When Task Conflict Becomes Personal: The Impact of Perceived Team Performance

Citation for published version (APA):

Document status and date:
Published: 01/10/2016

DOI:
10.1177/1046496416667816

Document Version:
Publisher's PDF, also known as Version of record

Please check the document version of this publication:

• A submitted manuscript is the version of the article upon submission and before peer-review. There can be important differences between the submitted version and the official published version of record. People interested in the research are advised to contact the author for the final version of the publication, or visit the DOI to the publisher's website.
• The final author version and the galley proof are versions of the publication after peer review.
• The final published version features the final layout of the paper including the volume, issue and page numbers.

Link to publication

General rights
Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

• Users may download and print one copy of any publication from the public portal for the purpose of private study or research.
• You may not further distribute the material or use it for any profit-making activity or commercial gain
• You may freely distribute the URL identifying the publication in the public portal.

If the publication is distributed under the terms of Article 25fa of the Dutch Copyright Act, indicated by the “Taverne” license above, please follow below link for the End User Agreement:
www.umlib.nl/taverne-license

Take down policy
If you believe that this document breaches copyright please contact us at:
repository@maastrichtuniversity.nl
providing details and we will investigate your claim.

Download date: 27 May. 2019
When Task Conflict Becomes Personal: The Impact of Perceived Team Performance

Hannes Guenter¹, Hetty van Emmerik¹, Bert Schreurs¹, Tom Kuypers², Ad van Iterson¹, and Guy Notelaers³

Abstract
Although potentially beneficial, task conflict may threaten teams because it often leads to relationship conflict. Prior research has identified a set of interpersonal factors (e.g., team communication, team trust) that help attenuate this association. The purpose of this article is to provide an alternative perspective that focuses on the moderating role of performance-related factors (i.e., perceived team performance). Using social identity theory, we build a model that predicts how task conflict associates with growth in relationship conflict and how perceived team performance influences this association. We test a three-wave longitudinal model by means of random coefficient growth modeling, using data from 60 ongoing teams working in a health care organization. Results provide partial support for our hypotheses. Only when perceived team performance is low, do task conflicts relate with growth in relationship conflict. We conclude that perceived team performance seems to enable teams to uncouple task from relationship conflict.

Keywords
task conflict, relationship conflict, perceived team performance, random coefficient growth modeling

¹Maastricht University, The Netherlands
²Fontys International Business School, Venlo, The Netherlands
³University of Bergen, Norway

Corresponding Author:
Hannes Guenter, Maastricht University, Tongersestraat 53, 6211LM Maastricht, The Netherlands.
Email: h.guenter@maastrichtuniversity.nl
Team research typically distinguishes between task and relationship conflict, and it studies how both impact team performance (e.g., Behfar, Peterson, Mannix, & Trochim, 2008; De Dreu & Weingart, 2003; De Wit, Greer, & Jehn, 2012). Task conflict refers to task-related disagreements which, as well as having detrimental effects, may encourage the exchange of ideas and improve decision quality (Jehn & Mannix, 2001). Relationship conflict describes personalized disagreements that divert attention away from the task and invariably harm team performance (Janssen, Van de Vliert, & Veenstra, 1999; Simons & Peterson, 2000). Task and relationship conflicts are highly correlated, so teams can rarely reap the potential benefits that task conflicts may bring (Peterson & Behfar, 2003). In response, researchers have begun to investigate how to reduce the risk of task conflicts turning into relationship ones. This would help teams to engage in task disagreements without experiencing relationship conflicts (Choi & Cho, 2011; Peterson & Behfar, 2003; Simons & Peterson, 2000).

Authors have studied various moderators of the association between task and relationship conflict (e.g., Choi & Cho, 2011; Gamero, Gonzalez-Roma, & Peiro, 2008; Simons & Peterson, 2000). The presence of interpersonal factors such as team communication and team trust has been found to mitigate the association between task and relationship conflict (e.g., Gamero et al., 2008; Simons & Peterson, 2000). Whether task conflicts escalate into relationship conflicts, however, may not only hinge on interpersonal factors, but may also depend on factors more directly related to task performance such as past performance, performance feedback, and perceived team performance (Amason & Mooney, 1999; Bayazit & Mannix, 2003; Peterson & Behfar, 2003). We focus on perceived team performance, that is, the perceptions of team members of their team’s productivity and performance (Jehn, Chadwick, & Thatcher, 1993). Drawing on social identity theory (Ashforth & Mael, 1989; Hogg & Terry, 2000), we propose and test the idea that perceived team performance attenuates the association between task conflict (studied as a time-varying predictor) and growth in relationship conflict (i.e., the rate of change in relationship conflict). We argue that this moderation exists because perceived team performance increases team identification, and, therefore, group-serving behavior, which helps prevent task conflicts from getting out of hand.

By examining perceived team performance as a moderator of the effects of task conflict, we make two specific contributions to the literature. First, we answer recent calls for research that identifies “factors that determine whether groups are able to separate task from relationship conflicts” (De Wit et al., 2012, p. 16). Instead of assessing interpersonal factors as potential moderators, we provide an alternative perspective and test a model that emphasizes the importance of factors directly associated with task performance, in
particular, perceived team performance. We develop our arguments based on social identity theory, which has remained underused in the study of task and relationship conflicts (for an exception, see Schaeffner et al., 2014). Prior research, instead, has often used attribution theory to make predictions on why and when task conflicts turn into relationship conflicts (e.g., Rispens, 2012; Simons & Peterson, 2000; Tidd, McIntyre, & Friedman, 2004). Thus, in building upon social identity theory, we enrich our theoretical understanding of whether and when task and relationship conflicts go hand in hand. In addition, the study of performance-related factors is relevant to management practice. Teams suffering from poor interpersonal processes (e.g., poor team communication) may still manage to keep task conflicts under control, as long as they know how to increase, maintain, and improve their perceived team performance (Hackman & Wageman, 2005).

Second, prior research in this area has remained largely cross-sectional (for notable exceptions, see Greer, Jehn, & Mannix, 2008; Jehn & Mannix, 2001). This is surprising given that team conflict is dynamic in nature, that is, team conflict unfolds, changes, and develops over time (Jehn & Mannix, 2001). Static assessments, thus, may be inconsistent with the dynamic nature of team conflict (Roe, Gockel, & Meyer, 2012). Scholars, accordingly, have called for longitudinal research into team conflicts (Mooney, Holahan, & Amason, 2007; Rispens, 2012). We respond to these calls by testing theory on whether and when task conflict associates with growth in relationship conflict in teams. Note that we are not intending to model the change trajectory in task conflict. Instead, we want to understand how the level of task conflict (which we allow to vary over time) will predict changes in relationship conflict (i.e., relationship conflict growth). Specifically, we use random growth modeling techniques to analyze longitudinal data (three time points) from 60 ongoing health care teams (Bliese & Ployhart, 2002; Ployhart & Vandenberg, 2010; Singer & Willett, 2003).

Conceptual Background

Increasingly, organizations depend on teams to accomplish work. In the United States, 82% of firms with more than 100 employees rely to some degree on teams (Schippers, Homan, & van Knippenberg, 2013). Similarly, in the European Union, over 80% of companies with 10 or more employees consider teamwork an important form of work organization (Valeyre et al., 2009). A distinction often made in team research is between temporary and ongoing teams. In temporary teams, members are brought together to accomplish time-bound tasks before disbanding again (e.g., Choi & Cho, 2011; Greer et al., 2008; Peterson & Behfar, 2003). In ongoing teams, members
work together more regularly and for longer time periods, and also expect to work together in the future (Bradley, White, & Mennecke, 2003). As team conflicts may arise in both kinds of teams, scholars have studied team conflicts in both temporary (Choi & Cho, 2011; Peterson & Behfar, 2003) and ongoing teams (Gamero et al., 2008; Simons & Peterson, 2000). Here, we focus on studying conflicts in ongoing teams.

