How can functional diversity and intragroup conflict influence team effectiveness and creativity in NPD teams?

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How can functional diversity and intragroup conflict influence team effectiveness and creativity in NPD teams?

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Management summary

New Product Development (NPD) and innovation are important for organizations to achieve high market shares (Buganza et al., 2009). Cross-functional teams commonly are used for product development and innovation. Previous research already concluded that creativity is essential for new product development (Leenders et al., 2003). Team creativity, therefore, was the main indicator of team performance in this study. Functional diversity within teams can have negative consequences for team performance by means of intragroup conflict that may arise in diverse teams. Functional diversity, for example, is related to higher levels of task-related conflict within development teams (Pelled et al., 1999). Conflicts, however, are not necessarily detrimental for team performance. Martinez-Moreno et al. (2009) in fact found a positive relationship between conflict and NPD team performance. Thus, the relationship between diversity and the actual outcomes of diversity depends on the context in which teams face diversity (Jayne & Dipboye, 2004; Kossek et al., 2006). In this study, the relationship between functional diversity, intragroup conflict (task and process conflict), and team performance was investigated among 22 development teams in The Netherlands. The role of the leader in functional diverse teams and during conflict situations within teams was investigated as a possible moderator on these relationships. The research model is shown in figure 1. The data for this study were gathered by surveys in which a distinction was made between team leaders and team members. Hierarchical regression was used to analyze the hypotheses that were formulated in this study.

![Figure 1. Research model](image-url)
Task conflict and team performance

As mentioned before, previous research of Pelled et al. (1999) suggested a positive relationship between functional diversity and the level of task conflict within development teams. A similar relationship between functional diversity and task conflict was found in the current study, the results also suggest that functional diversity is positively related to the level of task conflict. Based on the conflict literature, task conflict was expected to have a curvilinear (inverse U-shaped) relationship with team effectiveness (Jehn, 1995; Jehn, 1997; Jehn & Bendersky, 2003). Team effectiveness in this study was measured regarding five dimensions: perceived team performance, team member satisfaction, information elaboration, innovativeness, and new product success. The results suggest an inverse U-shaped relationship between task conflict and three team effectiveness indicators: information elaboration, innovativeness, and new product success.

De Dreu (2006) investigated the relationship between task conflict and innovation within teams and found a curvilinear (inverse U-shaped) relationship. A stated before, creativity and innovation are related. Innovation, however, also is the implementation of the ideas provided by creative team processes (De Dreu, 2006). In Chinese IT project teams task conflict already was linked to team creativity, in such a way that moderate levels of task conflict were related to the highest level of team creativity (Farh et al., 2010). In the current study the relationship between intragroup conflict and team creativity in Dutch companies was investigated and a curvilinear relationship between task conflict and team creativity was expected and found. Two kinds of opinions were used to measure team creativity in the current study: team leader’s creativity rating and self-rated creativity by team members. The results suggest a curvilinear relationship between task conflict and team creativity, in such a way that moderate levels of task conflict were related to higher team creativity than low or high levels of task conflict. Information elaboration may have an influence on the relationship between task conflict and creativity, because of a positive correlation between information elaboration and self-rated creativity. Previous research already concluded that that NPD teams should combine and integrate information of different members present in the team to stimulate team creativity (Leenders et al., 2003). Altogether, the findings of the current study suggest that moderate levels of task conflict are more beneficial for team performance than low and high levels of task conflict.

Thus, task conflict should be stimulated to a moderate level to reap the benefits, while teams also should prevent for conflicts that rise to detrimental levels or evaluate into other types of conflict. Composing functional diverse teams may be a strategy to stimulate task conflict within teams, functional diversity in fact was positively related to task conflict. Open conflict norms (conflict and
disagreements are allowed) within teams also may stimulate task conflict within teams by openly discussing different viewpoints (Jehn & Mannix, 2001; Rispens, 2009). The likelihood that task conflict escalates into other types of conflict reduces when intragroup trust within teams is high. Stimulation of task conflict, therefore, will be most beneficial when it is combined with trust generation within teams (Simons & Peterson, 2000). Furthermore, during task conflicts it is important that discussions are about tasks and content only (Rispens, 2011; van de Vliert & de Dreu, 1994). Thus, open conflict norms should be used to stimulate task conflict in a climate of high intragroup trust. This intragroup trust may be generated by organizing informal meetings and establishing some behavioral team norms.

**Process conflict and team performance**

Process conflict was negatively related to team performance in previous research (de Wit et al., 2011; Jehn, 1997; Jehn & Chatman, 2000; Jehn & Mannix, 2001; Vodosek, 2007). In this study, process conflict was separated in logistical conflict and contribution conflict. Logistical conflicts are conflicts about how to organize and utilize group resources most effectively (Behfar et al., 2011). Contribution conflicts, on the other side, are conflicts about (the lack of) member contributions that disrupt group processes (Behfar et al., 2011). The results suggest a negative relationship between process conflict (logistical and contribution) and team member satisfaction. Contribution conflict also was negatively related to team innovativeness. Process conflict was expected to be negatively related to team creativity based on previous research (Kurtzberg & Mueller, 2005). Process conflict (logistical and contribution) was negatively related to self-rated creativity only. Another finding of the current study is that it is advisable to distinguish logistical and contribution conflict, because contribution conflict had more negative relationships with team effectiveness and self-rated creativity than logistical conflict.

Team leaders should keep the level of process conflict as low as possible within their teams. To prevent for process conflict, tasks should be based on the skills of team members and forecast scheduling should be conducted to overcome work-load problems (Behfar et al., 2011). Process conflicts need to be resolved as quickly as possible to prevent for dissatisfied team members and decreased team innovativeness and creativity. Process conflict can be resolved by creating explicit rules for teams, such as written rules and punishments when these rules are not respected (Behfar et al., 2008).
The role of the leader in intragroup conflict

Feelings of threat among team members moderated the relationship between task conflict and team leader’s creativity rating; team creativity increases when team members feel low levels of threat during task conflict. A same moderation of avoiding conflict management was found on the relationship between task conflict and self-rated creativity. It seems that team creativity increases when team leaders use low avoiding conflict management style during task conflicts. An avoiding style of conflict management already was found as destructive and negatively related to new product success (Skogstad et al., 2007; Xie et al., 1998). Thus, leaders who believe in the value of conflicts also should be aware of the consequences of these conflicts on team creativity. Believing in the value of conflicts does not mean that conflicts also are beneficial at more severe levels. Avoiding conflicts at more severe levels may be harmful for team creativity.

Conflict beliefs of team leaders (believing in the value instead of addressing the dangers of conflict) should be conveyed to team members to reap the actual benefits, because team members are the ones that have to deliver the actual performance. Team leaders, therefore, need to point out the value of task conflict in NPD teams (e.g. its relationship with effectiveness and creativity) to their team members. Leaders can do so by creating an environment of intragroup trust with open conflict norms in their teams, for example.

Leaders also should make team members aware of the value of functional diversity and information sharing within NPD teams to create mutual respect and address possible threats (van Knippenberg et al., 2004). Pro-diversity management can be a manner for team leaders to convince team members of the value of functional diversity in their teams (Rispens et al., 2012). When leaders make team members aware of the value of a certain level of functional diversity and task conflict, team members may approach functional diversity and task conflict more as resource than as possible threat.
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1. Introduction

During the last decades organizations make more and more use of teams, especially organizations in which New Product Development (NPD) plays an important role do so (Akgun et al., 2006). Teams are defined as: “groups that (1) have more than two members, (2) are intact social systems with boundaries, so that members recognize themselves as a group and are recognized by others as a group, (3) have one or more tasks that are measurable, and (4) operate within an organization” (Jehn, 1995, p. 257). Organizations use teams to stimulate creativity during idea generation and in the end to develop highly innovative products, for example to attract new customers or tap into new market segments when competition in the market is high (Griffin & Page, 1996). New product development is important to stay ahead of competitors by making innovative products or services (e.g. improving technology and satisfying customer needs) to achieve a high market share in today’s turbulent environments. Buganza et al. (2009) concluded that when the market is turbulent, due to changes in market needs or in the technology, it will be hard or even impossible to clearly define the performance and functionalities of products to be developed (goals of the project). In that case, formal cross-functional teams (NPD teams) are crucial to enhance the efficiency of the processes (Buganza et al., 2009). Cross-functional teams are teams that consist of individuals from different functional areas (Keller, 2001). The diverse functional backgrounds (functional diversity) of individuals within a NPD team can serve as a basis for creative thinking (Sethi et al., 2001; van Knippenberg & Schippers, 2007). Creativity within NPD teams will be investigated in this study. Creativity is important, because it is essential for new product development and innovation (Amabile et al., 1996; Leenders et al., 2003). Creativity generally can be defined as ideas that both are novel and useful (Amabile, 1983). The focus in this study, however, is on NPD teams. In NPD teams creativity probably is the point of departure in developing (radical) innovative products. Therefore, it may be important for organizations to manage creativity properly to make sure that NPD project teams handle creativity in the most beneficial way. Team creativity is an extension of the general definition of creativity with the addition of interpersonal discussion among team members (Leenders et al., 2003). For team creativity team members should, by means of communication and discussion, combine and integrate ideas and information of other members within the team. This information exchange can create new insights and probably better ideas, which can foster creativity within teams (Leenders et al., 2003). Team creativity, in that case may be higher than the sum of individual creativity of team members.

Despite of the positive effects (enhancing creativity), (functional) diversity can have negative consequences for team performance as well (van Knippenberg & Schippers, 2007). That is where
conflicts likely play a role. Intragroup conflict broadly can be defined as: “the process emerging from perceived incompatibilities or differences among group members” (de Wit et al., 2011, p. 1). Functional diversity, for example, is positively related to task conflict within research and development teams (Pelled et al., 1999). The main thought about conflicts is that they arise from opposing interests, goal divergence, or frustration. Conflicts do not only arise within competitive environments, but they also occur within cooperative work environments (Tjosvold, 2006). Conflicts are not necessarily negative in all cases; conflicts also may have positive influences on NPD team performance (Martinez-Moreno et al., 2009). Thus, organizations that are involved in NPD should be aware about the benefits as well as the drawbacks of diversity and conflicts within NPD teams. Furthermore, the relationship between diversity and performance can be influenced by perspectives and priorities within an organization, the strategic response of the organization, the approach to implement the response, and the type of diversity in the particular situation (Dass & Parker, 1999). This means that the relationship between diversity and the actual outcome of diversity depends on the context in which people have to deal with diversity (Jayne & Dipboye, 2004; Kossek et al., 2006). Therefore, it is important to investigate diversity management and characteristics within NPD teams for which diversity and intragroup conflict will have a positive influence on performance (especially creativity).

Conflicts also are found to be related to creativity, in such a way that a moderate level of task conflict is positively related to creativity in the early phase of the project team’s lifecycle (Farh et al., 2010). Task conflict may lead to novel ideas. These novel ideas, however, only foster creativity when teams have resources, openness, and time to integrate the ideas (Farh et al., 2010). The focus in this study will be on two different types of conflict (task conflict and process conflict) and their relationship with creativity. Relationship conflict is out of the scope of this study, because no relationship between this type of conflict and team performance was found in previous research (e.g., Jehn, 1995). Task conflicts are task-related disagreements among team members, such as disagreements about ideas and opinions about the task for which the team is responsible (Jehn et al., 2008). Process conflict, on the other side, is about how well a team manages coordinating activities to accomplish tasks, these types of conflicts are process-related (Behfar et al., 2011). Furthermore, the moderating role of the leader during conflict situations will be investigated. Leadership processes in fact are suggested to be a critical factor for team success and for enhancing constructive team processes (Somech, 2006; Zaccaro et al., 2001). According to Horner (1997), leadership is defined by the traits, qualities, and behavior of a leader. Leadership, for example, moderates the relationship between diversity and team conflict (Klein et al., 2011). Task-focused leadership weakens the effect of diversity on team conflict, while person-focused leadership exacerbates the effects of diversity on
team conflict (Klein et al., 2011). In the literature there is not much attention paid yet to the role of the team leader in conflict situations (Römer et al., 2012). The role of the leader during conflicts is important, because conflicts are associated with declined employee well-being, which in the end can harm organizational performance (Römer et al., 2012). Thus it is relevant to involve leadership in this study. Indeed, it is the leader who has to stimulate the resolution of conflicts when team members cannot find a solution themselves or when conflicts tend to disrupt the proceedings of the team. The leader is responsible for the functioning and the performance of his or her team. The avoiding conflict management approach that leaders can use in handling conflicts will be investigated, because this management style is an extreme and previous research indicated that the five conflict management styles (known in the literature) separately did not have major influences on performance (Schilderman, 2011). The avoiding conflict management approach is in fact about ignoring conflict or disagreement (Song et al., 2000). The effect of “doing nothing” during conflicts will be investigated in this manner. Previous studies also were somewhat inconclusive about the effects of avoiding conflict management; some studies showed positive effects and others showed negative effects (e.g. Schilderman, 2011; Xie et al., 1998). In this study the effect of avoiding conflict management during task and process conflicts will be investigated to determine whether avoiding conflict is beneficial or harmful during these types of conflict. The focus in this study will be on team leaders who are directly related to NPD teams, which means that top management teams are out of the scope of this study. The leader is likely to play a role in managing conflict in teams and thereby may stimulate the positive outcomes of conflicts.

In this report the relationship between functional diversity, intragroup conflict, and team performance will be investigated. The effect of leader behavior on the relationship between conflict and creativity will be investigated as well. In the end suggestions will be done about how teams and team leaders can enhance creativity in NPD teams and the role of functional diversity during NPD projects. First, I will investigate the relationship between functional diversity and conflict. Later on the relationship between conflict and team performance (with creativity as main performance indicator) will be investigated. The research model I use in this study in shown in figure 1.
Figure 1. Research model
2. Theory and Hypotheses

2.1 Team diversity
Functional diversity in teams is thought to be beneficial to project performance, especially performance on technical quality, and planning and budget performance are improved through increased external communication by the team members who have external networks in their own fields of expertise (Keller, 2001). According to the Categorization-Elaboration Model (CEM), diversity can have benefits as well as negative effects. (van Knippenberg et al., 2004). The CEM links information/decision making perspectives to social categorization perspectives. The information/decision making part of the model is based on the potential greater pool of task-relevant information and resources that diverse groups can use compared to homogenous groups. To reap benefits of the task-relevant information and resources that are available within diverse groups, the elaboration of task-relevant information is important (van Knippenberg et al., 2004). Elaboration of task relevant information is defined as the exchange, discussion, and integration of ideas, knowledge, and perspectives that are relevant for team tasks (Kearney et al., 2009). Because functional diversity and elaboration of task-relevant information seem to be important to improve product quality and can be a basis of creative thinking, it may be important for organizations which focus on innovation. As stated by Sethi et al. (2001), functional diversity can be the basis of creative thinking. Especially this creative thinking may be an important factor during innovation projects within organizations, and therefore functional diversity will be interesting to investigate in this study. Thus, the positive effects of functional diversity within teams may be conditional upon elaboration of task-relevant information.

Where functional diversity can be beneficial to team performance by means of task-relevant information elaboration, this diversity also can have negative effects on team performance (Homan et al., 2008). The proposed negative effects of diversity are represented in the social categorization part of the CEM, developed by van Knippenberg et al. (2004). Social categorization within teams can be based on gender, age, and function for example. Social categorization may be related to relational conflict, low group commitment, and low satisfaction, for example (van Knippenberg et al., 2004). Thus, functional diversity in teams can be beneficial (by means of information elaboration) as well as harmful (social categorization) for team performance (van Knippenberg & Schippers, 2007). Because diversity can be harmful for team performance, organizations and especially teams and their leaders have to consider both the benefits and the possible drawbacks of diversity to attain the full potential of functional diversity.
2.2 Diversity management

Organizational responses to diversity are very important, because these responses have a large impact on the performance of the people within an organization (Dass & Parker, 1999). Team leaders may have a large responsibility in the management of their teams, and therefore may have an influence on the benefits and/or drawbacks of diversity within teams. The relationship between informational diversity and performance is moderated by diversity beliefs (Homan et al., 2007). Informational diversity is defined as differences in knowledge and perspectives between members in the group (Jehn et al., 1999). This definition of informational diversity is quite similar to the definition of functional diversity used in this study, therefore the term functional diversity will be used in the remainder of this report for the purpose of consistency. Pro-diversity beliefs are defined as the extent to which individuals believe that diversity can be beneficial for team functioning (van Dick et al., 2008). Groups which face functional diversity perform better when they held pro-diversity beliefs. These functional diverse groups also elaborate more information than homogenous groups do (Homan et al., 2007). Managing diversity beliefs is about making individuals aware of the value of diversity (Homan et al., 2007). Pro-diversity management can be defined as leader behaviors that may encourage pro-diversity beliefs, by making people aware that the team can benefit of the different perspectives and information available in the team (Rispens et al., 2012). The influence of leaders, by managing diversity beliefs, will have a positive influence on the performance of teams (van Knippenberg et al., 2004).

