The fourth dimension: Status conflict in groups

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ABSTRACT

We argue that Jehn’s (1995; 1997) conflict trichotomy of task, relationship and process conflict missed a fourth fundamental type of group conflict, that which occurs over relative status positions. Using mixed methods with two samples of MBA student teams, we identify and determine the impact of status conflicts in task groups. We first qualitatively identify the characteristics of status conflicts when they occur independently or with a conflict that is ostensibly over tasks, relationships or processes. We next validate a three-item survey scale that distinctly measures status conflict. Finally, we determine that including status conflict along with task and relationship conflict in analyses of group performance and team member satisfaction both increases the explanatory power of the models and exerts a significant, negative main effect. Thus, some of the ambiguity in research on the effects of group conflict on performance may be resolved by recognizing status conflicts. In addition, emerging research on status contests will benefit from cohering around a single definition and measurement scale.
One of the most influential contributions to conflict and negotiation research in the past decade has been Karen Jehn’s three-factor group conflict scale.\(^2\) In her two seminal articles (Jehn, 1995, 1997), she demonstrates that work groups experience three distinct forms of conflict. Task conflict is disagreement over differences in ideas, viewpoints, and opinions pertaining to the group's task. Relationship conflict is disagreement resulting from interpersonal incompatibilities, which includes affective components such as feeling tension and friction. Process conflict is conflict about dividing and delegating responsibilities and deciding how to get work done. The key contribution of this work is that while relationship and process conflict have expected negative effects on group performance and satisfaction, under certain circumstances, task conflict positively affects performance.

Despite the enormous influence of this three-factor model and her measurement scales (see also Jehn & Mannix, 2001; Jehn, Northcraft, & Neale, 1999) it has also been widely criticized for several reasons. One critique is methodological: Task and relationship conflict are highly correlated with each other, and it is often difficult to distinguish process from task conflict (Behfar, Mannix, Peterson, & Trochim, 2008; De Dreu & Weingart, 2003b). Furthermore, since task and relationship conflict may transform into one another, it is unclear how distinct the conflict types are in practice (Simons & Peterson, 2000). Thus it is unclear if the three-factor model is superior to a two-factor one that includes only task and relationship conflict, and if the task and relationship conflict scales are tapping into unique, orthogonal conflict dimensions. Another critique is that the positive effect of task conflict on group performance has been inconsistently found in subsequent research. In De Dreu and Weingart’s (2003b) meta-analysis of research on the effects of task and relationship conflict generated between 1994 and 2001,\(^2\) Together, her two seminal papers have been cited 443 times (according to ISI Web of Knowledge as of 12/31/07) and the 1995 paper was twice awarded the Academy of Management Conflict Management Division’s prestigious Most Influential Paper award (2000 and 2004).
they determined that the average, corrected correlation between task conflict and group performance was -.23. Although there was substantial variation in correlations across studies, even considering the moderating effects of task complexity and the association between task and relationship conflict, no single correlation appeared positive. De Dreu and Weingart (2003a) and Jehn and Bendersky (2003) suggest numerous potential moderators that identify specific conditions under which task conflict may produce a positive effect on performance, but these contingency models also imply that the practical benefits of task conflict in groups are highly proscribed.

We posit that an alternative explanation for the inconsistent results is unobserved heterogeneity due to another type of conflict: Conflicts over status. Status is the esteem in which one is held by others (Anderson, John, Keltner, & Kring, 2001). As individuals strive for status relative to others, social hierarchies inevitably emerge in groups (Anderson et al., 2001). Although generally conceptualized as the automatic, local enactment of dominance and subordination behaviors based on the external cultural value of status characteristics (Ridgeway & Erickson, 2000; Tiedens & Fragale, 2003), recent research suggests that the emergence and maintenance of status hierarchies is an interpersonally contested, negotiated and evolving process (Overbeck, Correll, & Park, 2005; Polzer & Caruso, Forthcoming; Porath, Overbeck, & Pearson, In Press).

Thus, conflicts may arise in groups that relate directly to the relative position of individuals in the status hierarchy instead of or in addition to task, relationship or process issues. Furthermore, the impact of task, relationship and process conflicts on group performance and satisfaction may be different if they occur independently or if they act as a forum for challenging each other’s status position. For example, if I disagree with a teammate’s opinion regarding a
way to approach our task and offer an alternative idea supported by new information, that is a task conflict that could benefit the group’s performance. If, however, I disagree with a teammate’s opinion regarding our group’s task based on my having more credible or legitimate expertise than does my teammate, that is a challenge to my teammate’s status which may induce a defensive response and hurt our group’s performance.

Taking status conflicts into account may help clarify the effects of conflict on group outcomes. In this paper, we, therefore, explore four primary research questions: 1) What characterizes and distinguishes status conflicts from task, process and relationship conflicts? 2) Can status conflicts be measured distinctly from the other types of conflict? 4) Does the inclusion of status conflict in empirical analyses of group performance and satisfaction significantly increase the explanatory power of the models? And 4) does status conflict exert a significant independent effect on performance and satisfaction, controlling for other types of conflict?

Empirically, we use two samples of MBA student study groups that were exogenously formed by program administrators to maximize heterogeneity within groups and minimize it across them. The groups of four to six people were together for the duration of one 10-week academic quarter during which they worked together on group assignments, in-class exercises and individual assignments for between two and five required courses. Qualitative, process data were collected from the first sample of five teams for the duration of the 10-week quarter. Conflict episodes that occurred in every team meeting and intra-group email were transcribed and coded for task, relationship, process and status conflict. From this sample, we iterated a definition of status conflict, distinguished it from the other types of conflicts, and characterized it when it occurred in isolation and in combination with other types of conflicts. We developed
nine survey items based on these analyses. We then use our second sample of MBA students to validate a three-item measurement scale using both Exploratory and Confirmatory Factor Analyses (EFA and CFA). These analyses suggest that while status conflict is a reliable, distinct and valid scale, a three-factor model excluding process conflict better fits our data than a four-factor model that includes process conflict does. Finally, we test our hypotheses that the inclusion of the status conflict scale in our regression analyses would both exert a significant main effect on group performance and individual satisfaction, and would explain more variance than would models with only task and relationship conflict in them.

Our research, thus, contributes to the literatures on group conflict and status in several important ways. First, bringing status conflicts into consideration of group processes may help advance our understanding of the role of conflicts in group outcomes beyond highly proscribed contingency models. Second, identifying status as a contested issue in many groups advances research on status hierarchies that has generally considered them to be stable, rather than dynamic constructs. Third, validating a measurement instrument for studying status conflicts can help the numerous scholars who are starting to pay attention to status contests cohere on a common construct to complement each other’s research.

**INTRODUCTION OF STATUS CONFLICTS**

**Effects of Conflict on Performance and Satisfaction**

Early research on conflict within groups focused on its negative effects (Brown, 1983; Hackman & Morris, 1975; Pondy, 1967; Wall & Callister, 1995). Conflict can produce tension

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3 We are aware that it is sub-optimal to conduct EFAs and CFAs on the same data, and our intention is to do them on separate samples. At the time of the conference submission, we have only collected one sample and are in the process of collecting data from a second sample. In this submission, we are presenting our construct validation and hypotheses test results all from this single sample, but we will have completed our second survey and will conduct our EFAs on this separate sample prior to the IACM conference.
and animosity, and distract a team from the task at hand, thereby hindering team performance and team members’ satisfaction with the group. Much of this work analyzed conflict as a single construct, and empirical evidence provided support for the view that conflict was generally destructive.