Distinguishing Task and Relationship Conflict

Team members are in conflict as soon as “one party perceives that its interests are being opposed or negatively affected by another party” (Wall & Callister, 1995, p. 517). This involves team members becoming aware of diverging interests and incompatible preferences (Jehn & Mannix, 2001). Building on earlier research (Guethkow & Gyr, 1954), Jehn (1995) distinguished between task and relationship conflict within teams. Task conflicts arise when team members disagree about the work to be done, including issues such as team strategy and policy development (Janssen et al., 1999). In moderate form, task conflict improves understanding and decision quality (Amason, 1996), fosters team creativity (Farh, Lee, & Farh, 2010), and increases team innovation (De Dreu, 2006). Still, not all studies have found that task conflicts have positive effects. Instead, some studies found no effects (Pelled, Eisenhardt, & Xin, 1999) and others even found negative effects (Jehn, Northcraft, & Neale, 1999). Overall, task conflict and team performance appear to be only weakly related (De Wit et al., 2012), which leaves open the possibility that the effects of task conflict look different in apparently high-performing teams as compared with low-performing teams.

Relationship conflict describes personalized disagreements that are not about the task being performed (Janssen et al., 1999), but about interpersonal incompatibilities among team members, due to differences in personality, personal values, and beliefs (De Dreu & van Vianen, 2001; Jehn & Bendersky, 2003). Typically, relationship conflict involves “tension, animosity, and annoyance among members within a group” (Jehn, 1995, p. 258). Relationship conflict has been found to generate stress and anxiety, consume time and energy (otherwise invested in the task), diminish work satisfaction and organizational commitment (Chen, Sharma, Edinger, Shapiro, & Farh, 2011; Guerra, Martinez, Munduate, & Medina, 2005), reduce decision-making quality (Janssen et al., 1999; Simons & Peterson, 2000), and undermine trust, cohesion, and identification in groups and teams (De Wit, Jehn, & Scheepers, 2013). Thus, it is not surprising that relationship conflict—different from task conflict—is invariably detrimental to team performance (De Wit et al., 2012).
How and Why Task and Relationship Conflict Interrelate

Task conflict positively correlates with relationship conflict (De Wit et al., 2012). Although there is some support for the view that relationship conflict may lead to task conflict (Choi & Cho, 2011), the majority of research has studied how task conflict influences relationship conflict (e.g., Jehn & Mannix, 2001; Peterson & Behfar, 2003; Simons & Peterson, 2000). Therefore, we test the direction of influence from task conflict to relationship conflict. In spite of a large number of findings into the effects of task on relationship conflict, few longitudinal studies exist, leaving open the question as to whether the association holds when tested over time. A test with this direction of influence is also most relevant to our primary research purpose, that is, to build up knowledge on how to keep team task conflicts under control.

One key reason as to why task conflicts can turn into relationship conflicts is that team members may misattribute the intentions of others (Katz & Koenig, 2001; Lindsley, Brass, & Thomas, 1995; Simons & Peterson, 2000). Team members continuously try and make sense of others’ behavior in order to respond accordingly (Douglas et al., 2008). When interpreting task conflicts, team members often wrongly ascribe malicious intentions to others, which is especially likely when conflicting opinions are hard to justify and stakes are high (Mooney et al., 2007). These misattributions may cause adverse reactions, and possibly, relationship conflict (Simons & Peterson, 2000). For instance, if others disagree with strategic suggestions made by a team member, this team member may misunderstand this criticism as a personal attack (e.g., De Dreu & van Knippenberg, 2005). In response, the team member may show defensive behaviors (e.g., dismiss team members’ suggestions), which, in turn, may evoke counterattacks and yield relationship conflicts.

One important reason for why task-related criticism is misunderstood as a personal attack is that people tend to identify—almost instantaneously—with any position taken in a task-related argument. By identifying with a position taken, the position becomes part of a team member’s (extended) self-concept, so that any argument criticizing that position is seen as a threat to one’s self-concept (De Dreu & van Knippenberg, 2005). Indeed, experimental research shows that task-related conflicts produce threats to one’s self-concept—also referred to as an ego-threat (De Dreu & van Knippenberg, 2005). To restore and defend one’s ego, people react in a defensive and hostile manner, and rigidly hold on to their initial viewpoints (De Dreu & van Knippenberg, 2005; De Wit et al., 2012). Such defensive behaviors are likely to trigger animosity in others and bring forth relationship conflicts.
Predicting Growth in Relationship Conflict

Instead of investigating the static link between task and relationship conflict (e.g., by testing a cross-sectional model), we take a dynamic perspective in that we argue that task conflict associates with growth in relationship conflict (i.e., rate of change in relationship conflict). Relationship conflict, by its very nature, involves tension and animosity, and this animosity is often rooted in team members’ differences in personality and personal values (De Dreu & van Vianen, 2001; Jehn, 1995; Jehn & Bendersky, 2003). Personality and personal values describe characteristics of a person that remain relatively stable over time (e.g., Roberts, 2006). Such differences are unlikely to disappear quickly, and the tension and animosity that come with relationship conflicts are thus likely to linger. This implies that relationship conflicts may leave an emotional residue of tensions and animosity, which serves as a new base line for further relationship conflicts (see Epstein & Hamric, 2009, for similar arguments on moral distress).

We argue that teams with high initial levels of task conflict are especially likely to experience relationship conflicts, which will leave some residual tension and animosity. If additional task conflicts arise in such an emotionally unfavorable condition, its effects are likely to be worse than earlier task conflicts. Thus, as teams experience multiple task conflicts over time, it is likely that the emotional conditions (e.g., degree of tension and animosity) in which task conflicts arise worsen over time, yielding increasingly stronger relationship conflicts. In short, we expect a buildup of relationship conflict as teams experience multiple task conflicts over time. Correspondingly, we hypothesize the following:

**Hypothesis 1**: Task conflict is positively associated with growth in relationship conflict.

Moderators of the Task–Relationship Conflict Link

Empirical studies have found different factors to attenuate the association between task and relationship conflict: Role ambiguity (Tidd et al., 2004), conflict issue importance (Rispens, 2012), collective team identification (Schaeffner et al., 2014), conflict management style (DeChurch, Hamilton, & Haas, 2007), conflict management (Huang, 2010), behavioral integration (Mooney et al., 2007), team communication (Gamero et al., 2008; Simons & Peterson, 2000), and team trust (e.g., Choi & Cho, 2011; Peterson & Behfar, 2003; Simons & Peterson, 2000). The majority of these moderating factors address the quality of members’ interpersonal relationships (Hackman & Wageman, 2005). Team communication, for example, is important because it
allows task disagreements to be handled in an open and constructive manner (Gamero et al., 2008; Poole & Garner, 2006). When team communication goes awry—when team members use emotionally harsh language or intimidation tactics—task conflicts are more likely to turn into relationship conflicts (Brett et al., 2007; Simons & Peterson, 2000). Another example is team trust: Team trust is important because it lessens the risk that team members view task conflicts as sinister in intent or as being driven by hidden agendas (Peterson & Behfar, 2003; Simons & Peterson, 2000). Instead of misreading task conflicts as personal attacks, members accept disagreements at face value, which reduces the chance of them turning into relationship conflicts (Choi & Cho, 2011; Peterson & Behfar, 2003; Simons & Peterson, 2000).

In contrast to this stream of research investigating interpersonal moderating factors (e.g., team communication), we test a model that highlights the importance of factors directly associated with task performance, here, perceived team performance. In alignment with Jehn et al. (1993), we formally define perceived team performance as team members’ perceptions of how well the team is performing. Perceived team performance reflects knowledge about the team’s performance that members accumulate over time (see Staw, 1975), comprising perceptions of goal achievement, work quality, and productivity (Aubé & Rousseau, 2005).

