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## **Team composition and conflict : the role of individual differences**

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# **Team Composition and Conflict**

The Role of Individual Differences

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# Contents

1	Team Composition and Conflict: An Introduction	4
	A Historical Perspective	
	New Pathways in Research	
	Towards a New Framework	
2	Overview of the Present Dissertation	16
3	Individual Conflict Engagement	21
	Methods	
	Results	
	Discussion	
4	The Effect of Team Composition on Conflict Engagement	58
	Study 1	
	Study 2	
	Study 3	
5	Perceptions and Realities of Team Composition and Conflict	102
	Methods	
	Results	
	Discussion	
6	Power as a Determinant of Team Composition and Conflict	134
	Study 1	
	Study 2	
7	General Discussion	162
	References	184
	Nederlandse Samenvatting	220
	Acknowledgements	225
	Curriculum Vitae	226
	KLI Dissertation Series	227

# Chapter 1

## Team Composition and Conflict: An Introduction

Teams are a fundamental component of modern organizational structures (Devine, Clayton, Phillips, Dunford, & Melner, 1999; Mathieu, Marks, & Zaccaro, 2001). As such, understanding their dynamics is imperative for organizational performance. However, despite more than 50 years of research on teams, much still remains to be known (cf. Kozlowski & Ilgen, 2006). Two topics central to teams which have revealed some of the most contradictory findings are team composition and conflict. While researchers have long extolled the potential value for teams of diverse compositions and associated cognitive conflicts (e.g., Hoffman, 1959; Hoffman & Maier, 1961; Levine & Resnick, 1993; Triandis, Hall, & Ewan, 1965), findings on the actual effects of diversity and conflict have been decidedly mixed (for reviews, see Harrison & Klein, 2007; Jehn & Bendersky, 2003; Jehn, Greer & Rupert, 2008; Mannix & Neale, 2005; Kochan et al., 2003; Van Knippenberg & Schippers, 2007; Williams & O'Reilly, 1998). Therefore, the aim of this dissertation is to provide a more nuanced view of our understanding of these concepts – specifically, by focusing on individual differences in perceptions of team composition and conflict and by bringing more attention to the effects of traditionally understudied forms of team composition – status and power differences in teams.

In this chapter, I will provide an overview of the state of the field for both team composition and intragroup conflict and use this to lay the groundwork for the new theoretical approach to team composition and conflict research proposed in this dissertation. I will first reflect on past theories and findings in the interrelated fields of team composition and conflict. I will then use this review to move forward towards what I identify in my dissertation as

the key to understanding these two concepts – namely, the role of individual differences in teams. Teams are defined as groups of more than two members in which members recognize themselves as a group (and are recognized as such by others), have measurable tasks, and function within an organization (Hackman, 1987). In my dissertation, I investigate the effects of team composition and conflict for team and individual outcomes, such as performance and the quality of the team environment. These outcomes are in line with classic definitions of team effectiveness – team effectiveness can be defined as consisting of team-produced outputs (i.e. team performance), the consequences a team has for its members (i.e. individual performance or satisfaction), and the ability of the team to continue working together in the future (Guzzo & Dickson, 1996; Hackman, 1987). In the ensuing sections, I will provide an overview of existing theory and research on team composition and conflict and their effects on team outcomes. I will then highlight both theoretical and methodological shortcomings in these fields that may have contributed to past contradictory findings and underspecified theories. Finally, I will discuss how by viewing teams as consisting of individuals with potentially divergent cognitions and behaviors we may gain a more accurate understanding of the effects and dynamics of team composition and conflict.

The primary purpose of this chapter is to show how many inconsistencies in past theory and research on group composition and conflict can be resolved and understood through this focus on the role of individual differences within teams. I argue that by taking a more multi-level theoretical perspective in examinations of team composition and conflict, researchers may better understand the processes and outcomes associated with these constructs. I believe that by taking into account how individuals differ, we may be able to come to a better understanding of how individuals are similar, and thus how team-level constructs, such as team composition or conflict, may come to exist and shape team processes and outcome.

### **A Historical Perspective of Research on Team Composition and Conflict**

Diversity in teams has been defined as the distribution of differences among team members on any characteristic which team members might use to describe how they and other members are different (cf. Harrison & Klein, 2007; Jehn, Greer & Rupert, 2008; Mannix & Neale, 2005; Williams &

O'Reilly, 1998). When examining diversity as a team-level construct, most past research has focused on diversity as a form of heterogeneity, or variety (cf. Harrison & Klein, 2007). In predicting the effects of team diversity, or specifically team heterogeneity, on team outcomes, scholars have drawn on two competing lines of theories. On the one hand, scholars have proposed that diversity can benefit team outcomes through increased information processing – i.e. the “value in diversity” hypothesis (Cox, Lobel, & McLeod, 1991). Scholars in this line of thought believe that diversity brings with it an associated diversity of thought and opinion that can lead to more creative and innovative solutions to group problems than possible in homogenous groups (e.g., Levine & Resnick, 1993; Triandis, Hall, & Ewan, 1965). On the other hand, another line of thought exists when explaining the effects of diversity on team outcomes. This line of thought, which draws on the similarity-attraction paradigm (Byrne, 1971), suggests that because people are attracted to similar others, diversity in a team may undermine group cohesion. When team members also perceive other members as being diverse and representative of different groups or categories than themselves, theories of self-categorization and social identity (Tajfel, 1978; Tajfel & Turner, 1979; Tajfel & Turner, 1986; Turner, 1985; for reviews, see Ellemers, Haslam, Platow, & Van Knippenberg, 2003; Ellemers, Spears, & Doosje, 2002; Haslam, 2001) suggest that diversity in teams may elicit hostilities and intergroup competition, which may detract from team performance. However, the degree to which these effects emerge is heavily contingent on the situational context.

Despite over 50 years of research on the effects of diversity on team outcomes, recent reviews of the diversity literature suggest that there are few consistent findings of the effects of diversity on team outcomes (e.g. Bell, 2007; Horwitz & Horwitz, 2007; Jackson, Joshi, & Erhardt, 2003; Van Knippenberg & Schippers, 2007; Williams & O'Reilly, 1998). Many studies have found team heterogeneity to positively affect team outcomes (e.g., Bantel & Jackson, 1989; Gruenfeld et al., 1996; Hoffman, 1959; Hoffman & Maier, 1961; Nemeth, 1986; Stasser et al., 1995; Watson et al., 1993), while many other studies have found team heterogeneity to negatively affect team functioning and outcomes (e.g., Drach-Zahavy & Freund, 2007; O'Reilly et al., 1989; Wagner, Pfeffer & O'Reilly, 1984). Indeed, several recent meta-analyses of the diversity literature show that diversity has little, if any,

consistent effect on team outcomes (Horwitz & Horwitz, 2007; Stewart, 2006; Webber & Donahue, 2001).

