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A Qualitative Analysis of Conflict Types and Dimensions in Organizational Groups

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This paper presents a multifaceted qualitative investigation of everyday conflict in six organizational work teams. Repeated interviews and on-site observations provide data on participants' perceptions, behaviors, and their own analyses of their conflicts, resulting in a generalized conflict model. Model evaluation indicates that relationship conflict is detrimental to performance and satisfaction; process conflict is also detrimental to performance; and task conflict's effects on performance depend on specified dimensions. In particular, emotionality reduces effectiveness, resolution potential and acceptability norms increase effectiveness, and importance accentuates conflict's other effects. Groups with norms that accept task but not relationship conflict are most effective. The model and the findings help to broaden understanding of dynamics of organizational conflict and suggest ways it can either be alleviated or wisely encouraged.*

In much of the previous literature conflict is generally deemed detrimental to performance and satisfaction (March and Simon, 1958; Pondy, 1967; Blake and Mouton, 1984). Thus, it is no surprise that today's managers and employees still overwhelmingly view conflict as negative and something to be avoided or immediately resolved (Losey, 1994; Stone, 1995). Recent studies, however, have examined the benefits of organizational conflict and methods for stimulating productive conflict (Tjosvold, 1991; Amason and Schweiger, 1994; Jehn, 1994, 1995; Van de Vliert and De Dreu, 1994; Pelled, 1996). For example, task-related management team conflict can improve organizational performance and growth through enhanced understanding of various viewpoints and creative options (Bourgeois, 1985; Eisenhardt and Schoonhoven, 1990).

Because a common goal is fundamental to task completion in groups, much past research on conflict and its resolution has concentrated on situations in which members have apparent opposing goals (Cosier and Rose, 1977; Kabanoff, 1985; Thompson, Mannix, and Bazerman, 1988; Eisenhardt and Schoonhoven, 1990). In a review of small group research, Levine and Moreland (1990) addressed research on social dilemmas, bargaining, and coalition formation, all of which assume a basic conflict of goals within the group. But in many organizational groups, group members largely agree about individual and group goals (McGrath, 1984; Kabanoff, 1985) yet they still find themselves in conflict. Kabanoff (1985: 114) suggested that people may have difficulty working together effectively, even when they generally agree on goals and "believe they should be working together," and that conflict "develops primarily from people's normal attempts to cooperate or coordinate their efforts." Even when group members work on the same project, have mutual interests in completing it, and similar ideas of how to complete the project, they still may experience conflict. Conflict theory and research has primarily focused on disagreements about ends, but conflict can just as easily occur about means, even when ends are shared, as they are in most organizational groups (McGrath, 1984). The means versus ends distinction provides a framework for examining various types

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of conflict that can occur in organizational groups (Simon, 1976; Tyler, Degoey, and Smith, 1996).

While most studies use survey methods (e.g., Dewar and Werbel, 1979; Jehn, 1995; Amason, 1996), I use observational and unobtrusive methods here to capture the sensitive dynamics of typical conflict. Although many classic qualitative studies of organizational behavior can be viewed as qualitative studies of conflict (e.g., Mintzberg, 1973; Pettigrew, 1973; Dalton et al., 1980), the research reported here uses the qualitative data to focus more directly on conflict and to construct a model of everyday organizational conflict. Using these methods, I develop a typology of conflict and a framework for studying its negative and positive aspects by demonstrating the connections between perceptions and actual behavioral displays of conflict and the performance of management teams and production groups.

A Synthesis of Current Models of Conflict

Types of conflict. Two types of conflict are predominantly studied in organizations. Guetzkow and Gyr (1954) proposed that both "affective" and "substantive" conflicts exist. Affective conflict refers to conflict in interpersonal relations, while substantive conflict is conflict involving the group's task. Priem and Price (1991) distinguished between cognitive, task-related conflicts and social-emotional conflicts, characterized by interpersonal disagreements not directly related to the task. Coser (1956) hypothesized goal-oriented conflict, in which individuals pursue specific gains, and emotional conflict, which is projected frustration with interpersonal interactions. Similarly, Pinkley's (1990) multidimensional scaling study uncovered a task-versus-relationship dimension of conflict. Jehn (1992), in a multidimensional scaling study of group conflict, found that members distinguish between task-focused and relationship-focused conflicts and that these two types of conflict differentially affect work group outcomes. There is an apparent distinction between task and relationship in these typologies similar to other organizational theories that distinguish between task and interpersonal dimensions of organizational life, such as leadership theories (e.g., task and relationship motivated leaders; Fiedler, 1978) and group functions (e.g., task accomplishment and relationship maintenance; Bales, 1958; Ancona and Caldwell, 1988). This division between task and relationship leads to different predictions about the effect of conflict on group outcomes.

Empirical research shows a negative association between relationship conflict, productivity, and satisfaction in groups (Evan, 1965; Gladstein, 1984; Wall and Nolan, 1986). Summarily stated, relationship conflicts interfere with task-related effort because members focus on reducing threats, increasing power, and attempting to build cohesion rather than working on the task. According to Deutsch (1969), relationship conflicts decrease goodwill and mutual understanding, which hinders the completion of organizational tasks. Time is often spent on interpersonal aspects of the group rather than on technical and decision-making tasks (Evan, 1965). The conflict causes members to be negative, irritable, suspi-

cious, and resentful. Chronic relationship conflicts can have serious detrimental effects on group functioning (Coser, 1956). To date, there has been no evidence of positive effects of relationship conflict on either performance or satisfaction.

Task-focused conflicts have been perceived as different from relationship conflicts by employees experiencing the conflict (Pinkley, 1990; Jehn, 1992) and have different effects on group and organizational outcomes (Guetzkow and Gyr, 1954; Kabanoff, 1991; Priem and Price, 1991; Jehn, 1994, 1995). Task conflict can improve decision-making outcomes and group productivity by increasing decision quality through incorporating devil's advocacy roles and constructive criticism (Cosier and Rose, 1977; Schweiger, Sandberg, and Rechner, 1989; Amason, 1996). Groups use members' capabilities and prior knowledge better when the conflict is task-focused, rather than when conflict is absent or relationship-focused. Recent research suggests that moderate levels of task conflict are constructive, since they stimulate discussion of ideas that help groups perform better (Jehn, 1995). Groups with an absence of task conflict may miss new ways to enhance their performance, while very high levels of task conflict may interfere with task completion.

While previous research has identified task and relationship conflict, theory on the interplay between the two is lacking. Every conflict contains a substantive message and often results in an interpersonal exchange relaying information about the relationship (Watzlawick, Beavin, and Jackson, 1967; Folger and Poole, 1984). It is possible that task-related conflicts may transform into relationship conflicts. For instance, if group members cannot agree on task issues, they may begin to dislike other members and attribute this task-related conflict to personality issues. It is difficult for individuals to present and receive criticism, and often the critic is blamed for the adverse reaction. Since most attributions are personal rather than situational (Ginzel, 1994), task conflicts are often perceived as personal attacks. To date, however, careful observation of the frequency of shifts from task to relationship conflict have not been reported. This study addresses this issue and attempts to build the transformation of conflict from one type to another into a general model of conflict.

Other conflict attributes. Emotions are an important element of conflict. They define individuals' subjective interpretation of reality and reactions to current situations. Conflict is often associated with stress and threat, which increase emotional responses and negative arousal (Thomas, 1992). Pinkley (1990), in a study of disputants' interpretations of conflict, found an intellectual vs. emotional dimension of conflict resolution frames. Disputants with emotional frames had feelings such as jealousy, hatred, anger, and frustration. When group members are in this emotional state, they tend to work less effectively (Argyris, 1962; Ross, 1989), because emotions overrun and oversimplify rational and instrumental reasoning (Thomas, 1992). The study reported here assesses the degree of negative emotionality associated with both relationship and task conflict and the effect this has on group performance.

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Much conflict research and theory has focused on conflict resolution (Brett, 1984; Brown, 1992; Lewicki, Weiss, and Lewin, 1992). Thomas (1992), for example, reviewed a number of conflict interventions and resolution tactics designed to eliminate conflict before it occurs (e.g., structural conditions) or during its early phases. While it is important to resolve negative forms of conflict (i.e., relationship conflicts), other productive forms of conflict (i.e., moderate task conflict) can lead to advantageous effects, such as enhanced decision making. In addition, some conflicts are easily resolved, while others escalate to destructive levels. This study investigates the degree to which conflict is resolved or escalated as a factor relevant to effective group functioning.

