmosphere were positively associated with satisfaction ($\beta = .74$, $p < .01$) when relationship conflict asymmetry was included in the equation (which became nonsignificant; $\beta = .00$, n.s.); thus, perceptions of a positive group atmosphere fully mediated the effect of relationship conflict asymmetry on satisfaction with the team. The Sobel test indicated that the indirect effects of relationship conflict asymmetry via group atmosphere perceptions on satisfaction with the team was significant ($z = -2.51$, $p < .05$). These results provide partial support for Hypothesis 3, in that members who perceived more conflict than others in their group

TABLE 3
Results of Hierarchical Regression Analysis for Group Conflict Asymmetry

Variables	Group Performance		Creativity	
	Task Conflict	Relationship Conflict	Task Conflict	Relationship Conflict
<i>Controls</i>				
Group size	.15	.11	.33	.30
Gender heterogeneity	.04	.05	.02	.06
Mean level of conflict in group	-.02	.14	-.14	-.14
R^2	.03	.05	.11	.11
F	0.43	0.68	1.85	1.78
<i>Main effects</i>				
Conflict asymmetry	.07	-.58*	-.39**	-.27
ΔR^2	.00	.10*	.33***	.30**
R^2	.00	.15	.44	.41
F	0.34	1.54*	6.82***	6.05**

* $p < .05$

** $p < .01$

*** $p < .001$

TABLE 4
Hierarchical Linear Modeling Parameter Estimates for Individual Conflict Asymmetry

Model and Variable	Satisfaction with Team				Individual Performance			
	Task Conflict		Relationship Conflict		Task Conflict		Relationship Conflict	
	γ	t	γ	t	γ	t	γ	t
<i>Group-level controls</i>								
Group size	-.11	(-0.68)	-.06	(-0.34)	.15	(0.79)	.10	(0.46)
Mean level of conflict	-.47**	(-3.06)	-.70**	(-2.94)	.07	(0.63)	.33	(1.16)
<i>Individual level</i>								
Gender	-.27	(-0.91)	-.37	(-1.24)	-.58	(-1.20)	-.58	(-1.30)
Conflict asymmetry (Hypothesis 2)	-.22*	(-2.21)	-.21*	(-2.01)	-.34**	(-2.73)	-.11	(-0.68)
Intercept	5.09***	(48.43)	5.10***	(48.32)	3.58***	(26.89)	3.60***	(27.35)
R^2 within-group variance ^a	.16		.10		.22		.07	

^a The within-group explained variance indicates how much within-group variance is accounted for by the conflict asymmetry constructs testing Hypothesis 2 (Marrone et al., 2007).

* $p < .05$

** $p < .01$

*** $p < .001$

experienced a less positive group atmosphere and thus were less satisfied with the group.

In Hypothesis 4, we predicted that social processes mediate the effect of individual conflict asymmetry on outcomes. We first established that *task* conflict asymmetry was negatively associated with the mediator of experienced social processes ($\beta = -.25, p < .01$). Conflict asymmetry regarding task conflict was also negatively associated with satisfaction with the team ($\beta = -.20, p < .05$) and reported performance ($\beta = -.23, p < .01$). The initial effects of task conflict asymmetry became nonsignificant for satisfaction with the team ($\beta = -.05, n.s.$) when social processes were included in the equation ($\beta = .61, p < .01$). The Sobel tests confirmed the indirect effect via social processes for satisfaction with the team ($z = -2.95, p < .01$). The initial effect of task conflict asymmetry on individual performance decreased ($\beta = -.19, p < .05$) when social processes ($\beta = .27, p < .01$) were added to the analysis, indicating partial mediation. This partial indirect effect via social processes on individual reported performance was confirmed in the Sobel test ($z = -2.34, p < .05$). Individual conflict asymmetry regarding *relationship* conflict was also negatively associated with the mediator of experienced social processes ($\beta = -.21, p < .01$). Second, satisfaction with the team ($\beta = -.16, p < .05$) was influenced by asymmetry regarding relationship conflict. We did not find an effect for reported performance ($\beta = -.03, n.s.$). Third, experienced social processes were positively associated

with satisfaction ($\beta = .69, p < .01$) when relationship conflict asymmetry was included in the equation, which became nonsignificant ($\beta = -.05, n.s.$) for satisfaction with the team; thus, members' experiences of effective social processes fully mediated the effect of relationship conflict asymmetry on satisfaction with the team. In sum, these results support Hypothesis 4; that is, when members perceive more conflict than others in their group (individual conflict asymmetry), they experience less positive social processes and, in turn, this decreases their satisfaction with the group and reported performance.

DISCUSSION

Most past research on groups, and conflict research specifically, rests on an assumption that the members of a group perceive the same reality within the group. We have shown that this is not the case and that it is critical that researchers investigate how the asymmetries in perceptions in groups influence group and individual outcomes. In a study of 167 individuals in 51 work groups, we found support for the hypothesis that when a group's members perceive different levels of conflict, demonstrating group conflict asymmetry, performance and creativity in that group are decreased. At the individual level, we found that conflict asymmetry exceeded the traditionally studied effects of mean group conflict level in predicting individual outcomes such as satisfaction

with a team and reported performance. Members who perceived less conflict than other group members were more satisfied and had more favorable perceptions of their performance than members who perceived more conflict than others in their group. This result suggests a more complex model of intragroup conflict than has previously been examined regarding the importance of asymmetrical perceptions of conflict within groups. Thus, we suggest that group conflict researchers not only consider the mean level of group conflict, as in past research (e.g., Amason, 1996; De Dreu & Weingart, 2003; Jehn, 1995), but also conflict asymmetry concepts framed at both the individual and group levels.

