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Reciprocated relational preferences and intra-team conflict

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Abstract

Purpose – The purpose of this article is to explore the effects of the interaction between team diversity and reciprocated relational preferences on task and relationship conflict in teams.

Design/methodological approach – The paper reports the results of an empirical study conducted on 66 teams, of which 32 were randomly created, while 34 teams were formed through a pair matching strategy (team dating).

Findings – The results show that mutual positive preferences attenuated the positive impact of team diversity on relationship conflict within teams.

Research limitations/implications – The results support the theoretical distinction between task and relationship conflict and show that close interpersonal relations within teams have a differential impact on the two types of conflict.

Practical implications – The results reported in the study support the use of the team dating strategy for team design in different organizational settings.

Originality/value – The paper introduces a new method for team formation based on reciprocated relational preferences.

Keywords Teams, Individual conflict, Conflict management, Social interaction

Paper type Research paper

Introduction

Conflict is a fact of organizational life that comes in different forms and has pervasive influences on team and organizational outcomes. Although almost everyone studying conflict initially agreed that it has a negative impact on performance (individual or team), scholars have started to acknowledge more recently that conflict could also have the opposite impact on performance (De Dreu and Weingart, 2003; Jehn, 1995, Jehn *et al.*, 1999). Nowadays, a common distinction exists in the literature between task and relationship conflict (Jehn, 1995; Pinkley, 1990), with relationship conflict reducing team performance (Jehn, 1995), and moderate task conflict supposedly increasing team performance (De Dreu, 2006). Most of the literature on intra-team conflict that uses this distinction focuses exclusively on the relation between the two types of conflict and team performance and less attention is given to the antecedents of intra-team conflict. It is however important to understand the conditions that lead to task and relationship conflict for both theoretical as well as practical reasons. It is theoretically relevant because understanding the causes of the two types of conflict contributes to the debate

concerning their independence (De Dreu and Weingart, 2003), and it is practically relevant because it opens ways of using the benefits of intra-team conflict without its negative consequences.

One of the antecedents most closely studied is team diversity and it is commonly agreed that it increases both task and relationship conflict (Carson *et al.*, 2004; Jehn *et al.*, 1999; Jehn and Bezrukova, 2004; Randy and Carson, 2005). However, the relation between team diversity and intra-team conflict is not a direct one. Factors related to interpersonal relations could lead team members to deal with diversity differently (e.g. trust see Polzer *et al.*, 2002). The emergence of conflict is influenced by the relational ties within the teams as well as by the extent to which team members prefer to work with each other. The aim of this study is to further explore the way in which the relational preferences expressed by team members after short initial contacts influence the relationship between team diversity and intra-team conflict. In particular, the study tests a contingency model of intra-team conflict in which reciprocated relational preferences moderate the relationship between team diversity and intra-team conflict.

First, we briefly review the literature on intra-team conflict with a special emphasis on the distinction between task and relationship conflict. Based on the literature on interpersonal congruence, we argue that the reciprocated relational preferences within teams (expressed by the team members after short initial contacts) attenuate the impact of team diversity on relationship conflict and accentuate the impact of team diversity on task conflict. Then, the moderation hypotheses are tested in an empirical study conducted on 66 student teams. Finally, we identify future research directions for the relation between team diversity and intra-team conflict and we discuss the practical implications for team design and team management, with a special emphasis on the team formation strategy which here is labeled as “team dating”.

Task versus relationship conflict

In general, conflict refers to perceived incompatibilities or divergence in perceptions, expectations and opinions by several parties involved (Fink, 1968). The particular type of intra-team conflict describes a situation in which team members hold discrepant views (have different opinions, attitudes, knowledge) or have interpersonal incompatibilities with each other (Jehn, 1995). Several sources and types of disagreements and tensions are reported in the literature, starting with the scarcity of resources, affective states (stress and tensions) or cognitive states (difference in perceptions, opinions and attitudes) (Pondy, 1967). Even though these qualitative differences in the nature of conflict were identified already in the 1960s (Pondy, 1967; Fink, 1968) it was only in the 1990s that the literature on conflict frames of reference (Pinkley, 1990) and intragroup conflict (Jehn, 1995) flourished, when a clear distinction was made between task (or cognitive) and relational (or emotional) conflict.

