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Task Versus Relationship Conflict, Team Performance, and Team Member Satisfaction: A Meta-Analysis

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This study provides a meta-analysis of research on the associations between relationship conflict, task conflict, team performance, and team member satisfaction. Consistent with past theorizing, results revealed strong and negative correlations between relationship conflict, team performance, and team member satisfaction. In contrast to what has been suggested in both academic research and introductory textbooks, however, results also revealed strong and negative (instead of the predicted positive) correlations between task conflict, team performance, and team member satisfaction. As predicted, conflict had stronger negative relations with team performance in highly complex (decision making, project, mixed) than in less complex (production) tasks. Finally, task conflict was less negatively related to team performance when task conflict and relationship conflict were weakly, rather than strongly, correlated.

Teamwork in organizations is increasingly the norm, yet the challenges of working effectively in teams are considerable. One challenge is conflict—the process resulting from the tension between team members because of real or perceived differences (De Dreu, Harinck, & Van Vianen, 1999; Thomas, 1992; Wall & Callister, 1995). Because team members contribute to the team through social inputs and task inputs (e.g., Forsyth, 1983), conflict in teams is concerned with relationship and task issues (e.g., Amason & Schweiger, 1997; Cosier & Rose, 1977; Guetzkow & Gyr, 1954; Jehn, 1997; Kabanoff, 1991). Examples of relationship conflict are conflicts about personal taste, political preferences, values, and interpersonal style. Examples of task conflict are conflicts about the distribution of resources, procedures and policies, and judgments and interpretation of facts. In the past 10 years, there has been a growing tendency in the literature to assume that, although relationship conflict hurts team effectiveness, task conflict can, under certain circumstances, be beneficial to team effectiveness (e.g., Amason, 1996; De Dreu & Van de Vliert, 1997; Jehn, 1995; Simons & Peterson, 2000). In the current article, we review the arguments for and against this idea, discuss task type as

a potential moderator, and evaluate the empirical support through a meta-analysis.

Conflict and Team Effectiveness

Early conflict and groups theorists have focused on the negative effects of team conflict (Brown, 1983; Hackman & Morris, 1975; Pondy, 1967; Wall & Callister, 1995). Conflict has been suggested to interfere with team performance and reduce satisfaction because it produces tension, antagonism, and distracts team members from performing the task. Empirical evidence has supported the negative relationship between conflict and team productivity and satisfaction (Gladstein, 1984; Saavedra, Earley, & Van Dyne, 1993; Wall & Nolan, 1986). Deutsch (1973), Cosier (1956), and Walton (1969) recognized that low levels of conflict could be beneficial. When in conflict, people confront issues, learn to take different perspectives, and need to be creative (see also Levine, Resnick, & Higgins, 1993; Nemeth, 1986; Tjosvold, 1997). When conflict is absent, teams might not realize that inefficiencies exist. Indeed, research by Schulz-Hardt, Mayer, and Frey (2002) showed that teams made better decisions when prediscussion preferences were in disagreement rather than agreement. Schwenk (1990) summarized research on devil's advocacy and found that individuals exposed to a devil's advocate made better judgments than individuals not exposed to a devil's advocate. Finally, research on team decision making by Hollenbeck et al. (1995, 1998) indicated that, all else equal, team members whose recommendations are uncorrelated or negatively correlated (i.e., conflict) provide more value as a unit than do team members whose recommendations are correlated high and positive (and hence redundant).

Although a prediscussion disagreement appears to stimulate the quality of group decision making, this positive effect breaks down quickly when conflict becomes more intense. Carnevale and Probst (1998) showed that, compared with a control condition in which no

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conflict was induced, participants were more flexible in their thinking and more creative in their problem solutions when they anticipated a cooperative negotiation (low conflict) with another individual. When participants anticipated a competitive, hostile negotiation (high conflict), however, cognitive flexibility and creative thinking decreased substantially. Carnevale and Probst explained these effects in terms of cognitive load—as conflict intensifies and arousal increases, cognitive load increases, which interferes with cognitive flexibility and creative thinking. All in all, this information-processing perspective suggests a moderate negative correlation between conflict and team performance: A little conflict stimulates information processing, but as conflict intensifies, the cognitive system shuts down, information processing is impeded, and team performance is likely to suffer.