Theoretical Implications

Existing research on work group conflict has focused on whether different types of conflict are beneficial or detrimental in organizations (Jehn, 1995; Tjosvold, 2008) but ignored the idea that individual group members may have different views of the conflict in their group. Using theoretical arguments based in the literatures on within-group consensus, shared mental models, and collective cognition, our study expands research on organizational conflict and small group research to consider the different cognitions of individuals in groups. Our findings also add to the current but limited literature on differences of conflict perceptions in groups (Jehn & Chatman, 2000; Jehn et al., 2006), which, to date, has focused mainly on general group asymmetry (dispersion of members' perceptions regarding conflict) and not on the individual effects (high versus low perceptions) of conflict asymmetry. In this research, we introduce the concept of individual direction to the study of conflict asymmetry, arguing that individuals have very different attitudes, reactions, and behaviors if they perceive *less* conflict than others in their group, or if they perceive more than others.

These findings also extend the concept of positive illusions to a work group setting, suggesting that individuals with a more negative view of reality will report decreased performance and negative attitudes about their situation. This pattern is consistent with the work of Felson (1984) and Taylor (1988, 1994), which suggests that positive views enhance context-specific moods (e.g., satisfaction with work group), motivation, and persistence regarding continued work. The positive perceivers in our study also reported high levels of individual performance, therefore expanding the scope of positive illusion research to negative experiences in organizations, specifically, conflict in work groups.

To more thoroughly explicate the model of con-

flict asymmetry, we examined factors mediating between asymmetry and the effects on the individuals in the groups. Developing hypotheses from the literature on cognitive processing (e.g., Carnevale & Probst, 1998; De Dreu & Weingart, 2003; Staw, Sandelands, & Dutton, 1981) and positive group atmospheres and environments (Barrick, Bradley, & Colbert, 2007; Jehn & Mannix, 2001; Konar-Goldband et al., 1979; Marks et al., 2001; Tidd et al., 2004), we predicted and found that, in general, individuals who perceived higher levels of conflict did in fact also experience a more negative group environment (less trust, respect, and commitment within the group) than did members who perceived less conflict than their fellow group members. These negative perceivers (those with a more negative view of the level of work group conflict) also experienced less open communication and cooperation in their group, which in turn negatively affected their satisfaction with the group and reported performance. In keeping with most research on positive group atmosphere or states (e.g., Barrick et al., 2007; Jehn & Mannix, 2001; cf. Marks et al., 2001), we found that positive attitudes about a group enhanced an individual's satisfaction with working in the group. Thus, these findings expand the research on group atmosphere (i.e., members' attitudes and cognitions) and social processing in groups by examining the asymmetry of perceptions and the possible ways that perception asymmetry can influence group work.

Study Limitations

Although the use of actual organizational work groups in our study can be considered useful in that we could compare performance among real work groups (not often possible in the field), our design has limitations that we should point out. First, the level of "control" exhibited in this exercise (all groups conducting the same task and procedure) does not cover all aspects typical of experimental control, such as having a control group (Cook & Campbell, 1979). Although our intention was to take actual organizational work groups and put them in a situation in which we could thoroughly examine their interactions and comparable outcomes, the fact that our test situation was, essentially, a short-term "game" with no serious consequences limits the generalizability of findings. However, if the levels of conflict associated with this exercise are lower than those actually experienced on the job, the logic task used here offers a conservative test of the effects of conflict asymmetry. We did, however, find no significant differences for conflict and conflict asymmetry between

data for a subset (18%) of the sample collected one month earlier in the course of the teams' real organizational work and the data from the experimental game. In addition, the level of conflict found here is similar to those seen in past field studies of task (e.g., Li & Hambrick, 2005; Jehn & Mannix, 2001) and relationship conflict (Martinez-Moreno, Gonzales-Navarro, Zornoza, & Ripoll, 2009; Passos & Caetano, 2005). We designed the exercise, with the help of the sampled organizations, to simulate important processes and tasks in the organizations; however, a potential direction for future research to extend the generalizability of this study would be to examine the effect of asymmetry on outcomes for different tasks. For example, our study incorporated a distribution task with a set outcome (McGrath, 1984); if the task were more open-ended and uncertain, the effects on creativity might be more pronounced, allowing members more leeway in developing creative procedures and outcomes resulting from discussions developing from asymmetric perceptions.

In our study, most of our variables were collected at one point in time. Future research should also investigate the consequences over time in organizational work groups in natural settings to determine causality. In fact, longitudinal studies of conflict have suggested that groups possess different levels of agreement regarding task and relationship conflict at different periods of their group life, with asymmetry occurring especially at the beginning of a group's life (Okhuysen & Richardson, 2007). A longitudinal investigation would also allow researchers to examine the concept of emergent states in groups, which, although similar to the group atmosphere construct that we studied, includes an emergent aspect that may differentiate groups that are newly formed from groups that have had longer life spans. Therefore, it would be fruitful for group researchers to extend this research to examine emergent states and the influence of conflict asymmetry to groups in natural settings over longer time periods.

Another limitation of this study is the self-report methodology associated with many of the variables. However, to counter this potential biasing factor (Doty & Glick, 1998; Spector, 2006), we used constructed scores for our independent variables, group and individual conflict asymmetry, and we also had an objective group performance score (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). Given that we based the measures of creativity on past research using self-reports (Kurtzberg & Mueller, 2005; Miura & Hida, 2004; Pirola-Merlo & Mann, 2004), future researchers should attempt to

collect more objective measures of individual performance, as well as creativity.

Future Research

An important area of future research would be to examine the role of a group's leader and other issues of power and status within a group. We found that people perceiving less conflict were more satisfied and reported higher performance, yet matching this profile might not be an ideal situation for a leader. For instance, leaders who are not aware of potentially negative situations, such as unresolved conflict or differences in conflict perceptions among members, could face negative consequences. An asymmetric conflict, or a conflict beginning in the mind of one individual, that can be easily resolved while it is at an early stage, may be overlooked. We did examine whether members differed on classic employment status aspects (e.g., job level/title, years in current business unit, years on current team, years of previous work experience) and their tendency to perceive conflict differently, and we found no significant differences in this data set. Thus, members with high tenure and with high-level organizational jobs did not, on average, perceive more or less conflict than the other group members. We suggest, however, that future research examine this area more closely, especially given the research indicating that individuals at various power levels have different experiences in groups and may differentially influence other members (e.g., Galinsky et al., 2006; Guinote, Judd, & Brauer, 2002; Smith & Trope, 2006).