Contemporary intra-team conflict theorists (De Dreu and Weingart, 2003; Jehn, 1995, 1997; Pinkley, 1990; Jehn *et al.*, 1999) suggest, conflict does not always lead to negative outcomes. The interest in the positive influence of (intragroup) conflict on performance was inspired by the development of research on teamwork. Modern organizations heavily rely on teamwork to accomplish a variety of tasks (Ilgen *et al.*, 2005) and often, teams have to deal with divergent ideas and opinions related to the task or to the way in which the team members should work together in order to accomplish a common goal (Jehn, 1995). The variety of ideas expressed by the team members can generate

conflict, yet as a process this is not necessarily negative (Jehn, 1999, 1995) as it can foster the elaboration of task relevant information (Van Knippenberg *et al.*, 2004) and therefore increase the quality of team decision making and problem solving through a higher pool of knowledge (Pelled *et al.*, 1999).

Task conflict refers to the disagreements among team members about the content of the task due to different view points, opinions and ideas, while relationship conflict refers to interpersonal incompatibilities and frictions among group members resulting in tension, annoyance and animosity (Jehn, 1995). The initial theoretical argument (Jehn, 1994) is that task conflict is beneficial, while relationship conflict is detrimental for group performance. A meta-analysis (De Dreu and Weingart, 2003) of the impact of these two types of conflict on group performance, however yields results and shows that both types of conflict are negatively associated with team effectiveness. A recent empirical study (De Dreu, 2006), shows that in fact the relationship between task conflict and group effectiveness is curvilinear and task conflict is only beneficial for performance up to a certain level. Therefore, it is still a matter of debate if and under which conditions task conflict is beneficial for team performance.

The two conflict types are closely related, with most of the studies reporting high correlations among them. One explanation is that often task related disagreements evolve into relational conflicts. Studies that explored this association and tried to identify moderating factor that influence the evolution of task conflict into relationship conflict. Simons and Peterson (2000) as well as Peterson and Behfar (2003) reported that trust is an essential factor that blocks task conflict from evolving into relationship conflict, which is dysfunctional for team performance. If team members do not trust each other, they more quickly feel attacked while exchanging ideas, therefore, the probability that task conflict will generate relationship frictions is higher in teams with lower levels of trust (Peterson and Behfar, 2003; Simons and Peterson, 2000). Moreover, Mooney *et al.* (2007) show that behavioral integration (the extent to which team members engage in various forms of interaction) is also a moderator for the relationship between task and relationship conflict. When team members engage in frequent interaction, task conflict is less likely to evolve into relationship conflict.

The aim of this paper is neither to contribute to the debate on the consequences of task and relationship conflict, nor to explore the association between the two types of conflict, but rather to explore their antecedents. Although most of the studies reported rather high correlations between task and relationship conflict, as argued above, the two types of conflict have qualitatively different roots. Task conflict is more likely to emerge from divergences in opinions and ideas (information diversity), while relationship conflict is more likely to emerge from opposed group-related norms and values (social categorization) (Curşeu, 2006). Extending this line of reasoning we argue that the impact of team diversity on the two types of conflict depends on the nature of interpersonal relations established among the team members. This argument is of practical importance because of its implications for diversity management in teams. By managing the interpersonal relations within a team managers may stimulate the emergence of task conflict, while controlling the relationship frictions. The argument is also important for the theoretical debate in the field of intra-group conflict, in that it supports the conceptual independence of the two types of conflict. We will further address these aspects in the following section.

Team diversity and intra-team conflict

In three important reviews on the effects of team diversity (Jackson *et al.*, 2003; Milliken and Martins, 1996; Williams and O'Reily, 1998), intra-team conflict was unanimously regarded as a main consequence of team diversity. Team diversity or heterogeneity refers to how similar or different team members are from one another with respect to one or several criteria (Chuang *et al.*, 2004; Higgs *et al.*, 2005; Jackson *et al.*, 2003; Van Knippenberg *et al.*, 2004). The higher the diversity within a team (especially with respect to visible attributes), the higher the probability that team members will engage in different forms of conflict (Pelled, 1996; Mooney *et al.*, 2007) and will experience dissatisfaction (Tsui *et al.*, 1992).

