RESEARCH REPORT

When Do Bad Apples Not Spoil the Barrel? Negative Relationships in Teams, Team Performance, and Buffering Mechanisms

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The study of negative relationships in teams has primarily focused on the impact of negative relationships on individual team member attitudes and performance in teams. The mechanisms and contingencies that can buffer against the damaging effects of negative relationships on team performance have received limited attention. Building on social interdependence theory and the multilevel model of team motivation, we examine in a sample of 73 work teams the team-level attributes that foster the promotive social interaction that can neutralize the adverse effect of negative relationships on team cohesion and, consequently, on team performance. The results indicate that high levels of team-member exchange as well as high task-interdependence attenuate how team cohesion and team performance suffer from negative relationships. Implications for research and practice are discussed.

Keywords: negative relationships, team cohesion, team performance, social interdependence theory, motivation, multilevel

Negative relationships and their associated behaviors have been suggested to harm a team from the inside (e.g., Duffy & Lee, 2012; Lam, Van der Vegt, Walter, & Huang, 2011), as they reflect negative attitudes, judgments, and behavioral intentions held by team members toward their fellow teammates (Labianca & Brass, 2006), and they are often associated with emotional distress, withdrawal, and anger (Xia, Yuan, & Gay, 2009). To date, research on negative relations in teams has largely built on negativity bias theory (Baumeister, Bratslavsky, Finkenauer, & Vohs, 2001) and affective events theory (Weiss & Cropanzano, 1996)—in particular, negative affective tone (Cole, Walter, & Bruch, 2008)—focusing on the potentially damaging effects of negative relationships on work-related outcomes (e.g., Brass, Galaskiewics, Greve, & Tsai, 2004; Felps, Mitchell, & Byington, 2006; Labianca & Brass, 2006).

In this article, we draw on insights from social interdependence theory (SIT; Deutsch, 1949; D. W. Johnson, 2003; D. W. Johnson & Johnson, 2005a) to argue that there are structural and social team-level attributes that buffer against the detriments of interpersonal negative relationships in teams. Central to SIT is the idea that collaborative (generally termed promotive) interaction among team members is likely to enhance joint goal achievement and that obstructive (generally termed contrient) interaction will allow some members to reach individual goals at the expense of others, while simultaneously damaging overall team-level performance. An attractive feature of SIT is that it explicitly addresses positive and negative interaction in groups (which few theories explicitly do), is very well-tested, and provides a conceptual model on how group performance is affected differentially by either type of interaction. Although attractive for studying the effects of negative relationships in teams, SIT lacks an unambiguous focus on the exact cross-level mechanisms that motivate the team as a whole to respond to the negative relationships between some of its members. We build on the multilevel team motivation model (Chen & Kanfer, 2006; Chen, Kanfer, DeShon, Mathieu, & Kozlowski, 2009) to argue that negative relationships reflect contrient (i.e., negative) interactions at the dyad level that are discretionary (de)motivational inputs that can spiral up from the dyad to the team level, reducing cohesion and, ultimately, team performance. In addition, we propose that teams possess top-down structural and social devices (communication intensity, team-member exchange, and task-interdependence) that motivate the promotive interaction of team members that can buffer against the otherwise damaging effects of negative relationships.

In this article, we respond to a call for more research on the simultaneous influence of negative and positive social interactions.
on team outcomes (e.g., Chen & Sharma, 2012). Combining insight from SIT with mechanisms from the multilevel team motivation models is both theoretically appealing (as it provides the foundation for the buffering role of promotive processes in teams) and practically relevant (as positive and negative relations coexist in many real life teams).

Hypotheses

Effect of Negative Relationships on Team Performance

The human cognitive system is more sensitive to stimuli that carry negative rather than positive connotations (Baumeister, Bratslavsky, Finkenauer, & Vohs, 2001); therefore, negative relationships can have more powerful consequences than positive ones (Felps, Mitchell, & Byington, 2006; Labianca & Brass, 2006). SIT (Deutsch, 1949; D. W. Johnson & Johnson, 2005a) suggests that the presence of negative relationships in a team gives rise to so-called contrient social interaction, where team members obstruct each other’s task-related efforts or create an unpleasant and dysfunctional team atmosphere. In line with the multilevel team motivation model of Chen and Kanfer (2006), we propose that the damaging effects of local negative relationships in a team trickle upward and affect team performance by reducing the social cohesion at the team level. This bottom-up process can occur through emotional and behavioral mechanisms.