Future research on conflict asymmetry should also look more closely at the differences in task and relationship conflict asymmetry. We took a general approach to conflict, but there were differences in the effects of task and relationship conflict asymmetry. For instance, task conflict asymmetry (group-level dispersion around task conflict perceptions) decreased creativity, but relationship conflict asymmetry had a significant, negative impact on group performance. Even though we were able to examine this with a subset of groups, some of these effects could be a consequence of our design, which included real groups with a history of working together. Future research should attempt to disentangle these effects and to also investigate the interplay between task and relationship conflict (e.g., Simons & Peterson, 2000; Xin & Pelled, 2003) regarding asymmetric perceptions. We also suggest that future research use alternative or additional measures of task and relationship conflict (e.g., Barclay, 1991; Bradford, Stringfellow, & Weitz, 2004; Jehn et al., 2008; Pearson, Ensley, & Amason, 2002),

given the correlation often found between these two constructs in survey research. In addition, a concept that should be considered in future research is that of conflict *type* asymmetry (Jehn & Rispens, 2008). Conflict type asymmetry exists when perceptions about the type of conflict that exists are asymmetric; that is, one group member may perceive a conflict to be task-related, while another person perceives it to be a personal, non-task-related attack. These differing perceptions about the specific nature of conflict when members are involved in the same conflict situation, the attributions that members then make (e.g., Xin & Pelled, 2003), and how they subsequently react should be investigated in future research.

Furthermore, future research and theorizing should also examine the antecedents of conflict asymmetry. Why do group members differ in their perceptions of conflict level? Differences related to culture (Gelfand et al., 2001; Sanchez-Burks, Neuman, Ybarra, Kopelman, Park, & Goh, 2008), emotion (Campbell et al., 2005; Yang & Mossholder, 2004), motivation (e.g., De Dreu, Beersma, Stroebe, Euwema, 2006), and personality (Bono et al., 2002) have all been found to influence conflict perceptions. For example, Pelled (1996) found that group members who differed from other group members in gender perceived more relationship conflict than others. The greater the demographic differences between a group member and the rest of his/her group, the more likely it is that the individual employs out-group devaluations or in-group enhancements. Thus, we believe examining the demographic, cultural, and personality differences of group members is a fruitful area for future research investigating the antecedents of conflict asymmetry.

Another direction researchers could take would be to examine some of the constructs included in the group atmosphere concept more thoroughly as part of the mediating chain. For example, given the importance of the trust construct to conflict studies (e.g., Costa, 2003; Costa et al., 2001; Kanawattanachai & Yoo, 2002; Klimoski & Karol, 1976; Langfred, 2007; Mannix & Jehn, 2004; Simons & Peterson, 2000; Tidd et al., 2004), future research should focus more attention on trust as a specific mediator of the relationship between conflict asymmetry and outcomes.

Managerial Implications

The results of this study suggest several important concepts for managers and team leaders. Managers, group leaders, and even concerned group members should realize that their perception of what is occurring in their groups is not likely to be

shared by all group members. We suggest that a first step for managers and group leaders is to identify whether all group members are experiencing a given conflict equally, or whether members perceive the level of conflict differently. We have shown that in the same work situation, people can have very different perceptions. Thus, it is important that a group's leaders investigate the validity of conflict perceptions, without placing blame, to further understanding within the group and the future plans of the group. In addition, even only one group member perceiving conflict can have implications for an entire work group; members who perceive conflict may leave the group, decrease their involvement, or possibly attempt to persuade others that high levels of destructive conflict exist. This situation would have implications for individual employees as well. When employees experience a conflict, they should ask themselves whether other team members also perceive a conflict. Research on perspective taking, for instance, suggests that employees who can put themselves in another's shoes and imagine another's point of view, or perspective, will be more successful in their interactions (Galinsky, Ku, & Wang, 2005; Galinsky & Mussweiler, 2001).

In addition, there are also lessons to be learned regarding conflict management strategies. One of the first things a manager may need to do when hearing about or perceiving a conflict in a work group is to deal with the perceiver. The manager may not necessarily need to validate the view of the conflict perceiver but should ensure that the individual reacts to her/his own conflict perspective in a positive fashion. However, we also found that general group asymmetry (members perceiving different levels of conflict) does decrease overall group performance and creativity. This implies that conflict resolution strategies should include bringing conflicts into the open so that the "reality" can be agreed on and then dealt with. In fact, we found that it is better for all members to agree that there is a high level of conflict than to disagree about whether there is a conflict at all. When awareness and agreement exist, conflicts (and group members) are validated, and the resolution process can begin. When there is disagreement, the first order of business is to deal with the asymmetric perceptions and determine the cause of the conflict asymmetry.

In sum, we have suggested that past research has neglected individual discrepancies surrounding conflict perceptions. This oversight has important implications for both group and conflict researchers, as well as for employees in groups and organizations. This study has shown that the concept of differences in perceptions is a critical factor that

influences social processes, group atmosphere, and individual and group outcomes. Hopefully, future research will also take into account the view that individuals in the same group, in the same situation, do not perceive things the same way.