Two mechanisms can explain these outcomes of team diversity. The first mechanism is inspired from an information processing and decision-making perspective and it explains the positive relation between team diversity and task conflict while the second refers to social categorization and explains the positive relation between team diversity and relationship conflict as well as the negative relation between team diversity and team members' satisfaction (Jackson *et al.*, 2003; Jehn *et al.*, 1999; Van Knippenberg *et al.*, 2004; Williams and O'Reily, 1998). On the one hand, if a team is composed of members with different backgrounds it means that the team can benefit from the diversity of perspectives that members bring to the group and will most likely experience high task conflict (due to their diverse backgrounds team members will most probably disagree about the ways in which the team task should be accomplished). On the other hand, however, differences within the team might trigger social categorization processes and implicitly generate relationship conflicts and dissatisfaction. Team members engage in social comparisons with each other and due to existing (or perceived) differences, they create and use distinct social categories. Since the general tendency is to perceive members of the other social categories as less trustworthy and cooperative than members of one's own social category (Tajfel, 1981), the co-existence of several social categories within the same team will trigger interpersonal frictions and fights (relationship conflict) that will ultimately lead to dissatisfaction.

Two studies that explored ways of managing group diversity and to fostering the positive outcomes of group diversity identified interpersonal congruence as a crucial mediating factor (Polzer *et al.*, 2002; Swann *et al.*, 2004). Interpersonal congruence refers to the similarity between a person's self-view and others' appraisal of that person (Polzer *et al.*, 2002). Polzer *et al.* (2002) found that initial appraisals of team members after a ten minute introduction contributed to varying levels of congruence with a target's self views and that this congruence moderated the effect of diversity on team outcomes four months later. Diversity turned out to have a negative effect in low congruence groups and a positive effect in high-congruence groups on creative task performance as well as on the social integration of the group and group identification (Polzer *et al.*, 2002). Because it fosters social integration, interpersonal congruence is therefore essential for relationship development within teams and for the way in which teams make use of their inner diversity.

Interpersonal congruence can be accurately predicted based on short initial contacts. This is consistent with the impression formation literature, which acknowledges the strong and persistent effect of the first impression on the quality of future relationship (Jones, 1990; Ambady and Rosenthal, 1992). A positive first

impression will trigger positive evaluations in future encounters and therefore strengthen the interpersonal relationship, while a negative first impression will most probably have the opposite effect. In the first impression field, a modern area of research concerns the accuracy of predictions for personal characteristics based on "thin slices" of expressive behavior (Ambady and Rosenthal, 1992). In this line of research several empirical studies showed that based on very short initial interactions (from 30 seconds up to four-five minutes) people can accurately predict a wide variety of their peers' characteristics and make accurate judgments about interpersonal congruence (Ambady and Rosenthal, 1992), which is an essential component of effective teamwork and influences intra-team conflict and satisfaction (Polzer *et al.*, 2002). Moreover, in a study carried out by Sunnafrank and Ramirez (2004) groups of students were asked at the beginning of the academic year to predict the development of interpersonal relationships with their peers after very short initial contacts. The results showed that the predictions made after very short (three to ten minutes) initial contacts for the development of interpersonal relationships were very accurate.

Since first impressions have such a strong impact on the later development of interpersonal relationships it can be argued that mutually positive relational preferences expressed after short initial contacts will moderate the impact of diversity on satisfaction and intra-team conflict. In teams whose members expressed their positive preferences for their teammates in short encounters before tackling the task, the level of relationship conflict is likely to be lower due to a higher interpersonal congruence. In the context of this study, reciprocated relational preferences describe a situation in which two parties mutually express a preference to work with each other. These reciprocated (mutual) relational preferences will most probably create a context in which team members feel safe to express divergent ideas during team discussions. In teams created based on reciprocated relational preferences the positive impact of team diversity on task conflict is expected to be enhanced. In other words, our prediction is that expressed relational preferences will attenuate the impact of team diversity on relationship conflict and will accentuate the impact of diversity on task conflict. The specific hypotheses of this study are:

- H1. Reciprocated relational preferences for teammates moderate the relation between team diversity and relationship conflict in the sense that the positive effect of diversity on relationship conflict is attenuated in teams whose members expressed strong positive preferences for their teammates as compared with randomly composed teams.
- H2. Reciprocated relational preferences for teammates moderate the relation between team diversity and task conflict in the sense that the positive effect of diversity on task conflict is accentuated in teams whose members expressed strong positive preferences for their teammates as compared with randomly composed teams.