Jehn (1994, 1995, 1997) proposed an alternative perspective by differentiating between task and relationship conflict, noting that although relationship conflict generally decreases satisfaction and interferes with task performance, task conflict can be beneficial to task performance when working on nonroutine tasks. Nonroutine tasks are typically complex tasks without standard solutions, therefore requiring some consideration by the team. Task conflict increases group members' tendency to scrutinize task issues and to engage in deep and deliberate processing of task-relevant information. This fosters learning and the development of new and sometimes highly creative insights, leading the group to become more effective and innovative (De Dreu & West, 2001; Jehn, 1995). In contrast, routine tasks typically have highly developed and effective standard operating procedures. Task conflict is more likely to interfere with those procedures than improve on them (see also Amason, 1996; De Dreu, 1997; De Dreu & Weingart, 2003; Jehn, 1994, 1997; Turner & Pratkanis, 1997). Indeed, Jehn (1995) found that task conflict interacted with task routineness to predict performance.

The work by Jehn (1995) has led many to argue that task conflict (but not relationship conflict) can have positive effects on team performance (Amason & Schweiger, 1997; Simons & Peterson, 2000; Van de Vliert & De Dreu, 1994). Recently, Simons and Peterson (2000) summarized the literature by noting that groups who experience task conflict tend to make better decisions because such conflict encourages greater cognitive understanding of the issue being considered. In contrast, relationship conflict limits the information processing ability of the group because group members spend their time and energy focusing on each other rather than on the group's task-related problems. The notion that task conflict may be productive and that relationship conflict is dysfunctional is strongly reflected in management teaching. Recent textbooks in management and organizational behavior conclude that task conflict is largely functional, whereas relationship conflict is dysfunctional (e.g., McShane & Von Glinow, 2000; Robbins, 2000; Rolinson, 2002).

A close look at the empirical evidence gathered since the work published by Jehn (1994, 1995) suggests, however, that the issue is more complicated than suggested in the reviews cited above. Some studies have reported strong positive correlations between task conflict and team performance (e.g., Jehn, 1994; Nijdam, 1998), but others have found a negative correlation (e.g., Jehn, Northcraft, & Neale, 1999; Lovelace, Shapiro, & Weingart, 2001) or no significant relationship (e.g., Pelled, Eisenhardt, & Xin, 1999; Kurtzberg, 2000). Although both task and relationship con-

flict have consistently been found to negatively relate to team member satisfaction (e.g., Amason & Schweiger, 1997; Jehn, 1995), there appears to be a disconnect in the literature on team conflict between theorizing (i.e., task conflict can be good, relationship conflict is bad) and the empirical evidence. Thus, it is unclear whether the perspective proposed by Jehn should be favored to the information processing perspective, which suggests that (both task and relationship) conflict interferes with team performance.

To examine the validity of these contrasting perspectives on the conflict–team performance relationship, we conducted a quantitative review (using meta-analysis) of the team conflict literature. We examined the associations between task and relationship conflict with team performance and team member satisfaction. We included satisfaction as a dependent variable to determine whether conflict effects on satisfaction parallel those for team performance. We contrasted two perspectives about the conflict–team performance–satisfaction relationship. According to the information-processing perspective, conflict interferes with team performance and team member satisfaction. Because no distinction is made between task and relationship conflict, the overall negative correlation with team performance is expected for both task and relationship conflict. The contrasting perspective holds that task and relationship conflict interfere with team member satisfaction but that only relationship conflict interferes with team performance and that task conflict may be beneficial to team performance, especially when team work involves complex, uncertain, and non-routine tasks.

The meta-analysis covers the period that begins with the publication of the pioneering study by Jehn (1994) and ends with the Academy of Management Conference in August 2001. The research published prior to 1994 used general measures of conflict without differentiating between task and relationship conflict and therefore was not appropriate for the analysis. In these 8 years, at least thirty-five articles, conference reports, or unpublished manuscripts (including doctoral dissertations) are in the public domain, of which between 15 and 26 were eligible for the current study (for more detail, see the Method section). Many studies included in the current analysis reported on both task conflict and relationship conflict, and many included a measure of team performance as well as a measure of team member satisfaction. All studies in the meta-analysis measured rather than manipulated task versus relationship conflict, an issue we return to in the Discussion section.

Method

Literature Search

A literature search was conducted in July 2001 using PsycINFO and Silverplatter for the Apple Macintosh Version 3.23. Recent issues of conflict management, psychology, and organizational behavior journals were searched for articles that might not yet have been included in these databases. In addition, we examined conference proceedings of the last five conferences of the *Society for Industrial and Organizational Psychology*, the *International Association for Conflict Management*, and the *Academy of Management* meetings (always up to the conferences held in 2001). A backward search of the reference section of each article provided additional studies. We contacted authors who had conducted research on relationship and task conflict in the past to collect current and unpublished research. Finally, we searched *Dissertation Abstracts* to identify unpublished dissertations that fit our criteria for inclusion.