REFERENCES

- Amabile, T. 1988. A model of creativity and innovation in organizations. *Research in organizational behavior*, vol. 10: 123–167. Greenwich, CT: JAI Press.
- Amason, A. 1996. Distinguishing the effects of functional and dysfunctional conflict on strategic decision making: Resolving a paradox for the top management teams. *Academy of Management Journal*, 39: 123–148.
- Balkundi, P., & Harrison, D. A. 2006. Ties, leaders, and time in teams: Strong inference about network structure's effects on team viability and performance. *Academy of Management Journal*, 49: 49–68.
- Bandura, A. 1997. *Self-efficacy: The exercise of control*. New York: Freeman.
- Bandura, A. 2001. Social cognitive theory: An agentic perspective. In S. T. Fiske, D. L. Schacter, & C. Zahn-Wexler (Eds.), *Annual review of psychology*, vol. 52: 1–26. Palo Alto, CA: Annual Reviews.
- Barclay, D. W. 1991. Interdepartmental conflict in organizational buying: The impact of the organizational context. *Journal of Marketing Research*, 28: 145–159.
- Baron, R. A., Byrne, D., & Johnson, B. T. 1998. *Exploring social psychology* (4th ed.). Boston: Allyn & Bacon.
- Baron, R. M., & Kenny, D. A. 1986. The moderator-mediator variable distinction in social psychology research: Conceptual, strategic and statistical considerations. *Journal of Personality and Social Psychology*, 51: 1173–1182.
- Barrick, M. R., Bradley B. H., & Colbert, A. E. 2007. The moderating role of top management team interdependence: Implications for real teams and working groups. *Academy of Management Journal*, 50: 544–557.
- Beersma, B., & De Dreu, C. K. W. 2002. Integrative and distributive negotiation in small groups: Effects of task structure, decision rule, and social motive. *Organizational Behavior and Human Decision Processes*, 87: 227–252.
- Bliese, P. D. 2000. Within-group agreement, non-independence, and reliability: Implications for data aggregation and analysis. In K. J. Klein & S. W. Kozlowski (Eds.), *Multilevel theory, research and methods in organizations: Foundations, extensions and new directions*: 349–381. San Francisco: Jossey-Bass.
- Bono, J. E., Boles, T. L., Judge, T. A., & Lauver, K. J. 2002. The role of personality in task and relationship conflict. *Journal of Personality*, 30: 311–34.
- Bradford, K. D., Stringfellow, A., & Weitz, B.A. 2004. Managing conflict to improve the effectiveness or retail networks. *Journal of Retailing*, 80: 181–195.
- Brief, A. P., & Weiss, H. M. 2002. Organizational behavior: Affect in the workplace. In S. T. Fiske, D. L. Schacter, & C. Zahn-Wexler (Eds.), *Annual review of psychology*, vol. 53: 279–307. Palo Alto, CA: Annual Reviews.
- Bruner, J. S., 1957. On perceptual readiness. *Psychological Review*, 64: 123–152.
- Bryk, A. S., & Raudenbusch, S. W. 1992. *Hierarchical linear models: Applications and data analysis methods*. Newbury Park, CA: Sage.
- Bunderson, J. S. 2003. Recognizing and utilizing expertise in work groups: A status characteristics perspective. *Administrative Science Quarterly*, 48: 557–591.
- Burke, P. J., & Stets, J. E. 1999. Trust and commitment through self-verification. *Social Psychology Quarterly*, 62: 347–360.
- Campbell, L., Simpson, J. A., Boldry J., & Kashy, D. A. 2005. Perceptions of conflict and support in romantic relationships: The role of attachment anxiety. *Journal of Personality and Social Psychology*, 88: 510–531.
- Cannon-Bowers, J. A., Salas, E., & Converse S. 1993. Shared mental models in expert team decision making. In N. J. Castellan Jr. (Ed.), *Individual and group decision making: Current issues*: 221–246. Hillsdale, NJ: Erlbaum.
- Carley, K. M., & Krackhardt, D. 1996. Cognitive inconsistencies and non-symmetric friendship. *Social Networks* 18:1–27.
- Carnevale, P. J., & Probst, T. M. 1998. Social values and social conflict in creative problem solving and categorization. *Journal of Personality and Social Psychology*, 74: 1300–1309.
- Casciaro, T., Carley, K. M., & Krackhardt, D. 1999. Positive affectivity and accuracy in social network perception, *Motivation and Emotion*, 23: 285–306.
- Chambers, J. R., & Melnyk, D. 2006. Why do I hate thee? Conflict misperceptions and intergroup mistrust. *Personality and Social Psychology Bulletin*, 32(10): 1295–1311.
- Chan, D. 1998. Functional relations among constructs in the same content domain at different levels of analysis: A typology of composition models. *Journal of Applied Psychology*, 83: 234–246.
- Chatman, J. A., & Spataro, S. E. 2005. Using self-categorization theory to understand relational demography-based variations in people's responsiveness to organizational culture. *Academy of Management Journal*, 48: 321–331.