In an effort to better understand the effects of diversity on team outcomes, researchers suggested that the type of diversity might determine its effects on team outcomes. Scholars suggested that informational diversity, such as diversity stemming from educational background or work function, might give rise to increased work-related information processing without negative categorizations, whereas social category diversity (or 'visible' diversity, such as diversity in gender, race, or age) might be more likely to give rise to in-group/out-group hostilities (cf. Jehn, Northcraft, & Neale, 1999; Pelled, 1996; Pelled, Eisenhardt, & Xin, 1999). Therefore, informational diversity was expected to have positive effects on team outcomes, whereas social category diversity was expected to have negative effects on team outcomes. However, research has yet to support these predictions – results continue to be contradictory (for reviews, see Jackson, Joshi, & Erhardt, 2003; Mannix & Neale, 2005; Van Knippenberg & Schippers, 2007; Williams & O'Reilly, 1998)

In another, related, line of research which has also sought to better understand the effects of diversity on team outcomes, scholars have proposed that diversity may be best understood through its effects on different team processes – i.e. by opening the 'black box' (e.g., Hoffman, 1959; Jehn, Northcraft, & Neale, 1999; Lawrence, 1997; Pelled, 1996; Pelled, Eisenhardt, & Xin, 1999). One of the most commonly examined processes in teams is conflict. Conflict is defined as the process arising from perceived incompatibilities or differences between team members (Boulding, 1962; De Dreu, Harinck, & Van Vianen, 1999; Thomas, 1992; Wall & Callister, 1995). In the team context, three primary types of conflict have been identified – task, relationship, and process conflicts (Jehn, 1997). Task conflict concerns disagreements between group members about ideas and opinions relating to the task, such as disagreements about defining project goals (e.g., De Dreu & Weingart, 2003; Jehn, 1995, 1997). Relationship conflict, in contrast to task conflict, stems from non-work related issues between members, such as value differences or personality conflict (e.g., De Dreu & Weingart, 2003; Jehn, 1995, 1997). Process conflicts, a third type of within team-disagreements, are concerned with the logistical matters in teams, such as the delegation and



allocation of resources (e.g., Greer & Jehn, 2007; Jehn, 1997; Jehn et al., 1999). Theoretically, task-related conflicts have been suggested to improve team performance through an increased cognitive processing of task-related information, while process and relationship conflicts have been suggested to detract from team performance because of increased emotionality and distraction from the task at hand (e.g., Jehn, 1997; Jehn et al., 1999; Pelled et al., 1999). A meta-analysis in 2003 (De Dreu & Weingart, 2003) put a damper on this debate by showing that all forms of conflict were negative for team performance. However, in the seven years since the data collection for this meta-analysis ended, numerous studies have come out showing that task conflict may have a positive effect on team outcomes (e.g., Ensley & Hmieleski, 2005; Ensley, Pearson, & Sardeshmukh, 2007; Greer, Jehn, Thatcher, & Mannix, 2008; Leslie, 2007; Liang, Liu, Lin, & Lin, 2007; Matsuo, 2006; Olson, Parayitam & Dooley, 2007; Van der Vegt & Bunderson, 2005). Indeed, a recent meta-analysis including these new works shows that task conflicts may indeed be beneficial to team performance under certain conditions, whereas relationship and process conflicts are generally always negative for team performance (De Wit, Greer, & Jehn, 2007). The contexts conducive for positive task conflicts include highly complex tasks as well as teams who can experience task conflict without experiencing relationship conflicts. This latter finding has long been theoretically supported by a stream of literature which has suggested that the benefits of task conflict may be best gained from understanding how to de-couple relationship conflicts from task conflicts (e.g., Greer, Jehn, & Mannix, 2008; Peterson & Behfar, 2003; Simons & Peterson, 2000).

In terms of conflict's role in explaining the effects of diversity on team outcomes, the initial findings look promising. For example, a study by Jehn et al. (1999) of 92 workgroups found that task conflict fully mediated the relationship between informational diversity and team performance. Relatedly, Pelled et al. (1999) found task conflict to mediate the relationship between functional diversity and team outcomes, while relationship conflict mediated the relationship between racial diversity and team outcomes. A recent study by Vodosek (2007) of 76 science research groups found that relationship conflict fully mediated the relationship between cultural diversity and group outcomes. However, not all studies have shown support for this relationship – some

research has not found conflict to mediate the relationship between certain types of team diversity and outcomes (e.g., O'Reilly, Williams, & Barsade, 1997), and other research has even shown theoretically unexpected effects, such as finding functional forms of diversity to be positively related to relationship conflict (e.g., Knight et al., 1999). Therefore, while there seems to be some support for the role of conflict in helping to explain the effects of team composition on team outcomes, the relationship needs to be further examined and new theoretical explanations developed. In the next section, I will discuss new pathways researchers are taking to understand the relationships between team composition, conflict, and team outcomes, and then I will conclude by focusing on the specific new pathway introduced and investigated in the present dissertation.

### **New Pathways in Research on Team Composition and Conflict**

One promising new pathway that may help better explain the complicated relationships between team composition, conflict, and team outcomes is the concept of demographic faultlines. Demographic faultlines are hypothetical dividing lines within a team formed on the basis of the alignment of demographic characteristic(s) (Lau & Murnighan, 1998), such as in a team containing two white female employees and two black male employees. Researchers investigating demographic faultlines suggest that diversity and team composition may be best understood by looking at how differences in a team lead to subgroup formation, or coalitions, rather than by just looking at the overall level of differences in the team (Lau & Murnighan, 1998). However, in the 10 years since demographic faultlines were introduced as an explanatory concept in research on group composition, results on the effects of faultlines have been as contradictory as past research on team heterogeneity. For example, some studies have found faultlines to improve team processes and/or performance (Gibson & Vermeulen, 2003; Homan, Van Knippenberg, Van Kleef, & De Dreu, 2007a; Lau & Murnighan, 2005; Thatcher, Jehn, & Zanutto, 2003) while other studies have found faultlines to harm team processes and performance (Barkema & Shvyrkov, 2007; Hart & Van Vugt, 2006; Homan, Van Knippenberg, Van Kleef, & De Dreu, 2007b; Homan et al., 2008; Li & Hambrick, 2005; Molleman, 2005; Pearsall, Ellis, & Evans, 2008; Polzer et al., 2006; Rico, Molleman, Sanchez-Manzanares, & Van der Vegt,