Criteria for Inclusion and Variables Coded From Each Study

Studies were included if they (a) measured relationship conflict, task conflict, or both, (b) included a measure of team performance, team member satisfaction, or both, and (c) provided the necessary statistical information to compute effect sizes. Thirty studies that met the criteria were identified (see Table 1). Task and relationship conflict in these studies was most often assessed with a scale developed by Jehn (1994, 1995). Sample items for task conflict include "To what extent are there differences of opinions regarding the task in your work group," "How frequently are there disagreements about the task you are working on in this work group," and "How often do people in your work group disagree about the work being done." Sample items for relationship conflict include "How much friction is present in your work group," "To what extent are personality clashes present in your work group," "How much anger is present in your work group," and "How much emotional conflict is there in your work group" (see Jehn, 1994, p. 229).

Twenty-eight studies included a measure of team performance. Team performance measures in this literature have included decision quality, product quality, production quantity, and team effectiveness. Some studies

reported performance measures obtained from the team members themselves (some aggregated to the group level, others did not). Most studies (also) provided an objective team performance measure or ratings by supervisors. Data from a different source than the conflict measures were preferred because it eliminates the problem of common-source variance, which may inflate correlations between predictor and criterion. In addition, to maintain statistical independence, when multiple measures of team performance were available, we included only the most objective, external source. Thus, whenever possible, we selected objective performance measures and, if these were unavailable, selected supervisor ratings. Only when no other source than the team itself was available, we relied on team members' own assessments of their performance. As a result, the large majority of performance measures were at the group level of analysis, with the exception of three studies (Gardner, 1998; Janssen, Van de Vliert, & Veenstra, 1999; Pelled, 1996). Fifteen studies included a measure of team member satisfaction, either assessed directly or indirectly, by asking about the quality of the relationship (e.g., Bradford, 1999) or affective acceptance of the team decision (Janssen et al., 1999). All but four of these studies presented team member satisfaction data aggregated to the group level (the exceptions being Bradford, 1999; Duffy, Shaw, & Stark, 2000; Janssen et al., 1999; Jehn et al., 1999).

Table 1
Overview of the Correlations and Task Type for Each Study in the Meta-Analysis

Author	Corrected correlations (ρ)					Moderator
	TC \times RC	RC \times Perf	RC \times Satis	TC \times Perf	TC \times Satis	Task type
Amason (1996)	.38	-.43	.67	-.11	-.04	Decision making
Amason & Mooney (1999)	.42	-.42		-.27		Decision making
Barsade, Ward, Turner, & Sonnenfeld (2000)	.84	.07		.01		Decision making
Bradford (1999)	.42		-.34		-.22	Decision making
DeChurch & Marks (2000)	.61	-.12	-.63	-.20	-.51	Project
De Dreu & Van Vianen (2001)		.07	-.36			Project
De Dreu & West (2001)				-.25		Production
De Vries (1998)	.68	-.12		-.15		Mixed
Duffy, Shaw, & Stark (2000)			-.64			Project
Gardner (1998)	.50	-.71		-.59		Project
Jackson & Peterson (2001)	.74	.04	-.73	-.13	-.58	Project
Janssen, Van de Vliert, & Veenstra (1999)	.46	-.61	-.83	-.34	-.41	Decision making
Jehn (1994)	.26	-.45	-.70	.44	-.14	Project
Jehn (1995); Jehn, Northcraft, & Neale (1999)	.55	-.31	-.57	-.31	-.47	Mixed
Jehn, Chatwick, & Thatcher (1997)	.48	-.17	-.58	-.12	-.21	Project
Jehn & Mannix (2001)	.55	-.11	-.25	-.17	-.25	Project
Kurtzberg (Study 1; 2000)	.77	.01		-.11		Project
Kurtzberg (Study 2; 2000)	.18	.01		.03		Planning
Lovelace, Shapiro, & Weingart (2001)				-.49		Project
Nauta & Molleman (2001)	.78	-.04		-.21		Project
Nijdam (1998)	.71	.32	-.50	.26	-.68	Production
Okhuysen & Jehn (2000)	.19	-.38		-.13		Project
Patrick (1997)	.70	-.06	-.69	-.18	-.67	Production
Pelled (1996)		-.35				Project
Pelled, Eisenhardt, & Xin (1999)	.48	-.10		.07		Project
Porter & Lilly (1996)				-.43		Project
Sessa (1993)	.23	-.12		-.35		Project
Tjosvold, Law, & Sun (1999)	.62	-.07	-.42	.12	-.27	Production
Vermeul (1996)	.63	-.49	-.28	-.29	-.72	Mixed
Winters (1997)	.46	-.46		-.55		Mixed
Overall statistics						
Mean corrected correlation	.54	-.25	-.56	-.20	-.32	
Lower and upper boundary of the 95% CI	.52, .56	-.28, -.22	-.58, -.54	-.23, -.16	-.37, -.30	
Number of effect sizes (k)	24	25	15	26	12	
Homogeneity index (Q_w) ^a	241.01	271.69	189.70	281.39	74.51	

Note. TC = task conflict; RC = relationship conflict; Perf = task performance; Satis = team member satisfaction;

^a All homogeneity indices are significant at $p < .01$, indicating substantial variance in effect sizes.