Coworkers experience negative emotions when they witness unpleasant interactions between others at work (Totterdell et al., 2012). These emotions are shared and transferred through emotional contagion, vicarious affective transference, and entrainment (individual emotions co-evolve to achieve collective emotional synergy), creating a negative emotional climate at the team level (Barsade, 2002), which disrupts team cohesion and, consequently, team performance. In addition, negative relationships can induce dysfunctional and antagonistic behaviors such as withholding of critical information or sabotage (Chiaburu & Harrison, 2008; Felps, Mitchell, & Byington, 2006; Lyons & Scott, 2012; Venkataramani & Dalal, 2007), and an interpersonal relation marked by behaviors of animosity can induce team-level relationship conflict (Chen, Sharma, Edinger, Shapiro, & Farh, 2011) and consequently reduce team cohesion. Overall, cohesion is a bottom-up emergent phenomenon that results from the interpersonal interactions within groups (Kozlowski & Chao, 2012).

According to the IMOI (input-mediator-output-input) framework of team effectiveness (Ilgen, Hollenbeck, Johnson, & Jundt, 2005), cohesion is factor for team effectiveness. In concert with this, empirical studies of SIT generally find that the team members’ tendency to be united in trying to reach joint goals has a strong positive effect on team performance, and teams that lack such a tendency tend to display low performance levels (for a review, see D. W. Johnson & Johnson, 2005a). We therefore propose that the dysfunctional interpersonal behaviors that are associated with negative relations in a team compromise the team’s social cohesion and, in turn, diminish team performance.

Hypothesis 1: The presence of negative relationships within a team negatively affects team performance through its negative effect on team cohesion.

Buffering Negative Relationships: Three Moderators

In this study, we propose that teams possess social and structural attributes that can buffer against the effects hypothesized above. In particular, we focus on three such attributes (communication density, team member exchange, task-interdependence) that can potentially attenuate the damaging effects of negative ties on the team’s social cohesion. In SIT, it is argued that teams that focus on promotive interaction outperform teams that rely on contrient interaction; a key example in this literature is that teams that actively organize and evaluate feedback on the effectiveness of their (joint) work processes and give preferentiality to those processes that turn out to be productive to the team tend to outperform teams that never take such evaluative efforts. This typical example of promotive interaction is in concert with literature on team motivation (Chen & Kanfer, 2006) that emphasizes the fundamental role of feedback as a motivating team-level factor. Although the predictions derived from SIT concerning the beneficial outcomes of promotive interactions are clear, the theory remains rather ambiguous as to which factors are conducive to promotive interaction.

We build on the multilevel model of team motivation (Chen & Kanfer, 2006; Chen et al., 2011) to propose three proximal team-level antecedents that motivate or enable the positive, promotive interaction that can attenuate the damaging influence of negative relationships. As for structural antecedents, we consider the density of the communication network within the team (which captures the intensity and connectedness by which team members interact with one another on work-related matters) and the task-interdependence of the team members. The social antecedent we consider is the quality of the team’s member exchange processes. As we argue, these three attributes reflect top-down mechanisms that can buffer the team as a whole against local negative ties and can safeguard the team’s social cohesion. With social cohesion intact, the team should retain its ability to perform well despite the presence of negative relationships (for the full model, see Figure 1).

Negative Relationships, Cohesion, and Communication Density

In line with the multilevel model of team motivation (Chen & Kanfer, 2006), we argue that negative ties are discretionary
(de)motivational forces, likely to influence individual members and the team as a whole. As reported in Chen, Sharma, Edinger, Shapiro, and Farh (2011), a single interpersonal relation marked by contentious and personal disagreements and attacks generates substantial relationship conflict at the team level and, as such, acts as a demotivating force. Nevertheless, communication density (the extent to which team members are in mutual communication with each other) may buffer the (de)motivating effects of these discretionary inputs on the team as a whole.