2007; Sawyer, Houlette, & Yeagley, 2006). In explaining how demographic faultlines impact team dynamics and performance, social identity and self-categorization theories (Tajfel, 1978; Tajfel & Turner, 1979; Tajfel & Turner, 1986; Turner, 1985; for reviews, see Ellemers, Haslam, Platow, & Van Knippenberg, 2003; Ellemers, Spears, & Doosje, 2002; Haslam, 2001) are often employed (cf. Mannix & Neale, 2005). Social categorization theory posits that individuals classify themselves and others into social categories. This process may lead to in-group favoritism and out-group hostility (Turner, 1987), including such behaviors as out-group derogation. However, given the contradictory results thus far in faultline research, there is not yet a clear answer as to when faultlines incite negative categorizations and behaviors that detract from performance or competitive, task-oriented subgroups who improve team learning and performance.

Another promising new pathway in understanding the relationships between team composition, conflict, and team outcomes is research on the perceptions relating to team composition and conflict. As discussed, research which has looked at group-level conceptualizations of diversity and conflict has often assumed that every member in the team has the same perceptions about the team's composition and conflict. This is in spite of the fact that many of the theories used to explain the relationship between team composition, conflict, and performance are contingent on whether individuals perceive their differences – i.e. social-identity theory and self-categorization theory (Byrne, 1971; Tajfel, 1978; Tajfel & Turner, 1979; Tajfel & Turner, 1986; Turner, 1985; for reviews, see Ellemers et al., 2003; Ellemers et al., 2002; Haslam, 2001). This lack of attention to the role of individual perceptions regarding team composition and conflict may explain past contradictory findings. For example, perhaps individuals in the team do not always perceive the form of diversity being researched in their team to be salient. Researchers may investigate the impact of the gender diversity on team outcomes; however, in actuality, differences relating to organizational tenure may be much more salient in the team and may be shaping more of the team members' behaviors. Indeed, Lawrence (1997) was one of the first to suggest that the effects of objective demographic characteristics may be contingent on the perception of these differences as making a difference. Therefore, identifying whether the form of diversity being investigated is

salient to team members or not may provide a more reliable means of understanding the effects of team heterogeneity (Harrison, Price, & Bell, 1998; Randel, 2002) and faultlines (Jehn, Bezrukova, & Thatcher, 2007). For example, in a team containing two black engineers and two white consultants, when members perceive the differences between themselves to be stemming from job function, this may lead to fundamentally different dynamics than when the members perceive a divide in the team based on race.

These same aspects of perception may also apply to the effects of team conflicts. Research on team conflict has often assumed that all members in the team find the conflict to be equally salient and overlooked the fact that different members in the team may perceive the conflict differently (c.f. Jehn & Chatman, 2000; Jehn, Rupert, & Nauta, 2006). This is in spite of the fact that the classic study by Murnighan and Conlon (1991) noted that the more dysfunctional string quartets in their sample had divergent views about the nature of the conflict in their groups. New research on the idea of asymmetric conflict perceptions is indeed showing that understanding individual differences in perception (and associated feelings and behaviors) regarding conflict situations may shed more light on the effects of intragroup conflict on team outcomes (Jehn & Chatman, 2000; Jehn & Rispens, 2007). Therefore, better understanding how individuals in a team view the composition of the team and team conflicts may offer much insight into the effects of team composition, conflict, and performance.

### **Towards a New Framework for Understanding Team Composition and Conflict**

In this dissertation, I propose that one of the primary reasons for past contradictory findings in the fields of team composition and conflict is that it has been too often assumed that members within the same team will have similar cognitions, experiences, and behaviors relating to team composition and conflict. For example, in research on team composition, most research has focused on objective measures of diversity – such as the proportion of females in the team – and looked at the effect of this on team outcomes, without questioning whether or not all members of the team perceive the team to be diverse on that characteristic or not (for notable exceptions, see Harrison, Price, & Bell, 1998; Hobman, Bordia, & Gallois, 2003, 2004; Randel, 2002;

Rink & Ellemers, 2007; Van der Vegt & Van de Vliert, 2005). Relatedly, research on intragroup conflict has also often ignored the possibility that not all members in the team may perceive or engage in the conflict equally. This has occurred in spite of the fact that research has shown individuals even in the same team may have very different perceptions and behaviors (e.g., Chatman & O'Reilly, 2004; Jehn & Chatman, 2000; Jehn, Rupert, & Nauta, 2006; Klein & House, 1995). Imagine, for example, a team composed of two female engineers and two male consultants. The team members are experiencing a conflict over their project; they are having trouble agreeing on which member should be responsible for which task. Past research on diversity (heterogeneity), faultlines, and conflict would view this team as being a moderately diverse team with a strong demographic faultline and high level of process conflict. However, what if all the team members are Chinese and working on a project in the United States? In such a situation, their national identity (and thus similarity) may be more salient than their functional differences, implying that their functional differences may not be affecting team functioning. Furthermore, in terms of the conflict, perhaps only a few of the members perceive their assignments as unfair or inappropriate. If only two of the members perceive a conflict, would this be a different dynamic than a team where all four members were equally embroiled in the conflict? In this dissertation, I propose that the answer to this question is, "Yes". Differences in individual perceptions and behaviors may dramatically alter the relationships between team composition, conflict, and team outcomes.

While past research suggests that members within the same team or organization may have different perceptions of group composition (e.g., Chatman & O'Reilly, 2004; Ely, 1995; Harrison, Price, & Bell, 1998), still little research has been done to investigate the impact of these potentially divergent perceptions on team processes and performance. This is surprising, as research has shown perceived differences to have a larger effect on dyadic outcomes than actual differences (Orpen, 1984; Strauss, Barrick, & Connerley, 2001; Turban & Jones, 1988). Lawrence (1997) was one of the first in the organizational literature to suggest that the effects of objective demographic characteristics may be contingent on the perception of these differences as making a difference, but still scant attention has been paid to the idea that differences may only make a difference when they are perceived. Therefore,

one of the primary aims of this dissertation is to identify how individuals perceive team composition and conflict, how these perceptions and related behaviors may vary within the same team, and what this means for team and individual outcomes.