2.2.1 Intragroup trust

Intragroup trust is important in work teams and does have an effect on team functioning (Webber, 2002). The level of trust within teams is related to both individual en team behaviors, and trust in the competences and reliability of team members is positively associated with team creativity (Barczak et al., 2010). Functional diversity is related to low trust (Triandis et al., 1965). Lower trust may be caused by value differences between team members in functional diverse teams; distrust arises in fact when groups do not share key cultural values (Webber, 2002). In creating intragroup trust, the team leader plays an important role. Team leaders who set clear goals and link aspects of the different functional areas within the team, increase team trust which is offered to be critical for team success (Webber, 2002). That is where pro-diversity management of team leaders may play a role. By using pro-diversity management, leaders make team members aware of the value of the different perspectives present in the team (Rispens et al., 2012). By setting clear goals and making team members aware of the value of diversity within teams (linking the different functional areas), team leaders may create a climate of trust within their team in which different cultural values are respected and the value (instead of the drawbacks) of functional diversity is propagated. Therefore, it
is expected that functional diversity is positively related to intragroup trust when leaders demonstrate pro-diversity management.

**Hypothesis 1:** Functional diversity within NPD teams is positively related to the level of intragroup trust when leaders apply pro-diversity management.

### 2.3 Types of conflict

In the literature different types of conflict in groups are distinguished (Jehn, 1995; Jehn & Mannix, 2001). In this study the focus in on two types of conflict that are important in my opinion: task conflict and process conflict. “Task conflicts are disagreements among group members, concerning ideas and opinions about the task being performed, such as disagreement regarding an organization’s current hiring strategies or the appropriate information to include in an annual report” (Jehn et al., 2008, p. 467). Process conflict is about how well teams are managing two types of coordinating activities: decisions about managing the logistical accomplishment of the task and decisions about the coordination of people during accomplishment of the task (Behfar et al., 2011). Within this definition a distinction is made between strategic issues (logistical conflict) and people-related issues (contribution conflict). Logistical conflicts are conflicts about how to organize and utilize group resources most effectively (Behfar et al., 2011). Contribution conflicts are conflicts about (the lack of) member contributions that disrupt group processes (Behfar et al., 2011). This distinction is made, because process conflict can have both personal as well as task/resources characteristics. By separating these two characteristics of process conflict a better understanding of the causes of process conflict may be created. In the literature relationship conflict is known as a third type of conflict. Relationship conflict is defined by Jehn et al. (2008) as follows: “Relationship conflicts are disagreements and incompatibilities among group members regarding personal issues that are not task-related” (p. 467). Relationship conflict, however, will be out of scope in this study. This type of conflict is leaved out, because previous research did found little effects of relationship conflict on team performance (Jehn, 1995). Researchers that found an effect of relationship conflict concluded that relationship conflict did have a negative relationship with (individual) performance and job satisfaction (Jehn, 1997; Peterson & Harvey, 2009; Simons & Peterson, 2000). Furthermore, since process conflict is divided in a logistical part and a contribution part, relationship conflict is more or less included in the contribution part of process conflict. Contribution conflict is the part of process conflict that is about the contribution of members that disrupt processes; therefore this is seen more member-related than purely process-related in this study and thus a bit similar to relationship conflict.
2.4 Diversity and Conflict

After defining the different types of conflict that are known in the literature, it is interesting to combine functional diversity and conflict. As mentioned before, functional diversity can be beneficial as well as harmful to team performance. Diversity and different points of view within teams can increase the likelihood of conflict between team members (van Knippenberg et al., 2004; Horwitz & Horwitz, 2007). As mentioned before, functional diversity will be the type of diversity that is under investigation in this study. Functional diversity is positively associated with disagreement about tasks (Lovelace et al., 2001). Jehn et al. (1999) found that functional diversity was positively related to task conflict in workgroups. In another study also a positive relationship was found between functional diversity and task conflict within research and development teams (Pelled et al., 1999). Jehn et al. (1999) expected for process conflict also a positive relationship with functional diversity. However, they did not find a significant relationship between informational diversity and process conflict. Therefore, it is expected that functional diversity is positively related to the level of task conflict within NPD teams.

Hypothesis 2a: Functional diversity within NPD teams is positively related to the level of task conflict.

Schilderman (2011) found that managing functional diversity was negatively related to intragroup conflict, which means that the levels of conflict decreased when diversity management increased. Rispen et al. (2012) also found that levels of conflict are lower when leaders use pro-diversity management. This may indicate that pro-diversity management can enhance the advantages (information elaboration) or reduce the drawbacks (social categorization) of functional diversity within teams, and therefore can stimulate team performance. The forgoing leads to the following hypothesis about the relationship between functional diversity and the level of task conflict within NPD teams.

Hypothesis 2b: Functional diversity within NPD teams is less positively related to the level of task conflict when leaders apply pro-diversity management.

2.5 Conflict and Performance

Although it is expected that functional diversity will have a positive relationship with conflicts, this does not mean that development of conflict within team always is harmful. Conflicts within teams, caused by diversity of team members, both can have beneficial and harmful effects on team performance (Horwitz & Horwitz, 2007). As discussed in the previous section, according to the Categorization-Elaboration Model (CEM) diversity can have two effects: elaboration of task-related
information and social categorization. Elaboration of task-relevant information may be stimulated when team members try to resolve task conflict within their team, this in the end may lead to better team performance (van Knippenberg et al., 2004). Task conflict is curvilinear related to information exchange, which means that at low and high levels of task conflict there is less information exchange than at moderate levels of task conflict (De Dreu, 2006). This finding indicates that task conflict within teams also can have positive effects on team performance. Task conflict enhances performance by considering diverse perspectives and increasing understanding (Jehn & Mannix, 2001). Jehn (1995) found that task conflict is negatively related to performance when teams perform routine tasks, when teams perform non-routine tasks a positive relationship between task conflict and group productivity was found. The NPD teams under investigation in this study usually perform non-routine tasks. For teams that perform such non-routine tasks a curvilinear (inverse U-shaped) relationship between task conflict and team performance was found, this relationship indicates that low and high levels of task conflict interfere team performance (Jehn, 1995). This means that task conflict at moderate levels can be beneficial to team performance (Jehn, 1997; Jehn & Bendersky, 2003). Absence of conflict was found to be associated with lack of commitment about problems and decision making (Jehn, 1995; Xie et al., 1998). High levels of task conflict on the other side may cause team members losing sight of the main goal of the discussion (Jehn, 1995). When task conflict is on a moderate level, team members were found to be better able to critically access job-related information (Jehn, 1995). In a study to cultural differences, task conflict was found to have a similar curvilinear relationship with new product success for companies in Japan and Hong-Kong (Xie et al., 1998). Therefore, it is expected that a moderate level of task conflict is related to better team effectiveness than low and high levels of task conflict.

**Hypothesis 3a:** A moderate level of task conflict within NPD teams is related to higher team effectiveness, compared to low and high levels of task conflict.

Diversity also may play a role in the development of conflicts, which can have negative consequences for performance (van Knippenberg & Schippers, 2007). According to the model of van Knippenberg et al. (2004), these consequences of diversity are indicated as social categorization. As mentioned before process conflict is divided in logistical conflict and contribution conflict, where logistical conflict is about processes and contribution conflict is more about relationships between team members. Process conflict is somewhat task focused, though process conflict is different from task conflict, because process conflict operates more like relationship conflict when it comes to the relationship with performance and satisfaction (Jehn, 1997). Where task conflict, under certain circumstances, can be beneficial to team performance, process conflict is found to be harmful for team performance (de Wit et al., 2011; Jehn, 1997; Jehn & Chatman, 2000; Jehn & Mannix, 2001;
Vodosek, 2007). Process conflict is negatively related to performance, because it takes teams longer to complete tasks, it allows team members to work on cross-purposes, and it generates time management problems, for example (Jehn, 1997). Based on the preceding it is expected that process conflict (logistical and contribution) in NPD teams is negatively related to team effectiveness.

**Hypothesis 3b:** Process conflict within NPD teams is negatively related to team effectiveness.

2.5.1 Conflict and Creativity

De Dreu (2006) investigated the relationship between task conflict and team innovation (the frequency of new product ideas and/or new services, methods, or procedures developed by a team) among 21 self-managed teams in the postal service industry in the Netherlands by using questionnaires. He found a curvilinear (inverse U-shaped) relationship between task conflict and innovation in work teams. This means that work team innovation is lower at low as well as high levels of task conflict than at moderate levels of task conflict, which means that low and high levels of task conflict both are less beneficial to innovation than moderate levels of task conflict. Farh et al. (2010) found that more or less the same was true for the relationship between task conflict and creativity in Chinese IT project teams, which means that a moderate level of task conflict is related to the highest level of team creativity. This relationship only was found when teams were in early phases of the project lifecycle. Innovation is different from creativity, because of the application part which is part of innovation and not part of creativity (De Dreu, 2006). As mentioned before, creativity is about ideas that are both novel and useful (Amabile, 1983). Innovation is one step further, which means that the application of the novel ideas also is taken into account. Thus, for both team innovation and team creativity a moderate level of task conflict may be beneficial. The foregoing leads to the following hypothesis about the relationship between task conflict and creativity in NPD teams.

**Hypothesis 4a:** A moderate level of task conflict within NPD teams is related to a higher level of team creativity, compared to low and high levels of task conflict.

Where moderate levels of task conflict may be beneficial within NPD teams, process conflict does have another relationship with performance. Levels of process conflict are low in high-performing teams, but within these teams there is a rise in the level of process conflict over time (Jehn & Mannix, 2001). Thus, in NPD teams it probably will be better to keep the levels of process conflict as low as possible, especially in the beginning of projects. Jehn and Bendersky (2003) predicted a negative relationship between process conflict and creativity, because team members claim or blame ideas of others, which in the end may lead to less investment in creative processes. Process conflict was, in a longitudinal study, also found to have a negative relationship with individual creativity and
team creative synergy (Kurtzberg & Mueller, 2005). This leads to the following hypothesis about the relationship between process conflict (logistical and contribution) and team creativity.

**Hypothesis 4b:** Process conflict within NPD teams is negatively related to team creativity.

Team leaders can give a signal to their team members when they select a conflict management approach. When they respond to a conflict by doing an intervention, team members probably feel the presence of the team leader during conflicts. The presence and the actions of team leaders during conflicts may have an effect on the feelings of team members. Cross-functional integration, for example, will be decreased when leaders avoid conflicts (Song et al., 2000). This may be caused by team members who feel threatened during conflicts, and therefore may be less inclined to integrate. The relationship between conflict intensity and performance is negatively moderated by high levels of tension (van de Vliert & de Dreu, 1994). Therefore, it is expected that feelings of threat among team members are negatively related to the level of team creativity. For feelings of challenge among team members the opposite is expected; feelings of challenge are positively related to the level of creativity within NPD teams.

**Hypothesis 4c:** Task conflict within NPD teams is positively related to team creativity when team members feel challenged.

**Hypothesis 4d:** Task conflict within NPD teams is negatively related to team creativity when team members feel threatened.

**Hypothesis 4e:** Process conflict within NPD teams is less negatively related to team creativity when team members feel challenged.

**Hypothesis 4f:** Process conflict within NPD teams is more negatively related to team creativity when team members feel threatened.

### 2.6 Conflict management

In the conflict literature several conflict management approaches or strategies to deal with conflicts are known (Ogilvie & Kidder, 2008; Rahim, 1983). Conflict management approaches can be used to resolve conflicts and increase performance. In this study only the avoiding conflict management style will be investigated. The avoiding style of conflict management is about ignoring the conflict or disagreement (Song et al., 2000). An avoiding style of conflict management might be suitable when the issue is not significant or when the costs of an intervention are higher than the expected benefits of the intervention (Ogilvie & Kidder, 2008). However, withdrawal from or avoiding conflict was found as ineffective during conflict situations (Burke, 1970). In this study the avoiding conflict
management style is chosen to investigate, because avoiding conflict management was found to be negatively related to information sharing and new product success (Song et al., 2000; Xie et al., 1998). These indicators of team effectiveness are related to the concept of creativity which is of major importance in this study. Furthermore, avoiding conflict management influenced the relationship between process conflict and self-rated creativity in a previous study in such a way that an avoiding style decreased the negative relationship between process conflict and self-rated creativity (Schilderman, 2011). Thus, avoiding conflict can be positive as well as negative during conflicts. The avoiding conflict management approach and its effects on team creativity, therefore, are interesting to investigate in relation to task and process conflicts.

2.6.1 Conflict management and Creativity

As mentioned in the previous paragraph, task conflict and team innovation are curvilinear related (De Dreu, 2006). The relationship between task conflict and creativity also is found to be curvilinear (Farh et al., 2010; Jehn & Bendersky, 2003). This means that high levels as well as low levels of task conflict seem to be disadvantageous for creativity. To prevent teams from ending up with high or low levels of task conflict, some conflict management actions may be necessary. Furthermore, when leaders use an avoiding style of conflict management cross-functional integration will be decreased (Song et al., 2000). This cross-functional integration in NPD teams, however, may be a base of creativity (Sethi et al., 2001; van Knippenberg & Schippers, 2007). Thus, leaders who use an avoiding style of conflict management may decrease the level of creativity within teams. Xie et al. (1998) found that avoiding inter-functional conflict decreases new product success. Thus, an avoiding style of conflict management has a negative effect on success of products introduced in the market. Furthermore, laissez-faire leadership (the absence of leadership and/or the avoidance of intervention) is negatively associated with team outcomes, and indicated as a destructive kind of leadership (Skogstad et al., 2007). Thus, an avoiding style during conflict situations, which is more or less the same as laissez-faire leadership by the fact that both are about not intervening, is negatively related to team performance. Based on the preceding, “doing nothing” or an avoiding conflict management style during task conflict is expected to be negatively related to the level of creativity within NPD teams.

Hypothesis 5a: Task conflict within NPD teams is negatively related to team creativity when team leaders have an avoiding style of conflict management.

The effects of process conflict on team performance are somewhat different, in such a way that high levels of process conflict are negatively related to performance (de Wit et al., 1997; Jehn & Chatman, 2000; Jehn & Mannix, 2001; Vodosek, 2007). In a longitudinal study, Jehn and Mannix (2001) found that levels of process conflict are low in high-performing teams, but within these teams there is a rise
in the level of process conflict over time. Thus, it probably will be better to keep the levels of process conflict as low as possible, especially in the beginning of projects. High levels of process conflict are disadvantageous to performance, caused by uncertainty or the desire of team members to leave the team (Jehn, 1997). When team members are uncertain or think about leaving the team, they probably focus on their primary tasks only, which may impede creative thinking. So, process conflict need to be managed adequately. It is expected that when team leaders do not manage process conflict (logistical and contribution) properly and avoid these conflicts, the level of creativity within the team will be decreased.

**Hypothesis 5b:** Process conflict within NPD teams is more negatively related to team creativity when team leaders have an avoiding style of conflict management.