Group communication norms may also influence the effect of conflict (Pruitt, 1981; Jehn, 1995). Past theory suggests that some groups have more open norms toward conflict than other groups (Brett, 1991; Tjosvold, 1991). Members in these groups encourage one another to express their doubts, opinions, and uncertainties. Group norms control how conflict is perceived by members and how it affects group performance (Bottger and Yetton, 1988; Schweiger and Sandberg, 1991). Coser (1956) predicted that groups with open and direct expressions of conflict would be less likely to experience explosive conflict, while Jehn (1995) demonstrated that open norms around conflict increase the amount of negative and positive conflict within groups. This study incorporates qualitative methods to examine thoroughly the types of conflict norms within organizational groups and how they affect group performance.

Current models of group conflict also include the size or scope of the conflict issue (Thomas, 1992). Conflicts are perceived as more serious when they involve larger numbers of people, more events, or greater influence over future interactions. Peterson (1983) discussed the intensity, or importance, of conflict in interpersonal relationships as having a large impact on the ultimate outcome. Both Thomas and Peterson used size or intensity to refer to the importance of the conflict issue to those involved and provided reasons as to why the issue is important (e.g., numbers of people affected, interdependence of relationship). I also investigate the size and intensity of conflict as it affects group performance.

While the above dimensions of conflict have been included in various theories, the empirical literature represents a patchwork of studies with little emphasis on the interplay among the dimensions. This study, therefore, attempts to (1) identify and isolate a small set of basic types of conflict, (2) identify any common dimensions that are prevalent across types, and (3) determine how the types and dimensions of conflict affect group performance.

METHODS

I observed and interviewed six work units (two management teams and four production units) in the international headquarters of a household-goods-moving organization over a 20-month period to gather information about perceived and behavioral intragroup conflict, the causes and effects of con-

flict, as well as to reconcile contradictions in empirical research on the advantages and drawbacks of conflict. I analyzed the data using systematic interpretive techniques (i.e., linguistic text analysis, context ratings) to examine the impact of conflict on group performance. Using a number of qualitative procedures, I tested the validity of previous models of conflict types. Then I determined dimensions of conflict and analyzed how they relate to performance. In addition to using interviews and observation, I occasionally use data in this paper from a related survey to shed light on key questions that could not be addressed solely with the interview data.

Stage 1: Data Collection

Semistructured interviews. I conducted familiarization interviews with twenty-seven top-level managers to provide general information about the organization and the household-goods-moving industry. I then interviewed nineteen different managers and line supervisors from four divisions to select groups appropriate for this study. I chose six departmental units based on the following criteria: the individuals within each acted as a group, tasks were interdependent, the members identified themselves as a work group, and others, such as their supervisors and customers, recognized each as an interdependent group. In total, I conducted eighty-nine interviews with the twenty-one employees in these units. Table 1 describes the groups, members’ demographics, their tasks, and my contact with them.

In the Communication Unit members work interdependently to complete all communication-related tasks for the international division of the firm. They are responsible for tasks such as sorting and delivering mail, sending faxes and tel-exes, and monitoring the switchboard. Members are trained to do all tasks and are expected to share tasks as required throughout the day. The members of the Foreign Moves Unit and the Domestic Moves Unit code forms (e.g., weight codes, city and nation codes) and enter the information into

Table 1

Descriptive Statistics on Groups and Observation Time						
	International Moves	Designer Moves	Communication	Domestic Coding	Government Contract	Foreign Coding
Group size	4	3	3	4	3	4
Gender mix	MMMM	FFM	FFF	FFFM	MMF	FFFM
Average level of education (years)	17.25 (2.72)*	14.50 (.27)	14.50 (.27)	13.20 (2.12)	14.50 (3.13)	14.00 (1.60)
Average age (years)	46.70 (6.92)	32.10 (6.11)	33.00 (5.90)	35.00 (5.40)	42.50 (8.35)	43.20 (11.30)
Tenure with company	13.96 (7.10)	7.34 (.98)	9.10 (3.56)	3.89 (.40)	11.4 (5.56)	5.13 (2.13)
Task type (1 = nonroutine, 5 = routine)	2.61† (.24)	2.86 (.27)	2.58 (1.19)	3.22 (.26)	2.30 (.29)	3.90 (.31)
Interdependence (1 = low, 4 = high)	3.07 (.32)	3.18 (.90)	3.01 (.67)	3.13 (.46)	3.30 (1.11)	2.04 (.76)
Days spent observing the groups	64	49	98	75	52	66
Hours spent observing them	298	165	173	304	160	233

* Standard deviations are in parentheses below the means.
† Task type and interdependence ratings are from part of a larger survey study.

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a computer. In each unit, they share responsibility for the workload and exchange information about codes and formats of various forms. One group handles foreign destination moves and the other domestic moves. The fourth unit, the Designer Moves Unit, is responsible for designing moving services for "special" agents (high-volume or high-revenue moving agents). The other two units are management teams: one is responsible for departments that process international moves (International Moves Unit) and the other is responsible for departments that process government contracts (Government Contract Unit). Managers in these work units perform management activities (e.g., monitoring workers, scheduling), interact to complete projects, and perform activities similar to those of employees under their supervision.

I conducted three interviews with each unit member, with each interview ranging from 15 minutes to two hours in length. All interviews were carried out in private at the informant's workplace and were audio-recorded. The first interview with each informant was my first contact with that employee and was conducted in a nondirective style, asking general questions about a typical workday (Spradley and McCurdy, 1972). These questions built rapport with informants and formed a basis for subsequent, more focused interviews (Whyte, 1984). These initial interviews provided the basis for asking more sensitive questions about conflict (e.g., "What do you fight about?") in the later, more focused interviews.

The second round of interviews occurred simultaneously with the observation and were semi-focused, with questions about specific topics and research questions. For instance, I asked group members what types of problems or disagreements occurred in their work units. Because of the sensitive nature of conflict (Kolb and Putnam, 1992), I used special techniques to elicit information. For example, I asked questions about socially unacceptable or taboo attitudes or behavior in the third person. For example, I would tell the informant the following: "Let's imagine there is an employee in your work unit named Chris. How would Chris describe a conflict that has recently taken place in your work unit?" A question could also be worded as follows: "Describe a conflict that a typical employee in your work unit would experience," or "How would a typical employee in your work unit handle a conflict?" According to Alexander and Becker (1978), this technique protects the informant's identity and allows him or her to answer more openly. Burstin, Doughtie, and Raphaeli (1980) provided evidence that this technique provides more candid information about sensitive issues than does direct survey questioning.

Only during the third interview, as rapport grew, did I ask informants to identify and describe specific conflict situations in their group. In each of the units, a number of members independently identified and reported on the same conflicts. This increased the reliability of reports of the same conflict by a cross-check across informants (Taylor and Bogdan, 1984). I conducted one follow-up interview with each of the informants to clarify and validate their prior comments and to allow them to check the accuracy of my interpretations. I did five additional follow-up interviews (two with members of

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the Foreign Coding Unit, two with Communications, and one with Government Contracts) to make additional clarifications and confirm the data interpretation. I repeatedly stressed the confidentiality of the interview data. For example, when informants asked what others had said, I gave them no specific information. After the interviews were completed, I debriefed each informant and paid special attention to debriefing those informants who had revealed particularly sensitive conflict situations.