We coded the group task from each study. Too little information about the groups' tasks was provided in the research articles to directly code for task complexity, uncertainty, or routineness. Instead, group tasks were classified into more global categories using McGrath's (1984) group-task circumplex, and then assumptions about their complexity or uncertainty were made. The tasks performed in the studies fell into four categories: planning-production tasks, decision-making tasks, project tasks, and mixed tasks in which teams performing different tasks were combined into one sample. According to McGrath (1984), production and planning tasks involve overt task execution while striving to meet standards, decision-making tasks require reaching consensus on issues with no right answer, and project tasks include a variety of group tasks, including (but not limited to) planning and decision making. We identified planning and production tasks as being less uncertain, less complex, or more routine than decision making and project tasks, with project tasks as being potentially the most uncertain, most complex, or least routine.

We also identified the correlation between relationship and task conflict from each study. Relationship and task conflict can be substantially correlated, depending on the group climate, intragroup trust, and psychological safety (Simons & Peterson, 2000). Our understanding of the differential effects of relationship and task conflict can be informed by our understanding of the strength of the relationship between the two constructs.

For each research report, we separately coded each of the variables; initial interrater agreements exceeded .80. To resolve disagreements, we, together, went back to the research report and reached consensus on the appropriate code. Results are shown in Table 1.

Computation and Analysis of Effect Sizes

The Hedges-Olkin (1985) approach was used to analyze the data. Zero-order correlations between relationship conflict and team conflict, relationship conflict and team performance, task conflict and team performance, relationship conflict and satisfaction, and task conflict and satisfaction were corrected for measurement error. To correct for measurement error in the data, we used the formula provided by Hunter and Schmidt (1990) and divided correlations by the product of the square root of each of the reliabilities. In those few cases (less than three per analysis) in which no reliabilities were reported, we took the average reliability of the same variable from all other studies. The corrected correlations were coded such that positive signs indicate better team performance or greater satisfaction when there are higher levels of relationship or task conflict. We used DSTAT (Version 1.11; Johnson, 1989), a statistical software program for meta-analysis, to generate effect-size estimates and to conduct the moderator analyses. Mean corrected correlations, 95% confidence intervals, and the homogeneity index Q_W (see also the next paragraph) are shown at the bottom of Table 1.

Homogeneity of effect sizes. To determine whether the effect sizes were consistent across the studies reviewed, we tested the homogeneity of the effect sizes. The homogeneity statistic, Q_B , has an approximate chi-square distribution with $k - 1$ degrees of freedom, where k is equal to the number of correlations. We used DSTAT to identify outliers, and we deleted outliers from subsequent analyses if and only if the percentage of correlations dropped would not exceed 10% of all the correlations in the sample. This resulted in the detection and deletion of one outlier per analysis. It should be noted that although the deletion of outlier(s) reduced the heterogeneity of effect sizes considerably, it never led to conclusions about the effects of moderators different from analyses that included the outlier(s).

Moderator analysis. We conducted moderator analyses to determine whether the group task was related to the heterogeneity of effect sizes (Hedges & Olkin, 1985).¹ The logic of the categorical model test is analogous to analysis of variance (ANOVA). Calculating the categorical models results in (a) the between-class goodness-of-fit statistic Q_B , which

has an approximate chi-square distribution with $p - 1$ degrees of freedom, where p is the number of classes, and (b) the within-class goodness-of-fit statistic Q_W , which has an approximate chi-square distribution with $m - 1$ degrees of freedom, where m is the number of effect sizes in the class. That is, Q_B is analogous to a main effect in an ANOVA, and Q_W is analogous to homogeneity within each class in ANOVA.

Results

Correlation Between Conflict Types

To gain some insight in the differential validity of the task versus relationship conflict distinction, we examined the average association between relationship conflict and task conflict. Simons and Peterson (2000) reported an average correlation between relationship conflict and task conflict of $r = .47$, which suggests differential validity is low. However, their analysis was based on a convenience sample of 11 studies, and from their report it appears that they used observed correlations rather than correlations corrected for bias due to measurement error (which is preferred and used throughout this article).