Method

Sample

The participants, 329 students (147 women) from Tilburg University, The Netherlands were distributed into 66 teams having three to six members. From the total number of teams, 32 ($n = 169$) were randomly created by assigning the students to a team with no

concern of gender, age or other attributes (random teams), while 34 teams ($n = 160$) were created on the basis of their expressed preferences in a speed-dating session (team dating teams). The teams were involved in similar educational activities, and they were required to deliver a final team product (e.g. research project) at the end of the semester. The teams in both conditions were involved in two different courses: random teams in an Organizational Behavior course and team dating teams in a Complexity within Organizations course. Over a seven-week period all teams participated in several team activities during class or while working on the final project. Data were collected at the end of the semester using an individual questionnaire and were aggregated into team level scores after computing the within group agreement index (Rwg index, James *et al.*, 1984) for each team.

Independent variable

The independent variable in this study was team diversity. It is not the aim of this study to disentangle the effects of different team diversity attributes, but rather to check the impact of team diversity as an aggregated construct on intra-team conflict. Similar to some of the previous studies on group diversity (Pelled *et al.*, 1999; Jehn *et al.*, 1999), the present study uses team diversity as a composite variable that includes four diversity indices: gender, nationality, type of expertise concerning teamwork and age. Age was later recoded as a categorical variable, using the median split method (two categories were defined based on the median age of the whole sample). The diversity index was computed using a formula proposed by Teachman (1980) and widely used in team diversity literature (Williams and Meán, 2004). The formula is:

$$H = -\sum_{i=1}^s P_i (\ln P_i),$$

where i represents a particular category, s is the total number of categories and P_i is the proportion of the members belonging to the i category. If a team consists of members belonging to s categories, and P_i probability is assigned to a given category, then H index is a measure of team heterogeneity in information richness, the higher the value of the index, the higher the variety of the team (Harrison and Klein, 2007). The theoretical maximum for H depends on the total number of categories (s) (Williams and Meán, 2004) and in order to compensate for this bias, a standardized index was computed, by dividing H by its theoretical maximum (computed as $\ln l$, where l is the number of categories in the group) (see for details Teachman, 1980). In order to correct for this bias, in our study we used only two categories for all the diversity attributes: gender (male/female), nationality (Dutch/other), type of expertise concerning teamwork (in/outside the university) and age (above/below the median age for the whole sample). The higher the values of the standardized H index, the higher the team's variety. For teams consisting of only one category, $H = 0$.

The individual diversity scores were combined and the final score for team diversity was computed by adding up the four types of diversity. According to the conceptualization of team diversity put forward by Harrison and Klein (2007) all types described before refer to variety in that they refer to horizontal differentiation within teams. To conclude, because it is not the aim of this study to disentangle the differential impact of several diversity attributes on intra-team conflict and they all reflect some sort of horizontal differentiation within teams, the sum score will be used as a global indicator of team diversity as variety.

Moderator variable

The moderator variable in this study was the strategy used to form the teams. Two strategies were used: a random strategy and a team dating strategy. Thirty-two teams were created randomly by distributing the team members to a particular team with no concern for gender, age or other attributes. Thirty-four teams were created based on expressed relational preferences. In order to collect the relational preferences, a speed-dating session was organized. Since the students were involved in a course, the speed-dating session was performed at the beginning of the semester. The 160 students were first divided based on their preference for the lecture time schedule into six main groups and then the speed dating session was held for each of these groups. During this session each student had to interact for a short period of time (two minutes) with every other student in the group. The students were free to choose the subject of the conversation. Each student was provided with a table in which they had to write their decision about the discussion partner (their willingness to share the same team with a certain speed dating partner). These choices produced a network with reciprocated and non-reciprocated choices.

A network-clustering algorithm was then used to group the students into teams, subject to the constraint that each team had to have three to six members. In addition, we defined two further constraints. First, as many reciprocated ties as possible should fall within a cluster, since reciprocation indicates that two students mutually expressed the desire to work in the same team. Second, as few as possible non-reciprocated ties should fall within a cluster, since one of the students was not keen to team up with the other. While this combination of constraints and objectives leads to an algorithmic task that is computationally intractable, satisfactory results can be obtained heuristically (Brandes *et al.*, 2003).