Jehn’s work (1995, 1997) was a breakthrough in conflict research because she analyzed the effects of discrete types of conflict (e.g., task, process, relationship) on group processes and outcomes. In doing so, she found that task conflict could be productive. While all types of conflict were detrimental to member satisfaction, task conflict actually improved team performance. These results were congruent with other research indicating that divergent viewpoints within a group can improve decision quality by forcing members to take others’ perspective and stimulating creativity (e.g., Amason, 1996). Other research also indicates that team members with divergent views add greater value than team members with convergent views, and that teams whose members have incongruent preferences at the outset make better decisions than teams whose members are generally in agreement (Hollenbeck, Colquitt, Ilgen, LePine, & Hedlund, 1998; Hollenbeck et al., 1995; Schwenk, 1990). Consistent with the early conflict research, relationship and process conflict were not productive, and demonstrated negative relationships with performance and satisfaction (Jehn, 1997).

Evidence suggesting deleterious effects of conflict is preponderant in the literature, however. In their meta-analysis, DeDreu and Weingart (2003b) included 28 studies conducted between 1994 and 2001 and found consistently negative relationships between both task and relationship conflict and both satisfaction and team performance. The authors of these studies generally found that all types of conflict were more distracting than they were productive, despite the potentially beneficial effects of task conflict on deliberation of options. Furthermore,
Carnevale and Probst (1998) found that when team members anticipated conflict, they were less flexible and creative. Other research indicates significant positive correlations between task and relationship conflict and the tendency for task conflicts to transform into relationship conflicts (Simons & Peterson, 2000).

More recently, numerous scholars have published studies that attempt to uncover moderating variables that clarify the relationship between various types of conflict and performance (see Jehn & Bendersky, 2003 for a review). For example, level of task complexity was found to moderate the relationship between task conflict and performance, with more detrimental effects of conflict in teams facing more complex tasks (De Dreu & Weingart, 2003b). Shared identity (Hinds & Mortensen, 2005), diversity, team orientation and team processes (Mohammed & Angell, 2004), and group norms (Jehn & Bendersky, 2003) have also been investigated as potential moderators. For example, cooperative norms may serve to prevent task disagreements from being perceived as or escalating into personal attacks, while competitive norms can have the opposite effect (Amason, 1996; De Dreu & West, 2001; Lovelace, Shapiro, & Weingart, 2001; Simons & Peterson, 2000).

In addition, people’s attributions of the underlying motives for perceived conflict seem to impact conflicts’ effects. Simons and Peterson (2000) noted that task and relationship conflict are often highly correlated and suggested the relationship conflict might exist because task conflict that is potentially productive can transform into destructive relationship conflict. They found that a lack of trust within teams leads individual members to misattribute task conflict as being personal in nature, making it a likely trigger of non-productive or destructive relationship conflict. Tidd, McIntyre and Friedman (2004) also found that when individuals suspected ulterior motives behind a task conflict it is more likely to transform into more personal, relationship
conflict. Together, these studies demonstrate that people construe conflicts as serving different or multiple purposes. Conflict that is seemingly about the task at hand may be perceived as a veiled personal attack or in service of some other motive. Although these studies focus on task and relationship conflicts, we interpret them as supporting the idea that task, relationship and process conflict could serve as forums for sorting out a group’s status hierarchy.

**Status Hierarchies in Groups**

A substantial body of research suggests that task groups comprised of peers, i.e., those without a formal hierarchical structure, inevitably establish a social hierarchy (Bales, 1958). This process helps groups establish efficient decision making processes based on expectations regarding which group members are likely to be most capable at completing the group’s tasks (Berger, Rosenholtz, & Zelditch, 1980). Those who emerge with high status are more influential, credited with contributing more to the group than others, rewarded with information and resources that contribute to their individual performance (Friedkin, 1999; Lin, 1999), and evaluated more positively than are those with low status in the group (Berger et al., 1980).

According to expectation states theory, status is conferred based on task-related (specific), and more categorical (diffuse) personal characteristics (Berger, Cohen, & Zelditch, 1972; Berger et al., 1980; Berger, Zelditch, & Cohen, 1972). Expectations states theory says that external, social inequalities are instantaneously replicated in the group’s status order by affecting expectations about future performance. Task-related interactions reinforce the performance expectations, and once they emerge, expectations determine future interactions (Berger et al., 1980). Ridgeway and Erickson (2000) demonstrated empirically that enactment of the cultural valuation of specific and diffuse cues leads to the construction and propagation of the status hierarchy within a group.
Thus, although interpersonal interactions influence the development of status hierarchies, they tend to reflect and reinforce the relative cultural value of individual’s characteristics. Berger and colleagues (1972; 2002) suggest that more valued status characteristics are defined as superior and instrumental, which determines the level of participation and influence in the group. Initial expectations, and hence the status order, is, thus, “imported” from the broader social context. Very often, the constructed social structure is accepted by the disadvantaged party (Ridgeway, Boyle, Kuipers, & Robinson, 1998), who adopts complementarily submissive behavior and emotional displays (Tiedens, Ellsworth, & Mesquita, 2000; Tiedens & Fragale, 2003). Furthermore, initial status expectations are often reinforced by others (Berger, Ridgeway, Fisek, & Norman, 1998; Kalkhoff, 2005) who quickly learn about the hierarchy by observing initial displays of dominance and submission (Ridgeway & Erickson, 2000). Behaving in ways that are incongruent with ascribed status can have negative consequences. Those who over-estimate their status position, for instance, are sanctioned with low levels of social acceptance (Anderson, Srivastava, Beer, Spataro, & Chatman, 2006). A substantial body of sociological and social-psychological research, thus, suggests that status hierarchies emerge in groups through a socially constructed process of interpersonal interactions that tends to replicate and reinforce culturally valued status characteristics.

Yet people are not at the mercy of their demographics and task-related skills: They can and do take initiative to shape the hierarchy. Status orders may be delegitimated if expectations of performance become inconsistent with an established hierarchy (Berger et al., 1998). Empirically, some studies indicate that interventions that make individual’s task competencies appear inconsistent with their diffuse status characteristics can equalize the status and influence differentials in task interactions, with at least short-term persistence to other experimental tasks
(e.g., Markovsky, Smith, & Berger, 1984; Pugh & Wahrman, 1983). Certain types of people are more likely to seek status than others, independent of their demographic characteristics or expertise on a particular task. Specifically, individuals high in self-esteem and self-efficacy, and who have an internal locus of control are most likely to seek status (Anderson et al., 2001). Furthermore, these same individuals are likely to attain higher status as they are more likely to persevere on a task and less likely to yield to social pressures (Anderson et al., 2006). Thus, this research suggests that some individuals’ traits may encourage them to actively seek higher status than their diffuse and specific traits would predict they would achieve. They may, therefore, challenge a hierarchy that emerges based just on the characteristics identified by status characteristics theory. This may be accomplished by simply behaving in ways that are associated with high status (Tiedens, 2001; Tiedens & Fragale, 2003). Recent research suggests that status may be overtly challenged, too. In the event of a status challenge, the characteristics of the challenger, such as relative status, gender, and stereotypes affect the likelihood of that challenge altering the existing hierarchy (Porath et al, In press; Polzer & Caruso, forthcoming). In certain situations, therefore, a status challenge can result in a revised status order.