### 2.6.2 Conflict beliefs

The orientation of people also plays a role in choosing a conflict management approach. People who have a more individualistic orientation prefer a dominating conflict management style, whereas people who are more like a collectivist prefer an integrating style of conflict management (Komarraju et al., 2008). So a manager’s orientation is a part of the personality of managers which makes a difference in whether they prefer a dominant conflict management style or not. Folk wisdom also plays a role in conflict management. Folk wisdom, when it comes to conflict, is about beliefs and intuitions about conflict and its likely effects on a team (Sanchez-Burks et al., 2008). Folk wisdom is an individual characteristic which is convertible, in contrast to personality. Because folk wisdom is changeable, it is a personal characteristic that will be included in this research. In this study, for the purpose of consistency (with diversity beliefs), folk wisdom about conflicts will be characterized as conflict beliefs. Sanchez-Burks et al. (2008) investigated folk wisdom among members of teams. In this study, however, conflict beliefs of the leader will be investigated. Conflict beliefs of the leader are interesting, because the leader is the one who may control the level of conflict within teams and is responsible for team outcomes. Conflict beliefs therefore, may have an influence on the conflict handling strategy of leaders during conflict situations. For example, leaders who belief that conflict is bad for team performance may intervene during conflicts and keep the level of conflict as low as possible. Positive conflict beliefs can be seen as a positive attitude against conflict situations, when a leader has positive conflict beliefs he emphasizes the positive sides of conflicts instead of the possible negative/harmful outcomes. As mentioned before, a certain amount of task conflict can be beneficial to creativity and innovation (De Dreu, 2006; Farh et al., 2010). It is expected that team leaders who have positive conflict beliefs will allow task conflict to a certain level, and therefore stimulate creativity within teams. Process conflict (logistical and contribution) is expected to be negatively related to creativity (Hypothesis 4b). This negative relationship may be weakened when
leaders have positive conflict beliefs, because conflict in that case may be not experienced as harmful only. This leads to the following hypotheses.

**Hypothesis 6a:** Task conflict within NPD teams is more positively related to team creativity when leaders have positive conflict beliefs.

**Hypothesis 6b:** Process conflict within NPD teams is less negatively related to team creativity when leaders have positive conflict beliefs.
3. Method

3.1 Sample and Procedure

To gather the data for my research, I searched for companies that are involved in NPD. To find companies which are engaged in NPD, I used a guide with contact information and company descriptions to search for companies that could participate. This guide contains information of mainly Dutch companies which operate in the high-tech sector, so many of the companies I approached are active in that sector. Furthermore, I searched the web for companies that spend large amounts of money on research and development. After selecting companies that could be interested in my research, I sent mails to these companies in which I explained the purpose of my investigation and I asked whether they wanted to participate or not. As an incentive to participate I promised to deliver a copy of the final report to the organizations.

Companies that replied on my invitation were asked whether they had teams available which are engaged in NPD. Another important factor in my study is the role of the team leader. Therefore, teams only were included when there was a team leader who was responsible for the team. For the purpose of this investigation, the leader had to be someone who was not actually engaged in the team, the leader should have a certain amount of authority and should be responsible for team performance (Zaccaro et al., 2001). An invitation by email was sent to over four hundred companies, I did not have direct contacts to team leaders which led to a low response. However, twenty-two organizations were interested to participate which made a total of thirty-six teams. Seven organizations were willing to participate with more than one team; one of these organizations was willing to participate with five teams. I strived for complete teams, with team members representing different functional areas within the organization they work for.

They data for this study were collected by means of a questionnaire. The questionnaire was available both online and hard-copy and available in Dutch (organizations in the Netherlands were approached) as well as in English (a common language within (large) organizations). The questionnaire for the leader was somewhat different than the questionnaire for team members. To detect the level of functional diversity within teams, the team leader was asked to give an indication. The team leader was asked to write down the amount of team members belonging to the different functional areas of the organization (e.g. Engineering and Marketing). Organizations that were interested to participate and dispose the kind of teams I was searching for, were asked whether they preferred a digital or a hard-copy version of the questionnaire and which language they preferred. Only one organization preferred a hard-copy version of the questionnaire, all other companies preferred the digital version. Each team received a unique link to the questionnaire to separate the
teams. An email with links to the questionnaire was sent to the team leader, who was the contact person in most of the cases. The team leader provided the email to the team members. An email with the links to the questionnaire was sent to contact persons of teams who did not (fully) respond to remind them to fill in the questionnaire, this was done about a month after sending the first email with links to the questionnaire.

Twenty-six teams (141 participants) responded to the questionnaire. However, two teams only provided the questionnaire of the team leader and two teams provided only the questionnaires of the team members. Thus, a total of twenty-two teams was available for the analysis. Teams represented sectors from the packaging industry to the manufacturing of rubber and plastics.

As mentioned before twenty-two teams were available for the analysis. A total of 125 respondents filled in the questionnaire, 6 of them (±5%) filled out the hard-copy version of the questionnaire. 6 respondents (±5%) only partially filled in the questionnaire. The teams had an average size of 9 members. 88% of the participants was men, 12% was women; 93% of the participants was Dutch. Respondents were on average 39.96 years old; the youngest had an age of 23, the oldest an age of 58. The majority (±77%) of the participants was higher educated (higher vocational education or university).

For the preliminary analysis, all of the available data was used (including data from the four teams that were deleted for the actual analysis).

3.2 Measures
Based on the theory section and the research model, several measures were needed to investigate the hypotheses. These measures included: the level of functional diversity, level of intragroup trust within the NPD teams, diversity management, level of intragroup conflict (task and process conflict), team performance, level of creativity within NPD teams, the level of threats and challenges that team members experience during conflicts, the conflict management style used by the team leader, conflict beliefs of the team leader, and three control variables. To measure these constructs existing scales were used. In this section all of the measures and the scales to measure the constructs will be discussed.

To find out the level of functional diversity, team leaders were asked to give an indication about the amount of team members representing the following functional areas: engineering, research, design, production, marketing/strategy, finance/accounting, purchase, sales, human resources, administration, and two free spaces to mention other functions. Functional diversity was quantified using the Blau’s index of heterogeneity: \(1 - \sum S_i^2\), where \(S_i\) is the proportion of team members in
Blau’s index of heterogeneity is appropriate to measure functional backgrounds (Simons et al., 1999). The higher the values of the Blau’s index (ranging from 0 to 1) the more functional diverse was a team. The calculations of functional diversity are shown in appendix 1. Engineering in team 1 (9 members), for example, is represented by 1 team member. \( S_i \), the proportion of team members of engineering, in that case is 0.0123 \( (1/9)^2 \).

Intragroup trust was measured by using a scale of Simons and Peterson (2000). This scale measures the aspects of trust explicitly at a group level (Simons & Peterson, 2000). This scale consists of five items and team members were asked to rate the statements on a seven-point Likert scale ranging from “(almost) never” to “always”. Items to measure intragroup trust included, “We expect the complete truth from each other” and “We count on each other to fully live up to our word”. Cronbach’s alpha for intragroup trust was 0.90.

Diversity management was measured regarding functional diversity among team members. Functional diversity was most important, because functional diverse teams were under investigation during this research. Diversity management was measured using a six-item scale adopted from Rispens et al. (2012). The items of this scale also were ranked on a seven-point Likert scale ranging from “completely disagree” to “completely agree”. Items to measure diversity management included, “Our team leader clarifies the value of the various functional areas that are present in this team to the team members” and “Our team leader explains clearly why various functional areas are needed for new product development”. Cronbach’s alpha for diversity management was 0.93.

The level intragroup conflict was measured by asking team members for their opinion. To measure the task conflict part of intragroup conflict a scale of Pearson et al. (2002) was adopted. Task conflict was measured by three items on a five-point Likert scale ranging from “(almost) never” to “often”. Items to measure task conflict included, for example, “How often are there disagreements among team members within this team?” and “How often is there incompatibility of ideas within this team?”. Process conflict was measured in a somewhat different way. This construct was divided in two parts named logistical conflict and contribution conflict. Logistical and contribution conflict both were measured using a three-item scale adapted from Behfar et al. (2011). All items on these scales were measured on a five-point Likert scale ranging from “(almost) never/(almost) none” to “often/a lot”. Items to measure logistical conflict included, for example, “How frequently do team members disagree about the optimal amount of time to spend on different parts of teamwork?” and “How frequently do team members disagree about the optimal amount of time to spend in meetings?”. Items to measure contribution conflict were “How often is there tension in your team caused by member(s) not performing as well as expected?” and “To what extent is there tension in your team
caused by member(s) not completing their assignment(s) on time?”, for example. Cronbach’s alphas for task conflict, logistical conflict, and contribution conflict were 0.80, 0.79, and 0.79, respectively.

To assess the effectiveness of teams I measured: a) perceived team performance, b) team member satisfaction, c) information elaboration, d) innovativeness, and e) new product success. Perceived team performance and team member satisfaction were included, because these performance indicators were found to be related to conflict before (Jehn, 1997). Information elaboration was included, because this is indicated an outcome of (task-related) conflicts (van Knippenberg et al., 2004). New product success and innovativeness both were found to be related to conflict in previous studies (De Dreu, 2006; Xie et al., 1998). Team outcomes such as innovativeness and product success were not known beforehand during the project, therefore a general team leader’s indication about earlier performances of their team was asked. Team effectiveness (perceived team performance, innovativeness, and new product success) was measured among team leaders as far as possible.

Zaccaro et al. (2001) stated that team leaders are responsible for team goals and outcomes. Therefore, team leaders may have a more clear view on team performance that team members do. Team leaders, in this study, are individuals who are not engaged in the team and therefore may give a more objective indication. Perceived team performance was measured by using a three-item scale of Rispens et al. (2007). The items of this scale were ranked on a five-point Likert scale ranging from “completely disagree” to “completely agree”. Items to measure perceived team performance were, for example, “I believe my team performs well at work” and “My team is effective in getting things done in time”. To measure team member satisfaction a scale of Priem et al. (1995) was adopted. This scale consisted of two items measured on a five-point Likert scale (1=“completely disagree” and 5=“completely agree”). The two items used in this study were “Working with this group is an enjoyable experience” and “I would like to work with this group in the future”. Information elaboration was measured using a four-item scale of Kearney et al. (2009) and team members were asked for their opinion. The items of this scale were ranked on a five-point Likert scale ranging from “completely disagree” to “completely agree”. Sample items included, for example “The members of this team complement each other by openly sharing their knowledge” and “The members of this team carefully consider all perspectives in an effort to generate optimal solutions”. Innovativeness of teams was measured by using a scale of Lovelace et al. (2001). This scale consisted of four items measured on a five-point Likert scale ranging from “completely disagree” to “completely agree”. As mentioned before, team leaders were asked to give an indication about their team’s innovativeness. Sample items to measure innovativeness included “My team’s products are innovative” and “My team introduces many innovations or new ideas”. The Cronbach’s alpha of this four-item scale was relatively low (0.45), therefore one item (“My team is adaptable when changes occur”) was deleted.
from the scale which led to a better Cronbach’s alpha. The last measure of team effectiveness, new product success, was measured on an eight-item scale used by Akgun et al. (2010). The items of this scale were ranked on a five-point Likert scale (1=“completely disagree” and 5=“completely agree”). Items to measure new product success (filled in by the leader) included, for example “Products developed by team meet or exceed profit expectations” and “Products developed by my team meet or exceed customer expectations”. Cronbach’s alphas for perceived team performance, team member satisfaction, information elaboration, innovativeness, and new product success were 0.80, 0.89, 0.78, 0.63, and 0.82, respectively.

To measure team creativity, a scale of Zhou & George (2001) was adapted for teams. Participants were asked to indicate the level of creativity of the team instead of the level of creativity of single team members, because the focus of this study is on team creativity. The thirteen items to measure creativity were ranked on a five-point Likert scale ranging from “not at all characteristic” to “very characteristic”. The opinion of the team leaders and team members about creativity was asked for. Sample items to measure team creativity included “My team searches out new technologies, processes, techniques, and/or product ideas” and “My team is a good source of creative ideas”. Cronbach’s alphas for team creativity rated by team leaders and team members were 0.87 and 0.94, respectively.

To measure the level of threats and challenges that team members experience during conflict situations, two measures for each type of feeling (four items in total) were used for both task conflict and process conflict. The four items all were measured on a seven-point Likert scale (1=“completely disagree” and 7=“completely agree”). The level of threat was measured by the following items: “During task-related disagreements, I feel somewhat threatened” and “During task-related disagreements, I feel intimidated”. The level of challenge was measured by the items “During task-related disagreements, I feel positively challenged” and “During task-related disagreements, I feel energized”. To measure feelings during process conflict, task was replaced by process in the scale items. Cronbach’s alphas for challenge task conflict, threat task conflict, challenge process conflict, and threat process conflict were 0.82, 0.88, 0.83, and 0.81, respectively.

To measure avoiding approaches the scale of Rahim (1983) was adapted for conflicts within teams and leader’s opinion was asked for. The scale was reduced to three items and measured on a five-point Likert scale ranging from “(almost) never” to “often”. The scale to measure the avoiding style included items like “In general, when there are conflicts in my team, I refrain myself from comments and ignore the problems” and “In general, when there are conflicts in my team, I try to stay away from disagreement”. Due to bad fit, one item (“In general, when there are conflicts in my team, I try
to avoid unpleasant exchanges with team members”) was deleted from the scale. Cronbach’s alpha for avoiding conflict management style in that case was 0.79.

I adopted the scale of Sanchez-Burks et al. (2008) to measure team leader’s conflict beliefs. The items were rated on a five-point Likert scale (1=“completely disagree” and 5=“completely agree”). The two items used to measure conflict beliefs were “Conflict is an absolute roadblock to a team accomplishing its work” and “For a team to complete a job successfully, they must first focus their attention on resolving conflicts before moving forward on the project”. The items were reverse coded for the analysis such that low scores on the mentioned items indicate high scores for conflict beliefs, because conflict beliefs in this study was defined as beliefs in the value of conflicts. Cronbach’s alpha for team leader’s conflict beliefs was 0.71.

Control variables used in this study were team size, team tenure, and task interdependence. Team size was included as control variable, because team size is positively related to conflict (Devine et al., 1999). Team size was defined as the number of team members represented within the project team and measured by asking team members to give the actual amount of team members present in their team. Team tenure was found to be positively related to team cohesiveness and team longevity (Ensley et al., 2002). This team cohesiveness may lead to better interpersonal relationships and less conflict. Team tenure was the total time that the project team did exist, this variable was measured as the average amount of time team members were part of the team. Jehn (1995) found that task interdependence decreases the negative effect of task conflict and increases the negative effect of relationship conflict. Task interdependence was measured using a scale of Van der Vegt & Janssen (2003). This scale consisted of five items measured on a seven-point Likert scale (1=“completely disagree” and 7=“completely agree”). Sample items included “I need information and advice from my colleagues to perform my job well” and “I need to collaborate with my colleagues to perform my job well”, for example. Cronbach’s alpha for task interdependence was 0.78. Control variables were standardized for the analysis.
3.3 Aggregation

The data in this study represent team variables, the individual ratings of team members therefore, should be aggregated to the team level. Before aggregation can be executed, certain requirements need to be fulfilled to justify aggregation. Two measures were used to determine whether aggregation was justified: the rwg index (inter-rater agreement) and the ICC(1) (inter-rater reliability). Inter-rater agreement and inter-rater reliability indices typically are used together for sufficient justification of aggregation (LeBreton & Senter, 2008). The procedure of LeBreton and Senter (2008) was followed to calculate these justification measures. The rwg index is about the observed variance among raters (LeBreton & Senter, 2008). The rwg index ranges from 0 to 1 and perfect agreement matches an rwg-index of 1, rwg values above 0.70 indicate strong agreement between raters (LeBreton & Senter, 2008). The rwg values of the variables are shown in table 1. Diversity management, task conflict, logistical conflict, and challenge task score below 0.70.

The ICC(1) is the most common measure in understanding the inter-rater reliability among multiple teams rated by different team members (LeBreton & Senter, 2008). This ICC(1) value should be positive and significant. As can be seen in table 1, all variables are positive and significant except for threat task and threat process. Although diversity management, task conflict, logistical conflict, and challenge task did score below 0.70 on rwg, aggregation is assumed to be justified. The ICC(1) values of these variables are positive and the F-values were significant, and these variables approach the cut-off value of the rwg index. Therefore, all variables were aggregated for the analyses with a total of twenty-two teams.