Dependent variables

Task conflict and relationship conflict were evaluated with eight items (four for task and four for relationship conflict) from an intra-team conflict scale introduced by Jehn (1995). Sample items for task conflict include: "To what extent are there differences of opinions regarding the task in your team", or "How often do people in your work group disagree about the work being done", and for relationship conflict: "To what extent are personality clashes present in your group" or "How much emotional conflict is there in your work group". The answers were recorded on a five-point Likert scale (from 1 to 5), the Cronbach's alpha for task conflict scale was 0.71 and the Cronbach's alpha for relationship conflict was 0.74. The values obtained from our sample are consistent with previous studies, which reported slightly lower coefficients for task than for relationship conflict items (see for details Jehn, 1995; Jehn *et al.*, 1999; Pelled *et al.*, 1999).

To justify aggregation into group scores, we used the procedure introduced by James *et al.* (1984) to estimate the inter-rater reliability (the index of agreement). The within group agreement index (Rwg) can take values between zero and one, and generally, a value of 0.70 or higher is considered to reflect a reasonable amount of agreement within a team (James *et al.*, 1984). All teams had an Rwg index higher than 0.70 ($n = 66$) for both conflict scales. Table I summarizes the Rwg for each variable, with the maximum, minimum, mean and the standard deviation of the Rwg scores.

After the within-group agreement was computed and verified, the individual scores of the group members were aggregated into group scores by computing the group mean.

Results

Table II presents descriptive statistics and correlations among variables. The correlation between the two types of conflict was positive and significant (0.42). This value is consistent with most of the previous research on task and relationship conflict that used the scale introduced by Jehn (1995). In their meta-analysis, De Dreu and Weingart (2003) reported a mean corrected correlation of 0.54 between task and relationship conflict, therefore the values obtained in this study follow the same pattern reported by these scholars.

In order to test the hypotheses, we performed two hierarchical regressions with task conflict and relationship conflict as dependent variables. In all the regression analyses, group size was considered as a control variable (since it can influence both the level of task and relationship conflict, see also Mooney *et al.*, 2007) and it was introduced in the first step in the regression. In the second step, team diversity (composite variable obtained by adding gender diversity, nationality diversity, teamwork experience and age diversity indices) and team formation strategy (coded as a dummy variable, with 0 for random teams and 1 for team dating teams) were added together. In the last step of the regression analyses we added the cross product terms between team diversity and team formation strategy. In order to minimize multicollinearity the cross product was based on the centered team diversity variable (team formation strategy is a dummy variable and does not need to be centered) (see for details Aiken and West, 1991). The variance inflation factors (VIF scores) were all below 1.89 and therefore we can conclude that multicollinearity was not a serious problem in the analyses. The results of the regression analyses are summarized in Table III.

	<i>n</i>	Minimum	Maximum	Mean	SD
Rwg relationship conflict	66	0.82	1.00	0.95	0.03
Rwg task conflict	66	0.84	1.00	0.94	0.03

Table I.
Within Group agreement
indices (Rwg)

	Mean	SD	1	2	3	4
1. Team formation strategy ^a	0.51	0.50				
2. Team diversity ^b	1.85	0.74	−0.22 *			
3. Relationship conflict	1.83	0.57	−0.44 ***	0.35 **		
4. Task conflict	2.89	0.60	0.13	0.18 *	0.42 ***	
5. Team size	4.98	1.01	−0.28 **	0.43 ***	0.34 **	0.05

Notes: * $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$; ^a team formation strategy is a dummy variable with 0 = random groups and 1 = team dating groups; ^b team diversity is a composite variable, which includes gender diversity, nationality diversity, age diversity and type of teamwork-experience diversity – all variables are indicative for team variety

Table II.
Means, standard
deviations and
correlations

Step and variable	Relationship conflict			Task conflict		
	1	2	3	1	2	3
1. Team size	0.34**	0.14	0.13	0.05	0.005	0.01
2. Team formation strategy		−0.35***	−0.35**		0.18*	0.18
Team diversity		0.21*	0.36**		0.22*	0.17
3. Team formation × Team diversity			−0.22*			0.13
R	0.34	0.52	0.56	0.05	0.25	0.26
Adj. R ²	0.11	0.28	0.30	0.003	0.07	0.07
F change	8.35**	7.08***	2.01*	0.17	2.05*	0.15

Notes: Standardized regression coefficients are reported for the respective regression steps, including team size (step 1), team size, team formation strategy and team diversity (step 2), team size, team formation strategy, team diversity and the interaction between team formation strategy and team diversity – the centered variable (step 3), *n* is 66; * *p* < 0.10; ** *p* < 0.05; *** *p* < 0.01

Table III.
Results of the regression
analyses

H1, which postulates that the positive effect of team diversity on relationship conflict will be attenuated in teams formed based on the expressed relational preferences of the teammates (team dating teams), is supported. The interaction between team diversity and team formation is significant (0.22, see Table III), confirming the fact that the highly diverse teams resulting from the team dating process experienced less relationship conflict as compared with random teams (see also Figure 1).