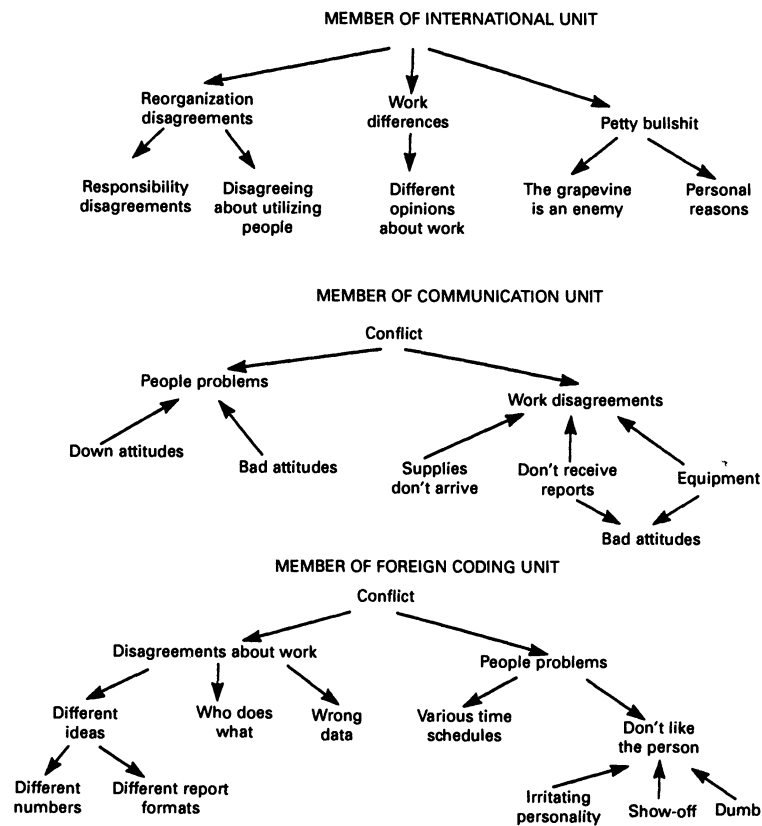
Tree diagrams. In the third interview session, I asked informants to draw tree diagrams in response to interview questions. Tree diagrams are used to investigate a number of different cognitive relationships (Werner and Schoepfle, 1987). The tree diagrams in figures 1 and 2 are examples of categorical, or taxonomic, tree diagrams drawn by my informants in response to elicitation questions I provided. Elicitation questions typically begin with "What kinds of. . ." or "What types of. . ." After showing an example of an elicitation question and resultant tree diagram unrelated to the type of work informants performed ("What type of breakfast foods are there?"), I provided them with a practice elicitation question: "What things do you use to get your work done?" Often, the informants would immediately begin to draw lines from the elicitation question to different categories, such as "people," "equipment," "forms." Then they would proceed to draw branches under each category. For instance, "people" would branch down to "my supervisor," "my co-workers," or "my friend in accounting." If the informant did not understand the process, I would draw the sample tree diagram and explain how each category can branch off into other terms or categories. I told the informants they could use any terms or categories they wanted and could continue branching until they could think of no more categories to include in the tree diagram. The diagrams are read by beginning the sentence at the arrow head. For example, in figure 1 the Communication Unit member's tree would read as follows: "People problems are a type of conflict" and "Work disagreements are a type of conflict." In total, I collected 126 tree models from the 21 informants in response to six elicitation questions ("Why do people dislike working in your work unit?"; "What types of conflicts occur in your work unit?"; "How are they handled?"; "What things are frowned upon in your work unit?"; "What problems occur in your work unit?"; "What tensions are there in your work unit?"). These questions elicited information about work unit conflicts and the group norms about conflict ("What things are frowned upon in your work unit?"; "How is conflict handled?").

I used the tree diagrams to investigate the group members' cognitive schemas surrounding conflict (Bougon, 1983; Gladwin, 1989). The trees drawn by the informants represent the way they categorized various situations and experiences. Asking informants to draw the models, or pictorial representations, elicits their descriptions of the types of problems, discussions, debates, disagreements, or conflicts that exist in the group in a less threatening manner than direct questioning or surveys (Bougon, Weick, and Binkhorst, 1977; Daniels, de Chernatony, and Johnson, 1995). This is similar

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Figure 1. Sample categorical tree diagram drawn in response to "What types of conflicts occur in your work unit?"

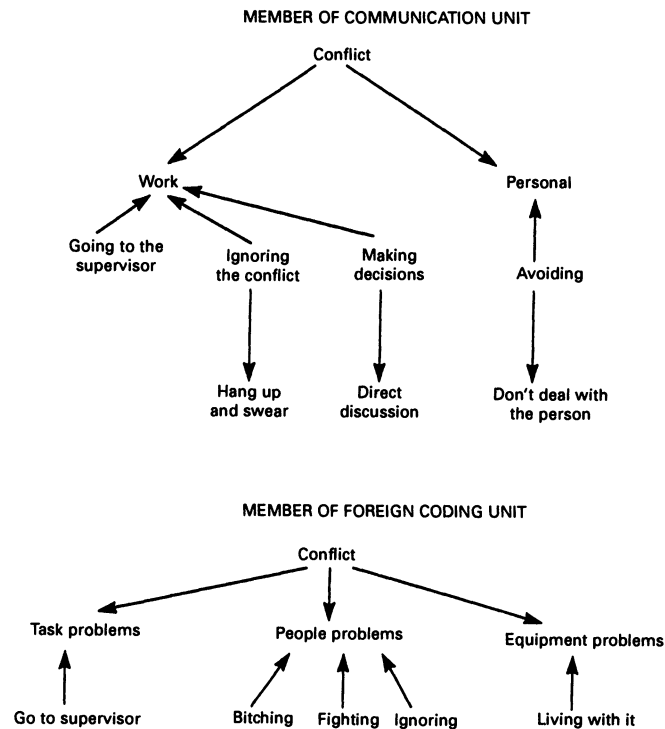


to cognitive mapping techniques used to investigate decision making (Axelrod, 1976) and other organizational phenomena in which individuals' thought processes and perceptions are under study.

I asked informants questions in follow-up interviews to check the reliability of the categorizations in their tree diagrams and the consistency with answers provided in the focused interviews. In the initial tree interviews, I listened and recorded information. The different tree elicitation questions about the same topic allowed me to see if the informant responded with similar diagrams: 88 percent of the responses were identical across the tree categorizations and the focused interviews; the other 12 percent differed primarily in including more detailed information in the tree. When I conducted the follow-up session, the informants found 100 percent accuracy in the resultant tree diagrams: the computer-drawn trees that I made from the informants' diagrams matched their original trees. In addition, a second rater outside of the organization judged the consistency of the initial tree diagrams and the final computer-drawn version.

In the final analysis, I examined the similarity of trees across work unit members by comparing the terms in each tree diagram and its placement in the tree. A term placed at the top of the tree is considered primary category placement, which indicates comprehensiveness, importance, and saliency of the term or category in an individual's memory (Gladwin,

Figure 2. Sample categorical tree diagram drawn in response to “How are conflicts/disagreements/problems handled in your work unit?”



1989; Jehn, 1992). I identified conflict categories (e.g., people problems, work disagreements) and then compared diagrams across individuals within groups to confirm that group members had similar representations and experiences of conflict (Gladwin, 1989). I considered terms used by the majority of group members as categories of group conflict. This helped me assess whether a conflict was perceived by the group or only by one member, and it allowed me to identify group norms about conflict (e.g., problems should be discussed), rather than assuming, as I would if the phrase were only mentioned by one member, that the phrase was more likely an individual value than a group-held norm. On average, there was 92 percent agreement on primary categories across members' trees within the same work unit.

Observation. I observed each of the six groups for a minimum of four hours each day of observation (one to two days per week for three to six months). I observed the groups on a rotating basis so that I saw each group at various times throughout the workday. Each unit worked together as an interdependent group between 48 and 62 percent of the day and the remainder of the day was spent on individual tasks. The group members were in proximity to each other between 77 and 92 percent of the time. I conducted a frequency histogram on all 108 groups in the organization and found that all six units ranked in the upper 90th percentile on task interdependence and percentage of the day spent working as a group.

I did not interfere in the day-to-day functioning of the work units and attempted to remain unobtrusive by sitting apart

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from the group and working on other, nonorganizational tasks while taking notes. I was blind to each unit's performance level. I wrote down all witnessed behaviors and general feelings. Transcriptions of field notes revealed a number of strong behavioral reactions to conflict, including quavering voices, crying, yelling, slamming doors and drawers, and withdrawal from the group.

Additional data sources. I used job descriptions, departmental workflow charts, and work unit procedure manuals as other sources of information. In addition, I gathered information about a work unit when a member of another work unit referenced the target work unit in his or her interview. For example, the members of the Domestic Coding Unit repeatedly stated: "We don't have as much conflict as the Foreign Coding Unit"; and "They're at each other much more than we are." I used this information as a cross-check of the interview data.