### Table 1. Aggregation measures

<table>
<thead>
<tr>
<th>Construct</th>
<th>Rwg</th>
<th>ICC(1)</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Task interdependence</td>
<td>0.87</td>
<td>0.08</td>
<td>0.002</td>
</tr>
<tr>
<td>Trust</td>
<td>0.80</td>
<td>0.34</td>
<td>0.000</td>
</tr>
<tr>
<td>Information elaboration</td>
<td>0.81</td>
<td>0.20</td>
<td>0.000</td>
</tr>
<tr>
<td>Satisfaction</td>
<td>0.76</td>
<td>0.29</td>
<td>0.000</td>
</tr>
<tr>
<td>Diversity management</td>
<td>0.69</td>
<td>0.21</td>
<td>0.000</td>
</tr>
<tr>
<td>Task conflict</td>
<td>0.69</td>
<td>0.17</td>
<td>0.000</td>
</tr>
<tr>
<td>Logistical conflict</td>
<td>0.63</td>
<td>0.23</td>
<td>0.000</td>
</tr>
<tr>
<td>Contribution conflict</td>
<td>0.76</td>
<td>0.19</td>
<td>0.000</td>
</tr>
<tr>
<td>Threat task</td>
<td>0.71</td>
<td>0.08</td>
<td>0.103</td>
</tr>
<tr>
<td>Threat process</td>
<td>0.76</td>
<td>0.08</td>
<td>0.085</td>
</tr>
<tr>
<td>Challenge task</td>
<td>0.69</td>
<td>0.18</td>
<td>0.004</td>
</tr>
<tr>
<td>Challenge process</td>
<td>0.75</td>
<td>0.26</td>
<td>0.000</td>
</tr>
<tr>
<td>Self-rated creativity</td>
<td>0.85</td>
<td>0.20</td>
<td>0.000</td>
</tr>
</tbody>
</table>
4. Analyses and Results
Hierarchical regression analysis was used to test the hypotheses. Due to the small sample size in this study (22 teams) Structural Equation Modeling (SEM) could not be used to analyze the data, SEM requires large sample sizes (Hair Jr. et al., 2010). Means, standard deviations, and correlations of all variables are shown in table 2. Some interesting correlations will be discussed in the next paragraph.

As can be seen in table 2, most of the teams in this study were functional diverse (M = 0.59). Functional diversity was positively correlated with logistical conflict (r = 0.50, p < 0.05). Task conflict was positively correlated both with logistical conflict (r = 0.78, p < 0.01) and contribution conflict (r = 0.55, p < 0.01). Logistical conflict also was positively correlated with contribution conflict (r = 0.75, p < 0.01). Threat task (r = -0.49, p < 0.05) and threat process (r = -0.45, p < 0.05) both were negatively correlated with team member satisfaction. Finally, task interdependence was positively correlated with all types of conflict investigated in this study: task conflict (r = 0.51, p < 0.05), logistical conflict (r = 0.43, p < 0.05), contribution conflict (r = 0.47, p < 0.05).

In the remainder of this chapter the results of the hierarchical regression analyses to test the hypotheses formulated before will be discussed. In all models team size, team tenure, and task interdependence were entered as control variables in the first step. In the second step independent and, where appropriate, moderator variables were entered. Interaction teams were entered in the third model, independent and moderator variables were mean-cantered before computing the interaction terms (Holmbeck, 1997).
Table 2. Descriptive statistics and correlations (Pearson)

| Variable                        | M    | SD   | 1     | 2     | 3     | 4     | 5     | 6     | 7     | 8     | 9     | 10    | 11    | 12    | 13    | 14    | 15    | 16    | 17    | 18    | 19    | 20    | 21    | 22    |
|---------------------------------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1. Functional diversity (N=20) | 0.59 | 0.29 | -     |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| 2. Trust                        | 5.60 | 0.58 | -0.01 |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| 3. Diversity management         | 4.76 | 0.60 | -3.33 | 0.269 |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| 4. Task conflict                | 2.47 | 0.39 | 0.422 | -0.004 |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| 5. Logistical conflict          | 2.22 | 0.39 | 0.503*| -0.532*| 0.099 | 0.783**|       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| 6. Contribution conflict        | 1.84 | 0.41 | 0.305*| -0.557**| 0.116 | 0.548**| 0.749**|       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| 7. Perceived performance        | 3.70 | 0.56 | -1.82 | 0.018 | 0.179 | 0.256 | 0.153 | 0.091 |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| 8. Satisfaction                 | 4.10 | 0.36 | -3.79 | 0.496*| 0.418 | 0.011 | -0.342 | -0.398 | 0.350 |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| 9. Information elaboration      | 3.90 | 0.31 | 0.034 | 0.601**| 0.374 | 0.055 | 0.017 | 0.083 | 0.294 | 0.528*|       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| 10. Innovativeness              | 3.86 | 0.59 | 0.068 | 0.146 | 0.198 | 0.303 | -0.010 | -0.051 | 0.717**| 0.202 | 0.256 |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| 11. New product success         | 3.25 | 0.40 | -1.141| -1.02  | 0.285 | 0.346 | 0.171 | 0.181 | 0.412 | 0.167 | 0.235 | 0.565**|       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| 12. Creativity leader           | 3.55 | 0.45 | 0.122 | 0.052 | 0.318 | 0.381 | 0.163 | 0.144 | 0.620**| 0.105 | 0.326 | 0.849**| 0.610**|       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| 13. Creativity members          | 3.63 | 0.33 | -0.021| 0.708**| 0.468*| 0.000 | -0.236 | -0.427*| 0.386 | 0.558**| 0.602**| 0.474* | 0.240 | 0.442*|       |       |       |       |       |       |       |       |       |       |       |       |
| 14. Challenge task              | 4.73 | 0.53 | 0.130 | 0.441*| 0.217 | 0.139 | 0.058 | 0.087 | 0.026 | 0.269 | 0.524*| 0.105 | 0.088 | 0.121 | 0.393 |       |       |       |       |       |       |       |       |       |       |       |
| 15. Challenge process           | 4.64 | 0.58 | -0.011| 0.524*| 0.436*| 0.094 | 0.024 | 0.157 | 0.017 | 0.359 | 0.646**| 0.130 | 0.233 | 0.158 | 0.529*| 0.854**|       |       |       |       |       |       |       |       |       |       |       |
| 16. Threat task                 | 2.22 | 0.72 | 0.102 | 0.557**| 0.100 | 0.020 | 0.043 | 0.297 | -0.009 | 0.487*| 0.539**| 0.204 | 0.280 | 0.235 | 0.321 | 0.348 | 0.308 |       |       |       |       |       |       |       |       |       |
| 17. Threat process              | 2.15 | 0.63 | -0.059| 0.528*| -0.244 | 0.088 | 0.093 | 0.187 | 0.150 | 0.451*| 0.523*| 0.201 | 0.120 | 0.166 | 0.338 | 0.419 | -0.404 | 0.890**|       |       |       |       |       |       |       |       |       |
| 18. Avoiding                    | 1.66 | 0.68 | 0.330 | 0.267 | 0.388 | 0.400 | 0.402 | 0.335 | 0.283 | 0.183 | 0.211 | 0.201 | 0.072 | 0.103 | 0.203 | 0.082 | 0.084 | 0.164 | 0.252 |       |       |       |       |       |       |       |
| 19. Conflict beliefs            | 2.82 | 0.84 | 0.020 | 0.213 | 0.554**| 0.206 | 0.045 | 0.064 | 0.492*| 0.201 | 0.462*| 0.536*| 0.429* | 0.532*| 0.490*| 0.408 | 0.531*| 0.135 | 0.196 | 0.513*|       |       |       |       |       |       |       |
| 20. Team size                   | 8.14 | 4.07 | 0.256 | 0.131 | 0.410 | 0.038 | 0.163 | 0.057 | 0.255 | 0.160 | 0.149 | 0.028 | 0.021 | 0.138 | 0.356 | 0.210 | 0.175 | 0.178 | 0.289 | 0.361 | 0.283 |       |       |       |       |       |
| 21. Team tenure (months)        | 48.11 | 36.26 | 0.082 | -0.155 | 0.230 | 0.323 | 0.320 | 0.226 | -0.098 | -0.087 | -0.047 | 0.017 | 0.269 | 0.093 | -0.012 | -0.418 | -0.183 | 0.219 | 0.259 | 0.358 | 0.244 | -0.148 |       |       |       |       |       |
| 22. Task interdependence        | 5.76 | 0.37 | 0.031 | -0.078 | 0.200 | 0.512*| 0.430*| 0.472*| 0.432*| 0.254 | 0.302 | 0.472*| 0.359 | 0.436*| 0.147 | 0.381 | 0.438*| 0.043 | -0.126 | 0.019 | 0.326 | 0.230 | -0.079 |       |       |       |

(N=22), *p<0.05, ** p<0.01
4.1 Functional diversity
In Hypothesis 1 a positive relationship between functional diversity and the level of intragroup trust within NPD teams was expected to be moderated by pro-diversity management of team leaders, in such a way that intragroup trust was higher when leaders apply pro-diversity management. The results of the hierarchical regression analysis of Hypothesis 1 are shown in table 9 (appendix 2). Functional diversity and diversity management were not directly related to intragroup trust. The interaction term of functional diversity and pro-diversity management was added in the third step. In the analysis no significant relationships (direct or interaction) with intragroup trust were found, which means that no support was found for Hypothesis 1.

Functional diversity within NPD teams was expected to be positively related to the level of task conflict (H2a), it also was expected that pro-diversity management applied by leaders would decrease this positive relationship (H2b). The results of the regression analysis of Hypothesis 2a are shown in table 10 (appendix 3). In the second model functional diversity (β = 0.38, p < 0.10) was positively related to task conflict, which suggests a marginal direct relationship between functional diversity and task conflict. Thus, partial support was found for Hypothesis 2a. To test Hypothesis 2b, the interaction between functional diversity and diversity management was added (table 11, appendix 3). In the models functional diversity was marginally related to task conflict. Main effects were found only, the interaction between functional diversity and diversity management was not significantly related to task conflict. Based on this hierarchical regression analysis no support was found for Hypothesis 2b.

4.2 Team performance as a function of intragroup conflict
In Hypothesis 3a a curvilinear relationship between task conflict and team effectiveness was expected, in such a way that moderate levels of task conflict were related to higher team effectiveness, compared to low and high levels of task conflict. Team effectiveness was divided in five different aspects: perceived team performance, team member satisfaction, information elaboration, innovativeness, and new product success. To test Hypothesis 3a, a procedure similar to the procedure of De Dreu (2006) was followed, in the second step task conflict was entered en in third step the squared term for task conflict was entered. The five team effectiveness measures were the dependent variables. The results of the hierarchical regression to test Hypothesis 3a are shown in table 3. Relevant for Hypothesis 3a are the models including the squared term, the quadratic term of task conflict was significantly related to three effectiveness indicators: information elaboration (β = -5.69, p < 0.05), innovativeness (β = -5.74, p < 0.05), and new product success (β = -5.58, p < 0.05). An increase in explained variance proved a curvilinear effect for information elaboration (ΔR² = 0.22, p < 0.05), innovativeness (ΔR² = 0.22, p < 0.05), and new product success (ΔR² = 0.21, p < 0.05). The
negative effect sizes indicate an inverse U-shaped relationship between task conflict and the three effectiveness indicators (Hair Jr. et al., 2010). These relationships are shown in figures 2 to 4. These inversed U-shaped relationships show that a moderate level of task conflict is related to higher levels of information elaboration, innovativeness, and new product success, compared to low or high levels of task conflict. Although no significant curvilinear relationships were found for perceived team performance and team member satisfaction, support was found for Hypothesis 3a.

![Figure 2. Curvilinear relationship between task conflict and information elaboration](image1)

![Figure 3. Curvilinear relationship between task conflict and innovativeness](image2)

![Figure 4. Curvilinear relationship between task conflict and new product success](image3)
In Hypothesis 3b a negative relationship between process conflict (logistical and contribution) and team effectiveness was expected. The results of the hierarchical regression analysis are shown in table 4 (logistical) and 5 (contribution). Logistical conflict was negatively related to team member satisfaction ($\beta = -0.65, p < 0.05$). Contribution conflict had a (marginal) negative relationship with team member satisfaction ($\beta = -0.71, p < 0.01$) and innovativeness ($\beta = -0.44, p < 0.10$). These findings provide partial support for Hypothesis 3b.

In Hypothesis 4a it was stated that a moderate level of task conflict was related to a higher level of creativity, compared to low and high levels of task conflict. Creativity was measured by asking both team leaders and team members. The curvilinear relationship was investigated following the same procedure of testing Hypothesis 3a. The results of the hierarchical regression to investigate Hypothesis 4a are shown in table 6. The models which include the quadratic term of task conflict are relevant for Hypothesis 4a. The results show that the quadratic term of task conflict was (marginally) related to team leader’s creativity rating ($\beta = -5.26, p < 0.05$) and self-rated creativity ($\beta = -5.43, p < 0.10$). Adding the squared term of task conflict produced an (marginally) significant increase in explained variance. The curvilinear relationship was inverse U-shaped, because of the negative effect size of the quadratic terms of task conflict. The curvilinear relationships between task conflict and team creativity are shown in figure 5 and 6. These results support Hypothesis 4a.

![Figure 5. Curvilinear relationship between task conflict and team leader’s creativity rating](image1)

![Figure 6. Curvilinear relationship between task conflict and self-rated creativity](image2)
### Table 3. Hierarchical regression of task conflict on team performance

<table>
<thead>
<tr>
<th>Step 1: Control variables</th>
<th>Team size</th>
<th>Team tenure</th>
<th>Task interdependence</th>
<th>Task conflict</th>
<th>( R^2 )</th>
<th>( \Delta R^2 )</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perceived performance</td>
<td>0.16</td>
<td>-0.04</td>
<td>0.39*</td>
<td>4.17</td>
<td>0.33</td>
<td>0.11</td>
</tr>
<tr>
<td>(β)</td>
<td>0.10</td>
<td>-0.06</td>
<td>0.23</td>
<td>3.16</td>
<td>0.17</td>
<td>0.08</td>
</tr>
<tr>
<td>Satisfaction</td>
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<td>0.01</td>
<td>0.28</td>
<td>-3.35</td>
<td>0.33</td>
<td>0.02</td>
</tr>
<tr>
<td>(β)</td>
<td>-0.08</td>
<td>0.04</td>
<td>0.11</td>
<td>-5.69*</td>
<td>0.33</td>
<td>0.01</td>
</tr>
<tr>
<td>Information elaboration</td>
<td>0.08</td>
<td>0.10</td>
<td>0.10</td>
<td>-5.74*</td>
<td>0.47</td>
<td>0.01</td>
</tr>
<tr>
<td>(β)</td>
<td>-0.08</td>
<td>0.04</td>
<td>0.04</td>
<td>-5.58*</td>
<td>0.47</td>
<td>0.01</td>
</tr>
<tr>
<td>Innovativeness</td>
<td>-0.14</td>
<td>0.04</td>
<td>0.47*</td>
<td>5.66*</td>
<td>0.47</td>
<td>0.01</td>
</tr>
<tr>
<td>(β)</td>
<td>0.1</td>
<td>0.3</td>
<td>0.7</td>
<td>5.79*</td>
<td>0.47</td>
<td>0.01</td>
</tr>
<tr>
<td>Product success</td>
<td>-0.03</td>
<td>0.3</td>
<td>0.24</td>
<td>5.66*</td>
<td>0.47</td>
<td>0.01</td>
</tr>
<tr>
<td>(β)</td>
<td></td>
<td>0.3</td>
<td>0.24</td>
<td></td>
<td>0.47</td>
<td>0.01</td>
</tr>
</tbody>
</table>