As shown in Table III, in the second step of the regression analysis, both team diversity and team formation have a significant effect on relationship conflict. While team diversity has a positive significant effect, team formation strategy has a negative influence on relationship conflict. We can conclude that highly diverse teams experience a higher level of relationship conflict than teams with low diversity (which is consistent with the results reported by Jehn *et al.*, 1999) and that team dating teams experience a lower level of relationship conflict than random teams.

H2, postulating that the positive effect of team diversity on task conflict will be accentuated in teams formed on the basis of the expressed relational preferences of the teammates (team dating teams), is not supported. As obvious in Table III the effect of the interaction between team diversity and group formation is not significant. However, as depicted in the regression slopes (see Figure 2), the effect is in the hypothesized direction. In the second step of the regression model (Table III for task conflict), both team diversity and team formation strategy have a positive impact on task conflict. Consistent with previous research (Jehn *et al.*, 1999) highly diverse teams experience higher levels of task conflict than teams with low diversity. Also consistent with our predictions, team dating teams seem to experience a higher level of task conflict as compared with randomly formed teams.

To summarize our results, only *H1* predicting a decrease in the positive impact of diversity on relationship conflict for teams based on the expressed preferences of the teammates was supported, while the second hypothesis was not supported.

Discussion

The results of this study show that team diversity has a positive impact on both task and relationship conflict. This result is consistent with the results reported by Jehn *et al.*

Note: TFS – team formation strategy

Figure 1.
Effects of interaction of
group diversity and type
of group on relationship
conflict

(1999) and Pelled *et al.* (1999) showing that heterogeneous teams experience higher levels of task and relationship conflict as compared to homogeneous teams. Another important result of this study is that forming teams based on relational preferences fosters the emergence of task conflict and at the same time substantially reduces the occurrence of relationship conflict within teams. This result has important practical implications because it offers a team design tool that allows the use of benefits of intra-team conflict without its drawbacks. However, we found rather limited support for the hypotheses claiming the moderator effect of the expressed relational preferences on the relation between team diversity on the one hand and intra-team conflict on the other. Only one of the two hypotheses was supported. Heterogeneous teams randomly created experience relationship conflict to a greater extent than heterogeneous teams created based on the reciprocated relational preferences. Initial positive evaluations of potential teammates seem to accurately predict the quality of interpersonal relationships developed further on within the team. This result is in line with the results reported by Ambady and Rosenthal (1992), Polzer *et al.* (2002) and Sunnafrank and Ramirez (2004), showing that very short initial contacts are sufficient for people to make accurate judgments about interpersonal relationships. However, the present study goes beyond the accuracy of predictions concerning the future relationship development based on very short initial contacts. We believe that the accuracy and

Note: TFS – team formation strategy

Figure 2.
Effects of interaction of
group diversity and type
of group on task conflict

congruence in how people see each other (Polzer *et al.*, 2002) does not automatically lead to strong interpersonal ties. The key aspect illustrated in the present study is the role of reciprocated (mutual) relational preferences expressed by team members after short initial contacts. This aspect, central to our paper, has major practical implications for team formation.

Except for the moderation effects investigated in our paper, a consistent result across the regression analyses concerns the direct effect of reciprocated relational preferences on both types of conflict. Teams formed based on relational preferences of team members experience lower relationship conflict and higher task conflict as compared with teams formed randomly.

A plausible explanation for these results is the strong and pervasive effect of the first impression formation and cognitive social schema use (Jones, 1990; Ambady and Rosenthal, 1992). Very early in a relationship, people make accurate predictions about the behavior of their peers as well as about their characteristics (Ambady and Rosenthal, 1992) and implicitly about the interpersonal fit, which accurately predict the interpersonal congruence (Polzer *et al.*, 2002) and relationship development (Sunnaf Frank and Ramirez, 2004). If the positive expectations and initial preferences are reciprocal, it is very likely that the quality of the future relationship will be indeed very high and the way they communicate within a team will be more effective and the relationship conflict will be lower.