A second focus of this dissertation, in addition to the focus on individual differences in perceptions and behaviors, is in incorporating understudied but theoretically relevant factors affecting team composition in developing theory to explain the effects of team composition on conflict and team outcomes. I specifically focus on power structures as being important factors shaping team composition. Power in the team setting – social power – is defined as the ability to influence others through the allocation of resources and punishments (French & Raven, 1959; Keltner, Gruenfeld, & Anderson, 2003; Keltner, Van Kleef, Chen & Kraus, 2008; Lewin, 1951). A closely related construct is status, or the social value of a person or group (Boldry & Gaertner, 2006). Status is determined by the evaluation of attributes which produce differences in respect, prominence, and influence (Keltner et al., 2003; Anderson et al., 2006). Status is often a primary determinant of resource allocations in groups, and therefore power in groups (French & Raven, 1959). Indeed, past research has shown that power and status are often closely intertwined, such that those high in status are also high in power (e.g., Anderson & Berdahl, 2002; Guinote, Judd, & Brauer, 2002; Hewstone, Rubin, & Willis, 2002; Ridgeway, 1991, 1997; Sidanius & Pratto, 1999). Another closely related concept, and potential antecedent of power, is relative group size (Ebenbach & Keltner, 1998; Guinote, 2004; Ng, 1982). Groups that have numerically more members - i.e. majority groups - tend to have more power (Guinote et al., 2002). For example, in a team with five engineers and one accountant, the engineers would likely have more power within the team than the accountant because of their advantage in having more members similar to themselves. At a societal level, certain demographic characteristics are said to be associated with higher levels of power in society because there are more members with that demographic characteristic - i.e. their group is the majority group. Wolf and Latane (1985) propose that social power, status, and relative group size are closely interrelated and likely to have equivalent effects. While exceptions can be noted (i.e. an illegitimate leader who has power, but low status), in general, power, status, and group size tend to be highly correlated

(Guinote et al., 2002). As a result, many scholars often use these concepts, especially the concepts of power and status interchangeably, as both concepts result in influence (Anderson & Spataro, 2005), especially in existing groups and hierarchies (Boldry & Gaertner, 2006) such as those examined in this dissertation. Therefore, in this dissertation, to avoid using multiple terms for the same phenomenon, I will only use the term 'power' to refer to the ability to influence others. In my dissertation, I will examine power as stemming from each of these potential antecedents - social power, status, and group size - and in the general discussion of this dissertation, I will discuss the implications of my findings for future research on power. A last, related concept to this discussion is influence. The ways in which those with power influence others has been investigated in the literature on influence tactics (e.g., Kipnis, Schmidt, & Wilkinson, 1980; Yukl & Falbe, 1990; Yukl & Tracey, 1992). This literature has looked at the different tactics that individuals may take when influencing others, such as tactics which rely on coercion or tactics which rely on ingratiation. In my dissertation, I will look not only at the effects of power, but at the effects of the exertion of power - i.e. the use of influence - on team composition, conflict, and team performance.

As a recent review of the team composition literature points out, the role of power differences in affecting team composition has been dramatically understudied, especially compared to the vast amount of attention which has been given to other differences in team composition such as gender or race (cf. Mannix & Neale, 2005). While Ely (1995) found that the balance of power was critical in understanding the effects of team gender composition, scant other research has incorporated power in theories of team composition and conflict. This in spite of the fact that evidence suggests that power hierarchies are inevitable – no society, organization, or team can exist over time without one (Sidanius, 1993). Indeed, classic work in social psychology suggests that power is an element of virtually all social interactions (Fiske, 1993). Therefore, understanding how power differences shape team composition and conflicts may help resolve past contradictory findings in these fields. This is line with a recent call to arms by Mannix and Sauer (2006) who propose that an understanding of power and hierarchy is critical in understanding team dynamics and performance. Therefore, when probing individual differences in perceptions and behaviors relating to team composition and conflict,

understanding the effects of power dynamics in the team is critical.

The central goal of this dissertation is thus to tie together these two key themes – the role of differences in individual perceptions and behaviors and the role of power differences in teams – to create a framework which will allow for a better understanding of the relationships between team composition, conflict, and team outcomes. I will explore these relationships using multiple methods, including field (survey, quasi-experiment, interviews, and observation), laboratory, and archival methods of research. In the following chapter, I will outline the different studies of this dissertation which each advance new theories and frameworks to incorporate the role of individual differences and the role of power in understanding team composition and conflict.



# Chapter 2

## Overview of the Present Dissertation

The effects of team composition and conflict on team outcomes have been largely contradictory (for reviews, see Jackson, Joshi, & Erhardt, 2003; Jehn & Bendersky, 2003; Mannix & Neale, 2005; Van Knippenberg & Schippers, 2007; Williams & O'Reilly, 1998). I suggest that this may be due to a lack of attention to two key factors. First of all, I address the issue in this dissertation that within teams, individual members may have very different cognitions and behaviors. I look at the implications of this for research on team composition and conflict, including identifying reasons why individual cognitions and behaviors relating to team composition and conflict may differ, and examining the effects of individual differences in cognitions and performance on individual and team processes and performance. A second main focus, and contribution, of this dissertation is incorporating the role of power differences in theory and research on team composition and conflict. I will describe below how each of the studies in this dissertation serves these two primary goals and how this will help our understanding of the effects of team composition and conflict.

### **Chapter 3: Individual Conflict Engagement**

In the first empirical chapter of this dissertation, I investigate how individual differences in conflict situations may affect individual outcomes. I build upon research which has suggested that individual perceptions of conflict may vary between individuals of the same team (e.g., Jehn & Chatman, 2000; Jehn et al., 2006) by looking at how individual conflict behaviors may also vary. I develop theory to suggest that not all individuals engage in every conflict. I then examine in depth the consequences for individuals who do choose to engage in conflict. I propose that the effects of the choice to engage in conflict or not are contingent upon the type of conflict

in which the individual engages, the conflict tactics the individual uses, and the individual's verbal style. I incorporate the literatures on power and influence by developing a new framework of conflict tactics that specifically looks at how individuals utilize power and influence in conflict situations to achieve desired outcomes. I draw upon the influence tactic framework developed by Kipnis and Schmidt (1985, 1988) and apply it to conflict behaviors. I suggest that certain influence tactics may be more effective than others in certain conflict situations, such as in conflicts about the task versus conflicts about relationships. I examine these hypotheses utilizing an archival sample of 3000+ emails from activist organizations collected over a period of three years.