**Why Perceived Team Performance Matters**

We draw from social identity theory (Ashforth & Mael, 1989; Hogg & Terry, 2000) to provide a rationale for why perceived team performance mitigates the positive association between task conflict and growth in relationship conflict. We argue that team identification serves as one important mechanism through which the effects of perceived team performance unfold. Specifically, we suggest that perceptions of high team performance contribute to a team member’s self-worth, which increases team identification, and, in turn, group-oriented behavior. The higher the team performance is perceived, the more likely the team is to invest efforts in preventing, managing, and resolving conflicts that threaten its performance-based status (for a similar line of argument, see Hirst, van Dick, & van Knippenberg, 2009). Team members, for instance, will be less likely to respond to ego threats defensively and more likely to sacrifice their individual goals for the collective good of the team, in order to protect that part of their self-worth that associates with highly perceived team performance. Instead of turning into increasingly hotly charged emotional debates and relationship conflicts, task conflicts are thus more likely to remain without overly negative consequences. We flesh out this argument in more detail in the following section.
A Social Identity Perspective on Perceived Team Performance

According to social identity theory, individuals define themselves in terms of group membership, such as being a member of an organization or work team. Work team identification describes a particular form of social identification “in which the individual defines the self in terms of membership in a particular team” (Dietz, van Knippenberg, Hirst, & Restubog, 2015, p. 3). When studied at the team level, collective team identification implies that team members perceive oneness with and belongingness to a team to a similar extent (e.g., Schaeffner et al., 2014; Van Der Vegt & Bunderson, 2005). Social identity theory states that identification with a group, at least in parts, depends on the prestige of the group (Ashforth & Mael, 1989). This is because individuals, by means of intergroup comparison, derive part of their self-worth from group identification (Ashforth & Mael, 1989; Hogg & Turner, 1985). It is as if an individual were to “vicariously partake in the successes and status of the group” (Ashforth & Mael, 1989, p. 22). All else being equal, individuals are therefore more likely to identify with groups that contribute positively to one’s self-worth, such as prestigious or successful groups (Carmeli, Gilat, & Waldman, 2007; Ellemers, De Gilder, & Haslam, 2004). Indeed, scholars have argued that “group success can infuse group members with a positive sense of group identity because of the self-enhancement benefits” (Jackson, 2011, p. 344). Empirical research, accordingly, has found perceived group prestige to predict group identification reliably (Lipponen, Helkama, Olkkonen, & Juslin, 2005; Liu, Lam, & Loi, 2014). In short, perceived team performance is likely to increase team identification because of its self-enhancement benefits.

The stronger the team identification is, the more team members feel “psychologically intertwined with a group’s fate” (Mael & Ashforth, 1995, p. 310). Members who identify strongly with a team are thus more likely to work toward achieving the goals of that team (Hirst et al., 2009), to “exert themselves on behalf of the team” (Somech, Desivilya, & Lidogoster, 2009, p. 364) and to show more group-serving behaviors (Rico, de la Hera, & Urbieta, 2011). For instance, team identification is found to be associated strongly with team-oriented citizenship behaviors, such as helping coworkers who are overtaxed (Christ, van Dick, Wagner, & Stellmacher, 2003; Janssen & Huang, 2008). Highly identified members are also more likely to act in ways that serve the team rather than the self (van Knippenberg & Ellemers, 2003), and to accept what Pearsall and Venkataramani (2015) referred to as team-focused sacrifices. This means that members may suppress their inclination to respond with defensive or hostile behaviors to conflict that threatens their egos. Members may put up with task conflicts voluntarily in order to prevent a
buildup of relationship conflict, which would undermine team performance and destroy the self-enhancement benefits that come with high perceived team performance. De Dreu and van Knippenberg (2005), similarly, argued that prosocial goals should lessen ego-defensive tendencies, even if these prosocial goals were purely instrumental (e.g., avoiding a conflict because one depends on the conflict partner to achieve future goals). Pfeffer and Fong (2005) also argued that people want to associate with success because of the self-enhancement benefits that accrue from such association, and, to achieve that, people—at least to some extent—are “willing to subjugate their own interests and emotions,” for instance, by putting up with “toxic work environments” (p. 377).

The more group-serving behaviors members show and the more willing members are to bite their tongues and to sacrifice their own goals for the benefit of the team, the less likely it should be that task conflict drives growth in relationship conflict. Task conflicts, by definition, describe a situation where one’s own interests are opposed or negatively affected by another party, for instance, when team members hold different viewpoints on a team’s task strategy. The more members insist on their positions in response to task conflicts, the more likely it is that task conflicts yield relationship conflicts, together with emotional tension and animosity. As animosities linger, additional task conflicts may provoke increasingly intense relationship conflicts, due to the emotional residue left by prior relationship conflicts.

By inducing members to make team-focused sacrifices, team identification reduces this risk. Using a cross-sectional sample of 88 development teams, Schaeffner et al. (2014) found team identification weakened the positive association between task and relationship conflict, but the relationship between task and relationship conflict remained significant. When task conflict was medium and team identification high, the association between task and relationship conflict disappeared (i.e., became insignificant; Schaeffner et al., 2014). We build on yet go beyond this cross-sectional finding by arguing that perceived team performance, as one important antecedent to team identification, is one major reason as to why some teams do not suffer from a buildup of relationship conflict, although they experience multiple task conflicts over time. Based on social identity theory (Ashforth & Mael, 1989; Hogg & Terry, 2000) and in alignment with related empirical findings, we, thus, hypothesize the following:

**Hypothesis 2:** Perceived team performance moderates the association of task conflict and growth in relationship conflict: The higher the perceived team performance, the weaker the positive association between task conflict and growth in relationship conflict.
Method

Work Context

We collected data from a Dutch health care organization, which provides non-medical services and assistance to mentally and/or physically challenged individuals. These individuals either live or spend the daytime in care facilities operated by the health care organization. The services provided aim to facilitate self-care and involve giving assistance in areas such as living, work, leisure time, household tasks, dressing, and hygiene. Health care employees provide these services as members of ongoing teams of varying sizes. Team members depend on each other in that they draw from a shared pool of limited resources (e.g., medical supplies), make decisions jointly, and share responsibility for client assistance. The health care organization also evaluates employee performance at the team level (which we assume further increases team interdependence).

Team leaders are not directly involved in client care and take responsibility for multiple teams. Thus, teams are relatively free to make work-related decisions, such as those regarding work processes. Team members perform tasks that may be both cognitively and physically demanding. For example, they need to administer medication to clients according to plan, but also need to provide personal support in helping clients with hygiene. This combination of cognitive and physical demands is comparable to other work environments, such as nursing, and related research has shown team conflicts to be inevitable in such demanding environments (e.g., Almost, 2006). Other factors may further exacerbate team conflicts, such as budget cuts, low salaries and irregular work hours, all typical for the health care industry (Faul et al., 2010; Ouweneel, Taris, Van Zolingen, & Schreurs, 2009; Stacey, 2005). All things considered, the health care teams on which this study focuses make an appropriate sample for studying team conflicts.

Research Design

Researchers were provided with the (confidential) contact details of all employees including their (work) e-mail addresses and team membership. Data collection consisted of online questionnaires distributed in three waves over a 4-month period. In each wave, employees received an e-mail requesting their assistance by following an attached link and filling in questionnaires. Employees were informed of the importance of the research but were free to not fill in the questionnaire. The first wave was in early March 2010; the second, early April 2010; and the third, early June 2010. The timing of the three occasions of measurement was restricted by practical considerations
but was similar to other longitudinal studies on team conflict (Greer et al., 2008; Jehn & Mannix, 2001).