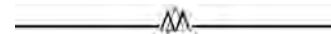
- Choi, H. S., & Thompson, L. 2005. Old wine in a new bottle: Impact of membership change on group creativity. *Organizational Behavior and Human Decision Processes*, 98: 121–132.
- Cohen, C. F., Birkin, S. J., Cohen, M. E., Garfield, M. J., & Webb, H. W. 2006. Managing conflict during an organizational acquisition. *Conflict Resolution Quarterly*, 23(3): 317–342.
- Colquitt, J. A., Noe, R. A., & Jackson, C. L. 2002. Justice in teams: Antecedents and consequences of procedural justice climate. *Personnel Psychology*, 55: 83–109.
- Cook, T. D., & Campbell, D. T. 1979. *Quasi-experimentation: Design and analysis issues for field settings*. Boston: MA Houghton Mifflin.
- Costa, A. C. 2003. Work team trust and effectiveness. *Personnel Review*, 32: 605–622.
- Costa, A. C., Roe, R. A., & Taillieu, T. 2001. Trust within teams, the relation with performance effectiveness. *European Journal of Work & Organizational Psychology*, 10: 225–244.
- Cronin, M. A., & Weingart, L. R. 2007. Representational gaps, information processing, and conflict in functionally diverse teams. *Academy of Management Review*, 32: 761–773.
- Deaux, K., & Emswiller, T. 1974. Explanations for successful performance on sex-linked tasks: What is skill for the male is luck for the female. *Journal of Personality and Social Psychology*, 29: 80–85.
- De Cremer, D. 2002. Respect and cooperation in social dilemmas: The importance of feeling included. *Personality and Social Psychology Bulletin*, 28: 1335–1341.
- De Cremer, D. 2003. How self-conception may lead to inequality—Effect of hierarchical roles on the equality rule in organizational resource-sharing tasks. *Group Organizational Management*, 28: 282–302.
- De Dreu, C. K. W. 2006. When too little or too much hurts: Evidence for a curvilinear relationship between task conflict and innovation in teams. *Journal of Management*, 32: 83–107.
- De Dreu, C. K. W., Beersma, B., Stroebe, K., & Euwema, M. C. 2006. Motivated information processing, strategic choice and the quality of negotiated agreement. *Journal of Personality and Social Psychology*, 90: 927–943.
- De Dreu, C. K. W., & Weingart, L. R. 2003. Task versus relationship conflict, team performance, and team member satisfaction: A meta-analysis. *Journal of Applied Psychology*, 88: 741–749.
- DeFillippi, R., Grabher, G., & Jones, C. 2007. Introduction to paradoxes of creativity: Managerial and organizational challenges in the cultural economy. *Journal of Organizational Behavior*, 28: 511–521.
- Dineen, B. R., Noe, R. A., Shaw, J. D., Duffy, M. K., & Wiethoff, C. 2007. Level and dispersion Of satisfaction in teams: Using foci and social context to explain the satisfaction-absenteeism relationship. *Academy of Management Journal*, 50: 623–643.
- Doty, D. H., & Glick, W. H. 1998. Common methods bias: Does common methods variance really bias results? *Organizational Research Methods*, 1: 374–411.
- Ellemers, N., Doosje, B., & Spears, R. 2004. Sources of respect: The effect of being liked by ingroups and outgroups. *European Journal of Social Psychology*, 34: 155–172.
- Felson, R. B., 1984. The effects of self-appraisals of ability on academic performance. *Journal of Personality and Social Psychology*, 47: 944–952.
- Ford, C., & Sullivan, D. M. 2004. A time for everything: How the timing of novel contributions influences project team outcomes. *Journal of Organizational Behavior*, 25: 279–292.
- Fu, J. H. Y., Morris, M. W., Lee, S. L., Chao, M., Chiu, C. Y., & Hong, Y. Y. 2007. Epistemic motives and cultural conformity: Need for closure, culture, and context as determinants of conflict judgments. *Journal of Personality and Social Psychology*, 92: 191–207.
- Galinsky, A. D., Ku, G., & Wang, C. S. 2005. Perspective-taking and self-other overlap: Fostering social bonds and facilitating social coordination. *Group Processes and Intergroup Relations*, 8: 109–124.
- Galinsky, A. D., Magee, J. C., Ena Inesi, M., & Gruenfeld, D. H. 2006. Power and perspectives not taken. *Psychological Science* 17: 1068–1074.
- Galinsky, A. D., & Mussweiler, T. 2001. First offers as anchors: The role of perspective-taking and negotiator focus. *Journal of Personality and Social Psychology*, 81: 657–669.
- Gelfand, M. J., Nishii, L. H., Holcombe, K., Dyer, N., Ohbuchi, K., & Fukumo, M. 2001. Cultural influences on cognitive representations of conflict: Interpretations of conflict episodes in the United States and Japan. *Journal of Applied Psychology*, 86: 1059–1074.
- Gibson, C. B. 1999. Do they do what they believe they can? Group efficacy and group effectiveness across tasks and cultures. *Academy of Management Journal*, 42: 138–152.
- Greenwald, A. G. 1980. The totalitarian ego: Fabrication and revision of personal history. *American Psychologist*, 35: 603–618.
- Guinote, A., Judd, C. M., & Brauer, M. 2002. Effects of power on perceived and objective group variability: Evidence that more powerful groups are more variable. *Journal of Personality and Social Psychology*, 82: 708–721.
- Hackman, J. R., & Wageman, R. 2005. A theory of team coaching. *Academy of Management Review*, 30: 267–287.
- Harrison, D. A., & Klein, K. J. 2007. What's the difference? Diversity constructs as separation variety, or