Stage 2: Data Interpretation and Categorization of Conflict Types

From the data, I constructed a preliminary typology of conflict based on the informants' tree diagrams. The work groups experienced a variety of conflicts that they categorized into distinct types in their tree diagrams. Of the 21 group members, all but two described two distinct types of conflict in response to the elicitation question, "What types of conflict occur in your work unit?"; task-focused work conflicts and people, or relationship-focused, conflicts. Of the two that did not identify both types of conflict in their tree diagrams, one member identified task conflict only, and the other mentioned only relationship conflict. The follow-up interviews with members provided 100 percent agreement with their initial categorizations.

I then read the interview transcripts from the later rounds of interviews repeatedly to identify instances of conflict as categorized by the informants' tree diagrams (Webb et al., 1966; Spradley and McCurdy, 1972; Taylor and Bogdan, 1984). Using the tree diagram categories as a guide, I compared these initial perceived categories of conflict to actual behaviors within each group (a conflict episode occurred on average once every eight hours). This was an iterative process to ground the category types and dimensions by moving across the three sources of data (interview, observation, tree diagrams) and past conflict literature (Miles and Huberman, 1984). Table 2 presents a summary of evidence from the data, indicating conflict types, dimensions, and supporting sources. Table 3 provides verbatim examples from the interviews and field observations.

Types of intragroup conflict. The distinction between two types of conflict is apparent in the tree diagram examples provided in figures 1 and 2. Members of the Communication Unit described conflict as "people problems and work disagreements" (fig. 1) and "work and personal" conflict (fig. 2). Members of the Foreign Coding Unit also distinguished between "disagreements about work" (fig. 1) or "task problems" (fig. 2) and "people problems" (figs. 1 and 2). Task conflicts that informants described (see table 3) pertained to controversy over the job or project the group was focusing

Table 2

Cross-Event Evidence of Intragroup of Conflict

Conflict type	Number identified	Confirmed by:			Same incident identified by two sources
		Interview	Observation	Trees	
Task	71	94%	78%	95%	96%
Relationship	42	86%	88%	95%	84%
Procedural	28	76%	92%	69%	57%
Conflict dimension	Number including				
Emotionality	74	66%	74%	77%	24%
Importance	87	78%	48%	33%	79%
Acceptability norms	62	45%	53%	83%	50%
Resolution potential	80	78%	80%	90%	79%

on, while relationship conflicts were based in animosity surrounding interpersonal relationships among coworkers. Substantive issues invoking task conflict often included differences of opinions and various viewpoints about the topic of interest or decisions. Relational conflict issues entailed problems members had with others' personalities or dispositions and did not focus on task issues. This task-relationship distinction provides support for previous models of organizational conflict.

In addition to perceiving two types of conflict when asked to recall scenarios of conflict, direct observation showed that members distinguished between task and relationship conflict when involved in the conflict. For instance, one member of the Designer Moves Unit was observed saying: "Hey, calm down, it's not about you, it's about this damn project"; and at another time stated: "I don't care if we agree, I don't like your attitude." It has also been demonstrated that independent observers can distinguish among the various types of conflict when they are actually occurring (Shah and Jehn, 1993). In Stage 3 of this study, independent raters also distinguished between task and relationship conflict.

The data revealed a third type of conflict, process conflict. The "reorganization disagreements" separated from "work differences" and "petty b.s." by the member of the international unit in figure 1 is an example of a process conflict. This conflict was further described as "responsibility disagreements" and "disagreeing about utilizing people" (fig. 1). I define process conflict as conflict about how task accomplishment should proceed in the work unit, who's responsible for what, and how things should be delegated. Process conflict includes disagreements about assignments of duties or resources. Members of the Foreign Coding Unit described process conflict as "disagreements about who does what" (fig. 1). In a follow-up interview, members of the Communication Unit described process conflicts about responsibility and resource delegation and suggested handling them by "going to the supervisor," "making decisions," and "direct discussion" (fig. 2).

I also observed numerous planning sessions in which group members ordered each other around, discussed credentials

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and capabilities, and assigned duties and work stations. There was a specific break in the group process upon termination of the planning phase, often punctuated by "OK, now let's get to work." This break between planning and actual task performance has been identified in past laboratory group research (Hackman and Morris, 1975; Weldon, Jehn, and Pradhan, 1991). Weingart (1992), in a study of fifty-six work groups, found that members planned task and resource allocation (e.g., process conflicts) as a component of group process distinct and separate from actual task-content discussions and behaviors (e.g., task conflicts).

Most research on task conflict looks at conflict over the ends rather than the means of performance and task accomplishment (Cosier and Rose, 1977; Schweiger, Sandberg, and Rechner, 1989; Jehn, 1995; Amason, 1996). In this study, unit members perceived causes, displays, and consequences of process conflict as uniquely and identifiably different from task conflict. The task conflict examples in table 3 illustrate that "people get irritated at each other about work matters" and "we usually fight about work things—interpreting our reports, disagreeing about government regulations." Process conflicts were about the means to accomplish the specific tasks, such as disagreements about "the composite of the team and who should do what," and how to utilize members and schedule tasks efficiently. Process conflict is similar to past organizational constructs such as distributive conflict (Kabanoff, 1991) or procedural complexity (Kramer, 1991). Kabanoff depicted distributive conflict as political contention about rules that dictate the allocation of material interests, while task conflict refers to the goals and ends of the group. Procedural complexity includes conflicts over group means such as the exchange of resources and role responsibilities (Kramer, 1991).

A small number of procedural (2.8 percent) and task conflicts (5.6 percent) identified in the tree diagrams escalated into relationship conflicts. This suggests that task conflicts can lead to relationship conflicts if they are not resolved. For example, a member of the Communication Unit indicated a feedback loop in his tree model (fig. 1) demonstrating that equipment problems (task conflict) led to bad attitudes and people problems (relationship conflict). Relationship conflicts were also manifested as task conflicts (1.5 percent). An example from the field notes elaborates this: "You know, I really don't like Bob, and I think I'm just going to trash every idea he comes up with in this meeting."

Dimensions of intragroup conflict. In addition to three conflict types, interpretations of the data suggested the presence of four conflict dimensions: negative emotionality, importance, acceptability, and resolution potential. Each of these dimensions applies to all types of conflict. Table 3 provides examples of these dimensions from the interview and observation data for each type of conflict.

Negative emotionality. The dimension of emotionality refers to the amount of negative affect exhibited and felt during the conflict. Past literature shows that affect includes a wide range of negative feelings and emotions (Lazarus, 1982; Fiske and Taylor, 1984; Zajonc, 1984; Park, Sims, and Moto-

Table 3

Episodes of Conflict Types and Dimensions

Conflict Type	Transcribed interview texts	Transcribed field notes
Task	<p>"Sometimes people get irritated at each other about work matters and at other times it's more about personal things not really work."</p> <p>"We usually fight about work things—interpreting our reports, disagreeing about government regulations."</p> <p>"We constantly fight about accounts and which numbers to use and how to interpret them. We really only fight about this work stuff."</p>	<p>The pace is so fast. They don't have time to deliberate so it's a constant give and take. It's very busy and they are all doing ten things at once yet they need to reach agreement on the border decision. They all voice their views and fight about the various aspects of the border control. It's amazing that they ever reach agreement at all.</p> <p>They got directions from their boss that conflicted with their directions from marketing. They began to discuss the problem but soon were in a fight about which viewpoint was right. They definitely took sides. The comments made were based on facts and figures about the delivery process, but it seemed that they focused on their area of expertise (operations or marketing).</p>
Relationship	<p>"Her attitude just stinks. It's a personality conflict in the first place. I'd rather be working for anyone else but her. I just can't stand her attitude and her voice. We just clash."</p> <p>"Like any situation, there are some of us that don't get along, and so we don't talk at all."</p>	<p>Two of the group members were fighting again. They argue back and forth about the commuting issue. It is a constant give and take with bickering back and forth which includes snide comments about their personalities (i.e., "You are so stupid, that makes no sense at all," "Only an idiot would say that!"). They are constantly bickering like brothers.</p> <p>They have totally different tastes. She makes fun of the way Craig dresses behind his back to Mary—Craig hears and stomps away only to come back later—"You look like you shop at the thrift store, and I don't mean that in a good way." They're at it again.</p>
Process	<p>"I don't think we have a lot of interpersonal problems, but we do have disagreements, like right now on this reorganization about how some of these teams are set up. There's some conflict on the composite of the team and who should do what."</p> <p>"And the net work is divided and there has been sometimes conflict on how that work is divided and who's responsible for what."</p>	<p>The group was discussing which operations would include Pat. They couldn't decide whether or not to include him in the task. They realized that they were never going to get on with the project: "Like I said from the start, it might be just all of us from the whole process deciding on an issue. I'm not sure if it's his responsibility to be included in this. He doesn't count on our budget." "I think Fred and Mary can complete it themselves. Why should we have Pat involved?" And so on.</p> <p>They could not agree on whether Joan should go on break or finish the mail. Jeff suggested that he finish the mail so Joan could go on break but Mary told him that he wouldn't be fast enough. They were having a big problem figuring out how to utilize their people and schedule breaks efficiently. Finally, Joan stayed to help Jeff and it took longer than when she usually did it alone. The next day they had the exact same fight about who should be doing what at this time of day.</p>

widlo, 1986). According to Russell and Fehr (1994: 186), "emotion includes anger, which includes rage, annoyance, and all other subcategories of anger." Other negative emotions I found in the data that indicate the emotionality level in conflicts and are consistent with past theory include frustration (Guetzkow and Gyr, 1954), uneasiness, discomfort,