**Role of Status in Conflict**

Thus, status sorting processes are fundamental group dynamics in the types of teams that have generally been studied in the conflict literature. Nonetheless, status concerns and contests have not emerged as a conflict topic in the inductive analyses of conflict issues that have been previously conducted (Behfar et al., 2008; Jehn, 1997). This may be due to the automatic, implicit nature of status organizing processes making them less salient to observers and/or to the subtle nature of the construct (Anderson et al., 2001). Based on our review of the literature, we assert that status conflicts may be as ubiquitous and important to group dynamics as those over
While scholars are beginning to focus on challenges to existing status hierarchies, the mechanisms by which these changes occur remain relatively unexplored. Porath, Overbeck and Pearson (In Press) define a status challenge as an incivility, or a “low-intensity deviant behavior with ambiguous intent to harm the target in violation of workplace norms for mutual respect” (p. 5). This is certainly one way of challenging status but one can imagine other tactics used to negotiate greater esteem in the eyes of others. An individual can make self-aggrandizing statements to elevate his own status at others’ expense or engage others in arguments as a way of displaying superiority for other group members. Thus, our first research question is what characterizes status conflicts and distinguishes them from other types of conflict? Secondly, can we distinguish status conflicts that occur in isolation from those that occur as a component of task, relationship and process conflicts to develop our understanding of the processes that might be better explained by partialling them out?

Once we establish the parameters of status conflicts, we hypothesize that including them in our analytical models will increase their explanatory power beyond the variance associated with only task, relationship and process conflict. If the variance explained by task, relationship and process conflicts includes substantial noise due to unobserved status conflicts, then including them in the analyses should generate more precise estimates. Relative to models with only the previously-identified types of conflict, we hypothesize:

Hypothesis 1a: Including status conflict in our analyses will explain more total variance of group performance;
Hypothesis 1b: Including status conflict in our analyses will explain more total variance of individual satisfaction.

However, status conflict on its own will likely hinder team performance and satisfaction. As individuals assert their status interests by challenging or defending their status position, they may make suboptimal or even apparently irrational decisions that hurt the group’s task performance (e.g., Hambrick & Cannella, 1993). Much like relationship and process conflict, it should serve as a distraction from the task at hand and can fuel animosity and tension within the group. Status conflict also resembles competitive interdependence, wherein members of a group compete against each other for resources, making conflict more destructive (Alper, Tjosvold, & Law, 2000). Furthermore, Groysberg, Polzer, and Elfenbein (2008) demonstrated that individuals in groups with many high-status members easily become preoccupied with maintaining their status, leading to dysfunctional team processes. For these reasons, we hypothesize:

Hypothesis 2a: Controlling for other types of conflict, status conflict will exert a negative main effect on group performance;

Hypothesis 2b: Controlling for other types of conflict, status conflict will exert a negative main effect on individual satisfaction.

Finally, by accounting for previously unobserved heterogeneity, we anticipate that the relationships between the other types of conflict and performance and satisfaction will be clearer with status conflict in the model, such that task conflict will have a positive effect on group performance.

**STUDY 1: INDUCTIVE ANALYSIS OF STATUS CONFLICT**

In this first study, we sought to inductively explore the characteristics of status conflicts in task groups comprised of peers (i.e., without a formal hierarchical structure) where a status
hierarchy would likely emerge. Our *a priori* assumption is that conflicts over status are more implicit or less culturally acceptable to acknowledge than the other types of conflict, based on the fact that status conflict had not been identified by Jehn’s original qualitative work or recent research using participants to categorize conflict data (Behfar et al., 2008). We, therefore, used non-participant coders who might be more willing or able to recognize status conflicts than are the participants. We sought to understand 1) how status conflict is distinct from task, relationship and process conflict, 2) how it relates to the other types of conflicts and 3) with what frequency it occurs in isolation or in combination with different types of conflicts.

**Methods**

Participants. Participants are 25 full time MBA students at a West Coast University during their first quarter in the program. They are organized into five teams of five members each. 15 were men, 13 were Caucasian and they were 27 years old on average (s.d. = 1.88). On average they had 4.26 years (s.d. = 1.25 years) of post-graduate work experience.

Data. These five teams were closely tracked for the entire quarter. At the beginning and end of the quarter (after all course grades had been submitted), they ranked themselves and teammates on six status dimensions: status, influence, contribution, respectability, intelligence and social popularity. During the 10-week quarter, each team audio taped all team meetings, copied the lead researcher on all intra-team emails, permitted about one team meeting per week to be observed and participated in one-on-one interviews about their perceptions of the team processes. At the end of the quarter, we collected their final course grades as well as course syllabi so we know when assignments were due and roughly when they received their assignment grades.
For this paper, we excised conflict episodes from the transcribed team meeting recordings and intra-team emails. We defined a conflict interaction as perceptions of discrepant views or interpersonal incompatibilities (Jehn, 1995). We distinguish conflict from a discussion directed at clarification based on the heightened emotional intensity or tension between participants. A conflict incident involves a single set of participants talking about a single topic. When the topic or participants change, a new conflict incident begins. This definition resulted in 259 total conflict episodes.

Coding process and scheme. We iteratively developed our coding scheme using the team with the most change in its status order, based on mean Spearman’s correlations of the time one and time two rank orders for each of the six status dimensions. We used this team for developing our coding scheme because the ranking data suggested it was likely to have the highest levels of status based conflicts. We then coded the other four teams with the final protocol.

We considered each conflict episode in terms of Jehn’s (1997) definitions of task, relationship and process conflict, then discussed episodes that seemed not to fit one of the categories and/or appeared to involve issues in addition to those covered by Jehn’s definitions. After multiple iterations, we defined status conflict as an attempt to modify or challenge the implicit or explicit status hierarchy, usually by asserting superior legitimacy of a viewpoint, attempting to gain influence or assert dominance relative to others, or devaluing another’s contributions. In addition, we identified some qualifications and boundary conditions to help distinguish status conflicts from other types of conflicts: 1) status conflict may result in a reinforcement of the existing hierarchy, i.e., the outcome is separate from the presence of the conflict; 2) other types of conflict have a status component only to the extent that the contests are used to try to exert influence by dominating or deflating another party; and 3) influence can be
exerted immediately (e.g., to dictate the outcome of the current discussion) or longer term (e.g.,
gaining influence within a group over time). Thus status conflicts need to be considered in the
historical context of ongoing group interactions.

With these definitions and guidelines, we independently coded the conflict episodes in
terms of all four types of conflicts, allowing for multiple conflict codes (e.g., an episode could be
coded as having both task and status conflict present). Our Cohen’s Kappa measure of interrater
reliability for all four conflict types = .89. All disagreements were discussed and a final set of
codes for each conflict episode determined.

We then trained three independent coders with our four-part coding protocol and had
them code conflict episodes from the other four teams for the presence or absence of any type of
conflict. Like in our inductive stage, multiple forms of conflict could be coded as present in any
one episode. All conflict episodes were coded by three people who achieved Cohen’s Kappas
that range from .33 - .94 with an overall average = .57 for all four types of conflicts. Although
the mean Kappa is lower than is generally acceptable, the complexity of the coding scheme (four
dimensions) and the number of coders (three) made it impossible to achieve a higher interrater
reliability despite numerous training iterations. All coding disagreements were adjudicated by the
authors to produce a final, validated code for every conflict episode that we used in our analyses.

Results

Our analyses identified 66% of all conflicts experienced by these groups involved some
aspect of status. Thus, this supports our assertion that status conflicts are an important
component of group dynamics. Table 1 presents the frequency of coded conflict episodes,
including how often status conflicts occurred alone and with task, relationship and process
conflict, with sample quotes, by team.
Typical features of status conflict. Group member(s) generally employ one of three "arguments" in service of their goal to modify or reinforce the hierarchy: legitimacy of viewpoint, asserting influence through “brute force” or questioning the value of others’ contributions.