- disparity in organizations. *Academy of Management Review*, 32: 1199–1228.
- Hechter, M. 1987. *Principles of group solidarity*. Berkeley: University of California Press.
- Hinsz, V. B., Tindale, R. S., & Vollrath, D. A. 1997. The emerging conceptualization of groups as information processors. *Psychological Bulletin*, 121: 43–64.
- Hofmann, D. A. 1997. An overview of the logic and rationale of hierarchical linear models: Theoretical and methodological implications for organizational science. *Journal of Management*, 24: 623–641.
- Hofmann, D. A., Griffin, M. A., & Gavin, M. B. 2000. The application of hierarchical linear modeling to organizational research. In K. J. Klein & S. W. Kozlowski (Eds.), *Multilevel theory, research and methods in organizations*: 467–511. San Francisco: Jossey-Bass.
- Hojjat, M. 2000. Sex differences and perceptions of conflict in romantic relationship. *Journal of Social and Personal Relationships*, 17: 598–617.
- Isen, A., & Daubman, K. 1984. The influence of affect on categorization. *Journal of Personality and Social Psychology*, 47: 473–478.
- Jehn, K. A. 1995. A multimethod examination of the benefits and detriments of intragroup conflict. *Administrative Science Quarterly*, 40: 256–282.
- Jehn, K. A., & Bendersky, C. 2003. Intragroup conflict in organizations: A contingency perspective on the conflict-outcome relationship. In B. M. Staw & R. I. Sutton (Eds.), *Research in Organizational Behavior*, vol. 25: 187–242. Greenwich, CT: JAI Press.
- Jehn, K. A., & Chatman, J. A. 2000. The influence of proportional and perceptual conflict composition on team performance. *International Journal of Conflict Management*, 11: 56–73.
- Jehn, K. A., Greer, L. L., Levine, S., & Szulanski, G. 2008. The effects of conflict types, dimensions, and emergent states on group outcomes. *Group Decision and Negotiation*, 17: 465–495.
- Jehn, K. A., & Mannix, E. 2001. The dynamic nature of conflict: A longitudinal study of intragroup conflict and group performance. *Academy of Management Journal*, 44: 238–251.
- Jehn, K. A., Northcraft, G. B., & Neale, M. A. 1999. Why differences make a difference: A field study of diversity, conflict, and performance in workgroups. *Administrative Science Quarterly*, 44: 741–763.
- Jehn, K. A., & Rispens, S. 2008. Conflict in workgroups. In C. L. Cooper & J. Barling (Eds.), *Handbook of organizational behavior*: 262–276. Thousand Oaks, CA: Sage.
- Jehn, K. A., Rupert, J., & Nauta, A. 2006. The effects of conflict asymmetry on mediation outcomes: Satisfaction, work motivation and absenteeism. *International Journal of Conflict Management*, 17: 96–109.
- Joshi, A., Liao, H., & Jackson, S. E. 2006. Cross-level effects of workplace diversity on sales performance and pay. *Academy of Management Journal*, 49: 459–481.
- Kanawattanachai, P., & Yoo, Y. 2002. Dynamic nature of trust in virtual teams. *Journal of Strategic Information Systems*, 11: 187–213.
- Kirkman, B. L., Rosen, B., Tesluk, P. E., & Gibson, C. B. 2004. The impact of team empowerment on virtual team performance: The moderating role of face-to-face interaction. *Academy of Management Journal*, 47: 175–192.
- Klein, K. J., Conn, A. B., Smith, D. B., & Sorra, J. S. 2001. Is everyone in agreement? An exploration of within-group agreement in employee perceptions of the work environment. *Journal of Applied Psychology*, 86: 3–16.
- Klein, K., & Kozlowski, S. 2000. *Multilevel theory, research and methods in organizations*. San Francisco: Jossey-Bass.
- Klimoski, R. J., & Karol, B. L. 1976. Impact of trust on creative problem-solving groups. *Journal of Applied Psychology*, 61: 630–633.
- Klimoski, R. J., & Mohammed, S. 1994. Team mental model: Construct or metaphor? *Journal of Management*, 20: 403–437.
- Kluwer, E. S., & Mikula, G. 2002. Gender related inequalities in the division of family work in close relationships: A social psychological perspective. *European Review of Social Psychology*, 13: 185–216.
- Konar-Goldband, E., Rice, R. W., Monkarsh, W. 1979. Time-phased interrelationships of group atmosphere, performance, and leader style. *Journal of Applied Psychology*, 64: 401–409.
- Kurtzberg, T. R., & Mueller, J. S. 2005. The influence of daily conflict on perceptions of creativity: A longitudinal study. *International Journal of Conflict Management*, 16: 335–353.
- Langfred, C. W. 2007. The downside of self-management: A longitudinal study of the effects of conflict on trust, autonomy, and task interdependence in self-managing teams. *Academy of Management Journal*, 50: 885–900.
- Lawrence, B. S. 1997. The black box of organizational demography. *Organization Science*, 8: 1–22.
- Li, J. T., & Hambrick, D. C. 2005. Factional groups: A new vantage on demographic faultlines, conflict, and disintegration in work teams. *Academy of Management Journal*, 48: 794–813.
- Liden, R. C., Wayne, S. J., Jaworski, R. A., & Bennett, N. 2004. Social loafing: A field investigation. *Journal of Management*, 30(2): 285–304.
- Lindell, M. K., & Brandt, C. J. 2000. Climate quality and climate consensus as mediators of the relationship between organizational antecedents and outcomes. *Journal of Applied Psychology*, 85: 331–348.