\( N=22 \) \*p<0.05, **p<0.01, ***p<0.001, ‘p<0.10

### Table 4. Hierarchical regression of logistical conflict on team performance

<table>
<thead>
<tr>
<th>Step 1: Control variables</th>
<th>Team size</th>
<th>Team tenure</th>
<th>Task interdependence</th>
<th>Logistical conflict</th>
<th>( R^2 )</th>
<th>( \Delta R^2 )</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perceived performance</td>
<td>0.16</td>
<td>-0.03</td>
<td>0.41</td>
<td>-0.04</td>
<td>0.214</td>
<td>0.001</td>
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<tr>
<td>(β)</td>
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<td>0.19</td>
<td>0.51*</td>
<td>-0.65*</td>
<td>0.362</td>
<td>0.284*</td>
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<tr>
<td>Satisfaction</td>
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<td>-0.32</td>
<td>0.117</td>
<td>0.019</td>
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<tr>
<td>(β)</td>
<td>-0.1</td>
<td>0.16</td>
<td>0.65*</td>
<td>-0.32</td>
<td>0.313</td>
<td>0.069</td>
</tr>
<tr>
<td>Information elaboration</td>
<td>-0.14</td>
<td>0.16</td>
<td>0.65*</td>
<td>-0.32</td>
<td>0.313</td>
<td>0.069</td>
</tr>
<tr>
<td>(β)</td>
<td>-0.01</td>
<td>0.34</td>
<td>0.44*</td>
<td>-0.13</td>
<td>0.313</td>
<td>0.069</td>
</tr>
<tr>
<td>Innovativeness</td>
<td>0.03</td>
<td>0.13</td>
<td>0.44*</td>
<td>-0.13</td>
<td>0.313</td>
<td>0.069</td>
</tr>
<tr>
<td>(β)</td>
<td>0.34</td>
<td>0.13</td>
<td>0.44*</td>
<td>-0.13</td>
<td>0.313</td>
<td>0.069</td>
</tr>
<tr>
<td>Product success</td>
<td>-0.01</td>
<td>0.34</td>
<td>0.44*</td>
<td>-0.13</td>
<td>0.313</td>
<td>0.069</td>
</tr>
<tr>
<td>(β)</td>
<td></td>
<td>0.34</td>
<td>0.44*</td>
<td></td>
<td>0.313</td>
<td>0.069</td>
</tr>
</tbody>
</table>

\( N=22 \) \*p<0.05, **p<0.01, ***p<0.001, ‘p<0.10
### Table 5. Hierarchical regression of contribution conflict on team performance

<table>
<thead>
<tr>
<th></th>
<th>Perceived performance (β)</th>
<th>Satisfaction (β)</th>
<th>Information elaboration (β)</th>
<th>Innovativeness (β)</th>
<th>Product success (β)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Step 1: Control variables</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Team size</td>
<td>0,16</td>
<td>0,1</td>
<td>0,08</td>
<td>-0,14</td>
<td>-0,03</td>
</tr>
<tr>
<td>Team tenure</td>
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<td>-0,06</td>
<td>-0,01</td>
<td>0,04</td>
<td>0,3</td>
</tr>
<tr>
<td>Task interdependence</td>
<td>0,39*</td>
<td>0,23</td>
<td>0,28</td>
<td>0,51*</td>
<td>0,39*</td>
</tr>
<tr>
<td>R²</td>
<td>0,214</td>
<td>0,078</td>
<td>0,098</td>
<td>0,244</td>
<td>0,219</td>
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<td><strong>Step 2: Linear effect</strong></td>
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<tr>
<td>Team size</td>
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<td>-0,2</td>
<td>-0,04</td>
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<tr>
<td>Team tenure</td>
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<td>0,15</td>
<td>0,32</td>
</tr>
<tr>
<td>Task interdependence</td>
<td>0,59*</td>
<td>0,60*</td>
<td>0,44</td>
<td>0,74**</td>
<td>0,44</td>
</tr>
<tr>
<td>Contribution conflict</td>
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<td>-0,71**</td>
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<td>-0,44</td>
<td>-0,1</td>
</tr>
<tr>
<td>R²</td>
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<td>0,423</td>
<td>0,16</td>
<td>0,38</td>
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<tr>
<td>ΔR²</td>
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<td>0,345**</td>
<td>0,063</td>
<td>0,136</td>
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(N=22) *p<0.05, **p<0.01, ***p<0.001, †p<0.10

### Table 6. Hierarchical regression of task conflict on team creativity

<table>
<thead>
<tr>
<th></th>
<th>Creativity leader (β)</th>
<th>Creativity self-rated (β)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Step 1: Control variables</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Team size</td>
<td>0,06</td>
<td>0,35</td>
</tr>
<tr>
<td>Team tenure</td>
<td>0,14</td>
<td>0,04</td>
</tr>
<tr>
<td>Task interdependence</td>
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</tr>
<tr>
<td>R²</td>
<td>0,21</td>
<td>0,13</td>
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<td><strong>Step 2: Linear effect</strong></td>
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</tr>
<tr>
<td>Team size</td>
<td>0,07</td>
<td>0,34</td>
</tr>
<tr>
<td>Team tenure</td>
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<td>0,08</td>
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<tr>
<td>Task interdependence</td>
<td>0,33</td>
<td>0,13</td>
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<tr>
<td>Task conflict</td>
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<tr>
<td>R²</td>
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<td>0,01</td>
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<td><strong>Step 3: Interaction effect</strong></td>
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</tr>
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<td>Team tenure</td>
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<td>0,12</td>
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<tr>
<td>Task interdependence</td>
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<td>5,13*</td>
</tr>
<tr>
<td>Task conflict²</td>
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<td>0,32</td>
</tr>
<tr>
<td>ΔR²</td>
<td>0,184*</td>
<td>0,183*</td>
</tr>
</tbody>
</table>

(N=22) *p<0.05, **p<0.01, ***p<0.001, †p<0.10
In Hypothesis 4b a negative relationship between process conflict (logistical and contribution) and team creativity was expected. The results of the hierarchical regression analysis for logistical and contribution conflict are shown in table 7 and 8, respectively. Logistical conflict (β = -0.50, p < 0.10) and contribution conflict (β = -0.65, p <0.01) were (marginally) negatively related to self-rated creativity only. No significant relationships were found between both types of process conflict and team leader’s rating of creativity. Therefore, partial support was found for Hypothesis 4b.

| Table 7. Hierarchical regression of logistical conflict on team creativity |
|-----------------------------|-----------------------------|
|                             | Creativity leader (β) | Creativity self-rated (β) |
| Step 1: Control variables   |                             |
| Team size                   | 0.06                       | 0.35                       |
| Team tenure                 | 0.14                       | 0.04                       |
| Task interdependence        | 0.43*                      | 0.07                       |
| Logistical conflict         | -0.11                      | -0.50*                     |
| R²                          | 0.21                       | 0.133                      |
| Step 2: Linear effect       |                             |
| Team size                   | 0.07                       | 0.41*                      |
| Team tenure                 | 0.18                       | 0.23                       |
| Task interdependence        | 0.48*                      | 0.29                       |
| Logistical conflict         | -0.11                      | -0.50*                     |
| Contribution conflict       | -0.13                      | -0.65**                    |
| R²                          | 0.218                      | 0.301                      |
| ΔR²                         | 0.009                      | 0.168*                     |

(N=22) *p<0.05, **p<0.01, ***p<0.001, *p<0.10

| Table 8. Hierarchical regression of contribution conflict on team creativity |
|-----------------------------|-----------------------------|
|                             | Creativity leader (β) | Creativity self-rated (β) |
| Step 1: Control variables   |                             |
| Team size                   | 0.06                       | 0.35                       |
| Team tenure                 | 0.14                       | 0.04                       |
| Task interdependence        | 0.43*                      | 0.07                       |
| R²                          | 0.21                       | 0.133                      |
| Step 2: Linear effect       |                             |
| Team size                   | 0.04                       | 0.25                       |
| Team tenure                 | 0.17                       | 0.21                       |
| Task interdependence        | 0.50*                      | 0.41*                      |
| Contribution conflict       | -0.13                      | -0.65**                    |
| R²                          | 0.221                      | 0.427                      |
| ΔR²                         | 0.011                      | 0.294*                     |

(N=22) *p<0.05, **p<0.01, ***p<0.001, *p<0.10

4.3 Moderating effects on the relationship between intragroup conflict and team creativity

In Hypothesis 4c was stated that task conflict was positively related to team creativity when team members feel challenged during task conflicts. The results of the hierarchical regression to investigate this hypothesis are shown in table 12 (appendix 4). The results show no significant relationships, neither direct nor interaction, with team leader’s creativity rating. Task conflict was founded to be curvilinear related to team creativity. Therefore, another hierarchical regression analysis was executed to determine a possible interaction effect of the quadratic term of task conflict and feelings of challenge. As can be seen in table 13, this interaction effect was not significant too. In the hierarchical regression analysis for self-rated creativity, the interaction term between task conflict and feelings of challenge was not significantly related to self-rated creativity as well (table 12). Thus, the results did not provide support for Hypothesis 4c.
Hypothesis 4d stated a negative relationship between task conflict and team creativity when team members feel threatened during task conflicts. As can be seen in table 14 (appendix 4), the interaction between task conflict and feelings of threat was significantly related to team leader’s creativity rating ($\beta = -0.46, p < 0.05$). The model with the interaction term explained significantly more variance than the model with direct relationships ($\Delta R^2 = 0.17, p < 0.05$). An interaction graph was made to determine the effect of the moderator (feelings of threat). This interaction graph is shown in figure 7. The slope of low threat task differed marginally significant from zero ($p < 0.10$), which suggests that task conflict was related to increased team creativity when team members feel low levels of threat. The slope of high threat was not significantly different from zero. The interaction between task conflict and feelings of threat was not related to self-rated creativity. These findings provide partial support for Hypothesis 4d. Analogue to the analysis of Hypothesis 4c, the curvilinear effect of task conflict for this hypothesis was investigated as well, because the findings of this study suggested a curvilinear relationship between task conflict and team creativity. However, no significant results were found for the interaction with the squared term of task conflict (table 15, appendix 4).

![Interaction between task conflict and feelings of threat on creativity rated by the team leader](image)

In Hypothesis 4e a less negative relationship between process conflict (logistical and contribution) and team creativity was expected when team members feel challenged during these types of conflict. The results of the analyses can be found in table 16 (logistical conflict) and table 17 (contribution conflict) in appendix 4. The models including the interaction terms are relevant for Hypothesis 4e. The interaction terms were not significantly related to team leader’s creativity rating or self-rated creativity. The preceding suggests that no support was found for Hypothesis 4e.
In Hypothesis 4f a more negative relationship between process conflict (logistical and contribution) and team creativity was expected when team members feel threatened during these kind of conflicts. In table 18 and 19 in appendix 4 the results of the analyses for logistical and contribution conflict are shown, respectively. These results show no significant relationship of the interactions between process conflict and feelings of threat with leader’s rating about team creativity or self-rated creativity. Therefore, no support was found for Hypothesis 4f.

Hypothesis 5a stated a negative relationship between task conflict and team creativity when team leaders use an avoiding style of conflict management. The results of the hierarchical regression analysis show that the interaction in the third step was not significantly related to team creativity rated by the team leader (table 20, appendix 5). The interaction between task conflict and avoiding conflict management was marginally related to self-rated creativity ($\beta = -0.51, p < 0.10$). The interaction graph of this relationship is shown in figure 8. It seems that task conflict was related to increased self-rated creativity when avoiding was low and that task conflict was related to decreased self-rated creativity when avoiding was high. However, the slopes in figure 8 were not significantly different from zero ($p > 0.10$). The moderation of avoiding also was checked for a curvilinear effect of task conflict, because of the inverse U-shaped relationship between task conflict and team creativity found in this study. This interaction term also was not significantly related to team creativity (table 21, appendix 5). Thus, some support was found for Hypothesis 5a.

In Hypothesis 5b a stronger negative relationship between process conflict (logistical and contribution) was expected when team leaders use an avoiding style of management during conflict situations. The results of the hierarchical regression are shown in table 22 for logistical conflict and table 23 for contribution conflict (appendix 5). No relationships of avoiding conflict management,
direct or moderation, with creativity rated by the team leader or self-rated creativity were found for both logistical and contribution conflict. Therefore, no support was found for Hypothesis 5b.

In Hypothesis 6a a positive moderation of leader’s conflict beliefs on the relationship between task conflict and team creativity was expected. The results of the hierarchical regression analysis are shown in table 24 (appendix 6). Only main effects of conflict beliefs were found; conflict beliefs was negatively related to both leader’s creativity rating ($\beta = -0.49, p < 0.05$) and self-rated creativity ($\beta = -0.50, p < 0.05$). The interaction between task conflict and conflict beliefs of leaders was not significantly related to team creativity rated by the leader or self-rated rated creativity. Due to the curvilinear relationship between task conflict and team creativity (Hypothesis 4a), the interaction between the quadratic term of task conflict and team leader’s conflict beliefs was investigated as well. This interaction, however, was not significantly related to team creativity (table 25, appendix 6). The preceding means that no support was found for Hypothesis 6a.

In Hypothesis 6b a less negative relationship between process conflict (logistical and contribution) and team creativity was expected, when team leaders had positive conflict beliefs. The results of the hierarchical regression analysis with logistical conflict as independent variable are shown in table 26 (appendix 6). Conflict beliefs was direct negatively related to leader’s creativity rating ($\beta = -0.50, p < 0.05$) and self-rated creativity ($\beta = -0.45, p < 0.05$). The interaction between logistical conflict and leader’s conflict beliefs was not related to team creativity (rated by the leader or self-rated). The same results were found for contribution conflict (table 27, appendix 6), only main effects of conflict beliefs were found in that regression as well. Conflict beliefs was negatively related to creativity rated by the leader ($\beta = -0.50, p < 0.05$) and self-rated creativity ($\beta = -0.46, p < 0.05$). For contribution conflict the interaction with leader’s conflict beliefs also was not significantly related to leader’s rating about team creativity. All these findings together indicate that no support was found for Hypothesis 6b.
5. Discussion
The goal of this study was to investigate the relationship between functional diversity, intragroup conflict, and performance in NPD teams, with creativity as main performance indicator. The role of the leader in functional diverse teams and during conflicts was investigated to determine whether an avoiding conflict management style and conflict beliefs did have an impact on team creativity.

Results suggest that functional diversity is marginally related to a higher level of task conflict within teams, this result is similar to the findings in previous research about the relationship between functional diversity and disagreement about tasks (Lovelace et al., 2001; Pelled et al., 1999). Consistent with findings in previous studies (Jehn, 1995; Xie et al., 1998) results of this study suggest that task conflict can beneficial for team effectiveness. For information elaboration, innovativeness, and new product success curvilinear relationships with task conflict were found, indicating that moderate levels of task conflict are associated with higher team effectiveness than low and high levels of task conflict. According to De Dreu (2006), task conflict is curvilinear (inverse U-shaped) related to innovation. This study extended the findings of De Dreu (2006) by investigating the relationship between task conflict and team creativity. The results suggest that a moderate level of task conflict is related to higher levels of team creativity compared to low and high levels of task conflict. In this study the impact of team member’s feelings during conflict situations on team creativity also was investigated. Feelings of threat during task conflict moderates the relationship between task conflict and team creativity in such a way that team creativity increases when team members feel low levels of threat during task conflict. The results also suggest that the relationship between task conflict and self-rated creativity is marginally moderated by an avoiding style of conflict management. It seems that self-rated creativity increases when leaders use a low avoiding style during task conflict.

The results suggest that process conflict (logistical and contribution) is related to a lower level of team member satisfaction and contribution conflict is marginally related to a lower level of innovativeness within NPD teams. These results are in line with previous findings about the relationship between process conflict and team performance (de Wit et al., 2011; Jehn, 1997; Jehn & Mannix, 2001; Vodosek, 2007). Logistical conflict and contribution conflict both are (marginally) negatively related to lower self-rated team creativity as well.

5.1 Implications for research

5.1.1 Task conflict and team performance
Results of this study suggest a (marginal) positive relationship between functional diversity and task conflict within NPD teams. This relationship is consistent with findings of researchers in the past
(Lovelace et al., 2001; Pelled et al., 1999). Functional diversity in this study was measured regarding the amount of team members representing a particular functional area; team leaders indicated the amount of team members in a specific functional area. The findings in this study suggest that functional diverse teams face task conflict. As mentioned before the majority of the teams investigated in this study were functional diverse and the variance was relatively low. Therefore, the results of this study should be interpreted regarding this functional diverse perspective.

The relationship between intragroup conflict and team effectiveness was investigated in this study regarding perceived team performance, team member satisfaction, information elaboration, innovativeness, and new product success. Jehn (1995) found a negative relationship between task conflict and team performance when teams perform routine tasks. For teams performing non-routine tasks a curvilinear relationship between task conflict and team performance was found (Jehn, 1995). Cross-functional NPD teams usually compose non-routine tasks. Consistent with previous findings a curvilinear (inverse U-shaped) relationship between task conflict and team effectiveness (information elaboration, innovativeness, and new product success) was found in this study, which indicates that a moderate level of task conflict is beneficial for team effectiveness.