Legitimacy of viewpoint arguments were identified by a challenge to another’s understanding of the materials or information relevant to the group’s task, or a invocation of past experiences to justify why the challenger’s views were more accurate or appropriate than another team member’s views. For example, “Okay, Z. You’ve got to think rationally. This is not about making a business proposition or making a margin for your boss” (member A, team 2); “You’ve always got it wrong. I get all this stuff I think” (member R, team 3); or “I understand what you’re saying, but I’ve read that sentence like ten times” (member S, team 1).

Asserting influence was identifiable with the use of dominance/submission language, being generally assertive relative to group norms, telling others what to do or how to do something, or talking louder than or interrupting others (stridency). Examples of this tactic include “Just shut up, don’t even say any more” (member S, team 5) and “We all have to write this paper. Like, we don’t have a lot of time. You cannot get drunk on Thursday night.” (member A, team 2).

Value of contribution arguments generally involved undermining or devaluing another’s contribution to the group’s task. This could be quite explicit (“If you want to tell us the right answers, you could have come to the meeting!”) or more implicit by bragging about how much work one had done on a group task, implying that others had not contributed equally. Examples include “Are you writing this down?” (member R, team 3); “Z, are you paying attention?”
“I think if … one person says, ‘I don’t think this is worth my time’, then that becomes an issue all the way around” (member A, team 2).

We found that status conflict should be considered in the context of the historical relationship of the team members. A history of vying for status meant that most conflicts between the individuals included a status element. Exchanges that went on for an exceedingly long time seemed to be efforts to exert influence and get the last word in as a display of dominance; the individuals in these situations seemed to care more about who was right than what was right. Taken out of context, however, these exchanges do not necessarily have obvious status components.

As indicated in Table 1, status conflict was frequently embedded in other types. That is, the actual content of a conversation appeared to be task, process, or relationship conflict but it also had an underlying status component, or effort to challenge the social hierarchy. Because we studied task teams, a significant amount of status conflict co-occurred with task conflict. For example, “Yes! That’s, that’s 7 steps later. We need to stop thinking ahead 7 steps. We’re now looking at their reasoning behind entering the dog market, all right?” (member A, team 2).

Of course, conflicts generally arise because of a difference of opinion about who is right on a particular issue, but we are not arguing that any attempt to persuade or convince another of the virtue or “correctness” of one’s own position is a legitimacy of viewpoint argument and therefore a status conflict. In determining whether a conflict had a status component, we looked for comments that generally appeared to be task, relationship or process conflict, but that directly attacked another’s status. There was a discernable difference between debating over differences of opinions and an attack on another person because of the difference itself. For example, a “pure” task conflict is, “(member D): Your profits are still going to be zero. Right? (member M):
No, your profits are negative apparently. (member J): No. (member D): In the long run, it’s going to be zero.” (team 5). Task conflicts with a status component, however, are “No, as she said your way is fine. But I think it has no impact there, there is no impact with mean or variance.” (member P, team 1); “It’s because, it’s because you are a math person. Learn to love English, okay” (member A; team 2); and “Because what were talking about is the price being fixed, so everything weve been talking about for the last two weeks is when you fix prices below” (member B, team 2).

Distinguishing a relationship from a status conflict can be particularly tricky. Relationship conflict is reflected in the differences in values, preferences and priorities and often boils down to “I don’t like you because of these differences,” or “my values, preferences and priorities are better than yours.” Status conflict arises when those interpersonal differences are used as the basis for attempting to exert influence. So saying “(member A): Yeah, but sometimes it hurts people’s feelings. (member B): Yeah. This is true. The thing is like, I don’t like being like, Oh, you did such a good job. (member A): You know, you could say nothing at all. Silence is a beautiful thing” (team 2) crosses the line from a relationship conflict to a status conflict.

**Study 1 Discussion**

Our inductive analysis of these conflict episodes, thus, indicates that status conflicts are observable and distinguishable from other types of conflicts, and that they are relatively common in these kinds of task groups. The distinguishing feature of status conflicts is the assertion or questioning of influence or dominance in the group. Although they do occur independently, it was more common that a task, relationship or process conflict served as a mechanism for a status contest. We believe this is due to the relative social acceptability of the other types of conflict compared to an overt status contest. In sum, these analyses suggest that, indeed, ignoring status
interests in group conflicts overlooks an important dynamic that may affect group performance and member’s satisfaction.

**STUDY 2: CONSTRUCT DEVELOPMENT**

Having identified the characteristics of status conflicts with our qualitative data, we next tried to develop a scale that could be used in quantitative analyses. We developed and tested an initial nine-item survey scale, conducted exploratory and confirmatory factor analyses and established the reliability of a final three-item status conflict scale that is distinct from task, relationship and process conflict.

**Methods**

We generated nine survey items based on our qualitative data analyses and input from faculty and doctoral students who are familiar with the task, relationship and process conflict scales. The items are: 1) My team members had arguments where those involved seemed to care more about who was right than what was right. 2) In my group, I've experienced or observed two people both fighting to have the last word in an argument. 3) My team members frequently took sides (i.e., formed coalitions) during conflicts. 4) My team members experienced conflicts due to members trying to assert their dominance. 5) My team members competed for influence. 6) My team members disagreed about the relative value of members' contributions. 7) My team members were condescending to each other. 8) Members of my team questioned the credibility of other group members. 9) Certain members of my team frequently contradicted each other or butted heads regardless of the topic of conversation.

We included these nine items along with the nine items from Jehn (1995) and Shah and Jehn (1993) that have been typically used to measure task, relationship and process conflict (see also Jehn & Mannix, 2001). While conflict is a group-level construct, the perceptions of team
conflict are held by individuals in the team with similar team experiences. Consistent with past construct development research in this area, we validated the scales at the individual level using both exploratory and confirmatory factor analyses. We also tested the appropriateness of aggregating to the group level by calculating ICC(1), ICC(2) and $R_{wg}$.

Participants. We surveyed working middle managers enrolled in a part time MBA program at a large West Coast business school. The sample includes 240 individuals, from four sections (classes) of students configured in 44 groups of five to six people (5.8 people on average). 68% of respondents are male and 39% are Caucasian. The average age is 29.5 (s.d. = 3.68), and the respondents have an average of 6.12 (s.d. = 4.2) years of post-graduate work experience.

This is an ideal sample for this kind of research for a number of reasons. First, these students groups had no formal or prescribed overarching hierarchy. Therefore, we can study emergent status processes without confounding the influence of an organizational reporting structure. Second, the groups’ tasks and consequences are real and meaningful for the members—in the form of a class grade—so the setting was more realistic than it would be for a short-term group created in a laboratory to work on an experimental task. Third, the groups were in tact for a relatively long period of time so we were able to examine the status hierarchy and status conflicts over time, rather than just those that occur at the outset of a group’s formation. Fourth, team members were relatively unfamiliar with each other at the time of group formation, so conflicts should not have been affected by previous interactions. Fifth, subjects were graduate students with four to seven years of work experience, on average. Therefore, generalizing from school team dynamics to work team dynamics is more realistic than doing so with undergraduates who have no professional experience. Sixth, all teams were constructed
according to the same algorithmic preferences for heterogeneity. Also, they all began and ended at the same time and worked on the same tasks, enabling direct comparisons between groups that are often difficult in the field. Finally, there were a sufficient number of teams to do meaningful group-level statistical analysis.