Our results, however, show only marginal support for the positive impact of initial relational preferences on task conflict. The level of task conflict experienced by team dating teams is only moderately higher as compared with the level of task conflict experienced by the randomly formed teams. The weak relation of team diversity with task conflict can also explain the lack of support for the moderation hypothesis. Because the attributes used to compute team diversity are mainly demographic in nature, they are more likely to have a stronger association with relationship conflict. Pelled *et al.* (1999) reported similar results, and they explained them through the fact that task conflict is rather influenced by task related than demographic diversity. On the one hand, demographic diversity is likely to trigger social categorization, the use of stereotypes, and it is therefore more likely that the association with relationship conflict will be stronger. On the other hand, however, demographic diversity can be associated with differences in opinions and attitudes, which create disagreements related to the task and therefore will slightly increase task conflict. This differentiation (task related and demographic diversity) also discussed in Pelled (1996) could explain the lack of support for the moderation effect of reciprocated relational preferences on task conflict. Demographic diversity will trigger social categorization processes to a greater extent than task related disagreements and therefore is more strongly associated with relationship conflict than with task conflict.

Team members in team dating teams seem to express more disagreements concerning the task than team members in randomly formed teams. Nevertheless, team members of team dating teams experience less interpersonal friction and interpersonal clashes than their peers in randomly formed teams. This result is probably due to the fact that in team dating teams, team members keep a sort of equilibrium so that disagreements concerning the task do not degenerate into relationship conflict. Task conflict could indeed lead to relationship conflict through a process of misattribution (Simons and Peterson, 2000) and it might be that in team dating teams this process is reduced due to a higher interpersonal congruence. This explanation is supported by the fact that in team dating teams the correlation between the two types of conflict is 0.44, while in the randomly created teams is 0.59. We acknowledge however that a simple correlation is not sufficient to make a causal claim here and therefore this causal association needs to be further explored in other empirical studies.

Because team dating teams experience lower levels of relationship conflict and slightly higher levels of task conflict, and it is possible that the likelihood of task conflict to evolve in relationship conflict is lower in these teams, we can predict that team dating teams will also be more effective than randomly formed teams. In a previous study, Hinds *et al.* (2000) show that people rely more on indicators of competence and not on similarity when choosing future teammates. It is therefore very likely that when the team members expressed their choices for potential fellow team members during the speed-dating session they used task accomplishment capabilities as a reference criterion for their judgments and not simply an interpersonal attraction criterion. In more general terms their main question during team-dating would have been "Is this person a suitable person to work with in order to accomplish these tasks?" and not "Is this person a likable person to spend time with in a team?". This interpretation is in line with the results reported by Hinds *et al.* (2000), showing that people rely more on indicators of competence and not on similarity when choosing future teammates.

In order to test this assumption we further analyzed the sections devoted to team analysis from the written team project (every team had to write a specific section about their teamwork experiences). In some of the reports we found supporting evidences for our explanation. Some quotes are illustrative in this sense such as: “when I made my choices during the speed-dating session I did not take into account the similarity criteria, but I selected potential group members based on their capabilities to perform the required task and based on their schedule”, or “I selected people with whom I thought I could work very well in the future”. However, since it is not possible to make a systematic analysis of all the team reports (not all the team members reported on the criteria they used during the team-dating session to select their teammates) these quotes have only limited value in supporting our explanation. Further systematic inquiries should therefore be devoted to the selection criteria used by the group members and the team dynamics afterwards.

Practical and theoretical implications

The results reported here have important practical and theoretical implications. The main practical implication refers to the possibility of using relational data collected from short initial contacts to create effective teams. Team formation is a challenge in modern organizations as most of them use teams to perform a variety of organizational tasks. Although previous research (Katz *et al.*, 2004) acknowledges that the internal social network structure is an important driver of team performance, scholars doubted whether network data is really open to managerial manipulation (Reagans and Zuckerman, 2001; Reagans *et al.*, 2004). Our results show that data based on reciprocated relational preferences are sound premises for creating teams that experience lower levels of relationship conflict and slightly higher levels of task conflict, which is beneficial for team performance. Moreover, we introduce a strategy to use relational preferences in team design and show that social network data are actually easy to collect and to use in team formation and are also reliable predictors of intra-team conflict.