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Table 3 (continued)

Conflict Type	Transcribed interview texts	Transcribed field notes
Emotionality	<p>"We've gone at it a couple of times over things. There is a lot of yelling and frustration. Emotions run high; people don't use their heads. (High level)</p> <p>"I can't understand how worked up I get. It makes my blood boil when she doesn't understand the figures. I find myself screaming. I am just so damned frustrated!" (High level)</p>	<p>There was a management team conflict about the current project and what vendor to go with. There was a lot of yelling and raised voices. Managers were standing upright and rigid sometimes pounding their fists, tapping pencils, or pointing fingers to make a point. The managers were very disturbed and agitated. (High level)</p> <p>One member is very moody. He tends to explode over very small things and then overlook things that are the real problem. He gets very worked up about things. The veins in his forehead stand out and he turns very red. Everyone around him gets agitated. (High level)</p>
Importance	<p>"... and I think it is going to have severe consequences so I'll voice my opinion. It's a very big disagreement and the conflict is a very important one." (High level)</p> <p>"Usually it's something small. Like you can say 'Fine, you're a jerk' today and come back tomorrow and brush it off like it never happened. Mostly it's no big deal." (Low level)</p>	<p>There was a very big problem today with the computer tapes. Everything went wrong and the tapes were done incorrectly for government reporting. The managers left immediately for Washington and there was a very big fight about it. (High level)</p> <p>The team was having a little discussion around the conference table about who ought to do this or that. They discussed certain joint features that might apply to both import and export and would fight for a while but resolve it within 5 minutes. It didn't have much impact on the group and the consequences were minor: "Why do we fight about this stuff anyway? No one cares!" (Low level)</p>
Acceptability	<p>"If a decision is being made, if someone is contemplating implementing a decision or a new process and a fight begins, we are all very openminded about it and encourage the discussion. The conflict helps us get everything about the issue out in the open." (High level)</p> <p>"Any kind of negative attitude is frowned upon and that means bringing up problems and fighting all the time. Bad attitude, uncooperative, general bad attitude is very bad, difficult and is discouraged. Otherwise people would be fighting like cats and dogs." (Low level)</p>	<p>One member frowned and shook his head when the other two went at it about the files again. He told them to quit fighting. He took one aside to talk about a phone call and discouraged him from fighting or discussing this again. (Low level)</p> <p>There is a morning ritual in this group. They come in and get coffee and talk about issues of the previous day. Today they were talking about the audit procedure problem that they spent most of the prior day discussing. Then Marge nudged Bobby and told him (with a smile on her face) to lay off the nasty comments about her car. (High level)</p>
Resolution potential	<p>"But they don't manage each other well, they don't want to attack a problem so it never goes away. When they should speak up to resolve this, they don't. They don't want to be bothered with it." (Low level)</p> <p>"It's something we've had problems with before so we know we can figure it out. It doesn't last long or cause many problems." (High level)</p>	<p>Two members went immediately to the procedure book to determine who was filling in the screen correctly. (High level)</p> <p>This fight has been going on for weeks. The structure doesn't allow for one of the team to leave and they just don't get along. The supervisor avoids the issue. They are dependent on one another to get their work done. It seems like it will never end. "This is hopeless. Why don't you just quit?" "I would love to. I can't stand this as much as you but I gotta work." (Low level)</p>

tenseness, resentment (Stearns, 1972), annoyance, irritation, fury, rage (Russell, 1978), reproach, scorn, remorse, and hatred (Allport, 1937). While many other emotions can be felt during a conflict episode (e.g., guilt, sadness, joy, delight; see Plutchik, 1962; Russell, 1978, for overviews), the above examples are those specifically demonstrated in this organi-

zational setting during conflict episodes. Behavioral manifestations of emotion by work members in this study included yelling, crying, banging fists, slamming doors, and having an angry tone. The data indicated that, regardless of the type of conflict, all emotions exhibited in response to conflict were negatively affective.

While it is easy to imagine the emotional component in relationship conflict, task and process conflicts can also contain high levels of emotion. Interestingly, during task and process conflicts, this level of negative affect is often present without interpersonal animosity. For instance, a manager might be angry because his idea does not get selected. He becomes frustrated and hostile. This emotion is not necessarily aimed at other individuals within the team but is focused on the process of selection or the task to which the idea is related. Examples from the observational data were statements such as "I'm not mad at you; I'm angry with the project," and "It's not you. I'm just frustrated that I can't explain myself clearly." Table 3 provides other examples of high levels of emotion in task and process conflict situations.

Importance. Other predictors of group performance, beyond the frequency or number of times conflict episodes occur within groups, are the size or scope of a conflict (Deutsch, 1969; Bagozzi, 1993; Russell and Fehr, 1994) and its duration. I label this dimension of conflict as its importance to the group. Group members often assessed whether the conflict pertained to an important issue. They would often state that the conflict was "a big deal" or important and distinguish between a "big fight" and "a little tiff." This often depended on the severity of the conflict's anticipated consequences. It did not depend on whether the consequences of the conflict were constructive or destructive, but whether the importance of the outcome to the group was great or small. If the conflict was about something of little importance, or a low level of magnitude, it was described as something that could be forgotten or remedied with little effort (see table 3). If the issue was of great importance, it was described as vital to the life and success of the group. A manager in the Government Contract Unit described one important conflict about a defense material transfer by saying, "We have a problem here and we have to deal with it. This is our life."

Acceptability. The acceptability dimension refers to group norms about conflict and communication. Group norms are standards that guide group members' behavior. When there were norms about the acceptability of conflict in a unit, it was acceptable to talk about the conflicts occurring. I found that in groups with acceptability norms about conflict, members willingly discussed problems and openly displayed feelings of conflict. In groups in which norms suggested that conflict was not acceptable, members tried to refrain from behaving in conflictful ways. The observation data provide examples in which members were told explicitly by others not to fight or engage in heated discussions (see table 3). In other groups, members were encouraged to have open discussions about work-related conflicts. The tree models drawn by members confirm the existence of supportive conflict norms in some groups (see fig. 2). The norms of accept-

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ability in the International Moves Unit promoted an open, healthy, constructive atmosphere around task conflict. This atmosphere permitted members to investigate various alternatives and to excel at their complex tasks.

The data suggest that acceptability norms are not general norms applicable to all types of conflict within the group, as past theory suggests (Brett, 1991; Tjosvold, 1991), but are particular and specific to the type of conflict. For instance, in the Government Contract Unit, the norms about relationship conflict were very unaccepting of open fighting ("Stop that; this isn't the place for that!"; "Leave that out of the office."), while the norms were very accepting of task conflict ("No way, you can't believe that would really work! We need to fight about this!").