- Lindenberg, S. 2006. How social psychology can build bridges to the social sciences by considering motivation, cognition, and constraints simultaneously. In P. A. M. Van Lange (Ed.), *Bridging social psychology: The benefits of transdisciplinary approaches*: 151–157. Hillsdale, NJ: Erlbaum.
- Major, B. 1987. Gender, justice, and the psychology of entitlement. In P. Shaver & C. Hendricks (Eds.), *Review of personality and social psychology*, vol. 7: 124–148. Newbury Park, CA: Sage.
- Mannix, E., & Jehn, K. A. 2004. Let's storm and norm but not right now: Integrating models of group development and performance. In E. Mannix, M. Neale, & S. Blount (Eds.), *Research on managing groups and teams: Temporal issues*, vol. 6: 11–38. New York: Elsevier.
- Marks, M. A., Mathieu, J. E., & Zaccaro, S. J. 2001. A temporally based framework and taxonomy of team processes. *Academy of Management Review*, 26: 365–376.
- Marks, M. A., Sabella, M. J., Burke, C. S., & Zaccaro, S. J. 2002. The impact of cross-training on team effectiveness. *Journal of Applied Psychology*, 87: 3–13.
- Marrone, J. A., Tesluk, P. E., & Carson, J. B. 2007. A multilevel investigation of antecedents and consequences of team member boundary spanning behavior. *Academy of Management Journal*, 50: 1423–1439.
- Martinez-Moreno, E., & Gonzales-Navarro, P., Zornoza, A., & Ripoll, P. 2009. Relationship, task, and process conflicts on team performance: The moderating role of communication media. *International Journal of Conflict Management*, 20: 251–268.
- Mason, C. M. 2006. Exploring the processes underlying within-group homogeneity. *Small Group Research*, 37: 233–270.
- Mason, C. M., & Griffin, M. A. 2003. Identifying group task satisfaction at work. *Small Group Research*, 34: 413–442.
- Mathieu, J. E., Gilson, L. L., & Ruddy, T. R. 2006. Empowerment and team effectiveness: An empirical test of an integrated model. *Journal of Applied Psychology*, 91: 97–108.
- Mathieu, J. E., Heffner, T. S., Goodwin, G. F., Salas, E., & Cannon-Bowers, J. A. 2000. The influence of shared mental models on team processes and performance. *Journal of Applied Psychology*, 85: 273–283.
- McGlynn, R. P., McGurk, D., Effland, V. S., Johll, N. L., & Harding, D. J. 2004. Brainstorming and task performance in groups constrained by evidence. *Organizational Behavior and Human Decision Processes*, 93: 75–87.
- McGrath, J. E. 1984. *Group Interaction and Performance*. Englewood Cliffs, NJ: Prentice-Hall.
- Milton, L. P., & Westphal, J. D. 2005. Identity confirmation networks and cooperation in work groups. *Academy of Management Journal*, 48: 191–212.
- Miura, A., & Hida, M. 2004. Synergy between diversity and similarity in group-idea generation. *Small Group Research*, 35: 540–564.
- Mohammed, S., Klimoski, R., & Rentsch, J. R. 2000. The measurement of team models: We have no shared schema. *Organizational Research Methods*, 3: 123–125.
- Molleman, E. 2005. Diversity in demographic characteristics, abilities, and personality traits: Do faultlines affect team functioning? *Group Decision and Negotiation*, 14: 173–193.
- Murray, S. L., Holmes, J. G., & Griffin, D. W. 1996. The benefits of positive illusions: Idealization and the construction of satisfaction in close relationships. *Journal of Personality and Social Psychology*, 70: 79–98.
- Nemeth, C. J., Personnaz, B., Personnaz, M., & Goncalo, J. A. 2004. The liberating role of conflict in group creativity: A study in two countries. *European Journal of Social Psychology*, 34: 365–374.
- Okhuysen, G., & Richardson, H. A. 2007. Group conflict as an emergent state: Temporal issues. In *Conflict in organizational groups: New directions in theory and practice*: 145–180. Evanston, IL: Northwestern University Press.
- Passos, A., & Caetano, A. 2005. Exploring the effects of intragroup conflict and past performance feedback on team effectiveness. *Journal of Managerial Psychology*, 20: 231–244.
- Pearce, C. L., & Ensley, M. D. 2004. A reciprocal and longitudinal investigation of the innovation process: The central role of shared vision in product and process innovation teams (PPITs). *Journal of Organizational Behavior*, 25: 259–278.
- Pearson, A. W., Ensley, M. D., & Amason, A. C. 2002. An assessment and refinement of Jehn's intragroup conflict scale. *International Journal of Conflict Management*, 13: 110–126.
- Pelled, L. H. 1996. Relational demography and perceptions of group conflict and performance: A field investigation. *International Journal of Conflict Management*, 7: 230–246.
- Pinkley, R. 1990. Dimensions of the conflict frame: Disputant interpretations of conflict. *Journal of Applied Psychology*, 75: 117–128.
- Pirola-Merlo, A., & Mann, L. 2004. The relationship between individual creativity and team creativity: Aggregating across people and time. *Journal of Organizational Behavior*, 25: 235–257.
- Podsakoff, P. M., MacKenzie, S. B., Lee, J. Y., & Podsakoff, N. P. 2003. Common method biases in behavior research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology*, 88: 879–903.