Process. Data were collected by a survey that was administered in the final class of their core Organizational Behavior course. Students were required to complete the survey for course credit but could opt out of the research study. 240 of 252 students who completed the survey agreed to participate in the research, for a 95% response rate. The survey asked students about their perceptions of their group processes during the whole quarter. Specifically, students were instructed to, “Please think about your group experiences over the entire quarter, not just on your most recent group project,” and to, “Now please reflect on your experiences in your study group throughout this quarter by answering the following questions. Rate the extent to which each statement resembles your own study group.” All questions were on a seven-point Likert-type scale with 1 = To No Extent and 7 = To a Great Extent. Following completion of the survey, students received personalized feedback reports of their own scores, the average scores from their groups and the average scores from their section on a variety of group process dimensions. Students were assured of anonymity in these feedback reports with team average scores with no individually-identifiably responses. We, therefore, are confident that students were candid in their responses.

Results

Exploratory factor analyses and reliability tests. To determine the association among items, we first conducted exploratory factor analyses using Principal Components extraction with

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4 Again, this will eventually be done with a separate sample that is currently being collected.
Varimax rotation. Four factors accounted for 65.8% of the variance. Jehn’s three items that measure task conflict loaded together, the three items that measure relationship conflict loaded together and three of the nine status conflict items loaded together on an independent factor. The other six items measuring status conflict loaded on the relationship conflict factor. Two of the three process conflict items loaded together on a separate factor, but one item, “My team members experienced conflicts about task responsibilities” was split equally among the process, task and relationship conflict factors. We, therefore, conducted a second EFA excluding the process conflict items and the six status conflict items that loaded with relationship conflict. This produced a clean, three-factor model accounting for 73.1% of the total variance comprised of task, relationship and status conflict (Table 2).

Insert Table 2 here

The three status conflict items that loaded together and independently are, “My team members experienced conflicts due to members trying to assert their dominance,” “My team members competed for influence,” and “My team members disagreed about the relative value of members' contributions.” Cronbach’s Alpha measuring the reliability of the three-item status scale = .84. In addition, Alphas for task conflict = .79, relationship conflict = .79 and process conflict = .73.

Confirmatory factor analyses. To test for discriminant validity, we next conducted a Confirmatory Factor Analysis (CFA) to determine whether or not the three factor model excluding process conflict or the four factor model including process conflict adequately represented the data. The fit statistics from the four factor model did not meet the acceptable fit criteria (Thompson, 2004); $\chi^2 (48, N=240) = 119.394, p < .01, \text{NFI} = .91, \text{CFI} = .94, \text{RMSEA} = .08$. The three factor model, excluding process conflict, did produce a good representation of the
data: $\chi^2 (24, N=240) = 40.162, p < .05$, NFI = .96, CFI = .98, RMSEA = .05 and the three factor model represented a better fit of the data than did either a one or two factor model. We, therefore, used the three-factor model in our subsequent analyses.

Aggregation analyses. We calculated the within-group agreement index, $r_{wg}$ (James, Demaree, & Wolf, 1984), and two intraclass correlation coefficients, ICC(1) and ICC(2), to determine the appropriateness of aggregating the task, relationship and status conflict constructs to the group level of analysis. The $r_{wg}$ index ranges from 0-1, with $r_{wg}$ values > .7 recommended as justifying group aggregation (Klein et al., 2000). ICC(1) is the degree of reliability associated with an assessment of the group mean (i.e., an index of interrater reliability) that takes into account group size. A value > .12 is generally considered acceptable (James, 1982), although Bliese (2000) suggests that James’ (1982) estimates were inflated, which means lower values may be common in organizational research. ICC(2) is a measure of the reliability of the group unit mean (ideal values > .7). Group size was averaged across the teams, which is acceptable when there is not much variance in group size (Bliese, 2000).

The aggregation statistics produce partial support for group-level aggregation. For task conflict, the ICC(1) = .25 and the mean $r_{wg} = .84$. The ICC(2) was slightly below the recommended level at .65. The relationship conflict numbers were all above the recommended levels (ICC(1) = .33, ICC(2) = .74 and mean $r_{wg} = .90$). Aggregating status conflicts to the group level appears to be less reliable than doing so for the other types of conflict, as indicated by an ICC(1) = .11 and an ICC(2) = .42. Nonetheless, the F-statistic for the ANOVA was significant ($p < .05$) and the positive ICC values indicate there was less within group variance than between group variance. Furthermore, the within-group agreement is acceptable (mean $r_{wg} = .80$), suggesting that there was relatively high agreement, even though the scale was not terribly
reliable at the group level. This can occur when raters use a restricted range of the item responses (Bliese, 2000: 362). Indeed, 95% of respondents used 1 – 4 on the 7 – point scale. Given the theoretical relationship between status conflict and the other types of conflict, we conducted analyses with the aggregated status conflict variable, but must interpret them with some caution.

**Study 2 Discussion**

Based on our qualitative analyses in Study 1, we generated an initial list of nine potential status conflict survey items that we measured along with the nine items typically used to measure task, relationship and status conflict. Our EFAs indicated three status conflict items that loaded together and independently from the other types of conflict and that the process conflict was not loading onto a single factor. Our CFAs confirmed that the model better fit our data without the process conflict scale, so we will conduct our hypotheses tests with only task, relationship and status conflict.

In addition, the individual level reliabilities of task, relationship and status conflict were all satisfactory, as was the group level reliability and agreement for task and relationship conflict. The status conflict measure had higher within group agreement than reliability, which was likely an artifact of respondents reporting relatively low levels of status conflict (i.e., using a restricted range of the scale). Thus, we will use aggregated measures of all three types of conflict in our analyses.

**STUDY 3: HYPOTHESES TESTS**

In our third study, we tested our hypotheses that the inclusion of status conflict in models better predicts group performance and individual satisfaction than do models with task and relationship conflict only and that status conflict exerts a main, negative effect on those dependent variables, controlling for task and relationship conflict.
Methods

Process and participants. Our sample is the same as the one we used for the CFA analyses in Study 2. Thus, we have 240 individual part-time MBA students who worked in 44 task groups for the duration of a 10 week academic quarter.

Dependent variables. We considered two dependent variables in separate analyses. The group performance dependent variable is the grade each team received on their final group project for the Organizational Behavior core course during which these data were collected. The assignments were collected prior to the survey’s administration. The assignments were graded by two graders on a 12 – 16 point scale with a mean grade = 13.75 (s. d. = .20) and a median grade = 14. There were no differences across section.

The individual team member satisfaction variable was collected from the same survey as the independent and control variables. The satisfaction scale is comprised of six items from the Team Diagnostic Survey (Wageman, 1995; Wageman, Hackman, & Lehman, 2005) that tap general satisfaction and satisfaction with growth opportunities in the team. We combined the items into a single scale (Alpha = .86).

Independent variables. The task conflict, relationship conflict and status conflict scales we collected from the survey are our independent variables. We used the aggregated conflict constructs for our analyses of group performance and satisfaction and the individual responses, reflecting individual’s perceptions of conflict on their team, for our analyses of individual satisfaction.

Control variables. Like past researchers, we included a number of control variables in our analyses. At the group level, we included the number of team members (4 – 7, mean = 5.79), the percent of the team members that are male (mean = 67.7, s. d. = 15.21), the percent that are
Caucasian (mean = 37.8, s. d. = 24.17) and the mean GMAT standardized test scores as a measure of general business knowledge for the team (mean = 677.63, s. d. = 24.52).