Resolution potential. Resolution potential refers to the degree to which the conflict appears possible to resolve. Some conflicts are judged by group members as being more easily resolved than others. While past research focuses on whether conflict is actually resolved and how, the aspect of resolution relevant in this data set was the degree to which members believed conflict could be resolved: the resolution potential. The observations and interviews reveal that process conflicts could be solved easily by consulting a procedure manual or a group supervisor, and members perceived them as having a high degree of resolution potential (see table 3). Other conflicts were often perceived as more difficult to resolve, such as personality-based conflicts (categorized as relationship conflicts) or conflicts of great importance, such as strategic decision-making problems or top-level government reporting discrepancies. Factors that determined whether conflict was perceived as resolvable were similar to those reviewed by Wall and Callister (1995) and include the history of antagonism, potential costs, status differences, socialization, uncertainty, and the ability or inability to leave the situation (table 3). Conflicts of low importance and emotionality were often perceived as more readily resolvable than high-emotion, high-importance conflicts, regardless of conflict type. The main determinants of whether a member perceived a conflict as resolvable included characteristics of the members (e.g., past experience, personalities), group structure (e.g., interdependence, leader involvement), and dimensions of conflict (importance, emotionality, acceptability).

Stage 3: Analysis of the Components of Intragroup Conflict in Organizations

Three methods of analysis—content analysis, contextual ratings, and performance measurement—contributed to the formation of a model of intragroup conflict and performance.

Content analysis. Content analysis procedures include both general-text and keyword-context analyses (Werner and Schoepfle, 1987). The procedure systematically analyzes topics and themes from transcribed interviews and tree models by using a multistep procedure that involves developing categories for coding material content (Carney, 1972). To categorize the interview texts, I created keyword lists (a list containing words, often synonyms, relating to the variable of interest), using the thesaurus snowball technique developed

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by Jehn and Werner (1992). Examples of keywords for each construct are shown in the Appendix. Group frequency counts provided an indicator of how often terms relating to a specific variable were mentioned by group members. For example, I scanned the relationship conflict episodes in the Domestic Coding Unit for negative affect terms and found twenty-six mentions of terms such as upset, angry, and up-tight. This finding is reported in table 4 and corresponds to the frequency score of 26 in the "Emotionality" row of the "Relationship conflict" section in the Domestic Coding Unit frequency column.

Contextual ratings. The number of times a term is mentioned by an informant or a group is identified by frequency counts, but the meaning surrounding the term (e.g., a high or low level of relationship conflict) is not. Therefore, three research assistants and I read and coded the context surrounding each keyword (one to two sentences or a turn of speech) with a conflict episode rating (e.g., high task conflict, high process conflict; see table 3). The raters also provided an overall group rating by answering 7-point Likert-scaled questions, anchored by 1 = "None" and 7 = "A lot of" for each variable (e.g., "How much relationship conflict was present in this group?"). The average of the four ratings

Table 4

Text Analysis Frequencies and Contextual Rating Scores*

Variables	International	Foreign Coding	Designer Moves	Domestic Coding	Government Contract	Communication
<i>Relationship conflict</i>	1.50 (7)	5.00 (15)	1.00 (9)	2.50 (9)	2.50 (2)	7.00 (23)
Emotionality	1.5 (3)	7.0 (22)	2.8 (6)	7.0 (26)	1.0 (2)	5.0 (18)
Importance	1.0 (2)	5.0 (13)	2.5 (7)	6.5 (14)	1.5 (3)	4.5 (9)
Acceptability norms	1.3 (2)	2.0 (3)	4.5 (12)	1.3 (4)	1.0 (5)	6.0 (15)
Resolution potential	5.0 (8)	1.0 (5)	1.0 (3)	1.5 (4)	3.0 (1)	1.0 (2)
<i>Task conflict</i>	5.00 (17)	4.50 (16)	2.00 (1)	2.50 (2)	4.50 (8)	2.50 (4)
Emotionality	1.0 (6)	1.5 (3)	3.8 (2)	2.5 (5)	4.0 (12)	6.0 (17)
Importance	6.5 (16)	5.0 (6)	1.3 (2)	2.0 (0)	7.0 (19)	2.5 (10)
Acceptability norms	7.0 (9)	1.0 (3)	4.8 (9)	1.0 (0)	7.0 (10)	5.8 (11)
Resolution potential	6.0 (19)	1.0 (5)	1.0 (0)	2.0 (3)	6.5 (17)	2.0 (6)
<i>Process conflict</i>	2.50 (10)	2.50 (4)	1.50 (7)	2.50 (2)	6.00 (0)	3.50 (5)
Emotionality	1.5 (0)	2.8 (12)	1.3 (0)	5.8 (9)	1.0 (4)	3.0 (3)
Importance	5.0 (6)	4.5 (3)	4.0 (5)	6.0 (0)	2.0 (3)	4.8 (8)
Acceptability norms	6.5 (7)	1.0 (0)	4.0 (1)	1.5 (0)	7.0 (12)	2.5 (6)
Resolution potential	6.0 (12)	1.5 (2)	2.3 (3)	1.0 (1)	4.5 (24)	1.3 (1)
<i>Performance</i>	6.85	6.25	5.65	3.00	2.75	2.25

* Contextual ratings were done by four independent raters on the groups for each variable on a scale of 1–7. The number in parentheses is the group frequency count, which is the number of times a keyword was mentioned by all group members. The analyses are based on 141 episodes of conflict.

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for each group on each variable is the contextual rating. Each group's keyword contextual rating score for each variable and frequency scores are presented in table 4. For example, all four raters rated the Communication Unit as very high (7) on relationship conflict. Overall, the raters were very reliable, with the average interrater correlation equaling .93.

The contextual evaluation provided information that the frequency measure did not reveal. For example, relationship conflict terms may be mentioned quite frequently, but the frequency measure does not reveal whether employees are saying there are high or low levels of relationship conflict or characterize other aspects of the conflict, such as norms and emotionality. I asked the informants once again to verify our ratings of conflict by showing them the data and asking for their evaluations of our ratings. There was 89 percent agreement between the informants and our ratings. The context ratings of the interview texts correlate, on average, .78 with the directly observed level of conflict within each group and .88 with the self-report items that the informants responded to as part of the larger study.

Performance assessment. The productive and destructive aspects of conflict were assessed by relating a group's conflict score to its performance, using text analysis, tree models, contextual ratings, and performance measures. The across-group analysis was performed by comparing the trees, cases, and observation profiles of high- and low-performing groups. Actual group performance was measured by departmental production records and supervisors' ratings of groups as part of a larger, organizational study. The departmental production records had been developed by the company's Quality Assurance Department, had been used for over five years, and were updated biannually by systems analysts to maintain standardized performance measures. The company production measures consist of measures of actual output (number of forms entered, calls completed), error rates (number of mistakes in entering, misdelivered mail), and ratings of unit performance by users (customers, government contractors, other units that use the groups' output). Three groups were high-performing groups (International Moves, Foreign Coding, Designer Moves), and three were low performers (Domestic Coding, Government Contract, Communications) (table 4).

Conflict Type and Group Performance

The data suggest a systematic association between the conflict types and group performance. Excessive relationship conflict (e.g., in the Communication Unit) and excessive process conflict (e.g., Government Contracts) apparently led to very poor performance, and their impact may have been primary. The effects for task conflict become clear after considering relationship and process conflict first. Low-performing groups had higher levels of relationship conflict than high-performing groups (see table 4). Displays of interpersonal hostility (yelling, name-calling, throwing things at people) prevented productive work in the Communication Unit, which was inefficient and did not seem motivated to complete its tasks. Increased bickering and hostile behavior inhibited talking about and working on the immediate task (see table 3).

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Overall, even in this small sample, relationship conflict was negatively correlated with both performance and satisfaction.

Process conflict has largely been neglected in studies of conflict (see Kabanoff, 1990, for an exception). Results from this study show that members distinguish process conflict from relationship and task-oriented conflicts and that high levels of process conflict were detrimental to productive work processes: when a group argued intensely about who should do what, task completion took longer, members were bothered by the uncertainty that the conflict produced, and they often expressed the desire to quit or switch groups (see table 3). The Government Contract group, for instance, had the highest level of process conflict and was one of the worst performers in this set. Disputes over resources and responsibilities caused members to perceive unfairness, which may have decreased performance and also influenced their satisfaction with being a group member. Inconsistent task responsibilities interfered with efficient task completion and often fostered feelings of role ambiguity and increasing dissatisfaction, which can lead to turnover (Katz and Kahn, 1966). An across-group analysis corroborated these findings. For instance, the one major difference between the low-performing Government Contract Unit and the high-performing International Moves Unit was process conflict: both units had low relationship and moderate task conflict, but the Government Contract Unit had considerable process conflict, and the International Unit had almost none. A member of the government group said: "I think how to utilize people and how the structure should be . . . , at times who's responsible for what would probably be the major disagreement we have. It always interferes." Overall, the data indicate that high levels of process conflict interfered with performance by allowing group members to work at cross-purposes, by creating inconsistencies in task roles in the group, and generating time-management problems that sometimes resulted in failure to meet deadlines.