#### **Chapter 4: Effects of Team Composition on Conflict Engagement**

In the previous chapter, I introduced the concept of conflict engagement and examined its effects on individual outcomes. In the current chapter, I examine the antecedents of team and individual conflict engagement. I look at how an individual's power and status in a team may affect the degree to which the individual engages others in conflict and the degree to which the team as a whole comes to have conflicts. I draw on research on the proportional representation of minorities (e.g., Ely, 1994; Kanter, 1977), which has suggested that numerical representation may serve as a proxy for power in the team and organizational settings. I integrate this thinking with past research and theory on demographic faultlines, which has suggested that numerical imbalances in faultline situations, such as in a team with five male engineers and one female consultant, may have an important impact on team processes and outcomes (Lau & Murnighan, 1998). In doing so, I develop a new distinction in faultline research - the concept of faultline placement - whether the faultline divides two subgroups (faultline coalitional split) or separates a single member from a larger subgroup (faultline solo split). I examine how the power dynamics associated with faultline placement affect team and individual conflict engagement and performance, and I also look at how demographic status moderates these effects. I examine these ideas across three studies, including both laboratory and field data.

### **Chapter 5: Perceptions and Realities Surrounding Team Composition**

In this chapter, I examine the role of cognition in team composition and diversity research. While the commonly used theories in this field, such as social identity theory or self-categorization theory (Tajfel, 1978; Tajfel & Turner, 1979; Tajfel & Turner, 1986; Turner, 1985; for reviews, see Ellemers et al., 2003; Ellemers et al., 2002; Haslam, 2001), are specified to be contingent on the perception of diversity, most research on team composition has overlooked the role of perception. Therefore, in a multi-method field study, using surveys with both quantitative and qualitative questions, interviews, and observation, I investigate the most commonly perceived forms of faultlines, or subgroup divides, within teams, and then look at the consequences of these perceptions for team conflict and performance. I utilize both qualitative and quantitative data to investigate whether the *perception* of team composition may be what ‘drives’ the primary effects of diversity on team process and outcomes. In addition to looking at the degree to which members perceive themselves to be divided into subgroups, I suggest that the basis on which members perceive these faultlines to exist may also be of impact. In doing so, I provide one of the first investigations of the bases on which work team members perceive faultlines to exist. I employ the concept mapping technique of Jackson and Trochim (2002) to identify the most common bases that people perceive faultlines to exist on within their workgroup (e.g., job function, status, or nationality). One of the advantages of this technique is that it allowed me to utilize open-ended questions to test the degree to which organizational team members cite traditionally studied demographic characteristics (e.g., race, gender) or other forms of team differences (e.g., status or power differences) as factors they perceive as most salient in shaping their team composition. I then examine how the base on which members perceive a faultline to exist can further exacerbate or ameliorate the effects of faultline strength on intersubgroup conflict and team dynamics. In addition to identifying the type and strength of faultline perceptions, I also look at the role of (a)symmetry in members’ perceptions of faultlines and propose that disagreement between members on the existence of faultlines within the team can exacerbate the effects of perceived faultline strength on intersubgroup conflict. I examine these hypotheses in a field study of 46 pre-existing organizational teams.

### **Chapter 6: Power as a Determinant of Team Composition**

After finding support in the previous chapters for my initial proposition at the start of this dissertation that differences in social power may play an important role in defining team composition, I examine in-depth in Chapter 6 the dynamics associated with power hierarchies in teams. I investigate how team power composition affects team conflict and performance across two field studies. In the first study, I examine the differences between high and low power teams in conflict and performance in the organization. In a second, quasi-experimental field study, I then systematically compare existing high-power to low-power organizational teams on a decision-making task. Additionally, in this study, in line with the central proposition of this dissertation that individual differences in perception of composition matter, I also incorporate theory which suggests that the effects of team power may be dependent on differences between individual members' perceptions of the power hierarchy within the team. Specifically, I examine whether the negative effects of high power are attenuated when members' perceptions of the power balance *within* the high power team are congruent with each other – i.e. when individuals share the same cognitions regarding the relative power of the members within their team.

### **Chapter 7: Summary and General Discussion**

Chapter 7 entails a summary and overview of the empirical chapters in this dissertation. The chapter also outlines a theory for the future study of perceptual and behavioral differences in teams over time.

To conclude, the central goal of this dissertation is to demonstrate how by taking into account a) individual differences in perceptions and behaviors and b) power differences, we may gain a more complete understanding of the relationships between team composition, conflict, and performance. I develop theory in each of these chapters to explain how individual differences and power differences may impact team composition, conflict, and performance, and investigate these relationships using a variety of methods. I hope with this dissertation to therefore provide a new framework to understand the relationships between team composition, conflict, and performance. As an important ending note, all chapters in this dissertation may be read

independently of each other, as the empirical chapters in this dissertation have been prepared as separate journal articles.

## Chapter 3

# Individual Conflict Engagement: Can Verbal Style and Influence Tactic Usage Improve the Performance of Individuals Engaging in Conflicts in Large Online Teams?

*Based on Greer & Jehn (2008a)*

Conflict is a fundamental aspect of organization life. To assess its consequences for teams and organizations, researchers have accumulated a wealth of knowledge on the group-level dynamics and effects of conflict in the organizational setting (for reviews, see De Dreu & Weingart, 2003; Jehn & Bendersky, 2003). However, recent work suggests that not all group members may experience, or engage in, group processes equally (Bliese & Halverson, 1998; Jehn & Chatman, 2000; Jehn, Rupert, & Nauta, 2006; Jehn & Rispens, 2007; Klein & House, 1995). Conflict therefore may not be an entirely group-level phenomenon. Rather, certain individuals may more actively engage in conflict than others. However, research has yet to assess the repercussions of differences in individual levels of *engagement* in conflict. Therefore, in this study, we examine how an individual's engagement in conflict affects the individual's performance in the group, and we also examine how this relationship may differ depending on how the individual communicates in the conflict situation, the tactics the individual chooses to use, and the type of conflict in which the individual engages.