Research Sample

In the first wave, 927 employees were contacted to participate in the survey, while the second wave contacted 911 employees, and the third wave distributed surveys to 933 employees. Exclusion of team leaders and teams not involved in direct health care (e.g., teams responsible for care coordination or public relations), deletion of teams with missing observations on the explanatory variables of the hypothesized model (e.g., Hox, 2010), and omission of teams with fewer than three members (see Moreland, 2010) reduced the number of usable observations per wave. For our main model variables (i.e., perceived team performance, task conflict, relationship conflict), we obtained useable data from 327 respondents at Time 1 (response rate = 35%), 222 surveys at Time 2 (response rate = 24%), and 208 at Time 3 (response rate = 22%). Data were provided at all three time points by 148 respondents, with a smaller proportion providing data at two time points \( n = 96 \), or at one time point \( n = 130 \). After aggregating individual responses to the team level, we were left with 60 teams. In accordance with the literature (Hirschfeld, Cole, Bernerth, & Rizzuto, 2013; Maloney, Johnson, & Zellmer-Bruhn, 2010), we used all available team data for our analysis (i.e., also teams for which we only had data from one respondent). Studies into the practice of including only high-representation teams have shown the limits of this practice, and Hirschfeld et al. (2013), for example, concluded that restricting a sample to teams with high representation rates was inappropriate.\(^1\)

Home and health care teams had an average team size—different from the number of respondents per team—of 12 \( (SD = 7.3) \) with a range from 4 to 37 members. Of the respondents at time point 1, 241 employees were female (64.4%) and 51 were male (13.6%). On average, individuals were 42.8 years old \( (SD = 11.4) \), with a mean organizational tenure of 11.1 years \( (SD = 8.3) \). On average, individuals were employed 26.1 hr per week \( (SD = 6.8) \). In terms of education, 11.8% of employees had a general secondary education, 42.5% had a secondary professional education, 23.3% had a higher vocational education, and 0.5% had a university education.\(^2\)

Measures

To allow for longitudinal testing of our hypotheses, time-varying variables (i.e., relationship conflict, task conflict, and perceived team performance) were assessed at each time point. All scales, administered in Dutch, were based on
established scales, with minor modifications in wording and/or tense. The stem that preceded each of our main model variables was “Within [or: about] your team at [organization’s name].” Responses were given on a 5-point Likert-type scale ranging from 1 (strongly disagree) to 5 (strongly agree).

To justify aggregating individuals’ responses to the team level, we used James, Demaree, and Wolf’s (1984) agreement indices for multi-item scales ($r_{WG(J)}$). The mean interrater agreement values ranged from .80 to .91 (see Table 1), suggesting sufficient evidence for within-team agreement (LeBreton & Senter, 2008). We also calculated intraclass correlation coefficients (ICC) to index interrater reliability. ICC(1) values—indicative of the proportion of variance in individuals’ ratings that is explained by team membership (Bliese & Ployhart, 2002; Wallace, Popp, & Mondore, 2006)—ranged from .11 to .31 (see Table 1). ICC(1) values are typically interpreted as effect sizes; traditional conventions suggest that a value of .01 is a small effect, .10 a medium effect, and .25 a large effect (LeBreton & Senter, 2008). This implies that, on average, a medium to large degree of nonindependence is due to team membership (LeBreton & Senter, 2008). ICC(2) values express the reliability of group mean values. ICC(2) values ranged from .44 to .74 (see Table 1); some of them therefore were below the critical cutoff of .60 suggested by Glick (1985). Given these rather low ICC(2) values, it may be somewhat difficult to identify the hypothesized relationships using team means (Bliese, 2000). Still, overall, we believe to have sufficient theoretical and statistical rationale for progressing with the analysis at the team level (see also Chen & Bliese, 2002). This is because we found evidence for within-team agreement (as indicated by the $r_{WG(J)}$ values obtained), demonstrated team-level effects (as indicated by the ICC(1) values obtained), and used items with the team as the referent (e.g., my team) appropriate with higher unit phenomena, such as, team conflict, a phenomenon which is basically meaningless at the individual level (Chan, 1998; Klein, Conn, Smith, & Sorra, 2001). Accordingly, we used the item mean for each team in order

### Table 1. Aggregation Statistics for Main Study Variables.

<table>
<thead>
<tr>
<th>Measure</th>
<th>$r_{WG(J)}$</th>
<th>ICC(1)</th>
<th>ICC(2)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>T1</td>
<td>T2</td>
<td>T3</td>
</tr>
<tr>
<td>Relationship conflict</td>
<td>.84</td>
<td>.81</td>
<td>.81</td>
</tr>
<tr>
<td>Task conflict</td>
<td>.85</td>
<td>.87</td>
<td>.80</td>
</tr>
<tr>
<td>Perceived team performance</td>
<td>.89</td>
<td>.91</td>
<td>.87</td>
</tr>
</tbody>
</table>

*Note. $r_{WG(J)}$ = indexes within-group agreement; ICC(1) = variance attributable to group membership; ICC(2) = reliability of group means.*
to assess the internal consistency of each scale (Cronbach’s α). We did so in order to align internal consistency information with the level used for the substantive tests, that is, the team level (Chen, Mathieu, & Bliese, 2004; Mathieu & Schulze, 2006).

**Relationship conflict.** This was measured by three items from Janssen et al. (1999). The items read as follows: “The personal relationships in the team are always excellent” (reversed), “Some team members visibly dislike each other,” and “The tension between my team members is sometimes painful.” The reliability coefficients for the relationship conflict scale, Episodes 1 to 3, were .83, .80, and .87, respectively.

**Task conflict.** This was assessed with three items from Janssen et al. (1999). The items read as follows: “Team members regularly take divergent viewpoints,” “Diverse perspectives among team members are the rule rather than the exception,” and “Team members have often very different ideas on substantive matters.” Reliability coefficients for this three-item scale, Episodes 1 to 3, were .92, .85, and .75, respectively.

**Perceived team performance.** This was measured by using three items from Aubé and Rousseau (2005). The items read as follows: “My team is very productive,” “My team produces quality work,” and “My team attains its assigned goals.” Reliability coefficients for this three-item scale, Episodes 1 to 3, were .94, .94, and .90, respectively.

**Control variables.** As control variables, we included team-level data on team size, age diversity, and gender diversity. First, we included team size (obtained from organizational records) because larger teams are more likely to be less cohesive and thus more prone to conflicts (Lichtenstein, Alexander, Jinnett, & Ullman, 1997). Second, we controlled for age and gender diversity (obtained from organizational records), because research has found demographic diversity correlates with team conflict (Devine, Clayton, Philips, Dunford, & Melner, 1999; Korsgaard, Soyoung Jeong, Mahony, & Pitaru, 2008). We used the coefficient of variation to assess age diversity (Pelled et al., 1999) and the Blau index (Blau, 1977) to express the degree of gender diversity. For privacy reasons, we were unable to obtain the actual composition of each team (in terms of age and gender diversity). Still, to increase our chances of gaining a realistic view of the given composition of each team, we calculated age and gender diversity per team based on all available data at time point 1, including members who did not end up in the final sample.
Data Analysis Approach

Random coefficient modeling. To analyze the longitudinal team-level data, we used random coefficient modeling (Bliese & Ployhart, 2002; Singer & Willett, 2003). We largely followed Bliese and Ployhart’s (2002) five-step approach to build a random coefficient growth model, with repeated measures at Level 1 nested within teams at Level 2. In line with Bliese and Ployhart (2002) and Singer and Willett (2003) we, first, constructed a Level 1 model (i.e., within-team and between-team variability in relationship conflict), and, second, introduced a set of predictors to explain interteam differences in relationship conflict (including differences at the start of study and differences in how relationship conflict changed over time).

Unlike Bliese and Ployhart (2002), we included time-varying predictors in our model. In standard growth models, time-invariant predictors (i.e., Level 2 variables) are used to explain variance in the outcome measure (e.g., relationship conflict). Instead, in our model we incorporated time-varying measures (i.e., Level 1 variables) to explain variance in relationship conflict (McCoach & Kaniskan, 2010; Singer & Willett, 2003). More specifically, we built a model in which a repeatedly measured outcome variable (i.e., relationship conflict) was regressed on repeatedly measured values of task conflict (together with time, perceived team performance, interaction terms, and control variables). We collected data repeatedly across the time necessary to study changes in a construct (e.g., relationship conflict); specifically, it needs at least “three repeated observations (although more than three is better) on at least one of the substantive constructs of interest” (Ployhart & Vandenberg, 2010, p. 97), in order to establish true change.