When all team members are involved in frequent, mutual conversations regarding the team task or informal issues unrelated to their work, the team has access to channels of interaction that allow it to quickly respond to unproductive events. The communication interconnectedness is thought to influence the amount of information and support that can move through the team (Balkundi & Harrison, 2006). When communication density is high, team members regularly communicate with each other and are better able to deal with the destructive effects of negative interpersonal relations. Although there may be conditions under which interconnectedness allows for negativity to become contagious, we argue that a team with well-connected members will be able to fence the negativity locally (i.e., block it from spiraling up to the team level) and exhibit enough elasticity to keep its cohesion intact. Dense positive exchanges in teams, instrumental or informal, positively relate to members’ attitudes and well-being (LePine, Met hod, Crawford, & Buckman, 2012); we contend that teams with denser communication networks are better able to handle negative social exchanges in the team when such exchanges emerge. Frequent interaction in a team provides those team members who are involved in negative relationships with positive motivational experiences that soften the impact of the stressful negative experience (Cohen & Wills, 1985) and can help them to come to grips with their negative experiences. Teams with high communication density provide their members with the opportunity to directly contribute to an atmosphere in which the negative relations become much less harmful. In addition, teams with high communication density leave little opportunity for negativity to spread through the team because communication density positively impacts the team’s capacity to coordinate its actions (Reagans & Zuckerman, 2001). Decreased team density has been suggested to make it more difficult for the team to maintain the closure needed for effective positive norms and sanctions, which is an additional way in which the potentially destructive behavior that can follow negative relationships can be controlled (Brass & Labianca, 1999). In sum, we propose that communication density is an effective team-level structural device that provides a buffer against the potentially adverse effects of negative relationships.

Hypothesis 2: The effect of negative relationships on team cohesion is moderated by team communication density: the higher the communication density, the lower the damaging effect of negative relationships on team cohesion. As a result, high communication density neutralizes the damaging effect of negative relationships on team performance.

Negative Relationships, Cohesion, and Task-Interdependence

A second team-level structural attribute that can attenuate the undesirable effects of negative relationships is the extent to which team members are task-interdependent. Task-interdependence reflects the extent to which collective performance depends on successful intrateam information sharing, effective coordination, and mutual adjustment (Saavedra, Earley, & Vandyne, 1993). When task-interdependence is high, team members depend on each other to complete their collective task: They sink or swim together; that is, they have to maximize their own effectiveness and maximize the effectiveness of all other group members (D. W. Johnson & Johnson, 2005b). In other words, task-interdependence facilitates top-down motivational processes as highly task-interdependent teams rely on continuous internal monitoring to cope with stressors that interfere with task completion (Kozlowski, Gully, Nason, & Smith, 1999). This monitoring system decreases the leeway team members have to engage in the dysfunctional behaviors that result from negative relationships (e.g., shirking and free riding; Jones, 1984). Conversely, teams engaged in tasks that require a low degree of task-interdependence are unlikely to develop an internal monitoring system and team members may, as a result, engage in dysfunctional behaviors in response to negative relationships. To summarize, task-interdependence—a team-level attribute—motivates the promotive interaction (at the dyadic level) in teams that can mitigate the adverse consequences of negative relationships.

Hypothesis 3: The effect of negative relationships on team cohesion is moderated by task-interdependence: the higher the task-interdependence, the lower the damaging effect of negative relationships on team cohesion. As a result, high task-interdependence neutralizes the damaging effect of negative relationships on team performance.

Negative Relationships, Cohesion, and the Quality of Social Exchange

Because team members are part of a social system of interacting roles, the quality of their social exchange can provide a team-level buffer that reduces the adverse consequences of negative relationships (Duffy & Lee, 2012; Seers, 1989). Team–member exchange (TMX) refers to the “reciprocity between a member and her or his team with respect to the member’s contribution of ideas, feedback, and assistance to other members and, in turn, the member’s receipt of information, help, and recognition from other team members” (Seers, Petty, & Cashman, 1995, p. 21). Focusing on the exchange of team members with the team as a whole, TMX considers the team (rather than specific team members) as the agent for exchange quality. Seeking and receiving support, assistance and information is especially beneficial in stressful situations (Carver, Scheier, & Weintraub, 1989), such as those caused by negative relationships. For example, high quality team-member exchange was found to help newcomers to cope with the negative effects of unmet expectations (Major, Kozlowski, Chao, & Gardner, 1995).