In addition to the demographic composition variables, we included three group process variables that we determined might be related to conflicts: Perceived cooperativeness, open conflict norms and combined group process criteria. The perceived cooperativeness scale reflects the extent to which team members communicated and cooperated with each other. We included group cooperativeness as a proxy for conflict management norms and conflict resolution, which have been included in other research on group conflict (e.g., Jehn, 2005) because those scales failed to achieve sufficient reliability in our data. It is comprised of eight items adapted from Lester, Meglino and Korsgaard (2002) to fit the question structure of our survey (e.g., “My team members cooperated to get the work done,” and “My team members worked together to solve problems and make decisions”). The Cronbach’s Alpha from the individual responses = .88 and the aggregation statistics support group level analyses (ICC(1) = .37, ICC(2) = .77 and mean $R_{wg}$ = .96). In addition, although the full seven item conflict norms scale (Jehn, 2005) was unreliable (Alpha = .40), two items addressing open conflict norms (“Conflict was dealt with openly in my team” and “If conflict arose in my team, the people involved initiated steps to resolve the conflict immediately”) achieved an acceptable Cronbach’s Alpha of .76. Since the open discussion of conflict has been a key conflict management strategy for teams that benefit from task conflict (Jehn, 1995; Jehn & Mannix, 2001), we included this two item scale in our analyses as well even though the aggregation statistics were somewhat weak (ICC(1) = .19, ICC(2) = .58 and mean $R_{wg}$ = .66)). Since there was no variation in task interdependence across our groups, we considered the quality of the group’s task-based processes instead, based on the combined group process criteria scale (Wageman et al., 2005). It is comprised of nine items that form three subscales
regarding the level of effort members collectively expend on the task, the quality of team task
performance strategies, and the degree to which the team uses well the full complement of
member knowledge and skill. The combined scale was more reliable than the subscales, with an
individual level Cronbach’s Alpha = .85, and an ICC(1) = .32, ICC(2) = .73 and mean $R_{wg} = .93$.

At the individual level of analyses, we included the individual’s sex, a dummy variable
equal to 1 if the respondent is Caucasian, the respondent’s GMAT score and the number of team
members in the respondent’s group. We also included their individual responses to the
cooperativeness, group process criteria and open conflict norm scales, reflecting individual’s
perceptions of these group dynamics.

Analyses. We conducted separate hierarchical OLS regressions on our two dependent
variables, using robust standard errors in our individual-level analyses to correct for bias due to
non-independence within groups. We first included our control variables, then our task and
relationship conflict variables and last our status conflict variable, noting the change in $R^2$ at
each step. Note that all variables in each model are either at the individual or the group level of
analyses, making hierarchical linear analyses unnecessary.

In addition, we were concerned that since the cooperativeness and group process criteria
scales were explicitly designed for group-level analyses, including them in our analyses of
individual member’s satisfaction was inappropriate. Thus, we conducted a second set of robust
hierarchical OLS regressions on individual satisfaction excluding those two control variables.
Although the open conflict norms scale and even the conflict scales are also focused on the
group, there is a strong precedent for including them in analyses of individual satisfaction.

Given that we hypothesize specific directions of effects, we report 1-tailed significance
tests.
Results

Correlations and descriptive statistics at the group level are reported in Table 3a and at the individual level in Table 3b. At the group level, the three conflict scales are all highly correlated with each other and none of the conflict scales has a significant bivariate correlation with group performance. At the individual level, all three conflict types are also significantly correlated with each other and negatively correlated with satisfaction.

Hierarchical OLS. We next tested our hypotheses with respect to group performance (Table 4). The demographic composition and group process controls variables (Model 1) together explained 26.4% of the variance in group performance. Cooperativeness exerted a significantly negative main effect ($\beta = -2.32, p < .01$) and combined group process criteria a significant positive effect ($\beta = 1.86, p < .01$) on group performance. When task and relationship conflict are added in Model 2, the $R^2$ increases significantly to .39 ($p < .01$). The main effect of task conflict is positive and marginally significant ($\beta = .65, p < .10$) and the effect of relationship conflict is significantly negative ($\beta = -1.40, p < .01$). Adding status conflict to the model further increases the $R^2$ significantly to .45 ($p < .05$). The positive effect of task conflict is significant ($\beta = .73, p < .05$), relationship conflict is not longer significant, and status exerts a significant negative effect ($\beta = -.99, p < .05$). In addition, we checked the variance inflation factors (VIF) to determine if our conflict items were collinear, given their high bivariate correlations. The VIFs were all less than 3 (cooperativeness has the highest VIF in the model = 7.15), indicating that multicollinearity is not a problem. These results support hypotheses 1a and 2a; adding a status conflict variable increases the percent of variance in team performance explained by the conflict model and status conflict has a negative effect on team performance, controlling for task and
relationship conflict. In addition, with status conflict in the model, the positive main effect of task conflict is stronger than without it.

Insert Table 4 here

In our first set of analyses of individual satisfaction (Table 5, Model 1), the control variables alone explained 75% of total variation. GMAT score had a small but statistically significant negative effect ($\beta = -.01, p < .01$), and the three group process variables each significantly and positively contributed to satisfaction ($\beta_{\text{cooperativeness}} = .42, p < .01; \beta_{\text{process criteria}} = .53, p < .01; \beta_{\text{open conflict}} = .09, p < .01$). Adding task and relationship conflict to the control variables in Model 2 does not significantly increase the $R^2$. Relationship conflict exerted a marginally significant negative main effect ($\beta = -.08, p < .10$). The addition of status conflict in Model 3 significantly improves the $R^2$ from .75 to .76 ($p < .05$), and exerts a marginally significant main effect ($\beta = -.07, p < .10$). Neither task nor status conflict is significant. Although these results appear to only weakly support our hypotheses 1b and 2b, the extremely high $R^2$ validated our initial concerns that the group process variables were inappropriate at the individual level of analysis.

Insert Table 5 here

We then ran our analyses excluding the cooperativeness and group process criteria scales and found a very different pattern of results (Table 6). In Model 1, the control variables explained a more comfortable 39% of the total variance in individual satisfaction. Open conflict norms still exert a significantly positive main effect ($\beta = .49, p < .01$) but the negative effect of GMAT score is only marginally significant ($\beta = -.00, p < .10$). Adding the task and relationship conflict scales in Model 2 did significantly improve the explanatory power ($R^2 = .53, p < .01$) and each exerted a significant, negative main effect ($\beta = -.15, p < .01$ and $\beta = -.35, p < .01$, respectively). Furthermore, adding status conflict to Model 3 significantly improved the $R^2$ to .56 ($p < .01$) and
had a significant main effect of its own ($\beta = -.21, p < .01$). The effects of task and relationship conflict remained significant in this final model ($\beta = -.12, p < .01$ and $\beta = -.22, p < .01$, respectively). The conflict VIFs were all below 2.5 in both of these individual level analyses. Thus, we conclude that hypotheses 2a and 2b are supported after all.

Insert Table 6 here

**Study 3 Discussion**

Our results suggest that status conflict improves the explanatory power of models of conflict on group performance and individual satisfaction beyond those that include just task and relationship conflict. Controlling for task and relationship conflict, status conflict exerts a negative main effect on group performance and individual satisfaction. Furthermore, including status conflict in these regression analyses strengthened the positive association between task conflict and group performance. This suggests that status conflicts are an important construct to consider in addition to task and relationship conflict, and they may help clarify the direction of effects.