We operationalized task conflict as a time-varying predictor. Singer and Willett (2003) explained that time-varying predictors “record an individual’s potentially differing status on each associated measurement occasion” (pp. 159-160). Prior research has established that task conflict changes over time (e.g., Jehn & Mannix, 2001); if we operationalized task conflict as a time-invariant predictor (i.e., a predictor whose values remain unchanged over time), we would build into our model the faulty assumption that task conflict remains stable over time. By recording a team’s potentially differing level of task conflict at each measurement occasion, we were able to regress growth in relationship conflict (i.e., the rate of change in relationship conflict) on these time-dependent values of task conflict. We also treated perceived team performance as a time-varying variable when studying the interactive effects of task conflict and perceived team performance on growth in relationship conflict.

All models were estimated with the nlme package in R (Version 3.0.2), an open-source software well suited for multilevel modeling (Bliese, 2012). We
used full maximum likelihood (ML) for parameter estimation and we relied on deviance statistics (−2 log likelihood statistic) to test for differences in model fit (Hox, 2010).

**Results**

The descriptive statistics and zero-order correlations are depicted in Table 2. Mean values indicate that although relationship conflict marginally decreased over time, task conflict remained more or less stable, and perceived team performance marginally increased over the three measurement points. Regarding the bivariate correlations, relationship conflict is positively correlated with task conflict and negatively associated with perceived team performance (see Table 2). However, such between-team results may obscure the actual within- and between-team variance of our longitudinal model (Rogosa, 1995). Evidently, we do not expect all teams in our sample to experience increases (or decreases) in relationship conflict over time. It is more likely that some teams will manage to decrease relationship conflict over time, whereas relationship conflict in other teams may steadily increase over time (see Li & Roe, 2012).

To investigate whether the task and relationship conflict scales measured distinct constructs, we performed confirmatory factor analysis using team-level items as indicators (sample size, Episodes 1 to 3, were 60, 60, and 59 teams). All confirmatory factor analyses were conducted using Mplus 7.2 (Muthén & Muthén, 1998-2014). Following recommendations from Williams, Vandenberg, and Edwards (2009), we relied on the comparative fit index (CFI), root mean square error of approximation (RMSEA), and standardized root mean square residual (SRMR) measures to evaluate model fit. Values of above 0.95 (for CFI), below 0.08 (for RMSEA), and below 0.10 (for SRMR) indicate acceptable model fit. For each measurement wave, we compared a two-factor oblique model (assuming task and relationship conflict to be distinct but related constructs) with a more parsimonious one-factor model (assuming all items loaded on one factor only). For all three measurement waves, the two-factor model provided a better fit for the data than the one-factor model (see Table 3). While the (time point 1) RMSEA value for the two-factor model fell outside the acceptable range, the model met the combined criteria of CFI (cutoff value .95) and SRMR (cutoff value .09), suggesting an acceptable fit (Hu & Bentler, 1999; for an example, see Han, Bartol, & Kim, 2015). To check robustness of our measures, we reran all analyses using individual-level data (sample size, Episodes 1 to 3, were 327, 222, and 208 respondents). We did so because Fabrigar, Porter, and Norris (2010) argued that—given moderately favorable conditions—one
Table 2. Descriptive Statistics and Correlations.

<table>
<thead>
<tr>
<th>Variable</th>
<th>M</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relationship conflict</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Time 1</td>
<td>2.59</td>
<td>0.52</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Time 2</td>
<td>2.46</td>
<td>0.54</td>
<td>.75</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Time 3</td>
<td>2.51</td>
<td>0.63</td>
<td></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></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Time 1</td>
<td>2.75</td>
<td>0.49</td>
<td>.69</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Time 2</td>
<td>2.69</td>
<td>0.49</td>
<td>.39</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Time 3</td>
<td>2.76</td>
<td>0.55</td>
<td>.40</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perceived team performance</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Time 1</td>
<td>3.80</td>
<td>0.50</td>
<td>-.49</td>
<td>-.21</td>
<td>-.36</td>
<td>-.57</td>
<td>-.38</td>
<td>-.52</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Time 2</td>
<td>3.86</td>
<td>0.57</td>
<td>-.47</td>
<td>-.34</td>
<td>-.40</td>
<td>-.59</td>
<td>-.60</td>
<td>-.48</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Time 3</td>
<td>3.90</td>
<td>0.57</td>
<td>-.39</td>
<td>-.31</td>
<td>-.47</td>
<td>-.62</td>
<td>-.49</td>
<td>-.67</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Control variables</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Team size</td>
<td>12.00</td>
<td>7.30</td>
<td>.14</td>
<td>.16</td>
<td>.06</td>
<td>.18</td>
<td>.20</td>
<td>.02</td>
<td>-.09</td>
<td>-.11</td>
<td>-.09</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. Age diversity</td>
<td>0.27</td>
<td>0.12</td>
<td>.08</td>
<td>.21</td>
<td>.12</td>
<td>.18</td>
<td>.00</td>
<td>.19</td>
<td>-.18</td>
<td>-.19</td>
<td>-.25</td>
<td>.08</td>
<td></td>
</tr>
<tr>
<td>12. Gender diversity</td>
<td>0.21</td>
<td>0.20</td>
<td>-.05</td>
<td>-.00</td>
<td>-.07</td>
<td>-.16</td>
<td>-.04</td>
<td>-.07</td>
<td>.02</td>
<td>.12</td>
<td>-.03</td>
<td>.15</td>
<td>-.03</td>
</tr>
</tbody>
</table>

Note. Correlations based on N = 59 to 60 teams (pairwise deletion).  
*p < .05. **p < .01.
would need to have a sample of at least 200 respondents in order to obtain precise model estimates in structural equation modeling. Individual-level results confirmed the superior fit of the two-factor model over the one-factor model (see Table 3).

### Preliminary Analyses and Modeling Relationship Conflict

We built a set of intercept-only models to assess whether the within-team variance in our time-varying measures (i.e., task conflict, perceived team performance) justified within-team modeling (Pitariu & Ployhart, 2010). The ICC(1) values depicted in Table 1 indicate the amount of variance in time-varying measures as a result of between-team differences rather than within-team differences over time (Hausknecht, Hiller, & Vance, 2008). Note that when ICC(1) values for team-level data were estimated, each team contained multiple scores because we sampled data per team at three time points (see Hausknecht et al., 2008). The percentage of within-team variability was substantial over time (relationship conflict = 34%, task conflict = 46%, perceived team performance = 30%).

To accommodate for the unequal spacing of measurement points (Singer & Willett, 2003), we coded the first measurement point as 0 (early March 2010), the second measurement point as 1 (early April 2010), and the third measurement point as 3 (early June 2010). A one-unit change in time represents a team’s changes in relationship conflict over approximately one month.

Next, we determined the fixed function for time in a random-intercept model (Bliese & Ployhart, 2002; Ployhart, Holtz, & Bliese, 2002). We

---

**Table 3. Results of Confirmatory Factor Analysis.**

<table>
<thead>
<tr>
<th>Model</th>
<th>(\chi^2)</th>
<th>df</th>
<th>RMSEA</th>
<th>SRMR</th>
<th>CFI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Team-level data</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Two-factor model(^a)</td>
<td>13.89/8.29/7.45</td>
<td>8/8/8</td>
<td>.11/.02/0</td>
<td>.04/.05/.04</td>
<td>.98/1/1</td>
</tr>
<tr>
<td>Individual-level data</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Two-factor model(^a)</td>
<td>4.22/8.78/8.01</td>
<td>8/8/8</td>
<td>0/.02/0</td>
<td>.02/.02/.03</td>
<td>1/1/1</td>
</tr>
<tr>
<td>One-factor model(^b)</td>
<td>189.70**/201.48**/113.29**</td>
<td>9/9/9</td>
<td>.25/.31/.24</td>
<td>.09/.14/.09</td>
<td>.80/.65/.82</td>
</tr>
</tbody>
</table>

*Note. \(N\) for team-level model = 60, 60, and 59 teams. \(N\) for individual-level model = 327, 222, and 208 individuals. Results across measurement waves are presented as Time 1/Time 2/Time 3. RMSEA = root mean square error of approximation; SRMR = standardized root mean square residual; CFI = comparative fit index.