Team members who are involved in negative relationships find support by experiencing an atmosphere in which one is naturally helped by others, feels recognized, and shares responsibility. A positive team atmosphere is a top-down motivational force (Chen & Kanfer, 2006) that makes it easier for team members to deal with negativity, because it supports one’s self-esteem and the extent to which the team member identifies with the team and feels part of a cohesive whole. When members of a team develop strong
norms of supporting each other, the impact of social support in the team may be stronger, relative to circumstances in which some members support each other and others do not (Chen & Sharma, 2012). Such an environment is well-suited to buffering the harmful effects of negative relationships on cohesion and, ultimately, performance. In summary, TMX increases cross-level (top-down) motivation in favor of promotive interaction and provides an environment that is preeminently suited for effective evaluation of activities and behavior by both the individual and the group as a whole.

**Hypothesis 4:** The effect of negative relationships on team cohesion is moderated by TMX: the higher the TMX, the lower the damaging effect of negative relationships on team cohesion. As a result, high TMX neutralizes the damaging effect of negative relationships on team performance.

### Method

#### Procedure and Participants

For this study we collected data in eight organizations (two municipalities, a bank, a web-based retail organization, a charitable institution, a medium-sized university, a health care organization, and a local police department) located in a medium-size Western European country. Data were obtained through two questionnaires administered to team members and the formal leader of the team, respectively. Each leader in our data set was responsible for one team only. The questionnaires were completed during working hours, in on-site meeting rooms, with a researcher present. The sample consists of 334 respondents from 73 teams with an average within-team response rate of 84%. The average team size, excluding the team leader, was 4.6 (ranging from three to 13 members, $SD = 2.2$). The mean respondent age was 39 years (ranging from 17 to 63 years, $SD = 11.95$), with 152 women (45%) and 182 men (55%). The mean age of the leader was 42 years ($SD = 9.8$), with 21 women (29%) and 52 men (71%). The majority of the leaders in our sample have a college or university degree (83%). Their average tenure with the organization is 98 months ($SD = 122$).

#### Measures

**Presence of negative relationships.** Following, among others, Kane and Labianca (2005) and Venkataramani and Dalal (2007), we provided team members with a list with names of team members (excluding the team leader) and asked them to report their relationship with all other members of the team on a 4-point scale ($1 = dislike a lot, 2 = dislike, 3 = like, 4 = like a lot$). A score of 1 or 2 indicated a negative relationship. We followed Labianca and Brass’s (2006) suggestion that a relevant negative relationship exists when at least one person in the relationship has a level of dislike for another person. About 7% of the relationships were negative, a percentage that conforms to previous empirical research on negative relationships (e.g., Baldwin, Bedell, & Johnson, 1997; Gersick, Bartunek, & Dutton, 2000; Labianca, Brass, & Gray, 1998). In 32 teams (44%) we found at least one negative relationship. The number of negative relationships in a team ranged from one to 11 (in a team of 11 members); the highest percentage within a team was 33% (in a team of six members). Because these high percentages were exceptional and most of the teams ($n = 20$) had only one or two negative relationship(s), we dichotomized the variable so it reflects the presence or absence of negative relationships. We did, however, repeat our analyses using the proportion of negative relationships within the team as a dependent variable; this yielded the same results as when using the dichotomous variable. We only show and discuss these latter results.

**Team cohesion.** We measured team cohesion with Chang and Bordia’s (2001) eight-item scale comprising items like “Our team is united in trying to reach its goal for performance.” The items are rated on a 5-point Likert-type scale ranging from $1 = strongly disagree to $5 = strongly agree and cover both task and social cohesion. Given the good internal consistency of the scale and the meta-analytical evidence (Beal, Cohen, Burke, & McLendon, 2003) showing that task and social cohesion are both positively associated to group performance, we used the scale’s overall score for group cohesion in the analyses. Because our hypotheses are formulated at the team level, individual answers were aggregated to the team level. To test whether such aggregation was justified, we calculated a within-group intrarater reliability statistic, $r_{w(j)}$ (James, Demaree, & Wolf, 1993), and intraclass correlation indices ICC(1) and ICC(2) (Bliwise & Halverson, 1998). Because the distribution of the cohesion scale is slightly skewed, we used an expected error variance of 1.34 (Lebreton & Senter, 2008).$^1$ The mean $r_{w(j)}$ for cohesion was .92 (median = .93, range = .78 to 1.00). Furthermore, ICC(1) was .22 and ICC(2) was .56, $F = 2.372, p < .05$.