According to De Dreu (2006), task conflict is curvilinear (inversely U-shaped) related to innovation within teams. The current study extended that study by investigating the relationship between intragroup conflict and team creativity in Dutch NPD teams. Creativity is different from innovation, because innovation also is about the application of ideas, where creativity only is about ideas that are both novel and useful. Innovation, therefore, is a step further on than creativity is, but creativity can serve as a basis for innovation. In the current study a curvilinear (inverse U-shaped) relationship was found between task conflict and team creativity. This finding suggests that a moderate level of task conflict is related to higher levels of team creativity than low and high levels of task conflict within teams. Such a curvilinear relationship between task conflict and team creativity also was found by Farh et al. (2010) in Chinese IT project teams during early phases of projects. Phase in the project lifecycle, however, was not taken into account in this study; team creativity was based on general creativity perceptions of teams during development projects.

NPD teams usually compose non-routine tasks to come up with innovate ideas and/or products (Leenders et al., 2003). Innovativeness and new product success were positively correlated, which may suggest that innovative teams develop successful products. Previous research indicated that task conflict has positive effects in decision making and project teams (De Dreu & Weingart, 2003). Such project teams which work on non-routine tasks may benefit from a certain level of task conflict, because disagreements may lead to diverse perspectives and increased understanding (Jehn &
The benefits of task conflict for team effectiveness may be related to the sharing of information (van Knippenberg et al., 2004). Mesmer-Magnus and DeChurch (2009) in fact found a positive relationship between information sharing, especially for information that is not common for all team members, and team performance. In functional diverse teams, team members usually do have different informational backgrounds and information in that case may not be common for all team members. When team members elaborate information during task conflict in such cases, they may create better understanding about problems and may come up with better solutions or more innovative ideas. The curvilinear relationship found in this study suggests that low and high levels of task conflict are less beneficial to team effectiveness than moderate levels of task conflict. Low levels or absence of task conflict were associated with lack of commitment about decision making and high levels of conflict were associated with losing sight of project goals (Jehn, 1995; Xie et al., 1998). Thus, low and high levels of task conflict can withhold teams from critical decision making and fostering goals.

The curvilinear relationship between task conflict and team creativity can be explained similar to the relationship between task conflict and team effectiveness. Information elaboration, innovativeness, and new product success were in fact correlated with team creativity (leader’s rating and/or self-rated). Task conflict and disagreement about task-related issues within teams may be beneficial for creativity, because team members may be able to share resources, be open to each other, and take time to integrate ideas under such circumstances (Farh et al., 2010). Sharing resources is related to the concept of information elaboration discussed before. NPD teams should combine and integrate information input from the different team members to stimulate team creativity (Leenders et al., 2003). A moderate level of task conflict is related to higher levels of information elaboration. Sharing resources during task conflict, therefore, may stimulate team creativity. Thus, it is interesting to further investigate the relationship between task conflict and team creativity and the possible mediation of information elaboration. The findings of De Dreu (2006) already indicated a curvilinear relationship between task conflict and team innovation, this relationship also was found in the current study. Creativity and innovativeness were correlated on a high level, which suggests that a moderate level of task conflict is beneficial for creativity and in the end may lead to more innovative and successful new products.

As found in this study, moderate levels of task conflict thus are most beneficial for team performance. A moderate level of task conflict may encourage enough disagreement and discussion about tasks or problems to create a critical view on the task and thereby improve solutions (de Wit et al., 2011). A moderate level of task conflict, different from high levels of task conflict, also ensures that teams stay focused on the project goals during disagreements. Thus, under a moderate level of
task conflict teams may be able to think critically (information elaboration) while they do not lose sight of the objectives. The effect of task conflict on team performance depends on whether team members feel free to express task-related doubts (Lovelace et al., 2001). This is related to the concept of open conflict norms under which conflict and disagreements are allowed (Jehn, 1995). In an environment of open conflict norms team members may feel more freely to express task-related doubts, which can lead to task conflict. Open conflict norms within teams in fact stimulate task conflict (Rispens, 2009). Open conflict norms, therefore, may be beneficial for team performance by stimulating task conflict. However, teams should prevent for too high levels of task conflict which are less beneficial for team performance (De Dreu, 2006). An environment of high intragroup trust can prevent for too high levels of task conflict (Simons & Peterson, 2000).

5.1.2 Process conflict and team performance

Process conflict in this study was separated in logistical conflict and contribution conflict. Logistical conflict is about the processes within the team and contribution conflict is more about the relationships between team members. Investigating the relationship between team performance and these two types of process conflict separately contributes to the conflict literature. Logistical and contribution conflict both were negatively related to team member satisfaction. This finding is consistent with previous research (Jehn, 1997; Jehn et al., 2008; Vodosek, 2007). Logistical conflict may be negatively related to team member satisfaction due to different perceptions about task accomplishment among team members. Disagreements about time usage and who should do what may cause dissatisfaction. For contribution conflict, the negative relationship with team member satisfaction is a little more obvious. Contribution conflict is about relational problems and tensions within teams due to bad performance of team members for example, when team members feel tensions within their team they may become dissatisfied. The negative relationship with team member satisfaction was stronger for contribution conflict than for logistical conflict. The negative relationship between process conflict and team member satisfaction may be related to the social categorization perspective described by van Knippenberg et al. (2004). In the social categorization perspective it is stated that diversity may cause a “us” and “them” separation within teams. When team members get the feeling that they are not accepted, for example, they may feel dissatisfied. Process conflict is associated with higher levels of negative emotions when subgroups exist within teams (Greer & Jehn, 2007).

Process conflict (logistical and contribution) was (marginally) related to a lower level of self-rated team creativity, which suggests that the level of process conflict should be low during projects for teams to be creative. However, contribution conflict was more detrimental. Kurtzberg and Mueller (2005) found a similar relationship between process conflict and creativity in a longitudinal study. In
this study, a distinction was made between two types of process conflict to investigate the effects of both types on team creativity. When team members do not have clear how they should accomplish tasks or who is responsible for what part of the job, they may not make as much progress as expected. This can limit creative progress within teams, because process conflict has an impact in the ability to plan, visualize, and accomplishment of creative tasks (Kurtzberg & Mueller, 2005). Contribution conflict also was marginally related to lower innovativeness. As mentioned before, team creativity and innovativeness were highly correlated which may suggest that the negative relationship between contribution conflict and self-rated creativity may have an effect on innovativeness of teams. A possible explanation for this relationship is that team members during conflicts feel the tension and thereby may be less motivated to work on their tasks, which is harmful for team performance (van de Vliert & de Dreu, 1994). It may take longer to complete tasks and team members may be inclined to work on cross-purposes (Jehn, 1997). Jehn and Mannix (2001) found that levels of process conflict were low in high-performing teams, but there was a rise in process conflict over the project lifetime. To investigate the effects of process conflicts over time a longitudinal study should be conducted. In this study just the negative relationship between process conflict and self-rated creativity could be shown.

Altogether, the results suggest that process conflict is related to lower team performance. However, contribution conflict seems to be more detrimental for team performance than logistical conflict. Thus, it is advisable to separate process conflict in a logistical and a contribution part.

5.1.3 Moderations on the relationship between intragroup conflict and team creativity

In the previous sections the direct relationships between intragroup conflict and team performance were discussed. In this section the moderating effects of team member’s feelings and leader behavior will be discussed.

In functional diverse teams, cross-functional integration and coordination can be associated with uncertainty (Bunderson, 2003). Differences in functional expertise in fact may impede joint problem solving (Cronin & Weingart, 2007). Such uncertainty and problems with joint problem solving may cause feelings of threat during conflict situations. Feelings of threat among team members during task conflicts moderated the relationship between task conflict and team creativity (rated by the team leader). When team members feel low levels of threat during task conflicts, team creativity increases. Thus, teams should keep levels of threat low and avoid high levels of threat during task conflicts. A possible explanation for this finding is that team members become more reluctant to share information and express doubts when they feel threatened. Tension and stress in fact are negatively related to information processing (Argote et al., 1989). As mentioned before, task conflict
can be beneficial to team creativity when team members share information. When information is not shared and team members feel threatened they may avoid task conflict as much and possible, which in the end may have negative consequences for team creativity. A notable finding is that the moderation of feelings of threat only was significant for the linear relationship between task conflict and team creativity and not for the curvilinear relationship, while a curvilinear relationship between task conflict and team creativity was found in the current study. The fact that feelings of threat does not moderate the curvilinear relationship between task conflict and team creativity may be caused by averaging the curvilinear relationship. This means that the linear moderating effect on the curvilinear relationship may be uninformative or even misleading (Jaccard et al., 1990). The method I used to determine the interaction effect is suitable for linear interaction effects and not for curvilinear effects (Jaccard et al., 1990). The preceding may explain the fact that no moderation effect was found for the curvilinear relationship between task conflict and team creativity. The results suggest a (marginal) direct relationship between feelings of challenge and self-rated creativity, which suggest that team members who feel challenged believe that there is more creativity in their teams. These findings suggest that feelings of team members may play a role in team creativity during conflict situations. Feelings of threat seems to be detrimental, where feelings of challenge seem to be beneficial for team creativity. It will be interesting for future research to investigate which team characteristics cause feelings of threat and challenge among team members, to determine which characteristics should be stimulated or omitted within functional diverse teams.

Previous research suggested a negative relationship between an avoiding conflict management style and team outcomes (Skogstad et al., 2007; Xie et al., 1998). In this study, avoiding conflict management by leaders was investigated as a moderator on the relationship between intragroup conflict and team creativity. An avoiding style of conflict management seems to moderate the relationship between task conflict and self-rated team creativity in such a way that self-rated team creativity increases when leaders do have a low avoiding style during task conflicts. This finding suggests that confronting and resolving conflicts will be important within NPD teams (Xie et al., 1998). Cross-functional integration will be decreased when leaders use an avoiding style of conflict management (Song et al., 2000). This suggests that less information will be shared when leaders avoid conflicts, which can lead to decreased creativity. When leaders avoid task conflicts, these conflicts may escalate or even evaluate in other types of conflict which can be harmful for team creativity and probably for other performance indicators. High levels of task conflict in fact are often related to high levels of relationship conflict, due to heated debates that arise under circumstances of high levels of task conflict (Rispens, 2011). De Dreu and Weingart (2003) found that task conflict was more negatively related to team performance when there was a high correlation between task
and relationship conflict. This suggests that teams perform lower when task conflict is related to relationship conflict within teams (de Wit et al., 2011). Therefore, it is interesting for future research to investigate whether task conflict may evaluate in other conflict types when leaders avoid such conflicts, which in turn might be harmful for team performance.

Conflict beliefs of leaders (beliefs about the value and consequences of conflict) was found to be negatively related to team creativity (leader’s rating and self-rated). It was expected that leaders who believe in the value of conflict and are aware of the likely effects of conflicts may control the conflicts in such a way that creativity was stimulated, while the negative effects of conflicts were eliminated. However, a negative relationship was found. When leaders believe that conflicts are not only detrimental and not necessarily should be resolved for teams to perform well, team creativity will be decreased. A possible explanation is that conflict may escalate when leaders do not intervene when conflicts arise within teams, conflict beliefs are in fact positively correlated with avoiding conflict management. In that case teams cannot reap the benefits of especially task conflicts, where the negative effects of these conflicts prevail and in the end may have negative consequences for team creativity. This finding extends the research of Sanchez-Burks et al. (2008), who investigated conflict beliefs (folk wisdom) among team members. The leader was chosen to investigate in the current study, because the leader is the one who is responsible for the team and its outcomes. The leader can do interventions when he or she believes that conflicts need to be stimulated or the other way around, when conflicts need to be resolved. Therefore, the leader may play an important role in creating the right conditions for NPD teams to be creative. The leader may have conflict beliefs, but it is important that team members believe in the possible value of especially task conflicts. Thus, the team leader needs to make sure that team members believe in the value of these conflicts as well. How the leader should transfer conflict beliefs to team members to reap the benefits should be investigated in the future.

5.2 Managerial implications

5.2.1 Task conflict and team performance

As mentioned in the previous section, task conflict was curvilinear related to three of the investigated team effectiveness indicators in this study. A moderate level of task conflict was related to higher levels of information elaboration, innovativeness, and new product success. The relationship between task conflict and team creativity is similar to the relationship between task conflict and team effectiveness. This finding suggests that teams can benefit from task conflict during development projects. Task conflict may be stimulated by functional diversity within teams, functional diversity in fact was positively related to task conflict. Composing functional diverse
teams, therefore, may be a strategy to stimulate a certain amount of task conflict. Nevertheless, it is important for teams to obtain control over the level of conflict.

As discussed before, task conflict is less beneficial to team effectiveness and team creativity when teams face high levels of this type of conflict. Therefore, team leaders need to control the level of task conflict within teams to reap the benefits of conflicts. High levels of task conflict may cause teams to lose sight on their project goals (Jehn, 1995). Team leaders, therefore, should ensure that teams stay on track and keep goals in mind. Absence or low levels of task conflict also were found to be less beneficial for team performance than moderate levels. As discussed before, low levels of task conflict may impede critical decision making within teams. Critical decision making and discussions about contents of the task may be necessary for teams to be effective and creative (Jehn & Bendersky, 2003). Teams or team leaders, therefore, may need to stimulate a certain amount of task conflict (De Dreu, 2006). Conflicts can be stimulated by the team leader as a third party, the leader can address differences in viewpoints that team members themselves did not recognize (van de Vliert & de Dreu, 1994). Team members can occur as devil’s advocate to stimulate conflict during idea development (van de Vliert & de Dreu, 1994). Open conflict norms (conflict and disagreements are allowed) within teams also may stimulate task conflict within teams by openly discussing different viewpoints (Jehn & Mannix, 2001; Rispens, 2009). Furthermore, these open conflict norms foster openness, expressions of doubts and uncertainties, and acceptance within teams which can increase the positive effects of task conflicts (Jehn, 1995). Thus open conflict norms should be used to stimulate task conflict within teams. The danger of stimulating task conflict is that it increases to a level that is harmful for team performance (De Dreu, 2006). Intragroup trust may be a condition under which task conflict less likely increases to a detrimental level. The likelihood that task conflict escalates in other types of conflict reduces when intragroup trust within teams is high. Stimulation of task conflict, therefore, will be most beneficial when it is combined with trust generation within teams (Simons & Peterson, 2000). Trust can be generated, for example, by organizing informal meetings with team members and establishing behavioral norms for the team. Thus, task conflict should be stimulated in an environment in which intragroup trust is high is such a way that information exchange is encouraged.

The results suggest a role of team member’s feelings in the relationship between task conflict and team creativity. Task conflict was found positively related to team creativity when team members feel low levels of threat. Therefore, it is important to manage task conflict careful. Team members should be informed about task conflict and its possible benefits and drawbacks, in such a way that team members do not feel immediately threatened when they face task conflict. Pelled et al. (1999) found that the positive relationship between diversity and conflict was weaker when teams working
together for a period of time, due to shared understanding or better anticipation on resistance to ideas. A similar relationship with team longevity could be applicable for task conflict and feelings of threat. When team members become familiar and experienced with such conflicts/disagreements, they probably will feel less threatened during such situations, because they learned how to anticipate and handle during these conflicts. Creating intragroup trust also may prevent team members for feeling threatened during conflicts. Furthermore, during task conflicts it is important that discussions are about tasks and content only (Rispens, 2011; van de Vliert & de Dreu, 1994). Personal attacks should be left out of discussions and team members need to become familiar with disagreements about task-related issues, to keep feelings of threat among team members low.

Thus, teams should be aware of the possible value of task conflict as well as of the possible drawbacks. Task conflict should be stimulated, and teams and team leaders should make sure that task conflict does not increase to detrimental levels. Under such circumstances, task conflict may lead to discussions and information elaboration within teams, which in the end may foster critical thinking and better team performance (De Dreu, 2006; van Knippenberg et al., 2004). Teams that are creative and innovative may develop products that are more successful, for example.

5.2.2 Process conflict and team performance

For process conflict another approach is preferred. The results of this study suggest a negative relationship between process conflict and team member satisfaction. It is important to keep team members satisfied within teams, team member satisfaction is in fact related to performance (Ostroff, 1992; Petty et al., 1984). Thus, decreased team member satisfaction, due to process conflict, may decrease team performance in the end. Where task conflict can be beneficial to team creativity, the levels of process conflict should be kept as low as possible within teams; a (marginal) negative relationship was found with self-rated team creativity.