\(^a\)Two factors include task and relationship conflict.

\(^b\)All measuring items were combined into one factor.

*\(p < .05. **p < .01. \)
retained a linear growth parameter in all subsequent analyses because the fixed quadratic growth parameter was not significant ($\beta = 0.05, SE = 0.03$) and because model fit did not significantly improve ($\Delta -2 \log \text{likelihood} = 3.34, p = .07$). Next, we tested for the possibility that teams not only differed in how much relationship conflict existed initially (i.e., random-intercept), but also in how relationship conflict changed over time (i.e., random-slope). When comparing the (random-intercept) fixed-slope model (see Model 1, Table 4) to a (random-intercept) random-slope model (see Model 2, Table 4), we found the latter model fitted the empirical data better ($\Delta -2 \log \text{likelihood} = 7.56, p = .02$). Next, we evaluated the appropriate error structure of the random-effects part of the model in order to account for autocorrelation and heteroscedasticity. Model comparisons (results can be obtained from the first author) led us to retain Model 2 (see Table 4) as a final Level 1 model, assuming no autocorrelation and homoscedasticity. The model indicates that teams differed in relationship conflict at the start of the study and in the development of relationship conflict over time. The final estimates of the fixed effects of the growth model show that, at the start of the study, the predicted overall level of relationship conflict was 2.55, which then decreased by .02 at each subsequent time point. Note that this decrease was not significant, which implies that there was no overall trend for relationship conflict in our sample; this may imply, as indicated above, that growth in relationship conflict was positive for some teams, but for others it might have been zero or negative.

**Predictors of Relationship Conflict**

To assess the associations between the time-varying variables and the rate of change in relationship conflict (i.e., relationship conflict growth), we entered task conflict and perceived team performance as time-varying Level 1 variables into the model (Singer & Willett, 2003). Given our primary interest in within-team effects, we group-mean centered these time-varying predictors to remove any between-team variance in the estimates of within-team effects (see Walker et al., 2013). We grand-mean centered team size but used the raw values of gender and age diversity because these diversity measures already had a meaningful zero point.

Random growth modeling results are presented in Table 4. Consistent with earlier research (De Wit et al., 2012), task conflict associates positively with relationship conflict (see Model 3, Table 4). The strength of this relationship, however, seems to depend largely on perceived team performance (see Model 4, Table 4). More important, though, are our results on the association of task conflict and relationship conflict growth (see Models 5 and 6, Table 4).
<table>
<thead>
<tr>
<th>Parameter</th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
<th>Model 4</th>
<th>Model 5</th>
<th>Model 6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fixed effects</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intercept (initial status at T1)</td>
<td>2.55**</td>
<td>2.55**</td>
<td>2.42**</td>
<td>2.40**</td>
<td>2.43**</td>
<td>2.43**</td>
</tr>
<tr>
<td></td>
<td>(.07)</td>
<td>(.07)</td>
<td>(.17)</td>
<td>(.17)</td>
<td>(.17)</td>
<td>(.17)</td>
</tr>
<tr>
<td>Time (rate of change)</td>
<td>-0.02</td>
<td>-0.02</td>
<td>-0.02</td>
<td>-0.02</td>
<td>-0.02</td>
<td>-0.03</td>
</tr>
<tr>
<td></td>
<td>(.02)</td>
<td>(.02)</td>
<td>(.02)</td>
<td>(.02)</td>
<td>(.02)</td>
<td>(.02)</td>
</tr>
<tr>
<td>Predictors</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Task conflict&lt;sub&gt;cwc&lt;/sub&gt;</td>
<td>0.20*</td>
<td>0.23**</td>
<td>0.09</td>
<td>0.07</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(.09)</td>
<td>(.09)</td>
<td>(.15)</td>
<td>(.15)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perceived team performance&lt;sub&gt;cwc&lt;/sub&gt;</td>
<td>-0.16</td>
<td>-0.22*</td>
<td>-0.15</td>
<td>-0.34</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(.10)</td>
<td>(.10)</td>
<td>(.10)</td>
<td>(.18)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Task Conflict&lt;sub&gt;cwc&lt;/sub&gt; × Perceived Team Performance&lt;sub&gt;cwc&lt;/sub&gt;</td>
<td>-0.88*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Task Conflict&lt;sub&gt;cwc&lt;/sub&gt; × Time</td>
<td>0.09</td>
<td>0.16</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perceived Team Performance&lt;sub&gt;cwc&lt;/sub&gt; × Time</td>
<td>0.05</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perceived Team Performance&lt;sub&gt;cwc&lt;/sub&gt; × Task Conflict&lt;sub&gt;cwc&lt;/sub&gt; × Time</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Control variables</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Team size&lt;sub&gt;cgm&lt;/sub&gt;</td>
<td>0.01</td>
<td>0.01</td>
<td>0.01</td>
<td>0.01</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(.01)</td>
<td>(.01)</td>
<td>(.01)</td>
<td>(.01)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age diversity</td>
<td>0.55</td>
<td>0.56</td>
<td>0.55</td>
<td>0.49</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(.51)</td>
<td>(.50)</td>
<td>(.52)</td>
<td>(.51)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender diversity</td>
<td>-0.13</td>
<td>-0.13</td>
<td>-0.15</td>
<td>-0.17</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(.33)</td>
<td>(.32)</td>
<td>(.33)</td>
<td>(.32)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Random effects</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Level 1: Within-team variance</td>
<td>0.11</td>
<td>0.08</td>
<td>0.08</td>
<td>0.08</td>
<td>0.08</td>
<td>0.08</td>
</tr>
<tr>
<td>Level 2:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>In intercept</td>
<td>0.21</td>
<td>0.21</td>
<td>0.19</td>
<td>0.19</td>
<td>0.19</td>
<td>0.20</td>
</tr>
<tr>
<td>In slope</td>
<td>0.01</td>
<td>0.01</td>
<td>0.01</td>
<td>0.01</td>
<td>0.01</td>
<td>0.01</td>
</tr>
<tr>
<td>Covariance</td>
<td>-0.00</td>
<td>0.00</td>
<td>-0.00</td>
<td>-0.00</td>
<td>-0.00</td>
<td>-0.01</td>
</tr>
<tr>
<td>Goodness of fit</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-2 log likelihood</td>
<td>224.06</td>
<td>216.49*</td>
<td>203.17*</td>
<td>198.70*</td>
<td>202.17</td>
<td>190.85*</td>
</tr>
<tr>
<td>Δ -2 log likelihood</td>
<td>7.56</td>
<td>13.33</td>
<td>4.46</td>
<td>1.00</td>
<td>11.32</td>
<td></td>
</tr>
<tr>
<td>Akaike information criterion</td>
<td>232.06</td>
<td>228.49</td>
<td>225.17</td>
<td>222.70</td>
<td>226.17</td>
<td>220.85</td>
</tr>
<tr>
<td>Bayesian information criterion</td>
<td>244.80</td>
<td>247.62</td>
<td>260.23</td>
<td>260.95</td>
<td>264.42</td>
<td>268.67</td>
</tr>
</tbody>
</table>

*Note. N = 180 observations nested within 60 work teams. Time and explanatory variables denoted with cwc are Level 1 predictors. All other covariates are Level 2 predictors. cwc = centering within cluster; cgm = centering at the grand mean.

*p < .05. **p < .01.
Hypothesis 1 predicted that task conflict ( operationalized as a time-varying predictor ) would positively associate with growth in relationship conflict. Inspecting results of Model 5 in Table 4—predicting the rate of change in relationship conflict—we did not find the expected significant, positive interaction effect of task conflict and time. Hypothesis 1, thus, was not supported.