**Communication density.** Communication density refers to the extent to which team members are in communication with each other regarding the team task and/or informal topics. We asked respondents to indicate how frequently they communicate with the other members of the team “about their work for the team and/or about informal topics not related to the task” on the following scale: 0 = never, 1 = less than once a month, 2 = 1 to 3 times a month, 3 = 1 to 3 times a week, and 4 = daily. We computed density by dividing the reported frequency of interactions of all team members by the possible total frequency of interactions in the team (Sparrowe, Liden, Wayne, & Kraimer, 2001).

**TMX.** We measured TMX with the Seers, Petty, and Cashman (1995) 10-item scale, consisting of statements such as “My team members understand my problems and needs.” The items are rated on a 5-point Likert-type scale ranging from $1 = strongly disagree to $5 = strongly agree.$ The mean $r_{w(j)}$ is .94 ($Mdn = .95, range = .83 to 1.00$), ICC(1) = .28 and ICC(2) = .68, $F = 2.725, p < .05$, justifying aggregation of the individual-level data to the team level.

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$^1$ Recently, concerns have been voiced regarding the habitual reliance on uniform null distributions for $r_{w(j)}$ (e.g., Lebreton & Senter, 2008) in most articles. Because our data are skewed slightly, we used the expected error variance of 1.34 Lebreton and Senter (2008; Table 2) suggested for this level of skew. If we had used the uniform distribution as our null distribution, the $r_{w(j)}$’s would have become inflated. To see this, the $r_{w(j)}$’s under a uniform null distribution (with variance 2) are indeed higher: .96 ($Mdn = .96, range = .90 to 1.00$) for cohesion, .96 ($Mdn = .97, range = .90 to 1.00$) for TMX and .78 ($Mdn = .79, range = .40 to 1.00$) for task-interdependence.
**Task-interdependence.** We measure task-interdependence using the six-item scale by Van der Vegt, Emans, and Van de Vliert (2001) containing items such as “I depend on my colleagues for the completion of my work” rated on a scale of 1 = disagree strongly to 5 = agree strongly. The mean $r_{w(j)}$ is .67 (Mdn = .68, range = .23 to 1.00), ICC(1) = .16, and ICC(2) = .46, $F=1.864$, $p<.05$, justifying aggregation of the data to the team level.

**Team performance.** The team leader evaluated team performance using the scale developed by Rousseau and Aubé (2010); the team leader is asked to evaluate the team’s outcomes over the recent 6 months on five different performance criteria: (a) achievement of performance goals, (b) productivity (quantity of work), (c) quality of work accomplished, (d) respect for deadlines, and (e) respect for costs. Team performance was rated on a 5-point scale ranging from 1 = very low to 5 = very high.

**Control variables.** Team size is used as a control variable because team size has been found to relate negatively to cohesion (Carron & Spink, 1995). We also included average team tenure (in months) as a control variable. High team tenure can give rise to teams relying on routine and using cognitive short-cuts to avoid conflict (Katz, 1982). This may increase team cohesion. In a separate analysis, we accounted for possible organization-level differences by adding organization dummies to the regressions. Because the addition of these dummies did not change the results, they are not reported below.

To test for discriminant validity of TMX, task-interdependence, and cohesion, we conducted a confirmatory factor analysis using three different models (communication density was operationalized as network density, making confirmatory factor analysis irrelevant for it). We tested a one-factor model including all three variables simultaneously, $\chi^2(209) = 1216.72$, nonnormed fit index [NNFI] = .83, comparative fit index [CFI] = .86, root-mean-square error of approximation [RMSEA] = .11; a two-factor model in which TMX and cohesion were captured in one latent factor, $\chi^2(208) = 928.82$, NNFI = .87, CFI = .90, RMSEA = .09; and a three-factor model in which each factor represents the latent construct of each variable, $\chi^2(206) = 661.42$, NNFI = .91, CFI = .94, RMSEA = .07. The confirmatory factor analyses show that the three-factor model fits the data best, supporting the inclusion of the three constructs as separate variables in the analysis.