During process conflict, team members may be less inclined to work on tasks (Jehn, 1997). To prevent for process conflict, tasks should be adapted to the skills of team members and forecast scheduling should be conducted to overcome work-load problems (Behfar et al., 2011).

Team leaders need to keep the level of process conflict as low as possible within their teams. Teams need to become familiar with the phenomenon process conflict; they should know what it means and how it could occur. Training and briefings about process conflict and the possible negative effects (of especially contribution conflict) within teams can make team members aware of the drawbacks of process conflict, which in the end may make teams less likely to face process conflict. Further, leaders should prevent for subgroup formation within teams, because subgroups can increase the negative effects of process conflict (Greer & Jehn, 2007). Process conflicts need to be
resolved as quickly as possible to prevent for dissatisfied team members and decreased team innovativeness and creativity. Process conflict can be resolved by creating explicit rules for teams, such as written rules and punishments when these rules are not respected (Behfar et al., 2008).

5.2.3 The role of the leader in intragroup conflict
Conflict beliefs of team leaders were related to lower team creativity, which suggests that teams whose team leaders think that conflicts are not only detrimental for teams to perform well are less creative. This finding possibly is related to the marginal negative moderation of avoiding conflict management on the relationship between task conflict and self-rated team creativity. Team leaders who believe that there is value in conflicts probably are less inclined to intervene during conflicts, conflict beliefs and avoiding conflict management were in fact positively correlated. As discussed before, high levels of task conflict are less beneficial to team creativity than moderate levels, which suggests that interventions of team leaders may be necessary when task conflict increases to higher levels. Thus, leaders who believe in the value of conflicts also should be aware of the possible negative consequences of these conflicts on team creativity. Believing in the value of conflicts does not mean that conflicts also are beneficial at more severe levels. Some avoiding might be suitable to stimulate the development of task conflict within teams, however too much avoiding may lead to stress and negative effects during task-oriented conflicts (Römer et al., 2012). Leaders should be slightly avoidant during task conflicts in the beginning to reap the benefits of such conflict (e.g. increased team creativity), but avoiding conflict may be harmful and not suitable anymore when conflicts become more severe. Thus, leaders should be aware of the type as well as the severity of conflict before they use an avoiding approach during conflicts.

Team leader’s conflict beliefs may be positive, but in the end team members are the ones who face conflict and have to deliver performance. Thus, conflict beliefs of team leaders should be conveyed to team members to reap the actual benefits. Team leaders, therefore, need to point out the value of task conflict in NPD teams (e.g. its relationship with information elaboration) to their team members. Leaders can do so by creating an environment of intragroup trust with open conflict norms in their teams by creating behavioral norms, for example. As mentioned before, task conflict in such environments can be stimulated without the danger that it easily evolves into higher levels or other types of conflict.

Leaders also should make team members aware of the value of functional diversity and information sharing within NPD teams to create mutual respect and address possible threats (van Knippenberg et al., 2004). Information elaboration was in fact correlated with self-rated team creativity, which may suggest that information elaboration fosters creativity within teams. Pro-diversity management can
be a manner for team leaders to convince team members of the value of functional diversity in their teams (Rispens et al., 2012). When leaders make team members aware of the value of a certain level of functional diversity and task conflict, team members may approach this diversity and task conflict more as resource than as possible threat.

Thus, task conflict to a certain level is beneficial for team creativity, and should be stimulated by team leaders within NPD teams. However, one should keep in mind that too high levels of task conflict are detrimental for team performance. Process conflict, on the other side, should be kept at a minimum level. Leaders should set clear (achievable) goals for team members and should prevent teams for too high work-loads during projects by adequate forecasting and scheduling (Behfar et al., 2008).

5.3 Limitations and future research

The first limitation of this study is the design of the study, this study was cross-sectional and there is a likelihood of common source bias due to self-reported data. Due to the cross-sectional design of this study causal relationships cannot be concluded. Longitudinal studies will be necessary to investigate the causality of the relationships found in this study. The use of self-reported measures (common source bias) could have influenced the results found in this study (Dionne et al., 2002). Therefore, creativity was measured by asking both team members and team leaders, and effectiveness indicators were measured using leader’s rating (as a third party) as far as possible to limit this common source bias (Podsakoff & Organ, 1986). However, for other effectiveness indicators (e.g. information elaboration) self-reported data of team members were used only, which may have influenced the results. The second major limitation is related to the sample of this study. The small sample size (22 teams) and the industrial homogeneity of the investigated teams may limit the power and generalizability of this study (Hair Jr. et al., 2010).

Future research should use longitudinal data to investigate the causality of relationships found in this study. The relationship between task conflict and performance outcomes found in this study should be further investigated to determine the possible mediation information elaboration in these relationships.
5.4 Conclusion

The current study suggests that task conflict has an inverse U-shaped relationship with team performance and that process conflict has a negative relationship with team member satisfaction and self-rated team creativity. Contribution conflict seems to be more detrimental for team performance than logistical conflict. The relationship between intragroup conflict and team creativity also depends on the behavior of the team leader. Leaders who believe in the value of conflict may be less inclined to resolve conflicts within teams, which in the end can be detrimental for team performance. Therefore, the role of the team leader during conflict resolution and the propagation of conflict beliefs to team members are interesting for future research. This study pointed out the value as well the drawbacks of intragroup conflict for team performance. Leaders should create a mindset to team members in which intragroup conflict (especially task conflict) is not necessarily experienced as negative. An environment should be created in which team members experience functional diversity and task conflict as a resource instead of a threat. Future research should determine in which context team conflicts are beneficial for different team effectiveness measures. Teams should be able to distinguish task and process conflict and should be aware of the value of moderate levels of task conflict within teams and the drawbacks of process conflicts. For team leaders remains the important task to manage the different types of intragroup conflict in such a way that teams are able to reap the benefits and avoid the drawbacks which ideally can foster creativity and innovation. An avoiding style of conflict management, therefore, should be used in early phases of task conflict and should not be used during process conflicts and severe task conflicts. Too much conflict hurts, but too little task conflict hurts as well for teams that need to be creative and innovative (De Dreu, 2006).
6. References


## Appendix 1: Calculations functional diversity (Blau index)

<table>
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<tr>
<th>Team</th>
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<th>Design</th>
<th>Process/Performance</th>
<th>Marketing/Strategy</th>
<th>Finance/Accounting</th>
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Appendix 2: Relationship between functional diversity and intragroup trust, moderated by diversity management

Table 9. Hierarchical regression interaction effect of functional diversity and diversity management on intragroup trust

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(N=20) *p<0.05, **p<0.01, ***p<0.001, †p<0.10
### Table 10. Hierarchical regression of functional diversity on task conflict

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(N=20) *p<0.05, **p<0.01, ***p<0.001, *p<0.10

### Table 11. Hierarchical regression interaction effect of functional diversity and diversity management on task conflict

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(N=20) *p<0.05, **p<0.01, ***p<0.001, *p<0.10

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Appendix 3: Relationship between functional diversity and task conflict
Table 12. Hierarchical regression of the interaction effect of task conflict and feelings of challenge on team creativity

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Table 13. Hierarchical regression of the interaction effect of task conflict and feelings of challenge on team creativity (curvilinear)

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<td>0.05</td>
</tr>
<tr>
<td>ΔR²</td>
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(N=22) *p<0.05, **p<0.01, ***p<0.001, *p<0.10
<table>
<thead>
<tr>
<th>Table 14. Hierarchical regression of the interaction effect of task conflict and feelings of threat on team creativity</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Creativity leader</strong></td>
</tr>
<tr>
<td>(β)</td>
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<tr>
<td>Team size</td>
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<tr>
<td>Team tenure</td>
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<tr>
<td>Task interdependence</td>
</tr>
<tr>
<td>R²</td>
</tr>
<tr>
<td><strong>Step 2:</strong> Linear effect</td>
</tr>
<tr>
<td>Team size</td>
</tr>
<tr>
<td>Team tenure</td>
</tr>
<tr>
<td>Task interdependence</td>
</tr>
<tr>
<td>Task conflict</td>
</tr>
<tr>
<td>Threat task</td>
</tr>
<tr>
<td>R²</td>
</tr>
<tr>
<td>ΔR²</td>
</tr>
<tr>
<td><strong>Step 3:</strong> Interaction effect</td>
</tr>
<tr>
<td>Team size</td>
</tr>
<tr>
<td>Team tenure</td>
</tr>
<tr>
<td>Task interdependence</td>
</tr>
<tr>
<td>Task conflict</td>
</tr>
<tr>
<td>Challenge task</td>
</tr>
<tr>
<td>Task conflict * Threat task</td>
</tr>
<tr>
<td>R²</td>
</tr>
<tr>
<td>ΔR²</td>
</tr>
<tr>
<td>(N=22) *p&lt;0.05, **p&lt;0.01, ***p&lt;0.001, *p&lt;0.10</td>
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<table>
<thead>
<tr>
<th>Table 15. Hierarchical regression of the interaction effect of task conflict and feelings of threat on team creativity (curvilinear)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Creativity leader</strong></td>
</tr>
<tr>
<td>(β)</td>
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<td><strong>Step 1:</strong> Control variables</td>
</tr>
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</tr>
<tr>
<td>Team tenure</td>
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<tr>
<td>Task interdependence</td>
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<tr>
<td>R²</td>
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<td><strong>Step 2:</strong> Linear effect</td>
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<td>Team size</td>
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<tr>
<td>Team tenure</td>
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<tr>
<td>Task interdependence</td>
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<tr>
<td>Task conflict</td>
</tr>
<tr>
<td>Threat task</td>
</tr>
<tr>
<td>R²</td>
</tr>
<tr>
<td>ΔR²</td>
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<td><strong>Step 3:</strong> Curvilinear effect</td>
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<td>Team tenure</td>
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<td>Task interdependence</td>
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<td>Task conflict</td>
</tr>
<tr>
<td>Threat task</td>
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<tr>
<td>Task conflict²</td>
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<tr>
<td>R²</td>
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<tr>
<td>ΔR²</td>
</tr>
<tr>
<td>(N=22) *p&lt;0.05, **p&lt;0.01, ***p&lt;0.001, *p&lt;0.10</td>
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</table>

<table>
<thead>
<tr>
<th><strong>Step 4:</strong> Interaction effect</th>
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<tbody>
<tr>
<td>Team size</td>
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<tr>
<td>Team tenure</td>
</tr>
<tr>
<td>Task interdependence</td>
</tr>
<tr>
<td>Task conflict</td>
</tr>
<tr>
<td>Threat task</td>
</tr>
<tr>
<td>Task conflict²</td>
</tr>
<tr>
<td>Task conflict² * Threat task</td>
</tr>
<tr>
<td>R²</td>
</tr>
<tr>
<td>ΔR²</td>
</tr>
<tr>
<td>(N=22) *p&lt;0.05, **p&lt;0.01, ***p&lt;0.001, *p&lt;0.10</td>
</tr>
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</table>
Table 16. Hierarchical regression of the interaction effect of logistical conflict and feelings of challenge on team creativity

<table>
<thead>
<tr>
<th>Step 1: Control variables</th>
<th>Creativity leader (β)</th>
<th>Creativity self-rated (β)</th>
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<tbody>
<tr>
<td>Team size</td>
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<td>0.35</td>
</tr>
<tr>
<td>Team tenure</td>
<td>0.14</td>
<td>0.04</td>
</tr>
<tr>
<td>Task interdependence</td>
<td>0.43*</td>
<td>0.07</td>
</tr>
<tr>
<td>R²</td>
<td>0.21</td>
<td>0.133</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Step 2: Linear effect</th>
<th>Creativity leader (β)</th>
<th>Creativity self-rated (β)</th>
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<tbody>
<tr>
<td>Team size</td>
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<td>0.37*</td>
</tr>
<tr>
<td>Team tenure</td>
<td>0.18</td>
<td>0.27</td>
</tr>
<tr>
<td>Task interdependence</td>
<td>0.50*</td>
<td>0.04</td>
</tr>
<tr>
<td>Logistical conflict</td>
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<td>-0.41*</td>
</tr>
<tr>
<td>Challenge process</td>
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<th>Step 3: Interaction effect</th>
<th>Creativity leader (β)</th>
<th>Creativity self-rated (β)</th>
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<tbody>
<tr>
<td>Team size</td>
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<td>0.37*</td>
</tr>
<tr>
<td>Team tenure</td>
<td>0.16</td>
<td>0.28</td>
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<tr>
<td>Task interdependence</td>
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<tr>
<td>Logistical conflict</td>
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<td>Challenge process</td>
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<tr>
<td>Logistical conflict *</td>
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<td>-0.06</td>
</tr>
<tr>
<td>Challenge process</td>
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<td></td>
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(N=22) *p<0.05, **p<0.01, ***p<0.001, †p<0.10

Table 17. Hierarchical regression of the interaction effect of contribution conflict and feelings of challenge on team creativity

<table>
<thead>
<tr>
<th>Step 1: Control variables</th>
<th>Creativity leader (β)</th>
<th>Creativity self-rated (β)</th>
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</thead>
<tbody>
<tr>
<td>Team size</td>
<td>0.06</td>
<td>0.35</td>
</tr>
<tr>
<td>Team tenure</td>
<td>0.14</td>
<td>0.04</td>
</tr>
<tr>
<td>Task interdependence</td>
<td>0.43*</td>
<td>0.07</td>
</tr>
<tr>
<td>R²</td>
<td>0.21</td>
<td>0.133</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Step 2: Linear effect</th>
<th>Creativity leader (β)</th>
<th>Creativity self-rated (β)</th>
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</thead>
<tbody>
<tr>
<td>Team size</td>
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<tr>
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<tr>
<td>Contribution conflict</td>
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<td>-0.65**</td>
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<tr>
<td>R²</td>
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<td>0.546***</td>
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<table>
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<th>Creativity self-rated (β)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Team size</td>
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<tr>
<td>Team tenure</td>
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<td>0.26</td>
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<td>Task interdependence</td>
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<td>0.22</td>
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<tr>
<td>Contribution conflict</td>
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<td>-0.72**</td>
</tr>
<tr>
<td>Challenge process</td>
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<td>0.58**</td>
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<td>-0.17</td>
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<tr>
<td>Challenge process</td>
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(N=22) *p<0.05, **p<0.01, ***p<0.001, †p<0.10
### Table 18. Hierarchical regression of the interaction effect of logistical conflict and feelings of threat on team creativity

<table>
<thead>
<tr>
<th></th>
<th>Creativity leader (β)</th>
<th>Creativity self-rated (β)</th>
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<td><strong>Step 1: Control variables</strong></td>
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<td></td>
</tr>
<tr>
<td>Team size</td>
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<td>0,35</td>
</tr>
<tr>
<td>Team tenure</td>
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<td>0,04</td>
</tr>
<tr>
<td>Task interdependence</td>
<td>0,43*</td>
<td>0,07</td>
</tr>
<tr>
<td><strong>R²</strong></td>
<td>0,21</td>
<td>0,133</td>
</tr>
<tr>
<td><strong>Step 2: Linear effect</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Team size</td>
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<td>0,35</td>
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<tr>
<td>Team tenure</td>
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<td>0,27</td>
</tr>
<tr>
<td>Task interdependence</td>
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<td>0,26</td>
</tr>
<tr>
<td>Logistical conflict</td>
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<td>-0,50*</td>
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<td>Threat process</td>
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(N=22) *p<0.05, **p<0.01, ***p<0.001, †p<0.10

### Table 19. Hierarchical regression of the interaction effect of contribution conflict and feelings of threat on team creativity

<table>
<thead>
<tr>
<th></th>
<th>Creativity leader (β)</th>
<th>Creativity self-rated (β)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Step 1: Control variables</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Team size</td>
<td>0,06</td>
<td>0,35</td>
</tr>
<tr>
<td>Team tenure</td>
<td>0,14</td>
<td>0,04</td>
</tr>
<tr>
<td>Task interdependence</td>
<td>0,43*</td>
<td>0,07</td>
</tr>
<tr>
<td><strong>R²</strong></td>
<td>0,21</td>
<td>0,133</td>
</tr>
<tr>
<td><strong>Step 2: Linear effect</strong></td>
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<td></td>
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<tr>
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<td>0,22</td>
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<tr>
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(N=22) *p<0.05, **p<0.01, ***p<0.001, †p<0.10