Hypothesis 2 predicted that the association between task conflict and growth in relationship conflict would be contingent upon perceived team performance. To model this assumption, we tested a three-way interaction effect of task conflict, perceived team performance, and time (Chen & Vazsonyi, 2011; Greene & Way, 2005). As shown in Model 6 (see Table 4), the interaction effect of time, task conflict, and perceived team performance was significant. To inspect this effect further, we plotted the three-way interaction of time, task conflict, and perceived team performance (see Figure 1).

Figure 1 shows how relationship conflict developed over the three measurement points depending on the given level of task conflict and perceived performance in a team. When both task conflict and perceived team performance are low, relationship conflict significantly decreases over the three measurement points ($\gamma = -0.13; z = -2.72; p < .01$). In other words, growth in relationship conflict is significant only when both task conflict and perceived team performance are low. When task conflict is low and perceived team performance is high, relationship conflict does not significantly change over time ($\gamma = -0.02; z = -0.43; p = .67$). The same is true for when task conflict is high and perceived team performance is low ($\gamma = 0.05; z = 1.10; p = .27$), and when both task conflict and perceived team performance are high ($\gamma = -0.02; z = -0.30; p = .76$).

The more important question, though, is whether relationship conflict changes in significantly different ways when task conflict is high, compared to when it is low (for a given level of perceived team performance). To this end, we performed a slope difference test, that is, a significance test to assess whether differences between pairs of slopes are statistically significant (Dawson, 2014; Dawson & Richter, 2006). In other words, we tested for whether the difference in the rate of change in relationship conflict differed across the different levels of task conflict and perceived team performance (for applied examples, see Baer, 2012; Ferris, Brown, Lian, & Keeping, 2009; Stam & Elfring, 2008).

This slope difference test provided additional support for the prediction that the relationship between task conflict and growth in relationship conflict was significantly weaker when perceived team performance was high. This is because the slope for low task conflict/low perceived team performance differed significantly from the slope for high task conflict/low perceived team performance.
interactive effects of task conflict and perceived team performance on growth in relationship conflict. 

Note. Per measurement point, values were predicted using the final random coefficient growth model (see Table 4, Model 6).

Table 5. Results of Slope Difference Test for Three-Way Interactions.

<table>
<thead>
<tr>
<th>Pair of slopes</th>
<th>$t$ value for slope difference</th>
<th>$p$ value for slope difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 and 2</td>
<td>-0.87</td>
<td>.39</td>
</tr>
<tr>
<td>1 and 3</td>
<td>0.02</td>
<td>.98</td>
</tr>
<tr>
<td>1 and 4</td>
<td>1.48</td>
<td>.14</td>
</tr>
<tr>
<td>2 and 3</td>
<td>1.05</td>
<td>.29</td>
</tr>
<tr>
<td>2 and 4</td>
<td>2.91**</td>
<td>.00</td>
</tr>
<tr>
<td>3 and 4</td>
<td>2.07*</td>
<td>.04</td>
</tr>
</tbody>
</table>

Note. To arrive at these results, we used an online template available at www.jeremydawson.com/slopes.htm (see Dawson, 2014). 1 = high task conflict, high perceived team performance; 2 = high task conflict, low perceived team performance; 3 = low task conflict, high perceived team performance; 4 = low task conflict, low perceived team performance.

* $p < .05$. ** $p < .01$. 

performance, indicating that task conflict associated with growth in relationship conflict, when perceived team performance was low (as indicated by the significant difference between Slopes 2 and 4, see Table 5). We found no significant difference between the high task conflict/high perceived team performance slope and the low task conflict/high perceived team performance
suggestions that task conflict did not associate with growth in relationship conflict when perceived team performance was high (as indicated by the nonsignificant difference between Slopes 1 and 3, see Table 5). We, thus, find support for Hypothesis 2.

**Discussion**

Research has established the fact that task conflict, relationship conflict, and team performance are intertwined (De Dreu & Weingart, 2003; De Wit et al., 2012; Peterson & Behfar, 2003; Shaw et al., 2011). While the majority of research has focused on team conflict and its effects on team performance (see De Wit et al., 2012), some scholars have also investigated the reverse direction of influence, focusing on whether and how team performance influences team conflicts (Peterson & Behfar, 2003). Scholars have also studied the direct relationship between task and relationship conflict extensively (e.g., Simons & Peterson, 2000) and have investigated the interactive effects of both kinds of team conflict on information processing and decision making (De Wit et al., 2013) and team performance (e.g., Shaw et al., 2011). What has largely escaped researchers’ attention, however, is the possibility that perceived team performance moderates the association between task and relationship conflict, which was the focus of our study. We argued that when members perceive their team to be performing well, the association of task conflict and growth in relationship conflict is weakened. To our surprise, we found no overall association between task conflict and growth in relationship conflict. Task conflict only associated with growth in relationship conflict when perceived team performance was low. That is, task conflict did not associate with growth in relationship conflict when perceived team performance was high.

**Theoretical Contributions**

Although we did not hypothesize any static effects, we found an association between task conflict and relationship conflict, just as earlier research did (De Wit et al., 2012). We did not find, however, task conflict to associate with growth in relationship conflict. Possibly, the influence of task conflict on growth in relationship conflict is more context-dependent than originally thought. This is suggested by the fact that we found the association between task conflict and growth in relationship conflict dependent on perceived team performance. Note that we do not believe that members in highly performing teams never misattribute task conflicts or misread them as personal attacks, but we do believe that, in apparently highly performing teams, members will
react in more conciliatory ways during task conflicts, thereby reducing the chance that they spur growth in relationship conflicts. This argument is firmly grounded in social identity theory (Ashforth & Mael, 1989; Hogg & Terry, 2000): Team identification, which will be higher in teams with high perceived performance, propels members to engage in group-serving behavior and to accept team-focused sacrifices, therefore reducing the chances that task conflicts associate with growth in relationship conflict. The opposite is true when members perceive the team as functioning poorly: Task conflict and growth in relationship conflict associate because the less members identify with the team, the less likely they are to sacrifice their own goals for that team. Instead, they will defend their position, in order to protect their threatened ego. The ensuing relationship conflict, characterized by tension and animosity, may linger, leaving an emotional residue, which creates a more unfavorable condition for future task conflicts. Over time, teams experiencing multiple task conflicts will suffer from a buildup of relationship conflict.

Although authors before us have built similar arguments (e.g., Schaeffner et al., 2014), it seems that this perspective has remained underutilized in research on team conflicts. To date, our knowledge on how interpersonal factors (e.g., team communication, team trust) help keep task conflicts at bay is much more nuanced than our knowledge on the potential role of factors directly associated with task performance (e.g., perceived team performance). Against this backdrop and inspired by the findings of our study, we see much potential to develop and test a more comprehensive theory on how performance-related factors interact with task conflicts. Apart from perceived team performance, other performance-related factors that may turn out to be relevant in this regard are perceived decision success (Roch & Ayman, 2005), perceived group success (Riggs & Knight, 1994), and sense of progress (Amabile & Kramer, 2011). For example, when experiencing a sense of progress at work, team members may perceive their teams to be more mutually supportive and interactions more positive, which may reduce the risk of task conflicts getting out of hand (see Amabile & Kramer, 2011).

**Limitations and Future Research**

Our study is limited in the following ways. First, the fact that we only used self-reported measures might have biased our findings. However, this concern is mitigated by the longitudinal design of our research. Beal, Weiss, Barros, and MacDermid (2005) argued that self-presentation bias is less problematic in longitudinal research as temporal changes are still discernible. Still, it appears to be worth replicating our study using data on task conflict and relationship conflict from different sources. Although methodologically
more complex, in future research, we suggest examining team conflict in more direct ways, for example, by using supervisors’ assessments of conflict behavior in teams (Euwema & van Emmerik, 2007).