Despite the negative effects of process conflict, changes in job assignments and responsibilities were sometimes necessary and even boosted group productivity. For example, one member of the Foreign Coding Unit was better qualified to conduct a cost-benefit analysis than the group member who normally did these analyses. Once the group identified her as their most qualified cost-benefit analyst, they were able to finish the project more effectively. In this instance, disagreement about who should do what promoted the discussion of technical qualifications, which increased the likelihood that the most able person was assigned to the appropriate task. Small amounts of process conflict that were resolved by efficient duty assignments facilitated performance.

The International and the Foreign Coding units were the highest performing groups in the set (table 4) and had moderate to high levels of task-related conflict. Task conflict seems to have been beneficial by increasing constructive criticism, careful evaluation of alternatives, and realistic questioning of members' ideas and opinions (table 3). The members noted that task conflict increased "give and take," "voicing various views," and "fighting about which view-

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point is right.” This evidence tends to substantiate the general claim that task conflict can increase group performance in organizational groups (Bourgeois, 1985; Eisenhardt and Schoonhoven, 1990; Jehn, 1995; Amason, 1996). Less task conflict in this set of groups was related to lower performance. What these data do not document are the deleterious effects of high task conflict, observed in Jehn (1995) and numerous other studies (Bourgeois, 1980; Schwenk and Cosier, 1993; Amason and Schweiger, 1994). This latter effect seems well established, even if it was not observed in the groups in this study.

The array of data for each group in table 4 show that the International Moves Unit was a high-performing team with low levels of relationship and process conflict and high levels of task conflict, while the Communication Unit was a low performer with relatively high levels of relationship and process conflict and low levels of task conflict; the Designer Moves Unit, a high-performing group, had low levels of all types of conflict and was accepting of conflicts that did occur; the Domestic Coding Unit, a low-performing group, had emotional and serious relationship and process conflicts; and while the Government Contract Unit had a low level of relationship conflict, its unusually high level of process conflict may have undermined its potential excellent performance. The Foreign Coding Unit seems to be an anomaly, since it performed well in the face of considerable relationship conflict, demonstrating that this model of conflict, understandably, does not include all of the subtle determinants of work group performance.

Conflict Dimensions and the Relationship between Conflict and Performance

In addition to the three conflict types, different conflict dimensions had markedly different effects on the groups' performance. For example, almost all of the emotions that surfaced in my observations were negative. Thus, emotional conflict had a negative effect on performance and satisfaction, regardless of the type of conflict with which it was associated. High emotionality led members to lose sight of the task and to focus, instead, on the negative affect (see table 3). Defensiveness and blaming resulted. Over all the groups, more frequent expressions of emotion—in association with task, process, or relationship conflict—seemed to portend increasingly poorer performance. For instance, the International Moves Unit, the highest performer, rarely revealed negative emotion (it had an emotionality rating of 1.33), while the Communication Unit, the lowest performer, frequently did (its average was 4.67). Research on problem solving and learning behavior have similarly shown that intense expressions of emotion detract from cognitive processing and efficient group performance (Brehmer, 1976; Ryan, Connell, and Plant, 1990; Amason, 1996; Prussia and Kinicki, 1996).

Acceptability norms also appear to have influenced group performance, but their effects seem to depend on the type of conflict with which they were associated. Past research has not normally distinguished between norms about different types of group conflict (e.g., Brett, 1991; Tjosvold, 1991;

Jehn, 1995). Observations in this study suggest that acceptability norms vary within the same group, depending on the type of conflict that has surfaced. For instance, the high-performing International Moves Unit had group norms that promoted discussion and argument about task and process issues; it also had norms that discouraged interpersonal arguments. In the Foreign Coding Unit, the negative impact of relationship conflict was decreased by norms that discouraged relationship conflicts. Across the set of six groups, effective groups had high levels of task conflict and supportive, open norms about the discussion of task issues; they simultaneously held norms that were not accepting of open conflicts about relationship issues. The less effective groups (e.g., the Communication Unit) had considerable relationship conflict and norms that encouraged open discussion about it.

The perceived resolution potential of a conflict had a general, positive effect on performance and satisfaction. By comparing interview notes with actual observation, I observed that conflicts that had been described as having a high degree of resolution potential actually were resolved. For example, the Communication group described conflicts about faxing as easily resolvable because they could check the procedure manual, which they did repeatedly (see table 3). Thus, while task conflict facilitated performance in the International Moves Unit, the members' beliefs that their problems could be solved also contributed to their performance. This finding resonates with findings from research on organizational goals that high levels of performance result when goals are difficult yet attainable (Locke et al., 1981). In this study, group members seemed to be more motivated to deal with task conflicts if they considered them resolvable than if they felt there was less chance of resolution.

The importance of the conflict enhanced its effects on performance, whether the effects were positive or negative. For instance, importance had a greater positive impact on performance when the conflict was about task issues and a greater negative impact on performance when the conflict was about relationship issues. Also, important task conflicts were more likely to increase performance than were minor conflicts or concerns. Ineffective groups tended to have few task conflicts and rated them as relatively unimportant; instead, they experienced and rated relationship conflict as very important. For example, the low-performing Domestic Coding Unit had a relatively small number of relationship conflicts but rated them as very important. In contrast, the two highest performing groups, the International Unit and the Foreign Coding Unit, rated their task conflicts as very important.

Some of the conflict dimensions covaried. For example, highly emotional conflicts were perceived as less resolvable than less-emotional conflicts. The high-performing International Moves Unit, for instance, had low ratings of negative emotion on all three types of conflict and high ratings of resolution potential, while the low-performing Communication Unit had high ratings of negative emotion for all types of conflict and low ratings of resolution potential. Important conflicts often contained more negative emotion as the conflict escalated and the pressure to reach a satisfactory resolution increased, as in the low-performing Domestic Coding

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Unit, which had high ratings of importance and emotionality on relationship and process conflicts. The covariation between importance and perceived resolution depended on the type of conflict: the effective International Moves Unit had important task conflicts that were perceived as resolvable, while the ineffective Communication Unit had important relationship conflicts that were perceived as not resolvable. No consistent pattern surfaced between acceptability norms and the other dimensions, suggesting that open norms about conflict were not associated with negative emotionality, resolution potential, or level of importance.

AN UPDATED MODEL OF CONFLICT

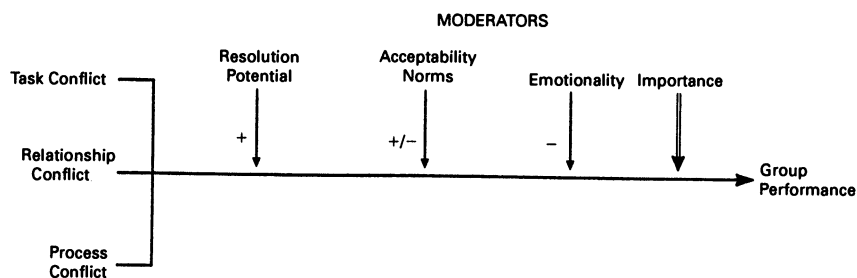
The results of this study provide support for an updated model of intragroup conflict. Three types of conflict—task, relationship, and process—were identified by observing groups and analyzing group members' perceptions. All three types were perceived as distinct and distinguishable by group members. Relationship conflicts focused on interpersonal relationships, task conflicts focused on the content and the goals of the work, and process conflicts focused on how tasks would be accomplished.

This research provides some of the first evidence of the existence of process conflict and its effects. Process conflict appears to have a direct negative relationship with group performance: low levels of process conflict are positively related to performance, while higher levels are increasingly detrimental to group performance. Past research often focused on conflict that arises over the specific ends of the group rather than examining conflict about the means by which those ends were reached. The groups in this study experienced both kinds of conflicts, over work content and over resource and duty allocation, which had different effects on performance. The highest performing groups had moderately high levels of task conflict and little or no process conflict.