Interestingly, with status conflict in the model, relationship conflict did not significantly affect group performance. As indicated by our qualitative analyses, relationship conflict and status conflict are somewhat hard to distinguish. It may be that the negative effects of what has been heretofore considered relationship conflict was actually more about status organizing processes. Determining the situations where relationship and status conflict exert independent negative effects on group performance will help further define and differentiate these constructs.

The effects on team members’ satisfaction were only significant when the perceived cooperativeness and group process criteria scales were excluded from the analyses. Although there were several reasons to be concerned about the appropriateness of their inclusion in
individual-level analyses that led us to conduct our analyses without them, future research may want to further examine the relationships between group conflict and other perceived group processes from the individuals’ perspective.

Lastly, we did not consider the effects of process conflict along with task, relationship and status conflict due to the scale’s weakness in these data. Future researchers, particularly those who are working to strengthen the process conflict construct (e.g., Behfar et al., 2008), should examine the relationships among all these conflict types.

**GENERAL DISCUSSION**

Previous research on the effects of conflict on performance and satisfaction has been inconclusive. Despite potentially beneficial effects of task conflict in eliciting divergent views and appropriately testing the merits of a suggestion solution, the majority of the empirical evidence finds that conflict is unproductive and, indeed, quite destructive in terms of performance and satisfaction. We argue that this is due to the effects of previously unobserved status conflict. This research is particularly timely because of the recent interest in the dynamic and negotiated nature of status hierarchies within groups.

In a series of qualitative and quantitative studies, we have defined status conflicts, developed and validated a scale to measure the construct, and quantified the effects of status conflicts on group performance and individual satisfaction. In doing so, we make several important contributions to the group conflict and group status literatures.

**Contribution to Group Conflict**

Status organizing processes and individuals’ status interests are ubiquitous in groups, yet the conflict literature has so far overlooked them. As such, our understanding of the role of different types of conflict on group dynamics has been ambiguous and incomplete. As
individuals compete for status in their group, the group’s performance and satisfaction of its members is hurt. Some of this effect has been captured as noise and imprecision in the task and relationship conflict variables used in previous research. By controlling for status conflict, the direct effects of task and relationship conflict are clearer.

In addition to instrumental and relational concerns, group members strive for the social and symbolic resources that are associated with high status. These interests may contribute to groups and individuals behaving in ways that are distinct from how they engage in other types of conflicts. For example, given the role of bystanders in legitimating status orders (Berger et al., 1998; Kalkhoff, 2005), coalitions may be particularly important in resolving status conflicts. Another possibility is that when confronted by a status challenge, individuals behave more competitively than they would in response to other types of conflicts in order to demonstrate and assert their social dominance. This may lead to sub-optimal agreements or higher impasse rates than would be predicted based on the content of a conflict. Lastly, the outcome of conflicts for ones status position in a group may be an important type of subjectively valued outcome, which research suggests may strongly predict negotiating outcomes (Curhan, Elfenbein, & Heng, 2006). Thus, expanding the scope of conflicts that are considered in research on group dynamics to include those over status may help clarify the role of conflicts in many group and individual processes and outcomes.

As explicitly contesting status may be socially proscribed, competing for task influence or relational superiority may be a more acceptable means for asserting ones status interests than simply behaving as if one had already attained higher status. Our qualitative data indicate that task conflicts, in particular, are quite different depending on this underlying motivation. When status conflict was not present, the task conflicts played out the way research on the positive
effects of task conflict on group performance suggests: Assumptions were questions, information was shared and options were critically debated. With an apparent status motivation, however, the benefits of information sharing were lost as individuals defended their social standing, and the conflict was more likely to decay into a non-productive contest of wills. Perhaps status conflicts are perceived as more direct threats than task conflicts are. As a result, individuals and groups retreat into classic threat rigidity defenses of reduced information processing and defensive posturing (Staw, Sandelands, & Dutton, 1981) when they experience status conflicts. Thus, status interests may also function as a moderator of task and relationship conflict on group processes and outcomes. Future research should more directly examine the responses to task and relationship conflict with and without status components.

**Contribution to Group Status Research**

Status is a resource that may be contested and negotiated. Unlike the emphasis in most of the status literature, our work suggests that individuals exert substantial efforts to attain and maintain their status positions in their groups. Thus, status should be thought of as a dynamically evolving construct rather than an emergent, static one. Doing so suggests numerous questions for future research. How do personal status ambitions interact with more traditional status characteristics in determining a hierarchy? What are the effects of successful and unsuccessful status contests for the individuals that engage in them? For instance, do those who successfully gain status as a result of these conflicts reap the same benefits as those who are ascribed high status based on their characteristics? How does observing a successful or unsuccessful status claim impact observers’ expectations of the individual’s performance? Are those who successfully maintain their status position after a status contest perceived more or less positively than those who are in high status positions that are not contested? Under what circumstances or
what group processes impact the outcomes of status conflicts? Considering the implications of status conflicts in relation to expectations states and status characteristics theories may help push status research in new and interesting directions.

Status conflict, thus, is an important, new construct that could help extend these two important research areas in new directions.
References


Table 1: Frequencies and examples of status conflict occurring alone and in conjunction with task, relationship and process conflicts.

<table>
<thead>
<tr>
<th>Status Conflict</th>
<th>Team 1</th>
<th>Team 2</th>
<th>Team 3</th>
<th>Team 4</th>
<th>Team 5</th>
<th>Total</th>
<th>% of total conflict episodes</th>
<th>Illustrative Quotations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>8</td>
<td>66</td>
<td>73</td>
<td>13</td>
<td>12</td>
<td>172</td>
<td>66%</td>
<td></td>
</tr>
<tr>
<td>Alone</td>
<td>1</td>
<td>12</td>
<td>7</td>
<td>2</td>
<td>4</td>
<td>26</td>
<td>10%</td>
<td>“(A): Well, I just went to the most intelligent high school in all of Southeast Asia. (B): So why did you get a 53 on your stats quiz? (A): I didn’t pay attention.” (team 2)</td>
</tr>
<tr>
<td>With task conflict</td>
<td>6</td>
<td>39</td>
<td>30</td>
<td>9</td>
<td>7</td>
<td>91</td>
<td>35%</td>
<td>“Everything we’re doing right now is just, ‘Which way does this work?’ and not, ‘Is somebody an idiot?’” (B, team 2)</td>
</tr>
<tr>
<td>With process conflict</td>
<td>1</td>
<td>7</td>
<td>18</td>
<td>2</td>
<td>1</td>
<td>29</td>
<td>11%</td>
<td>“(P): So why do we need to say this date? (R): Because!” (team 3)</td>
</tr>
<tr>
<td>With relationship conflict</td>
<td>0</td>
<td>4</td>
<td>12</td>
<td>0</td>
<td>0</td>
<td>16</td>
<td>6%</td>
<td>“(A): I’m sure J has a bigger TV! (L): No he doesn’t…I think TVs are dumb investments.” (team 2)</td>
</tr>
<tr>
<td>With multiple types</td>
<td>0</td>
<td>4</td>
<td>6</td>
<td>0</td>
<td>0</td>
<td>10</td>
<td>4%</td>
<td>“(B): I would rather get a B than cheat. (T): I wasn’t talking about the grade. I was just making sure that the material was correct.” (team 2)</td>
</tr>
<tr>
<td>Task Conflict Alone</td>
<td>13</td>
<td>14</td>
<td>2</td>
<td>33</td>
<td>16</td>
<td>78</td>
<td>30%</td>
<td>“(E): So I guess my question is what’s the best for the patient? (M): None of them; they’re all equivalent. (C): That’s the entire-entire point of an iso-quant.” (team 4)</td>
</tr>
<tr>
<td>Process Conflict Alone</td>
<td>1</td>
<td>3</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>5</td>
<td>2%</td>
<td>“(J): I think it would be better if we all read it and then met and discussed it before you send out the answer. (B): I think you should still attempt to do the case yourself whenever you can so that we can make our group discussion more effective.” (team 1)</td>
</tr>
<tr>
<td>Relationship Conflict Alone</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>4</td>
<td>2%</td>
<td>While I like to joke, it depends on time, place and occasion. Obviously the professor is grading our final exam paper. I can’t understand why you execute me publicly and try to make my poor grade worse.” (S, team 1)</td>
</tr>
<tr>
<td>Total episodes</td>
<td>24</td>
<td>84</td>
<td>76</td>
<td>47</td>
<td>28</td>
<td>259</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 2: Exploratory Factor Analyses excluding process conflict