Individual engagement in conflict can be defined as an individual's behavioral confrontation of conflict issues. Individual engagement in conflict

can be viewed as the opposite end of the spectrum from conflict avoidance. While this dichotomy has long existed in the literature on close relationships (e.g., Canary, Cupach, & Messman, 1995; Fincham, 2003; Gottman, 1993) and often been implied to exist in the conflict management literature (e.g., De Dreu, Evers, Beersma, Kluwer, & Nauta, 2001; Desivilya & Eizen, 2005; Pruitt & Rubin, 1986), scant research has examined the specific effects of individual conflict engagement on individual performance. Furthermore, individual conflict engagement is distinct from past conflict research which has examined perceptions of intragroup conflict (for a meta-analysis of this literature, see De Dreu & Weingart, 2003) in that individual conflict engagement focuses on individual conflict *behaviors* in team settings. Our examination of individual conflict engagement in the group setting is one of the first such investigations, despite the fact that the distinction between conflict perception and conflict engagement has been theoretically proposed in classic theories on conflict (e.g., Pondy, 1967). Pondy (1967) suggested that conflict engagement, or ‘manifest’ conflict as termed by Pondy, is a stage in the conflict process, which follows the perception of a conflict. To illustrate, a member may perceive that others’ opinions are in disagreement to the member’s own opinion. The member then may choose whether or not to verbally contradict the opinions of the others. If the member does choose to express a contradictory opinion, this would be defined as conflict engagement. In this chapter, our focus is on the consequences of this particular choice and phase of the conflict process – conflict engagement.

Our study offers several contributions to existing conflict research. First of all, in line with the growing literature on asymmetric perceptions within teams (Bliese & Halverson, 1998; Jehn & Chatman, 2000; Jehn et al., 2006; Jehn & Rispens, 2007; Klein & House, 1995), we challenge the idea that conflict should be conceptualized and investigated primarily at the group level; that is, we propose that individuals can have very different perceptions of, and engagement in, a conflict within the same group. We extend the literature on asymmetric conflict perceptions (Jehn & Chatman, 2000; Jehn et al., 2006; Jehn & Rispens, 2007) by suggesting that not only perceptions of conflict, but also actual engagement in conflict may vary among group members. We also build upon work in the conflict management literature (e.g., De Dreu et al., 2001; Desivilya & Eizen, 2005; Pruitt & Rubin, 1986)

which has examined differences in conflict management styles by investigating whether an individual's basic decision to engage in conflict, or not, may impact the individual's performance.

Secondly, we identify specific actions individuals may take when engaging in conflict to improve their own performance. Specifically, we examine different strategies individuals may take to assert their opinion to others and influence them to agree. We draw on and extend the influence tactic literature (e.g., Farmer, Maslyn, Fedor, & Goodman, 1997; Kipnis & Schmidt, 1985; Yukl & Tracey, 1992) by examining the different influence strategies an individual might employ specifically in conflict situations. In addition to what individuals say in a conflict, we also propose that *how* they say it may determine how engaging in conflict affects their performance. Therefore, we also look at the role of verbal style in affecting the relationship between engagement in conflict and individual performance.

Thirdly, we suggest that the type of conflict (e.g., relationship or task; Jehn, 1995; De Dreu & Weingart, 2003) in which an individual engages may have different dynamics and call for the usage of different types of conflict tactics (i.e. different influence tactics or different levels of verbal style). For example, an individual might engage in a task conflict by verbally disagreeing with another member's work-related opinion. When engaging in such a conflict over a work-related issue, it may be more important to remain very task-focused and rational. In contrast, when an individual engages in relationship conflict, such as verbally telling someone that they dislike a certain aspect of a person's behavior, it might be more important to express this opinion in a kind manner that communicates that the individual still values the relationship. This contributes to the existing conflict literature (e.g., De Dreu & Weingart, 2003; Jehn & Bendersky, 2003) by providing one of the first linkages between specific conflict tactics and different conflict types (relationship and task). We extend past research which has suggested that different types of conflict may call for different conflict management strategies (Weingart & Jehn, 2000) by providing a set of tactics of which some may be more or less appropriate for the different types of conflict that an individual may engage in.

Finally, we contribute to conflict research by testing the dynamics of conflict in an understudied setting. Specifically, we investigate the above



ideas in the context of large online listserv groups, drawing upon e-mail and interview data collected over a period of three years from political organizing groups located in the United States. The particular form of computer-mediated communication utilized by these large listserv groups is electronic mail, or e-mail. E-mail is a type of interpersonal message service that allows the transmission of written messages from one point to another electronically, rather than by physical delivery (Loperfido, 1993). E-mail has become an important communication tool for millions of people world-wide (Friedman & Currall, 2003). With this sample, we therefore investigate how differences in individual conflict engagement may affect individual performance.

### **Theoretical Background**

In this chapter, we test the proposition that the degree to which individuals engage in conflict may affect their performance. We also investigate whether the manner in which individuals choose to conduct themselves while engaging in the conflict may help determine whether their engagement in conflict helps or hurts their performance. Past work has defined individual performance as “the degree to which the member meets the standards of the group and organization as rated by the group’s superior, company performance evaluations, and individual productivity records” (Jehn, 1995: 257). We adapt this definition to assess the performance of members in large e-mail listserv groups, such as the listserves associated with, for example, political organizing groups. We therefore define individual performance in large online groups as the degree to which the member meets the standards of the group, enabling the achievement of both group goals and individual development as a contributing member in ideas and actions. A successful member, for example, would be actively involved in planning a group action, coordinating media coverage for a group protest, and contacting public officials about policy change.

### **Performance Effects of Individual Engagement in Relationship and Task Conflict**

In past research on group-level conflict, two main types of conflict have been examined – relationship conflict and task conflict (e.g., Amason, 1996; De Dreu & Weingart, 2003; Jehn, 1995). Relationship conflicts are

disagreements between members that are about personal issues and incompatibilities. Relationship conflicts tend to be characterized by negative feelings such as anger, distrust, and frustration, and can lead to reduced satisfaction and performance (e.g., Jehn, 1995) because of distraction, mispent time and effort, and decreased cognitive processes (Jehn & Bendersky, 2003). Task conflicts are disagreements over values and opinions related to the task at hand. A moderate amount of task conflict may positively affect individual performance, as being challenged on a work-related issue may increase effort, cognitive processing, and task focus (e.g., Jehn & Bendersky, 2003). While a recent meta-analysis by De Dreu and Weingart (2003) found that both relationship and task conflict were detrimental to *group* performance, we propose in the following sections that the effects of individual engagement in conflict may differ per type of conflict. We thus extend the work by both De Dreu and Weingart (2003) and Jehn (1995) by examining the effects of individual *engagement* in these conflict types on individual performance.