The team dating method can easily be applied in many different organizational settings. It can be used to create teams within organizations to accomplish complex tasks that will benefit from higher levels of task conflict (e.g. to foster innovation of new products and processes, and the like). The method can equally be used to create inter-organizational teams. For example, when implementing the merger of two companies the method would suggest organizing a speed-dating session with all potential team members from both companies and subsequently selecting the cluster of persons with the most reciprocated ties. The use of a clustering algorithm is essential in this respect. For a large number of participants, it is seldom possible to organize speed dating sessions in which everyone is meeting everyone else (because of time limitations, fatigue, etc). Different clustering algorithms may help the practitioner to compensate for incomplete data (e.g. using the data from incomplete triads under the assumption that if two participants prefer a third one, they also would prefer each other) and, allows the practitioner to create the teams with the highest number of predicted positive reciprocated relational preferences. Moreover, the method is flexible in that it allows the use of various answers (each participant can select only a fixed number of preferred teammates, or rate all the other participants), different response scales (participants are asked to express their preference for teammates using more

specific or general criteria), or different criteria to be combined with the expressed preferences (e.g. functional requirements, expertise, skills or other compositional features).

From a theoretical perspective this study is a bridge between team diversity and intra-team conflict literature. Previous research postulated (Pelled, 1996, Milliken and Martins, 1996; Williams and O'Reilly, 1998) and in few instances empirically supported (Pelled *et al.*, 1999, Jehn *et al.*, 1999) the positive relation between team diversity and intrateam conflict. This relation though is not universally positive. Previous research focused rather on identifying the process variables that lead from team diversity to team performance, while the present study focuses on the moderating role of reciprocal relational preferences in the relation between team diversity and intra-team conflict. In this way, the present study answers the call made by Polzer *et al.* (2002) to identify factors that influence the relation between team diversity and intra-team conflict. An interesting question still to be answered that emerged from our results is the way in which task and relationship conflict are interwoven and to what extent they have a joined dynamic in the two types of teams we used in our design. A plausible prediction would be that in teams formed on the basis of reciprocated relational preferences, task conflict degenerates into relationship conflict to a lesser extent than in randomly formed teams.

Limitations

One limitation that should be addressed here is the fact that the teams created based on team dating are in general more homogeneous than randomly created teams – (see the negative correlation between team formation strategy and team diversity – Table II). This effect is in line with the homophily effect that was repeatedly acknowledged in literature on social networks (Ibarra, 1992, 1995, Marsden, 1988; McPherson and Smith-Lovin, 1987). Homophily refers to a tendency of similar network agents to develop stronger interpersonal ties than dissimilar ones. The results of our study are somehow similar in the sense that it is clear that based on the team dating procedure, the participants expressed preferences for the members with whom they shared common traits. This resulted in more homogeneous teams in the team dating condition. The study of the interaction effect between team formation strategy and team diversity could have been slightly biased by this homophily effect. However, in practical settings it is always possible to add several constraints to the clustering algorithm used to form the teams based on the reciprocated relational preferences. If potential team members belong to several categories (e.g. social, expertise, functional) it is possible to add a supplementary constraint to the reciprocated relational preferences, namely that each category should be represented in the final team.

Another limitation of the present study concerns the aggregation of different diversity types into a unitary variable. Because of theoretical (team variety as a general team level attribute) and sample (rather small sample size) considerations, the present study used an aggregated variable for team diversity. However, the differentiated impact of diversity attributes on group dynamics and effectiveness received considerable attention during the last years (Harrison and Klein, 2007; Pelled, 1996). Further research on the moderating effect of reciprocated relational preferences will certainly benefit from the distinction between highly task related attributes versus less task related attributes (Pelled, 1996) or the distinction between team diversity as

separation, variety and disparity (Harrison and Klein, 2007) in that a particular attribute (e.g. gender) can be a highly task related attribute in some instances and a less task related attribute in others or it can be associated with variety, but at the same time it can be the basis for separation or disparity in groups.

Finally, a limitation that needs to be discussed here is the organizational setting in which the present study was conducted. We used student teams and in order to be able to generalize our results, further investigation of the moderation model is needed in different organizational settings or using different methodological approaches (e.g. controlled laboratory experiments).

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Further reading

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