<table>
<thead>
<tr>
<th>Status Conflict</th>
<th>Relationship Conflict</th>
<th>Task Conflict</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. My team members experienced conflict of ideas.</td>
<td>0.07</td>
<td>0.12</td>
</tr>
<tr>
<td>2. My team members frequently had disagreements about the task we were working on.</td>
<td>0.16</td>
<td>0.39</td>
</tr>
<tr>
<td>3. My team members often had conflicting opinions about the task we were doing.</td>
<td>0.30</td>
<td>0.18</td>
</tr>
<tr>
<td>4. My team members experienced relationship tension that was not related to the task.</td>
<td>0.35</td>
<td>0.76</td>
</tr>
<tr>
<td>5. My team members often got angry while working in this team.</td>
<td>0.31</td>
<td>0.69</td>
</tr>
<tr>
<td>6. My team members experienced emotional conflict.</td>
<td>0.20</td>
<td>0.82</td>
</tr>
<tr>
<td>7. My team members experienced conflicts due to members trying to assert their dominance.</td>
<td>0.82</td>
<td>0.29</td>
</tr>
<tr>
<td>8. My team members competed for influence.</td>
<td>0.86</td>
<td>0.23</td>
</tr>
<tr>
<td>9. My team members disagreed about the relative value of members’ contributions.</td>
<td>0.76</td>
<td>0.25</td>
</tr>
</tbody>
</table>

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.

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5 This table will be updated with our analyses from the separate sample.
Table 3a: Correlations and descriptive statistics of group level variables (N = 44)

<table>
<thead>
<tr>
<th></th>
<th>Group Perfom.</th>
<th>Task Conflict</th>
<th>Relationship Conflict</th>
<th>Status Conflict</th>
<th>Team Size</th>
<th>Mean GMAT</th>
<th>% Male</th>
<th>% White</th>
<th>Cooperativeness</th>
<th>Process Criteria</th>
<th>Open Con. Norms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group Perfom.</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Task Conflict</td>
<td>.042</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Relationship Conflict</td>
<td>-.054</td>
<td>.600**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Status Conflict</td>
<td>-.121</td>
<td>.521**</td>
<td>.764**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
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<td>.170</td>
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<td>.030</td>
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<td>-.204</td>
<td>-.075</td>
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<tr>
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<td>.356*</td>
<td>-.040</td>
<td>.043</td>
<td>.336*</td>
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<td>.56</td>
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</table>

** Correlation is significant at the 0.01 level (2-tailed).
* Correlation is significant at the 0.05 level (2-tailed).
Table 3b: Correlations and descriptive statistics of individual level variables (N = 240)

<table>
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<tr>
<th></th>
<th>Satisfaction</th>
<th>Task Conflict</th>
<th>Relationship Conflict</th>
<th>Status Conflict</th>
<th>Caucasian (1)</th>
<th>Sex (Male = 1)</th>
<th>GMAT</th>
<th>Team Size</th>
<th>Cooperativeness</th>
<th>Process Criteria</th>
<th>Open Con. Norms</th>
</tr>
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<td>0.799**</td>
<td>-0.441**</td>
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<td>0.176**</td>
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<td>-0.107</td>
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<td>-0.551**</td>
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<td>0.032</td>
<td>-0.076</td>
<td>0.610**</td>
<td>-0.486**</td>
<td>-0.467**</td>
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<td>0.081</td>
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<td>0.176**</td>
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<td>-0.551**</td>
<td>-0.367**</td>
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<td>-0.015</td>
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<td>1</td>
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<td>1</td>
<td>1</td>
<td>1</td>
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<tr>
<td>Sex (Male = 1)</td>
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<td>0.176**</td>
<td>0.032</td>
<td>-0.111</td>
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<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
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<td>-0.076</td>
<td>0.009</td>
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<td>-0.561**</td>
<td>-0.486**</td>
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<td>0.210</td>
<td>0.051</td>
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<td>0.149*</td>
<td>0.800**</td>
<td>0.610**</td>
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<tr>
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<td>-0.447**</td>
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<td>0.069</td>
<td>0.226**</td>
<td>0.620**</td>
<td>0.610**</td>
<td>1</td>
<td>0.800**</td>
<td>1</td>
</tr>
<tr>
<td>Open Con. Norms</td>
<td>0.619**</td>
<td>-0.199**</td>
<td>-0.267**</td>
<td>-0.066</td>
<td>0.069</td>
<td>0.226**</td>
<td>0.620**</td>
<td>0.610**</td>
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<td>0.800**</td>
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<td>Mean</td>
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<td>0.44</td>
<td>0.86</td>
<td>0.92</td>
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** Correlation is significant at the 0.01 level (2-tailed).
* Correlation is significant at the 0.05 level (2-tailed).
<table>
<thead>
<tr>
<th>Variables</th>
<th>Model I</th>
<th>Model II</th>
<th>Model III</th>
</tr>
</thead>
<tbody>
<tr>
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<td>-.01 +</td>
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<td>.00</td>
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<tr>
<td>% Caucasian</td>
<td>.01</td>
<td>.01</td>
<td>.02</td>
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<td>.31</td>
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<td>Process Criteria</td>
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<td>2.01 **</td>
<td>2.02 **</td>
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<td>Open Conflict Norms</td>
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<td>.43</td>
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aUnstandardized β reported.

+ = p < .10

* = p < .05

** = p < .01
Table 5: Robust hierarchical OLS regression on team member satisfaction, including group process variables

<table>
<thead>
<tr>
<th>Variables</th>
<th>Model I</th>
<th>Model II</th>
<th>Model III</th>
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<td>-.01 **</td>
<td>-.01 **</td>
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<td>-1.12</td>
</tr>
<tr>
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<td>-.06</td>
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<td>.39 **</td>
<td>.38 **</td>
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<td>Process Criteria</td>
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<td>.52 **</td>
<td>.50 **</td>
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<tr>
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<td>.10 *</td>
<td>.10 **</td>
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<td>.01</td>
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<td>-.04</td>
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<td>1.80 **</td>
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</table>
Unstandardized β reported.

+ = p < .10

* = p < .05

** = p < .01
Table 6: Robust hierarchical OLS regression on team member satisfaction, excluding group process variables$^a$

<table>
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<th>Variables</th>
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<th>Model II</th>
<th>Model III</th>
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<td>-.01 **</td>
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<td>.07</td>
</tr>
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<td>-.09</td>
<td>-.05</td>
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<td>.02</td>
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<td>.36 **</td>
</tr>
<tr>
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<td>.03 **</td>
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$^a$Unstandardized $\beta$ reported.
+ = p < .10
* = p < .05
** = p < .01