Some of the studies included by Simons and Peterson (2000) are not included in the current set because these studies did not also provide a measure of team performance or team member satisfaction. Nevertheless, current results are similar to their findings. The average (corrected) correlation in our data set was $\rho = .54$ (see Table 1). The study by Nauta and Molleman (2001) was identified as an outlier, and when excluded from the analyses, the average correlation was $\rho = .52$ ($k = 23$; 95% CI = .49, .55). It should be noted that the test for homogeneity of effect sizes was significant even after the Nauta and Molleman study had been excluded, $Q_W(22) = 192.25$, $p < .01$, suggesting that considerable variation across studies exists. It also suggests that the strength and direction of the association between task conflict and team effectiveness may be masked in some cases by a high correlation between task and relationship conflict. We return to this when we discuss moderator effects.

Conflict and Team Member Satisfaction

The literature on conflict and team member satisfaction suggests that relationship conflict should be negatively associated with team member satisfaction. In a first test, the study by Janssen et al. (1999) was identified as the largest outlier and excluded from subsequent analyses, leaving a total $k = 14$. All studies reported negative correlations between relationship conflict and team member satisfaction (see Table 1), the average correlation being negative and significant, $\rho = -.54$ (for more detail, see Table 2). Similarly, task conflict should be negatively associated with team member satisfaction. In a first test, Patrick (1997) was identified as the largest outlier and was excluded from subsequent analyses, leaving a total $k = 12$. All studies reported negative correlations between task conflict and team member satisfaction (see Table 1), the average correlation being negative and significant, $\rho = -.32$ (see Table 2). From Table 2 it can be seen that considerable

¹ Publication status, group type, and country were also examined as potential moderators. Results of these analyses are available from Carsten K.W. De Dreu.

Table 2
Average Correlation Broken Down for Type of Conflict and Type of Outcome

Outcome and conflict type	<i>k</i>	<i>N</i>	r_{obs}	$\text{Var}(r_{\text{obs}})$	s_e	ρ	$\text{Var}(\rho)$	95% CI	95% CV
Team member satisfaction									
Task conflict	12	1,048	-.27	0.20	.099	-.32	0.25	-.35, -.28	-0.83, 0.18
Relationship conflict	14	1,370	-.48	0.19	.078	-.54	0.24	-.57, -.52	-1.03, -0.05
Team performance									
Task conflict	25	1,726	-.19	0.14	.117	-.23	0.18	-.26, -.20	-0.58, 0.12
Relationship conflict	24	1,808	-.19	0.17	.111	-.22	0.22	-.25, -.19	-0.65, 0.21

Note. *k* = number of effect sizes; *N* = total number of observations; r_{obs} = average observed correlation; $\text{Var}(r_{\text{obs}})$ = variance in observed correlations; s_e = sampling error in observed correlations; ρ = average correlation corrected for measurement error; $\text{Var}(\rho)$ = variance of ρ ; 95% CI = lower and upper boundaries of the 95% confidence interval; 95% CV = lower and upper boundaries of the 95% credibility interval.

variation in correlations exists, as indicated by the relatively large credibility intervals. In addition, Table 2 shows that task conflict has a weaker association with team member satisfaction than relationship conflict has with team member satisfaction. Although both types of conflict appear to harm satisfaction, the fact that the 95% confidence intervals do not overlap indicates that relationship conflict has a more negative effect than does task conflict. This finding also supports the idea that task and relationship conflict are unique constructs.

Conflict and Team Performance

According to both the information processing perspective and the more recent model differentiating between task and relationship conflict, relationship conflict should be negatively associated with team performance. In a first test, the study by Gardner (1998) was identified as the largest outlier and was excluded from subsequent analyses, leaving a total $k = 24$. Although 6 studies found positive correlations between relationship conflict and team performance (see Table 1), the average (corrected) correlation was negative and significant, $\rho = -.22$ (see Table 2 for the relevant statistics).

According to the task versus relationship conflict perspective (but not the information processing perspective), task conflict should be positively associated with team performance. In a first test, Jehn (1994) was identified as the largest outlier and was excluded from subsequent analyses, leaving a total $k = 25$. Although 5 studies reported positive correlations between task conflict and team performance (see Table 1), the average correlation was negative and significant, $\rho = -.23$ (see Table 2). Thus, the new model is rejected. Moreover, from Table 2, it follows also that there is no evidence whatsoever that task conflict and relationship conflict are differentially correlated with team performance, thus contradicting the idea that task and relationship conflict have different consequences for team performance. This pattern is strongly compatible with the information processing perspective on the conflict–team performance relationship.