I was also able to identify four distinct dimensions of conflict that moderate its impact on group performance: (1) negative emotionality was associated with poor group performance and low member satisfaction; (2) acceptability norms increased both the positive effect of constructive conflict and the negative effect of destructive conflict on group performance and member satisfaction; (3) resolution potential positively influenced the constructive effects of conflict on performance and satisfaction and decreased the negative effects; and (4) importance enhanced conflict's effects. This model is presented in figure 3.

Past research has suggested a curvilinear relationship between task conflict and performance, such that low levels of task conflict inhibit performance, moderate levels enhance performance, and high levels decrease performance (Jehn, 1995). The emotionality and resolution potential dimensions help us to understand this effect better by teasing apart the various aspects of task conflict and its effects. While moderate task conflict generally facilitates group performance, it can be dysfunctional when it includes strong negative emo-

Figure 3. A new model of group conflict and performance.



Note: The optimal profile for high-performance groups includes moderate task conflict, no relationship conflict, little or no procedural conflict, with norms that conflict is acceptable, perceptions that conflict is resolvable, and with little emotionality.

tion (e.g., anger, defensiveness) and perceptions that it is not resolvable (as exemplified by the Communication Unit).

Specific norms exist for each type of conflict within groups: a group might, for instance, have norms that promote discussion of task conflict and, at the same time, norms that discourage expressing or discussing relationship conflict. The data suggest that both of these norms can help enhance performance. Open and supportive norms about task conflicts seem to make groups more effective managers of their task conflict. The opposite is true for relationship conflict: groups with closed, defensive norms about relationship conflict are more effective than groups with open norms; supportive, open norms increase the number and the intensity of relationship conflicts in the group but inhibit group members' ability to deal constructively with it. The current data suggest that the optimal profile for high-performing groups includes important, moderate task conflicts, no relationship conflicts, little or no procedural conflict, with norms that task conflict is acceptable and resolvable and with little negative emotionality.

DISCUSSION

The first research question addressed in this study was whether past research has adequately identified the types of conflict that occur in actual organizational groups. The multiple methods of this study provide data that support a grounded theory of multidimensional intragroup conflict. Rather than examine conflict in mixed-motive groups, as past research predominantly has, this study examined conflict in common-goal groups, the type most commonly found in organizations. Conflicts of all types (task, relationship, process) were found, despite members' common purpose. Also unique to this study, the framework developed was based on perceived and actual behavioral displays of conflict.

Relationship conflicts focus on interpersonal relationships, task conflicts focus on the content and the goals of the work, and process conflicts focus on how the work gets done. Process and relationship conflict were detrimental to satisfaction and performance, while moderate to high levels of task conflict were positively related to group performance. This suggests that group performance is seriously affected by the type of conflict members are facing, a finding that is

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analogous to the distinction between strong and weak situations in the study of personality and situational effects in organizational behavior (Davis-Blake and Pfeffer, 1989). Strong, important conflicts led all group members to react in similar ways (taking into account the emotionality and resolution potential of the conflict), while weaker, less important conflicts allowed other, more subtle differences to surface and affect performance. Thus, future conflict and personality researchers might do well to examine weak conflicts, as well as examining the specific causes of conflict and what makes situations either weak or strong and what makes conflicts task, process, or relationship oriented. It may be that the interplay of personalities, demographics, and established group processes influences levels of trust, respect, and communication most when conflicts are weak, which may then affect the subsequent conflicts faced by organizational groups.

Since this study included observation of work units over time, I could observe whether conflict shifted among conflict types (e.g., from task to relationship conflict). At least in these groups, such shifts were evident but rare. Future research might examine these transformation processes in other contexts, as well as focusing on the effects of the various types of conflict on individual and group outcomes. Future research is especially important because the low number of conflict transformations identified in this study may be an artifact of the methodology—when a conflict changed form, it was typically coded as a new conflict. According to Deutsch (1969), conflict has a tendency to escalate and expand, often leaving the initial reason behind and forgotten. Members may begin to rely on threat and deception rather than the enhancement of mutual goodwill, understanding, and affable, intelligent discussion. This will certainly cause problems if task-related conflicts spring from interpersonal dislike and treachery, rather than from the reality and job dynamics of the work environment.

The dimensions uncovered (emotionality, importance, acceptability, resolution potential) were related to all three types of conflict. Task conflicts can be laden with negative emotionality (e.g., "That is a really, really stupid idea!") and relationship conflicts can be calm and void of emotion (e.g., "I just don't like you, that's all."). There is also interplay among the dimensions: very emotional conflicts were perceived as difficult to resolve and important conflicts often contained much negative emotion. This interplay has the potential for disaster unless members or managers are able to stop the escalation of conflict that can ensue when serious, emotional conflicts are not resolved.

Although fist fights and brawls are not frequent occurrences in most modern organizations, actual behavioral violence has "increased almost 200 percent in the American workplace over the past two decades" (Stone, 1995: 4). Less extreme instances and perceptions of conflict, like feelings of anger and hatred, are common organizational phenomena. Despite the prevalence of theories claiming the existence and importance of both behavioral and perceptual conflict (Pondy, 1967; Van de Vliert, Huismans, and Euwema, 1995), this study represents some of the first research that examines both behavioral displays and perceptual conflict to understand

the links between conflict and performance. The data reveal that organizational members have relationship, process, and task-related conflicts that can be highly emotional, can have little potential for quick resolution, and can be very important to the group's members. This can be a recipe for disaster if the conflicts are not brought under control and managed. The prescriptions that follow directly from this study are clear and in need of confirmatory research in other contexts: if group members and managers can understand the different types of conflict, as well as the consequences of negative emotions, perceived resolution potential, and importance, they can encourage open discussions of task conflicts and try to resolve relationship and process conflicts quickly. While research has begun to suggest ways to create productive conflict in organizations (Amason and Schweiger, 1994; Van de Vliert and De Dreu, 1994; Jehn, 1995), it remains clear that destructive conflict, fueled by interpersonal difficulties, process uncertainty, and negative emotion can undermine the potential benefits of group interaction. The model and the data presented here therefore lay some of the groundwork for future research on the effective management, stimulation, and resolution of organizational conflict in groups.

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APPENDIX: Examples from the Keyword List

(The "general conflict" terms listed below were those labeled as a specific conflict type only after found with one of the specific conflict words through a Boolean computer search that searches for two specified words within a set context, such as a sentence.)

General Conflict	fight	Emotionality	flexible	settle
agree	friend	abuse	frown	
alike	grumbling	affect	handle	
argue	hindrance	aggravate	ignore	Satisfaction
ask	personal	anger	norm	appease
challenge	personality	annoy	open	appreciate
compare	pressure	bitch	quiet	attitude
compete	problem	bitter	resolve	benefit
concern	relationship	bother	reward	cheerful
conflict	social	bullshit	secretive	comfortable
confusion	trouble	clash	value	content
consider		crazy		enjoy
contest	Task Conflict	discomfort	Importance	fun
contradict	differ	emotion	amplitude	glad
control	disagree	feel	amount	happy
counter	discuss	friction	big	like
decide	ends	frown	breadth	nice
differ	generate	frustrate	consequences	pleased
disagree	goals	fury	extent	positive
discuss	ideas	hate	great	satisfied
dispute	negotiate	hostile	huge	
disruption	opinion	irritant	little	Performance
diverse	perspective	irritate	magnitude	achievement
interpret	task	mad	nothing	appraisal
issue	viewpoint	moody	outcome	aptitude
misconception	work	negative	range	bad
misdirected		nuisance	result	competent
misinterpreting	Procedural Conflict	nuts	size	constructive
oppose	allocate	pissed	small	correct
problem	assign	rage		effective
split	delegate	remorse	Resolution Potential	efficient
trouble	direct	reproach	conclude	finish
yell	distribute	resentment	decide	good
	divide	scorn	determine	impress
Relationship Conflict	duty	screaming	fix	improve
backstabbing	means	screw	de-escalate	mistake
banter	order	stink	handle	perform
barb	organize	stress	impossible	profit
bicker	plan	tension	improve	productive
complain	procedures	uneasiness	manage	promoted
conflict	process	unprofessional	mediate	quick
destroy	reorganize	wrestle	mend	raise
destructive	responsibility		patch	recognition
difficult	schedule	Acceptability	reconcile	results
disgruntled	supplies	accept	rectify	reward
dislike	way	afraid	remedy	slow
disrupt	what	avoid	repair	success
enemy	when	close	resolve	terrible
fault	who	confidential	restore	useful
				worst