**Analyses.**

To test Hypothesis 1, we used the procedure recommended by Preacher and Hayes (2004) to analyze if cohesion mediates the relationship between the presence of negative relationships and team performance. Hypotheses 2, 3, and 4 propose a mediated moderation model. To test for this mediated moderation, we applied the procedure proposed by Preacher, Rucker, and Hayes (2007), testing this indirect association at three levels of communication density, TMX, and task-interdependence (−1 standard deviation, mean, 1 standard deviation). All variables were entered as continuous variables, which we mean-centered before proceeding with the analyses. Bias-corrected bootstrapping with 5,000 resamples was applied to test whether the indirect associations differ significantly from zero.

**Results.**

Table 1 shows the descriptive statistics, correlations, and Cronbach’s alphas of the main variables used in this study. In testing Hypothesis 1, we regressed the cohesion on the presence of negative relationships (together with the control variables) first and then regressed team performance on the presence of negative relationships together with cohesion in a second regression (see Table 2). The results show that the presence of negative relationships is negatively related to cohesion ($B = −.39$, $p < .05$), which, in turn, is positively related to team performance ($B = .53$, $p < .05$), while the presence of negative relationships appears to be unrelated to team performance ($B = −.22$, $ns$). The bootstrapping results reveal an indirect association between the presence of negative relationships and team performance mediated by cohesion (effect size = −.18, 95% confidence interval [95% CI [−.37, −.06]], which supports Hypothesis 1.

In Table 2, we also present the results of the regressions used to test Hypotheses 2, 3, and 4. We include communication density, task-interdependence, TMX, and their interaction in the model with negative relationships to test their association with team cohesion. For communication density, neither the main effect ($B = −.12$, $ns$) nor its interaction ($B = −.16$, $ns$) with negative relationships is statistically significant; we therefore reject Hypothesis 2. For both task-interdependence ($B = .35$, $p < .05$) and TMX ($B = .72$, $p < .05$), the interaction with negative relationships is statistically significant. Figure 2A shows that at high levels of task-interdependence (+1 standard deviation), the association between presence of negative relationships and cohesion no longer appears. Figure 2B paints a similar picture for TMX: At low levels of TMX (−1 standard deviation), negative relationships are negatively associated with cohesion, but at high levels of TMX (+1 standard deviation), the association disappears. In line with Hypotheses 3 and 4, this shows that high task-interdependence and TMX are effective in neutralizing the adverse effects of negative relationships on team cohesion.

We used bootstrapping (Preacher et al., 2007) to further show how the indirect association between negative relationships and team performance is mediated by cohesion at different levels of task-interdependence and TMX. The negative indirect association appears to be statistically significant at medium (effect size = −.08, 95% CI [−.23, −.01]) and especially at low levels of

\[2\] To assess whether cohesion fully mediates between the presence of negative relationships and team performance, we applied the criteria for full mediation proposed by Mathieu and Taylor (2006). Following their decision tree (Mathieu & Taylor, 2006, p. 1040), we established that, controlling for team size and average team tenure, the presence of negative relationships is associated with team performance, $B_{yx} = −.42$ ($SE = .16$), $p < .05$; that the presence of negative relationships is associated with cohesion, $B_{xm} = −.39$ ($SE = .09$), $p < .05$; and that cohesion is related to team performance, $B_{ym} = .53$ ($SE = .20$), $p < .05$. Finally, we find a nonsignificant association of the relationship between the presence of negative relationships and team performance while controlling for cohesion, $B_{x.m} = −.22$ ($SE = .17$), $ns$, which meets the criteria to establish full mediation as proposed by Mathieu and Taylor (2006).

\[3\] To test if the moderators also moderate elsewhere in the model, we performed additional regressions to test if the moderation is significant in the relationship between (a) negative relationships and team performance and (b) cohesion and team performance. The results of the regressions show that this is not the case; moderation is only present in the relationship between negative relationships and cohesion.
Table 1
Means, Standard Deviations, and Correlations of the Main Variables

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<td>2. Team cohesion</td>
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<td>3. Team performance</td>
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<td>4. Communication density</td>
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<td>5. Task-interdependence</td>
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<td>7. Team size</td>
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<td>—.02</td>
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<td>8. Average team tenureb</td>
<td>49.59</td>
<td>36.10</td>
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Note. N = 73. Values in parentheses represent Cronbach’s alphas, which reflect the internal consistency reliability of the (aggregated) team-level measures. TMX = team–member exchange.

a This is a binary value for which 0 = no negative relationships present and 1 = negative relationship present. b Tenure is given in months.