Second, our study contributes to the largely cross-sectional literature in studying the association between time-varying task conflict and growth in relationship conflict. Still, we acknowledge that there are remaining hurdles in establishing a causal direction. For example, a larger number of time points would be needed in order to assess task conflict and growth in relationship conflict in ways that could rule out reverse causality (i.e., by using a lagged design). With only three time points, it is impossible to build a lagged growth model, because, to establish true change, three repeated measures of a variable are needed (Pitariu & Ployhart, 2010; Ployhart & Vandenberg, 2010; Singer & Willett, 2003). Thus, to establish a lagged relationship between task conflict and relationship conflict growth, at least four measurement waves would be needed; this would allow us to regress relationship conflict T1 on task conflict T0, and so forth. In addition, we see a chance of ascertaining the direction of causality between our main model variables by using structural equation modeling to test for cross-lagged effects between task conflict, relationship conflict, and perceived team performance. This, however, would mean collecting larger data sets necessary to test for cross-lagged effects robustly (Fabrigar et al., 2010). With more than three time points, it would also become possible to investigate potential cyclical or reciprocal processes (e.g., Ilgen, Hollenbeck, Johnson, & Jundt, 2005). One could investigate, for instance, the possibility that relationship conflict does not only serve as an output, but also as an input for future team processes and perceived team performance. That is, the more prevalent relationship conflicts are in teams, the more likely it is that performance suffers. This undermines perceived team performance, which, in turn, makes teams even more susceptible to misattribute task disagreements and to use harsh language, which marks the beginning of a self-perpetuating downward spiral (see Lindsley et al., 1995). Once caught in such a spiral, it may be hard to stop or reverse (Kanter, 2003). Future research should investigate processes of cyclical causal feedback, for instance, by drawing from Ilgen et al.’s (2005) IMOI (input-mediator-output-input) model.

Third, we used measures of task conflict and relationship conflict from Janssen et al. (1999), which are less commonly used than Jehn’s (1995) team conflict measure. Thus, it may be useful to replicate our findings using Jehn’s (1995) measure. Still, we would be surprised if results differed significantly. This is because, first, Janssen et al. developed their items based on Jehn’s scale, and second, meta-analytic results showed no difference between studies using Jehn’s measure and studies using alternative conflict measures (De Wit et al., 2012).
Fourth, range restriction might be an issue because teams that perform adequately may be relatively unlikely to experience high task and relationship conflict. Indeed, none of the teams that belonged to the 25% of teams that reported highest task and relationship conflict were among the 25% of teams with highest perceived performance. Possibly, this range restriction decreased statistical test power, thereby attenuating the likelihood of finding statistically significant effects (Aguinis & Stone-Romero, 1997). A related issue is that task conflict and perceived team performance are correlated (see Table 2); this is relevant because the higher the correlation between an independent variable and a moderator, the lower the chances of detecting an existing interaction effect (Murphy & Russell, 2016). That we still find the expected three-way interaction effect is encouraging.

Fifth, we focused exclusively on health care teams working in a single industry. Thus, it is conceivable that the relationships found in this study are context specific. However, given that the pattern of our static findings (albeit not hypothesized) largely corresponds with research from other industries, such as the hotel industry (Simons & Peterson, 2000), manufacturing, pharmaceuticals, financial services, and telecommunication, among others (Mooney et al., 2007), we believe that our results may apply outside the health care sector. Still, we identify a strong need for multi-industry studies. Scholars who plan to conduct such research may want to investigate in how far the association between task conflict and perceived team performance differs across industries, as this may influence the likelihood of detecting an existing interaction effect (see Murphy & Russell, 2016).

Finally, our findings do not allow conclusions to be drawn about the relative importance of performance-related factors (e.g., perceived team performance) and interpersonal factors (e.g., team communication, team trust). To address this issue, it would be necessary to build and test a more comprehensive model that accounts for the simultaneous influence of performance-related factors and interpersonal factors. Following along these lines, an intriguing focus for future research would be to test the differential mechanisms through which interpersonal and performance-related moderators influence the association of task and growth in relationship conflict.

Practical Implications

Our research offers useful insights for practitioners. First, our findings remind team leaders and members of the possibility that seemingly harmless task conflicts may turn into personal attacks, especially when perceived team performance is low. We believe that team leaders should be wary of popular press accounts that encourage leaders to stir up a good fight for the sake of
productivity (e.g., Eisaguirre, 2002). We do not mean to say that task conflicts may not be healthy or productive (see De Wit et al., 2012), but we caution team leaders against playing with fire. This warning seems especially relevant in situations where a team appears to perform poorly: Given apparent low team performance, task disagreements are more likely to get out of hand. Thus, team leaders and members should be especially cautious of task conflicts at times of low performance and when teams are recovering from failure. Instead, it is perhaps when teams are performing highly, that they should try to tackle difficult issues that most likely involve disagreements and debates (see Amason & Mooney, 1999).

Our findings are also relevant for the management of team conflicts. Lencioni (2005) recommends teams “discuss and resolve issues quickly and completely” (p. 158) and urges leaders to “allow teams to sort out situations themselves” (p. 161). Although plausible, such recommendations may not sufficiently account for the fact that team conflicts are dynamic processes that evolve over time (Jehn & Mannix, 2001). Teams may be able to solve task conflicts by themselves during the early stage of a conflict, but we are less optimistic about their conflict management capacities when they are caught up in an increasingly tense conflict. We believe that teams need to safeguard themselves against conflicts—and the possibility that these get out of hand—in more proactive ways (Behfar et al., 2008). For example, teams may benefit from feedback that steers them away from pessimistic performance perceptions. Teams may also benefit from coaching interventions that motivate, question, and improve their strategies, and help to use whatever knowledge, skills, and abilities are available to them (Hackman & Wageman, 2005).

Conclusion

Our longitudinal study contributes to the team conflict literature in assessing how perceived team performance can help mitigate the association of task conflict and growth in relationship conflict. We find that perceived team performance does indeed matter: Task conflict associates with growth in relationship conflict only when perceived team performance is low. By introducing a perspective that focuses on perceived team performance, we make visible that the extent to which members engage in group-oriented behaviors and accept team-based sacrifices is decisive in determining how far conflicts will get out of hand. We propose this perspective in order to offer an interesting alternative to the dominant view in the literature which focuses on interpersonal factors, but also to call for future research so as to assess how both interpersonal and performance-related factors work together in uncoupling task from relationship conflicts.
Declaration of Conflicting Interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The author(s) received no financial support for the research, authorship, and/or publication of this article.

Notes

1. For 22 of the 60 teams (36.7%), there was only one respondent per team from whom we obtained complete data (i.e., complete data for T1, T2, and T3). Still, it was relatively rare that in these instances, we did not have additional data from a second team member for some of the time points. Specifically, only 27% of the team-level data of these 22 teams is based on the responses of one team member only.
2. Numbers do not add up to 100% because not all respondents provided the respective information.

References


Author Biographies

Hannes Guenter (PhD, ETH Zurich) is an associate professor of organizational behavior at Maastricht University School of Business and Economics, the Netherlands. His research interests include team effectiveness, team conflict, leadership, and voice behavior.

Hetty van Emmerik is full professor of organizational theory and organizational behavior at Maastricht University, the Netherlands. Her research interests broadly include organizational theory and behavior and strategic human resource management issues, such as social relationships within organizations and the association of these topics with various career outcomes.

Bert Schreurs (PhD, University of Leuven) is an associate professor of organizational sciences at Maastricht University, the Netherlands. His research focuses on work stress and motivation, career management, and proactive work behaviors.

Tom Kuypers (PhD, Maastricht University) is a lecturer at the Fontys International Business School in Venlo, the Netherlands. His research focuses on team processes, including intragroup conflict and team turnover, and the association of these constructs with outcomes at both the team and the individual level.

Ad van Iterson is an associate professor of organization at Maastricht University School of Business and Economics, the Netherlands. His research interests focus on gossip, mockery and cynicism in organizations, creativity on the workfloor, and Elias’ civilizing theory applied to organizations.

Guy Notelaers is a full professor of work and organizational psychology at the Department of Psychosocial Science, Faculty of Psychology, University of Bergen, Norway. His research focuses on workplace bullying, destructive leadership, and psychosocial risk assessment.