- Polzer, J. T., Crisp, C. B., Jarvenpaa, S. L., & Kim, J. W. 2006. Extending the faultline model to geographically dispersed teams: How collocated subgroups can impair group functioning. *Academy of Management Journal*, 49: 679–692.
- Polzer, J. T., Milton, L. P., & Swann, W. B., Jr. 2002. Capitalizing on diversity: Interpersonal congruence in small work groups. *Administrative Science Quarterly*, 47: 296–324.
- Quigley, N. R., Tekleab, A. G., & Tesluk, P. E. 2007. Comparing consensus- and aggregation-based methods of measuring team-level variables. *Organizational Research Methods*, 10: 589–608.
- Riordan, C. M. 2000. Relational demography within groups: Past developments, contradictions, and new directions. In G. R. Ferris (Ed.), *Research in personnel and human resources management*, vol. 19: 131–173. Greenwich, CT: JAI Press.
- Roberson, Q. M., Sturman, M. C., & Simons, T. L. 2007. Does the measure of dispersion matter in multilevel research? *Organizational Research Methods*, 10: 564–588.
- Salancik, G. R., & Pfeffer, J. 1978. A social information processing approach to job attitudes and task design. *Administrative Science Quarterly*, 23: 224–253.
- Salas, E., Dickinson, T. L., Converse, S. A., & Tannenbaum, S. I. 1992. Toward an understanding of team performance and training. In R. W. Swezey & E. Salas (Eds.), *Teams: Their training and performance*: 3–30. Norwood, NJ: Ablex.
- Salas, E., Sims, D. E., & Burke, C. S. 2005. Is there a “big five” in teamwork? *Small Group Research*, 36: 555–599.
- Sanchez-Burks, J., Neuman, E. J., Ybarra, O., Kopelman, S., Park, H., & Goh, K. 2008. Folk wisdom about the effects of relationship conflict. *Negotiation and Conflict Management*, 1(1): 53–76.
- Sattler, D. N., & Kerr, N. 1991. Might versus morality explored: Motivational and cognitive bases of social motives. *Journal of Personality and Social Psychology*, 60: 756–765.
- Searle, J. R. 1997. Précis of the construction of social reality. *Philosophy and Phenomenological Research*, 57: 427–428.
- Sherif, M. 1935. A study of some social factors in perception. *Archives of Psychology*, 27(187): 23–46.
- Simon, B., Lucken, M., & Stürmer, S. 2006. The added value of respect: Reaching across in equality. *British Journal of Social Psychology*, 45: 535–546.
- Simon, B., & Stürmer, S. 2005. In search of the active ingredient of respect: A closer look at the role of acceptance. *European Journal of Social Psychology*, 35: 809–818.
- Simons, T. L., & Peterson, R. S. 2000. Task conflict and relationship conflict in top management teams: The pivotal role of intragroup trust. *Journal of Applied Psychology*, 85: 102–111.
- Sleeboos, E., Ellemers, N., & De Gilder, D. 2006. The paradox of the disrespected: Disrespected group members’ engagement in group serving effort. *Journal of Experimental Psychology*, 42: 413–427.
- Smith, P. K., & Trope, Y. 2006. You focus on the forest when you’re in charge of the trees: Power priming and abstract information processing. *Journal of Personality and Social Psychology*, 99: 578–596.
- Smith-Jentsch, K. A., Campbell, G. E., Milanovich, D. M., & Reynolds, A.M. 2001. Measuring teamwork mental models to support training needs assessment, development, and evaluation: Two empirical studies. *Journal of Organizational Behavior*, 22: 179–194.
- Spector, P. E. 2006. Method variance in organizational research. *Organizational Research Methods*, 9: 221–232.
- Stasser, G., & Stewart, D. D. 1992. The discovery of hidden profiles by decision making groups: Solving a problem versus making a judgment. *Journal of Personality and Social Psychology*, 63: 426–434.
- Staw, B. M., Sandelands, L. E., & Dutton, J. E. 1981. Threat-rigidity effects in organizational behavior: A multilevel analysis. *Administrative Science Quarterly*, 26: 501–524.
- Steiner, I. D. 1972. *Group process and productivity*. New York: Academic Press.
- Swann, W. B., Jr. 1990. To be adored or to be known? The interplay of self-enhancement and self-verification. In E. T. Higgins & R. M. Sorrentino (Eds.), *Handbook of motivation and cognition*: 408–450. New York: Guilford.
- Swann, W. B. 1999. *Resilient identities: Self, relationships, and the construction of social reality*. New York: Basic Books.
- Swann, W. B., Polzer, J. T., Seyle, D. C., & Ko, S. J. 2004. Finding value in diversity: Verification of personal and social self-views in diverse groups. *Academy of Management Review*, 29: 9–27.
- Taylor, S. E., & Brown, J. D. 1988. Illusion and well-being: A social psychological perspective on mental health. *Psychological Bulletin*, 103: 193–210.
- Taylor, S. E., & Brown, J. D. 1994. Positive illusions and well-being revisited: Separating fact from fiction. *Psychological Bulletin*, 116: 21–27.
- Thomas, K. W. 1992. Conflict and negotiation processes in organizations: In M. Dunette & L. Hough (Eds.), *Handbook of industrial and organizational psychology*: 651–718. Palo Alto, CA: Consulting Psychologists Press.
- Thomas, K. W., Thomas, G. F., & Schaubhut, N. 2007. Conflict styles of men and women at six organization levels. *International Journal of Conflict Management*, 19(2): 148–166.

- Tidd, S. T., McIntyre, H. H., & Friedman, R. A. 2004. The importance of role ambiguity and trust in conflict perception: Unpacking the task conflict to relationship conflict linkage. *International Journal of Conflict Management*, 15: 364–380.
- Tjosvold, D. 2008. The conflict-positive organization: It depends upon us. *Journal of Organizational Behavior*, 29: 19–28.
- Totterdell, P., Kellett, S., Teuchmann, K., & Briner, R. 1998. Evidence of mood linkage in work groups. *Journal of Personality and Social Psychology*, 74: 1504–1515.
- Tsui, A. S., Egan, T. D., & O'Reilly, C. A. 1992. Being different: Relational demography and organizational attachment. *Administrative Science Quarterly*, 37: 549–577.
- Tsui, A. S., & O'Reilly, C. A. 1989. Beyond simple demographic effects: The importance of relational demography in superior-subordinate dyads. *Academy of Management Journal*, 32: 402–423.
- Tyler, T. R. 1999. Why people cooperate with organizations: An identity based perspective. In B. M. Staw & R. I. Sutton (Eds.), *Research in organizational behavior*, vol. 21: 201–246. Greenwich, CT: JAI Press.
- Van Boven, L., & Thompson, L. 2003. A look into the mind of the negotiator: Mental models in negotiation. *Group Processes & Intergroup Relations*, 6: 387–404.
- Van der Vegt, G. S., & Bunderson, J. S. 2005. Learning and performance in multidisciplinary teams: The importance of collective team identification, *Academy of Management Journal*, 48: 532–547.
- Van Lange, P. A. M., Kuhlman, D. M. 1994. Social value orientations and impressions of partner's honesty and intelligence: A test of the might versus morality effect. *Journal of Personality and Social Psychology*, 67: 126–141.
- Walsh, J. P., Henderson, C. M., & Deighton, J. 1988. Negotiated belief structures and decision performance: An empirical investigation. *Organizational Behavior and Human Decision Processes*, 42: 194–216.
- Weldon, E., Jehn, K. & Pradhan, P. 1991. Processes that mediate the relationship between a group goal and improved group performance. *Journal of Personality and Social Psychology*, 61: 555–569.
- Xin, K. R., & Pelled, L. H. 2003. Supervisor-subordinate conflict and perceptions of leadership behaviour: A field study. *Leadership Quarterly*, 14: 25–40.
- Yang, J. X., & Mossholder, K. W. 2004. Decoupling task and relationship conflict: The role of intragroup emotional processing. *Journal of Organizational Behavior*, 25: 589–605.
- Yukl, G., & Falbe, C. M. 1991. Importance of different power sources in downward and lateral relations. *Journal of Applied Psychology*, 76: 416–423.



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