#### ***Individual Engagement in Relationship Conflict***

Past research has found that relationship conflict negatively affects individual well-being and performance (e.g., Dijkstra, van Dierendonck, & Evers, 2005; Jehn, 1995). In line with this, we propose that individual engagement in relationship conflict will have negative outcomes for the individual. This is because engagement in relationship conflict can distract individuals from the task at hand through an increased focus on interpersonal relationships rather than work-related issues (Jehn & Bendersky, 2003). For example, if a member makes a point of expressing his dislike of another group member, the member spends time during this outburst that is not task-related. Additionally, the expression of such a sentiment may also lead to continued distraction from work because of how other members respond to this relationship conflict engagement. For example, such an outburst could be perceived as interpersonal abuse, which could lead other group members to seek revenge (c.f. Aquino, Tripp, & Bies, 2001). The potential conflict spiral which could result because of the member's relationship conflict engagement may serve to further distract the member from the task at hand. Therefore, an individual who chooses to engage in relationship conflict may come to spend

an increasing amount of time on non-work related issues, and therefore may become less likely to be able to successfully accomplish organizational tasks and perform well in the organization.

Furthermore, an individual who feels compelled to engage in relationship conflict is likely to be highly emotional. For example, past qualitative research has suggested a high degree of emotionality to exist around the verbal confrontation of interpersonal issues (e.g., Jehn, 1997). Members engaging in relationship conflict may experience anger, frustration, strain and uneasiness (e.g., Walton & Dutton, 1969), which may reduce an individual's cognitive processing (Brief & Weiss, 2002). Indeed, research has suggested that engagement in relationship conflict may limit the cognitive processing of members and thus hinder their ability to assess new information (e.g., Pelled, 1996). Additionally, by engaging in a relationship conflict, these negative emotions are more likely to become visible to other members and may then spread to other members through a process of emotional contagion (e.g., Barsade, 2002; Hatfield, Cacioppo, & Rapson, 1994). The resulting negative environment in the group may serve to even further accentuate the emotionality of the member who engaged in the relationship conflict and may further limit the member's cognitive processing and ability to perform well in the organization. Therefore, we propose that:

*Hypothesis 1.* The degree to which an individual engages in relationship conflict will be negatively related to that individual's performance.

### ***Individual Engagement in Task Conflict***

In contrast, we suggest that an individual's engagement in task conflict may have a positive effect on individual performance. First of all, when an individual chooses to voice a conflicting opinion – i.e. engages in task conflict – this expression of voice can help improve the individual's acceptance of group and organizational decisions (e.g., LaTour, 1978; Lind et al., 1980; see Lind & Tyler, 1988 for a review). This can improve how the individual chooses to react to organizational decisions (for a review see Greenberg & Folger, 1983), and thereby individual performance. The reason for this is that people prefer procedures which allow them control over the decision-making process (Thibaut & Walker, 1975). This is because people

feel that such 'process control' (Lind & Tyler, 1988) can enable them to obtain favorable outcomes (c.f. Houlden, Latour, Walker, & Thibatu, 1978; van Prooijen, Karremans, & van Beest, 2006). For example, imagine an individual who engages in task conflict and disagrees with how other members want to proceed with an organizational task (such as by saying a better strategy would be to picket in front of building x rather than building y). If the organization still decides to picket in front of the other building – building y, but says at the next event, they can picket building x, the individual may be more accepting of this decision and be able to act in a more constructive, performance-enhancing way than if the individual had not engaged in task conflict and voiced the dissenting opinion. Even if the individual does not obtain favorable outcomes, an individual is still likely to enjoy performance benefits. For example, even if the organization only chooses to picket the building to which the member was opposed, research has shown that individuals experience performance benefits when important others understand them, even if that understanding is not acted upon (Thatcher & Greer, 2008). Even if the individual did not get the option the individual wanted, others in the group may now better understand the individual. This means that they may be more empathetic towards the individual as well as possess more accurate knowledge of the individual's opinions. This may create a more positive, supportive environment which will allow the individual to perform better. Therefore, engagement in task conflict may help improve individual's performance in the organization.

In addition to the performance enhancing powers of just being able to exert voice and have a sense of process control in the team (e.g., Lind & Tyler, 1988), engaging in task conflict may also help individuals improve their own understanding of the issue at hand and thereby their ability to contribute to the group. For example, Ashby's (1956) classical theory of requisite variety posits the importance of matching the complexity of decisions with the surrounding complexity of the environment. Drawing on this, we suggest that when interacting in complex organizational environments, an individual who engages in task conflict may gain important knowledge of differing perspectives within the team. For example, for a member to successfully challenge another member's opinion they must first do a deeper processing of the other's opinion in order to present an argument (c.f. Olson et al., 2007).

The knowledge gained from this may enable the individual to better target task-related efforts and thus improve the individual's performance. Indeed, a successful understanding of the task at hand has been shown to be critical for organizational members to implement organizational strategies (Woolridge & Floyd, 1990). As an additional benefit, when a member expresses an opinion, the opinion may be discussed and debated by other team members. This dissection by other group members of the member's ideas about the task may help improve the focal member's understanding of the task and ability to perform well. In line with this, past research has also suggested that engaging in task conflict may improve an individuals' understanding of the issues involved (e.g., Olson et al., 2007; Putnam, 1994) as well as individual effort and task focus (Jehn & Bendersky, 2003). Therefore, we propose that:

*Hypothesis 2.* The degree to which an individual engages in task conflict will be positively related to that individual's performance.

### **The Role of Conflict Tactics**

Researchers who believe that some sorts of conflict can be positive have investigated ways to harvest the positive side of conflict while minimizing the negative side (e.g., De Church & Marks, 2001). The resulting area of study, conflict management, focuses on directing conflict towards potentially productive task conflict, such as improved dialogue, rather than destructive relationship conflict, such as personal attacks (Deutsch, 1973). Conflicts that are effectively managed can improve individual performance through constructive debate and a better exploration of alternatives (Jehn & Bendersky, 2003). In this study, we propose a set of conflict tactics that can be used by individuals to improve their performance when engaging in conflict. We propose verbal style and influence tactics as moderators that can be strategically used to manage conflicts, so that individuals can engage in conflicts in a way that maximizes their own performance in the organization.