Moderating Role of Group Task

The above results should be taken with caution because in both cases considerable heterogeneity among the effect sizes existed, as indicated by the credibility intervals (see Table 2). In three of the four cases, the credibility intervals include zero, indicating that a

majority of the individual correlations in the meta-analysis include zero. It also indicates that correlations vary across studies, and that moderators of the correlation might exist. The task-relationship perspective suggests that the task conflict–team performance correlation would be stronger when teams are working on uncertain and complex, rather than simple and routine, tasks. In the case of task conflict, the moderator model for group task was significant, $Q_B(3) = 82.52$, $p < .01$. Results are summarized in the upper half of Table 3, from which it can be seen that studies investigating multiple types of teams reported the strongest negative correlations and differed from all other categories, $\chi^2(1) > 15$, $ps < .01$. Studies examining project teams (highest uncertainty) reported the next strongest negative correlation and did not differ from studies reporting on decision-making teams (moderate uncertainty), $\chi^2(1) = 1.53$, $p < .22$. Studies on project teams and studies on decision-making teams both differed from studies reporting on production teams (low uncertainty), $\chi^2(1) > 15$, $ps < .01$. The production teams category is the only one with an average correlation that does not differ significantly from zero. All in all, this significant result for group task is consistent with the idea that effects are stronger (albeit negative) for the more uncertain and complex tasks than for the simple, routine (production) tasks. This pattern is strongly compatible with the information processing perspective, and contradicts the task versus relationship perspective, suggesting that task conflict has the most positive effects in decision making and project teams.

We investigated the moderating role of group task for the relationship conflict–team performance correlation. The model for group task was highly significant, $Q_B(3) = 62.63$, $p < .01$. Results are summarized in the lower half of Table 3. Studies investigating decision-making teams or mixed teams reported the strongest negative correlations (these two correlations did not differ, $\chi^2[3] = 0.03$, $p < .78$). Both differed significantly from studies examining project teams, $\chi^2(3) = 21.21$ and $\chi^2(3) = 23.13$, $ps < .01$, respectively, and both differed from studies reporting on production teams, $\chi^2(3) = 38.68$, $p < .01$, and $\chi^2(3) = 41.34$, $p < .01$. Finally, studies on production teams reported less negative correlations than studies on project teams, $\chi^2(3) = 9.68$, $p < .03$.

When we compared the results for task conflict and for relationship conflict, some interesting patterns emerged. As can be seen in Table 3, for decision-making teams there is a sizable difference between the task conflict–team performance correlation ($\rho = -.20$) and the relationship conflict–team performance cor-

Table 3

Average Correlation Between Task Conflict (Top) and Relationship Conflict (Bottom) and Team Performance Broken Down for Task Type

Conflict and task type	<i>k</i>	<i>N</i>	r_{obs}	$Var(r_{obs})$	s_e	ρ	$Var(\rho)$	95% CI	95% CV
Decision-making teams	4	254	-.16	0.15	.123	-.20	0.18	-.26, -.14	-0.55, 0.15
Project teams	12	847	-.22	0.15	.114	-.26	0.20	-.31, -.21	-0.65, 0.13
Production teams	4	318	.03	0.17	.112	.04	0.20	-.05, .13	-0.35, 0.43
Multiple types of teams	4	307	-.35	0.19	.101	-.43	0.28	-.49, -.36	-0.97, 0.12
Decision-making teams	4	254	-.33	0.29	.112	-.39	0.31	-.49, -.29	-0.99, 0.22
Project teams	12	950	-.15	0.14	.109	-.17	0.16	-.22, -.13	-0.48, 0.14
Production teams	4	297	-.07	0.13	.115	-.04	0.19	-.12, .04	-0.31, 0.23
Multiple types of teams	4	307	-.31	0.16	.103	-.38	0.20	-.44, -.32	-0.77, 0.01

Note. *k* = number of effect sizes; *N* = total number of observations; r_{obs} = average observed correlation; $Var(r_{obs})$ = variance in observed correlations; s_e = sampling error in observed correlations; ρ = average correlation corrected for measurement error; $Var(\rho)$ = variance of ρ ; 95% CI = lower and upper boundaries of the 95% confidence interval; 95% CV = lower and upper boundaries of the 95% credibility interval.

relation ($\rho = -.39$). No such difference was observed for other task types. Thus, it appears that relationship conflict is worse than task conflict only for decision-making teams.

Moderating Role of the Association Between Task and Relationship Conflict

The average correlation between task conflict and relationship conflict was substantial yet varied considerably across studies. Simons and Peterson (2000) showed that within-team trust moderates this correlation, with high correlations between task and relationship conflict in teams with low trust, and low correlations in teams with high trust. As such, it may be that the beneficial effects of task conflict for team effectiveness are more likely to come out when the correlation between task and relationship conflict is low rather than high. To test this possibility, we placed studies into a low-correlation category when the correlation between task and relationship conflict was below average (i.e., $\rho < .52$), and a high-correlation category when the correlation between task and relationship conflict was equal to or above average (i.e., $\rho \geq .52$). Jehn (1994) was again excluded as the largest outlier, and three studies that did not provide a correlation between task and relationship conflict were also excluded from this analysis.