### Interaction effect

<table>
<thead>
<tr>
<th></th>
<th>Creativity leader (β)</th>
<th>Creativity self-rated (β)</th>
</tr>
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<tbody>
<tr>
<td><strong>Step 3: Interaction effect</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Team size</td>
<td>0,18</td>
<td>0,21</td>
</tr>
<tr>
<td>Team tenure</td>
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<tr>
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<td>-0,63</td>
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<tr>
<td>Threat process</td>
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<td>-0,17</td>
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<tr>
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</table>

(N=22) *p<0.05, **p<0.01, ***p<0.001, †p<0.10
Appendix 5: Relationship between intragroup conflict and team creativity, moderated by avoiding conflict management

Table 20. Hierarchical regression of the interaction effect of task conflict and avoiding on team creativity

<table>
<thead>
<tr>
<th></th>
<th>Creativity leader (β)</th>
<th>Creativity self-rated (β)</th>
</tr>
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<tbody>
<tr>
<td><strong>Step 1:</strong></td>
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<td></td>
</tr>
<tr>
<td>Control variables</td>
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<td></td>
</tr>
<tr>
<td>Team size</td>
<td>0.06</td>
<td>0.35</td>
</tr>
<tr>
<td>Team tenure</td>
<td>0.14</td>
<td>0.04</td>
</tr>
<tr>
<td>Task interdependence</td>
<td>0.43*</td>
<td>0.07</td>
</tr>
<tr>
<td>R²</td>
<td>0.21</td>
<td>0.133</td>
</tr>
</tbody>
</table>

| **Step 2:**         |                       |                            |
| Linear effect       |                       |                            |
| Team size           | -0.03                 | 0.31                       |
| Team tenure         | 0.12                  | 0.10                       |
| Task interdependence| 0.30                  | 0.12                       |
| Task conflict       | 0.30                  | -0.06                      |
| Avoiding            | -0.28                 | -0.11                      |
| R²                   | 0.283                 | 0.147                      |
| ΔR²                  | 0.073                 | 0.014                      |

| **Step 3:**         |                       |                            |
| Interaction effect   |                       |                            |
| Team size           | 0.02                  | 0.42                       |
| Team tenure         | 0.12                  | 0.12                       |
| Task interdependence| 0.29                  | 0.08                       |
| Task conflict       | 0.33                  | 0.01                       |
| Avoiding            | -0.18                 | 0.17                       |
| Task conflict * Avoiding | -0.20              | -0.51*                     |
| R²                   | 0.308                 | 0.32                       |
| ΔR²                  | 0.025                 | 0.174*                     |

(N=22) *p<0.05, **p<0.01, ***p<0.001, *p<0.10

Table 21. Hierarchical regression of the interaction effect of task conflict and avoiding on team creativity (curvilinear)

<table>
<thead>
<tr>
<th></th>
<th>Creativity leader (β)</th>
<th>Creativity self-rated (β)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Step 1:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Control variables</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Team size</td>
<td>0.06</td>
<td>0.35</td>
</tr>
<tr>
<td>Team tenure</td>
<td>0.14</td>
<td>0.04</td>
</tr>
<tr>
<td>Task interdependence</td>
<td>0.43*</td>
<td>0.07</td>
</tr>
<tr>
<td>R²</td>
<td>0.21</td>
<td>0.133</td>
</tr>
</tbody>
</table>

| **Step 2:**         |                       |                            |
| Linear effect       |                       |                            |
| Team size           | -0.03                 | 0.31                       |
| Team tenure         | 0.12                  | 0.10                       |
| Task interdependence| 0.30                  | 0.12                       |
| Task conflict       | 0.30                  | -0.06                      |
| Avoiding            | -0.28                 | -0.11                      |
| R²                   | 0.283                 | 0.147                      |
| ΔR²                  | 0.073                 | 0.014                      |

| **Step 3:**         |                       |                            |
| Curvilinear effect   |                       |                            |
| Team size           | 0.32                  | 0.75*                      |
| Team tenure         | 0.11                  | 0.09                       |
| Task interdependence| 0.26                  | 0.07                       |
| Task conflict       | 5.52*                 | 6.48*                      |
| Avoiding            | 0.02                  | 0.27                       |
| Task conflict²      | -5.35*                | -6.71*                     |
| R²                   | 0.415                 | 0.355                      |
| ΔR²                  | 0.132                 | 0.208*                     |

| **Step 4:**         |                       |                            |
| Interaction effect   |                       |                            |
| Team size           | 0.25                  | 0.47                       |
| Team tenure         | 0.12                  | 0.12                       |
| Task interdependence| 0.26                  | 0.06                       |
| Task conflict       | 4.35                  | 1.79                       |
| Challenge task      | 0.03                  | 0.31                       |
| Task conflict²      | -4.08                 | -1.65                      |
| Task conflict² * Avoiding | -0.16             | -0.63                      |
| R²                   | 0.419                 | 0.417                      |
| ΔR²                  | 0.004                 | 0.063                      |

(N=22) *p<0.05, **p<0.01, ***p<0.001, *p<0.10
### Table 22. Hierarchical regression of the interaction effect of logistical conflict and avoiding on team creativity

<table>
<thead>
<tr>
<th>Step 1: Control variables</th>
<th>Creativity leader (β)</th>
<th>Creativity self-rated (β)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Team size</td>
<td>0.06</td>
<td>0.35</td>
</tr>
<tr>
<td>Team tenure</td>
<td>0.14</td>
<td>0.04</td>
</tr>
<tr>
<td>Task interdependence</td>
<td>0.43</td>
<td>0.07</td>
</tr>
<tr>
<td>R²</td>
<td>0.21</td>
<td>0.133</td>
</tr>
</tbody>
</table>

### Table 23. Hierarchical regression of the interaction effect of contribution conflict and avoiding on team creativity

<table>
<thead>
<tr>
<th>Step 1: Control variables</th>
<th>Creativity leader (β)</th>
<th>Creativity self-rated (β)</th>
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</thead>
<tbody>
<tr>
<td>Team size</td>
<td>0.06</td>
<td>0.35</td>
</tr>
<tr>
<td>Team tenure</td>
<td>0.14</td>
<td>0.04</td>
</tr>
<tr>
<td>Task interdependence</td>
<td>0.43</td>
<td>0.07</td>
</tr>
<tr>
<td>R²</td>
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<td>0.133</td>
</tr>
</tbody>
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### Linear effect

<table>
<thead>
<tr>
<th>Step 2: Linear effect</th>
<th>Creativity leader (β)</th>
<th>Creativity self-rated (β)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Team size</td>
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<td>0.44</td>
</tr>
<tr>
<td>Team tenure</td>
<td>0.2</td>
<td>0.22</td>
</tr>
<tr>
<td>Logistical conflict</td>
<td>-0.04</td>
<td>-0.54</td>
</tr>
<tr>
<td>Avoiding</td>
<td>-0.17</td>
<td>0.09</td>
</tr>
<tr>
<td>R²</td>
<td>0.236</td>
<td>0.306</td>
</tr>
<tr>
<td>ΔR²</td>
<td>0.026</td>
<td>0.173</td>
</tr>
</tbody>
</table>

### Interaction effect

<table>
<thead>
<tr>
<th>Step 3: Interaction effect</th>
<th>Creativity leader (β)</th>
<th>Creativity self-rated (β)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Team size</td>
<td>0.01</td>
<td>0.47</td>
</tr>
<tr>
<td>Team tenure</td>
<td>0.21</td>
<td>0.24</td>
</tr>
<tr>
<td>Logistical conflict</td>
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<td>0.21</td>
</tr>
<tr>
<td>Logistical conflict * Avoiding</td>
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</tr>
<tr>
<td>R²</td>
<td>0.241</td>
<td>0.372</td>
</tr>
<tr>
<td>ΔR²</td>
<td>0.005</td>
<td>0.066</td>
</tr>
</tbody>
</table>

(N=22) *p<0.05, **p<0.01, ***p<0.001, *p<0.10
Appendix 6: Relationship between intragroup conflict and team creativity, moderated by team leader’s conflict beliefs

Table 24. Hierarchical regression of the interaction effect of task conflict and leader’s conflict beliefs on team creativity

<table>
<thead>
<tr>
<th>Step 1: Control variables</th>
<th>Creativity leader (β)</th>
<th>Creativity self-rated (β)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Team size</td>
<td>0.06</td>
<td>0.35</td>
</tr>
<tr>
<td>Team tenure</td>
<td>0.14</td>
<td>0.04</td>
</tr>
<tr>
<td>Task interdependence</td>
<td>0.43*</td>
<td>0.07</td>
</tr>
<tr>
<td>R²</td>
<td>0.21</td>
<td>0.133</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Step 2: Linear effect</th>
<th>Creativity leader (β)</th>
<th>Creativity self-rated (β)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Team size</td>
<td>-0.03</td>
<td>0.24</td>
</tr>
<tr>
<td>Team tenure</td>
<td>0.20</td>
<td>0.22</td>
</tr>
<tr>
<td>Task interdependence</td>
<td>0.26</td>
<td>0.05</td>
</tr>
<tr>
<td>Task conflict</td>
<td>0.09</td>
<td>-0.21</td>
</tr>
<tr>
<td>Conflict beliefs</td>
<td>-0.49*</td>
<td>-0.50*</td>
</tr>
<tr>
<td>R²</td>
<td>0.418</td>
<td>0.336</td>
</tr>
<tr>
<td>ΔR²</td>
<td>0.209*</td>
<td>0.203</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Step 3: Interaction effect</th>
<th>Creativity leader (β)</th>
<th>Creativity self-rated (β)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Team size</td>
<td>0.00</td>
<td>0.31</td>
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<tr>
<td>Team tenure</td>
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<td>0.23</td>
</tr>
<tr>
<td>Task interdependence</td>
<td>0.28</td>
<td>0.09</td>
</tr>
<tr>
<td>Task conflict</td>
<td>0.07</td>
<td>-0.24</td>
</tr>
<tr>
<td>Conflict beliefs</td>
<td>-0.47*</td>
<td>-0.46*</td>
</tr>
<tr>
<td>Task conflict * Conflict beliefs</td>
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</tr>
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<td>ΔR²</td>
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</table>

Table 25. Hierarchical regression of the interaction effect of task conflict and leader’s conflict beliefs on team creativity (curvilinear)

<table>
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<tr>
<th>Step 1: Control variables</th>
<th>Creativity leader (β)</th>
<th>Creativity self-rated (β)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Team size</td>
<td>0.06</td>
<td>0.35</td>
</tr>
<tr>
<td>Team tenure</td>
<td>0.14</td>
<td>0.04</td>
</tr>
<tr>
<td>Task interdependence</td>
<td>0.43*</td>
<td>0.07</td>
</tr>
<tr>
<td>R²</td>
<td>0.21</td>
<td>0.133</td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th>Step 2: Linear effect</th>
<th>Creativity leader (β)</th>
<th>Creativity self-rated (β)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Team size</td>
<td>-0.03</td>
<td>0.24</td>
</tr>
<tr>
<td>Team tenure</td>
<td>0.20</td>
<td>0.22</td>
</tr>
<tr>
<td>Task interdependence</td>
<td>0.26</td>
<td>0.05</td>
</tr>
<tr>
<td>Task conflict</td>
<td>0.09</td>
<td>-0.21</td>
</tr>
<tr>
<td>Conflict beliefs</td>
<td>-0.49*</td>
<td>-0.50*</td>
</tr>
<tr>
<td>R²</td>
<td>0.418</td>
<td>0.336</td>
</tr>
<tr>
<td>ΔR²</td>
<td>0.209*</td>
<td>0.203</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Step 3: Curvilinear effect</th>
<th>Creativity leader (β)</th>
<th>Creativity self-rated (β)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Team size</td>
<td>0.18</td>
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<td>Team tenure</td>
<td>0.20</td>
<td>0.22</td>
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<tr>
<td>Task interdependence</td>
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<td>0.02</td>
</tr>
<tr>
<td>Task conflict</td>
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<td>3.7</td>
</tr>
<tr>
<td>Conflict beliefs</td>
<td>-0.38*</td>
<td>-0.39</td>
</tr>
<tr>
<td>Task conflict²</td>
<td>-4.05*</td>
<td>-3.99</td>
</tr>
<tr>
<td>R²</td>
<td>0.518</td>
<td>0.432</td>
</tr>
<tr>
<td>ΔR²</td>
<td>0.099*</td>
<td>0.097</td>
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</table>

<table>
<thead>
<tr>
<th>Step 4: Interaction effect</th>
<th>Creativity leader (β)</th>
<th>Creativity self-rated (β)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Team size</td>
<td>0.13</td>
<td>0.35</td>
</tr>
<tr>
<td>Team tenure</td>
<td>0.25</td>
<td>0.31</td>
</tr>
<tr>
<td>Task interdependence</td>
<td>0.28</td>
<td>0.13</td>
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<tr>
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<td>Conflict beliefs</td>
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<td>-0.07</td>
</tr>
<tr>
<td>Task conflict²</td>
<td>-3.10</td>
<td>-2.19</td>
</tr>
<tr>
<td>Task conflict² * Conflict beliefs</td>
<td>-0.29</td>
<td>-0.55</td>
</tr>
<tr>
<td>R²</td>
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</tr>
<tr>
<td>ΔR²</td>
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</tr>
</tbody>
</table>

(N=22) *p<0.05, **p<0.01, ***p<0.001, *p<0.10
**Table 26. Hierarchical regression of the interaction effect of logistical conflict and leader’s conflict beliefs on team creativity**

<table>
<thead>
<tr>
<th>Step 1: Control variables</th>
<th>Creativity leader</th>
<th>Creativity self-rated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Team size</td>
<td>0,06</td>
<td>0,35</td>
</tr>
<tr>
<td>Team tenure</td>
<td>0,14</td>
<td>0,04</td>
</tr>
<tr>
<td>Task interdependence</td>
<td>0,43*</td>
<td>0,07</td>
</tr>
<tr>
<td>R²</td>
<td>0,21</td>
<td>0,133</td>
</tr>
</tbody>
</table>

**Step 2: Linear effect**

| Task interdependence      | -0,09             | -0,47*                |
| Conflict beliefs          | -0,50*            | -0,45*                |
| R²                        | 0,419             | 0,461                 |
| ΔR²                       | 0,209*            | 0,328*                |

**Step 3: Interaction effect**

| Task interdependence      | -0,05             | 0,36                  |
| Conflict beliefs          | 0,26              | 0,31                  |
| Logistical conflict       | -0,05             | -0,53*                |
| Conflict beliefs          | -0,55*            | -0,36                 |
| Logistical conflict * Conflict beliefs | -0,10            | 0,18                  |
| R²                        | 0,427             | 0,484                 |
| ΔR²                       | 0,008             | 0,023                 |

(N=22) *p<0.05, **p<0.01, ***p<0.001, ^p<0.10

**Table 27. Hierarchical regression of the interaction effect of contribution conflict and leader’s conflict beliefs on team creativity**

<table>
<thead>
<tr>
<th>Step 1: Control variables</th>
<th>Creativity leader</th>
<th>Creativity self-rated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Team size</td>
<td>0,06</td>
<td>0,35</td>
</tr>
<tr>
<td>Team tenure</td>
<td>0,14</td>
<td>0,04</td>
</tr>
<tr>
<td>Task interdependence</td>
<td>0,43*</td>
<td>0,07</td>
</tr>
<tr>
<td>R²</td>
<td>0,21</td>
<td>0,133</td>
</tr>
</tbody>
</table>

**Step 2: Linear effect**

| Contribution conflict     | -0,12             | -0,65**               |
| Conflict beliefs          | -0,50*            | -0,46*                |
| R²                        | 0,424             | 0,601                 |
| ΔR²                       | 0,215*            | 0,468**               |

**Step 3: Interaction effect**

| Contribution conflict     | -0,12             | 0,07                  |
| Conflict beliefs          | 0,435             | 0,605                 |
| R²                        | 0,01              | 0,004                 |

(N=22) *p<0.05, **p<0.01, ***p<0.001, ^p<0.10