*p < .05.

Task-interdependence (−1 standard deviation, effect size = −.17, 95% CI [−.39, −.02]), although it fades away at a high level of task-interdependence (+1 standard deviation, effect size = .01, 95% CI [−.12, .14]). We find similar results for TMX as a moderator. The negative indirect association is statistically significant at medium (effect size = −.09, 95% CI [−.25, −.01]) and low levels of TMX (−1 standard deviation, effect size = −.20, 95% CI [−.44, −.06]) but not at a high level of TMX (+1 standard deviation, effect size = .01, 95% CI [−.15, .20]). These results indicate that negative relationships damage team performance through their adverse effect on team cohesion in teams with low or intermediate levels of task-interdependence and TMX. However, in teams that are high on task-interdependence or TMX—teams that have strong mechanisms that foster promotive interaction—negative relationships no longer have an adverse effect on team cohesion and, consequently, team performance remains intact. This supports Hypotheses 3 and 4.

Discussion
Our study provides initial insight regarding the conditions under which teams do or do not suffer from negative interpersonal relationships. Consistent with our first hypothesis, we found that negative relationships reduce team cohesion, which, in turn, decreases team performance. Given that team cohesion is one of the main antecedents of team performance (Chang & Bordia, 2001),

Table 2
Results of the Ordinary Least Squares Regression Analyses (N = 73) Used to Test the Association Between Presence of Negative Relationships and Team Performance Through Team Cohesion (Hypothesis 1) at Different Levels of Communication Density (Hypothesis 2), Task-Interdependence (Hypothesis 3), and TMX (Hypothesis 4)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Team cohesion</th>
<th>Team performance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Model 1</td>
<td>Model 2</td>
</tr>
<tr>
<td>Control variables</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Team size</td>
<td>−.01</td>
<td>.02</td>
</tr>
<tr>
<td>Average team tenure</td>
<td>.00</td>
<td>.00</td>
</tr>
<tr>
<td>Main effects</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Negative relationshipsa</td>
<td>−.39</td>
<td>.09</td>
</tr>
<tr>
<td>Team cohesion</td>
<td>−.18</td>
<td>.08</td>
</tr>
<tr>
<td>Moderators</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Communication density</td>
<td>−.26</td>
<td>.27</td>
</tr>
<tr>
<td>Task-interdependence</td>
<td>.06</td>
<td>.08</td>
</tr>
<tr>
<td>TMX</td>
<td>.79</td>
<td>.17</td>
</tr>
<tr>
<td>Interactions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Negative Relationships ×</td>
<td>.27</td>
<td>.61</td>
</tr>
<tr>
<td>Communication Density</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Negative Relationships ×</td>
<td>−.40</td>
<td>.16</td>
</tr>
<tr>
<td>Task-Interdependence</td>
<td>.83</td>
<td>.35</td>
</tr>
<tr>
<td>Negative Relationships ×</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TMX</td>
<td>.11</td>
<td>.19</td>
</tr>
</tbody>
</table>

Note. TMX = team–member exchange.

a This is a binary value for which 0 = no negative relationships present and 1 = negative relationship present. b The values of R²-change for Models 3, 4, 5 and 6 reflect the comparison with Model 2.

*p < .05.
we focused the main part of this study on team-level factors that can motivate promotive, positive interaction in teams and, as proximal antecedents of such positive processes, buffer the team against the detrimental influence of negative relationships.

We found support for our hypotheses that task-interdependence and TMX act as such buffers against the adverse effect of negative relationships. The analysis shows that negative relationships clearly harm team cohesion in those teams that are low on task-interdependence or TMX—these are teams in which members do not feel helped and respected and in which members barely depend on others to perform their jobs. In contrast, teams that perform well despite having negative relations are characterized by high-quality interpersonal interaction and above-average levels of task-interdependence that retain a harmonious, goal-directed social climate within the team. In other words, in line with the multilevel team motivation models (Chen & Kanfer, 2006), we show that task-interdependence and TMX act as beneficial top-down devices that motivate team members to engage in the type of promotive interaction that can effectively buffer against the detrimental effects of negative relationships. In teams where these devices are lacking, such promotive interaction is not stimulated, and the negative relationships retain their full damaging effect on team cohesion.