The moderator model was highly significant, $Q_B(1) = 51.91$, $p < .01$. When task and relationship conflict are weakly correlated, the average corrected correlation between task conflict and team performance is negative but small. When task and relationship conflict are strongly correlated, however, the average corrected correlation between task conflict and team performance is negative

but moderate. Table 4 gives the relevant statistics, from which can be seen that the 95% confidence intervals for the low and high correlation groups do not overlap.

Conclusions and General Discussion

In the past 10–15 years, there has been a shift in the view of conflict in organizations as a stressful, disruptive event toward instead a more optimistic view of conflict as possibly functional and stimulating because it surfaces issues that otherwise might not be considered. Contrary to this optimistic view, however, our results show that for team performance, both task conflict and relationship conflict are equally disruptive. Even when we considered the complexity and nonroutiness of group task as a moderator of the conflict type–team performance relationships, no single correlation appeared positive. Thus, our findings go against current thinking that task conflict is good for performance and that relationship conflict is worse than task conflict for performance; rather, they support the information processing perspective that suggests that whereas a little conflict may be beneficial, such positive effects quickly break down as conflict becomes more intense, cognitive load increases, information processing is impeded, and team performance suffers.

Implications for Theory and Research

Our results show that relationship conflict is more disruptive than task conflict when it comes to team member satisfaction. In a way, this is not very surprising because relationship conflict tends

Table 4

Average Correlation Between Task Conflict and Team Performance When Task Conflict (TC) and Relationship Conflict (RC) Are Strongly or Weakly Correlated

Association between TC and RC	<i>k</i>	<i>N</i>	r_{obs}	$Var(r_{obs})$	s_e	ρ	$Var(\rho)$	95% CI	95% CV
Low ($\rho \leq .52$)	12	852	-.13	0.13	.121	-.10	0.16	-.15, -.05	-0.75, 0.55
High ($\rho > .52$)	10	843	-.29	0.18	.105	-.35	0.23	-.39, -.30	-1.08, 0.39

Note. *k* = number of effect sizes; *N* = total number of observations; r_{obs} = average observed correlation; $Var(r_{obs})$ = variance in observed correlations; s_e = sampling error in observed correlations; ρ = average correlation corrected for measurement error; $Var(\rho)$ = variance of ρ ; 95% CI = lower and upper boundaries of the 95% confidence interval; 95% CV = lower and upper boundaries of the 95% credibility interval.

to be more interpersonal and emotional, thus more likely to elicit a negative affective response. This finding does, however, point to some interesting avenues for future research. We know that satisfaction is related to turnover and absenteeism (Hulin, 1990) and organizational citizenship behavior (Smith, Organ, & Near, 1983). In accordance, it can be hypothesized that relationship conflict more than task conflict affects turnover, absenteeism, and organizational citizenship behavior, and future research may be designed to test such predictions.

With regard to team performance, results were inconsistent with the idea that task conflict is beneficial for team performance and instead support the information processing perspective that both task and relationship conflict interferes with team performance. This being said, however, two issues require attention. First, the fact that results showed no differential relation between type of conflict and team performance might reflect measurement problems. Most research included in the current study relied on the scale developed by Jehn (1994, 1995), and psychometric issues may prevent finding a differential relationship. However, the fact that relationship conflict is more strongly related to team member satisfaction than is task conflict strongly suggests that the two constructs as measured are unique. Second, the current meta-analysis includes only correlational studies and leaves open the possibility of reverse causality. It is possible that performance affects the level and type of conflict in teams, for instance because poor performance is stressful, annoying, and frustrating. It may lead people to reconsider their goals and strategies, thus providing the basis for task conflict. In addition, poor team performance may lead people to blame each other, thus providing the basis for relationship conflict. However, there is good evidence from laboratory experiments that some level of conflict can have positive effects on, for instance, creative activity and divergent thinking (e.g., Carnevale & Probst, 1998; Van Dyne & Saavedra, 1996; for a review, see Nemeth & Staw, 1989). Most likely, the "poor performance leads to conflict" and the "conflict influences performance" processes are both captured by the cross-sectional designs summarized in the current meta-analysis. As such, current findings suggest that the "poor performance leads to conflict" process (or vice versa) is a more powerful one overriding the positive effects that (some types of) conflict may have on team performance.

The psychometric issue as well as the problem of causality point to a limitation in the research included in the current meta-analysis. Our understanding of the conflict-team performance relationship would benefit tremendously from research using alternative methods to assess task and relationship conflict. Research is needed that observes and codes conflict episodes in teams, going beyond mere self-report measures. Further, studies on the distinction between task and relationship conflict could be integrated with experimental research on conflict in decision-making groups, which tend to show positive effects of conflict on the quality of group decision making (e.g., Hollenbeck et al., 1995; Schulz-Hardt et al., 2002).

Moderators of the Conflict-Team Performance Relationship

The finding that both types of conflict had its weakest correlation with task performance in production teams suggests that conflict interferes less with the execution of simple, well-learned tasks than with more complex, nonroutine tasks. Complex tasks

require the use of more cognitive resources and typically require longer to perform. It appears that the experience of conflict takes needed resources away from the performance of complex tasks, whereas those resources are more available (and performance is less likely to be harmed) when working on simpler tasks. This runs counter to Jehn's (1995) original finding that task conflict had a stronger positive effect on performance for nonroutine than routine tasks. Rather, it strongly supports the more traditional information processing perspective that conflict interferes with information processing capacity and therefore impedes task performance, especially when tasks are complex and demand high levels of cognitive activity.

Task conflict had a less negative association with team performance when task and relationship conflict were weakly rather than strongly correlated. This finding can be understood in light of the study by Simons and Peterson (2000), who showed that within-team trust reduces the correlation between task and relationship conflict. Low correlations between task and relationship conflict may reflect high levels of within-team trust, and therefore allow task conflict to run a relatively constructive (or at least less destructive) course. This finding is consistent with research showing that task conflict runs a relatively constructive course when teams have high rather than low levels of psychological safety (Edmonson, 1999), when there are norms of openness (Jehn, 1997; West & Anderson, 1996), and when conflict is explicitly induced by means of a devil's advocate (Schwenk, 1990). It should be noted, however, that even when correlations between task and relationship conflict were weak, task conflict still had a significant negative correlation with team performance. This suggests that only at relatively high levels of within-team trust, openness, and psychological safety can task conflict have any positive effects on team performance.

The results point to the difficulty of managing conflict in teams. The large majority of studies found a negative relationship between both task and relationship conflict and performance. Does this mean that teams who experience conflict are destined to fail? Can the negative effects of conflict be mitigated, if not reversed? Recent empirical research has begun to address these questions. Research suggests that task conflicts have positive effects on interpersonal relations, group performance, and customer satisfaction when team members perceive cooperative rather than competitive goal interdependence (e.g., Alper, Tjosvold, & Law, 2000; for a review, see Tjosvold, 1997). Other studies suggest that teams benefit from task conflict when they cultivate an environment that is open and tolerant of diverse viewpoints and work with cooperative norms preventing those disagreements from being misinterpreted as personal attacks (Amason, 1996; De Dreu & West, 2001; Jehn, 1995; Lovelace et al., 2001; Simons & Peterson, 2000). Finally, teams who use more collaborative communication and less contentious communication when expressing disagreements are less likely to experience the negative effects of conflict (Lovelace et al., 2001). It appears that an open environment characterized by collaboration rather than contention is more likely to minimize, if not reverse, the negative effects of task conflict on performance. The same, however, cannot be said for relationship conflict. Research suggests that relationship conflict is best avoided rather than dealt with using either collaboration or contention (De Dreu & Van Vianen, 2001; Murnighan & Conlon, 1991).

Perhaps the most straightforward practical implication of the current findings is that team leaders, advisors, and facilitators

should invest in helping the team to diagnose the type of conflicts that emerge, and teach team members how to manage these conflicts. When relationship conflicts emerge, team performance and team member satisfaction are at risk, and strategies to mitigate and eliminate relationship conflict are needed. When task conflicts emerge, team performance may benefit but only when the conflict is managed constructively and teams have high levels of openness, psychological safety, and within-team trust. Strategies fostering this are likely to help the team benefiting from task-related disputes.

Conclusion

The current results were particularly clear about the correlation between task conflict and relationship conflict on the one hand, and team performance on the other: No differences between the two types of conflict were detected, and both have a moderate and negative correlation with team performance. This finding should not be taken as conclusive evidence that conflict does not have a functional side to it or that conflict can never be positive. Rather, current findings suggest that in some tasks, conflict interferes less than in other tasks, and in future research more emphasis should be placed on how team members manage their task and relationship conflicts. Conflict may have positive consequences under very specific circumstances, and we need to detect those circumstances in new research. While waiting for these studies, however, it seems safe to stop assuming that, whereas relationship conflict is detrimental to team performance, task conflict improves team performance. Clearly, it does not.

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