We did not find support for communication density to create a buffer against negative relationships. It may be, however, that communication density plays a somewhat different role with respect to negative relationships: The social skills that underlie communication density could directly decrease the probability of the occurrence of negative relationships in the first place (LePine et al., 2012). Task-interdependence and TMX are top-down motivational forces that explicitly encourage (group) processing activity and ultimately neutralize the perils of contrient interactions in teams. The positive and critical activity of group processing helps team members solve the cognitive dissonance inherent to situations when negative relationships are present and task-interdependence is high (group members having to work together while experiencing negative interpersonal relations at work). Empirical evidence stemming from conflict theory shows that high levels of interdependence fosters efforts to work hard and cope with the presence of negative relationships (Sherif, Harvey, White, Hood, & Sherif, 1961), a finding echoed in structural adaptation theory (M. D. Johnson et al., 2006), a dynamic extension of SIT.

This study makes several contributions to research on intrateam relations and team performance. Adding to literature that has argued for the impact of negative relationships on individual team members (Totterdell et al., 2012; Xia et al., 2009), our research addresses the effect of negative relationships on the team as a whole. Moreover, previous research on negative relationships in teams has focused on direct (negative) effects of negative relationships on team performance (e.g., Sparrowe et al., 2001) or on structural consequences of negative relationships (e.g., Huitsing et al., 2012; Hummon & Doreian, 2003). In the current study, we combine insights from SIT and the multilevel motivation models to specify top-down team-level attributes (i.e., two structural and one social attribute) that can motivate and enable promotive interaction in teams. We believe this approach enriches SIT considerably. To date, empirical SIT-based research has not addressed the situation in which promotive and contrient interactions occur simultaneously within the same team; this study adds to SIT by showing how mechanisms that foster promotive interaction in a team (top-down motivational forces) can counteract the damaging effects of simultaneously existing contrient interaction (bottom-up discretionary demotivating factors), such that the team can still perform well. Most people, in their lives, will be a member of at least one team with negative relationships; combining the insights of multilevel team motivation models with SIT to address situations like this, therefore, is practically relevant and allows SIT researchers to expand their theorizing to this commonly occurring setting.

Limitations and Avenues for Future Research

Our study has some limitations. First, Labianca and Brass (2006) argued that the social liability of negative relationships may be determined by their strength, reciprocity, the degree of awareness, and the social distance between the actors involved. As we investigated work teams, we expected that social distance was low and the degree of awareness was likely to be high. In future studies, researchers could explore the impact of these characteristics of negative relationships. Second, as our study relies on the presence or absence of negative relationships, it does not address the way in which the within-team structure of negative relationships affects team cohesion. We propose that research could move beyond exploring structures of positive relationships (which is the common approach in most of social network analysis) to exploring...
the way in which negative relationship structures impact team dynamics and performance. Third, we used a cross-sectional design and therefore we can make no causal claims. We suggest future research to explore the impact of negative relationships on team dynamics and performance through a longitudinal perspective.

Conclusions

The presence of negative relationships in teams has a negative association with team cohesion and performance. However, several mechanisms that motivate prospective interaction appear to be able to attenuate this negative impact. A practically useful observation is that several of these contingencies can be managed by the team or by team leaders. For example, TMX can potentially be enhanced by stimulating helping norms in a team, and task-interdependence is a variable open to manipulation through active managerial decision making. Given that only very little is known about the factors that fuel the commencement of negative relationships, it may be worthwhile for managers to have some handles that can proactively make their teams more resilient to the occurrence of negative relationships.

References


James, L. R., Demaree, R. G., & Wolf, G. (1993). The presence of negative relationships in teams has a negative association with team cohesion and performance. However, several mechanisms that motivate prospective interaction appear to be able to attenuate this negative impact. A practically useful observation is that several of these contingencies can be managed by the team or by team leaders. For example, TMX can potentially be enhanced by stimulating helping norms in a team, and task-interdependence is a variable open to manipulation through active managerial decision making. Given that only very little is known about the factors that fuel the commencement of negative relationships, it may be worthwhile for managers to have some handles that can proactively make their teams more resilient to the occurrence of negative relationships. A first exploratory analysis on our data revealed that the in-degree and out-degree of disliked team members (within the liking or disliking network) and the in-degree and out-degree of the disliked team members (within the communication network) was not related to team cohesion (N = 32).


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