### ***Verbal Style***

Verbal style is wording used by a person that affects the way others assign meaning to what the person says (Baker, 1990). Strong verbal style can include correct grammar, the absence of misspellings, and the use of clear language. Past work by Baker (1990) measured strong verbal style by the absence of non-fluencies ("well, like, mean, you know"), qualifiers ("maybe,

perhaps, would, could, might”), and indefiniteness (“this, that, those, some, stuff, it, sometimes, someone, something, somewhere, interesting”). An example of a statement with strong verbal style is “The point of this discussion is to decide upon the next political action of our group.” while in contrast, an example of weak verbal style is “well, uh, i think maybe that the point of this discussion is...”. When verbal style is strong, recipients are able to easily understand the point of the message, increasing the credibility of the sender. This increased credibility of the member can improve the member’s ability to engage in both task and relationship conflicts, as the member’s points are given more credence. In contrast, a member that uses weak verbal style (such as grammatical errors or indefinite language in the communication) may be taken less seriously in his or her attempt to manage a conflict.

We propose that strong verbal style can help reduce the negative effect of engagement in relationship conflict on individual performance. When verbal style is strong, the likelihood of misunderstandings resulting from the message is decreased. This can help benefit individuals engaging in relationship conflict by keeping the conflict focused on the single issue it should be about, and preventing misunderstandings and further conflicts that could lead to performance-reducing conflict cycles (e.g., Brett, Shapiro & Lytle, 1998). This is in line with the point made by Griffith et al. (2003) who suggest that the misinterpretation of communications may lead to greater relationship conflict. Relatedly, strong verbal style can communicate that the member has carefully thought through the argument the member is airing, and can therefore communicate that the member cares deeply about the relationship. This may reduce the likelihood of the relationship conflict engagement being interpreted as interpersonal abuse and resulting performance-reducing conflict spirals (Aquino et al., 2001). Therefore, we propose that strong verbal style will reduce the negative effects of individual engagement in relationship conflict on individual performance.

Furthermore, we suggest that strong verbal style can also help individuals engaging in task conflict. First of all, when an individual utilizes strong verbal style, the individual may have to more carefully think through the argument the individual wants to express, as the individual contemplates the best wording to use. This may amplify the degree to which the individual

thinks about the opinions of others compared to his or her own opinion, thereby increasing the cognitive processing and performance benefits associated with task conflict engagement (Olson et al., 2007). Additionally, when the individual uses strong verbal style, the argument by the individual may be clearer and easier for the other members to discuss and give comments on. This may further improve the quality of feedback the individual can get on the idea, which may increase the individual's understanding of the task at hand (c.f. Jehn & Bendersky, 2003; Putnam, 1994). This in turn may help the individual to better implement organizational strategies (Woolridge & Floyd, 1990) and perform well in the organization. Therefore, strong verbal style can thus moderate the way in which the member's message is perceived, increasing the positive effects of task conflict on individual performance.

*Hypothesis 3a.* Verbal style moderates the relationship between individual engagement in relationship conflict and individual performance, such that the use of strong verbal style during engagement in relationship conflict decreases the negative effect of engagement in relationship conflict on individual performance.

*Hypothesis 3b.* Verbal style moderates the relationship between individual engagement in task conflict and individual performance, such that the use of strong verbal style during engagement in task conflict increases the positive effect of engagement in task conflict on individual performance.

### ***Influence Tactic Usage***

To effectively manage and resolve a conflict, an individual may have to exert power to change the nature of an interaction (Deutsch, 1973). This exertion of power may be through the use of different influence tactics. Influence tactics may consist of hard, soft, or rational tactics (Kipnis & Schmidt, 1985). Hard tactics consist of potentially aggressive requests for compliance (Barry & Shapiro, 1992; Farmer et al., 1997; Kipnis & Schmidt, 1985). Soft tactics consist of the use of friendliness or ingratiation to gain compliance with a request (Barry & Shapiro, 1992; Farmer et al., 1997; Kipnis & Schmidt, 1985). Rational tactics consist of information sharing and the

application of logic to convince a target to comply with a request (Kipnis & Schmidt, 1985; Yukl & Tracey, 1992).

We propose that use of soft or rational tactics by an individual engaging in conflict will increase the positive effect of engagement in task conflict and decrease the negative effect of engagement in relationship conflict on individual performance while the use of hard tactics will have the opposite effects. For example, the use of soft tactics (such as the use of flattery or ingratiation to reach a goal) could be used to manage conflicts (“Everyone has great ideas. However, it is important for the group goals that we make a decision for our next action.”) in a way that will promote the individual’s performance in the group through allowing the individual to engage in the conflict but still communicate a concern for the relationships in the group. We therefore propose new conflict management tools that can be used to optimize the potentially positive effects of engagement in task conflict while minimizing the negative effects of engagement in relationship conflict.

Soft tactics, or ingratiation as they are often simply called, involve the use of friendliness or flattery to gain compliance with a request. Ingratiation is a process whereby a person tries to improve his/her attractiveness in the eyes of others (Jones, 1964). Ingratiation and flattery may prove useful during a conflict. In this chapter, we propose that the usage of soft tactics will increase the performance of an individual engaging in a relationship conflict. Specifically, the usage of soft tactics may help to soothe another organizational member during a relationship conflict and reduce the negative effects of engaging in relationship conflict by demonstrating to the other members that the relationship is important. This is in line with research which has suggested that ingratiation can create a social bond between individuals (Baumeister & Leary, 1995). By creating this bond and showing that the relationship is important, the member may be able to have a more meaningful discussion about the problems in the relationship. With the knowledge gained from this discussion, the member may be better able to understand and navigate the social dynamics of the group in a way that can help improve the member’s individual performance. Additionally, by communicating concern for the relationship, members may reduce the likelihood of other members interpreting the focal member’s engagement in relationship conflict as abusive or hostile, thereby lessening the likelihood of retaliatory conflict spirals (Aquino et al.,



2001). This may then reduce the likelihood of the relationship conflict engagement continuing to distract the member from the task at hand. We therefore propose that the usage of soft tactics during a relationship conflict will help improve the performance of the individual member engaging in the relationship conflict.

Soft tactics may also improve the performance of individuals engaging in task conflict. For example, negotiation research has shown that the development of rapport may help increase the likelihood of more mutually beneficial settlements (Moore, Kurtzberg, Thompson, & Morris, 1999). This is consistent with traditional conflict management research, which has found agreeable behavior to be a successful conflict management technique in increasing the positive effects of task conflict (De Church & Marks, 2001). Developing rapport through the use of soft tactics may help improve the performance of individuals engaging in task conflict by allowing members to express conflicting opinions in a way that other members are more receptive to because the importance of the relationship has been acknowledged. Additionally, the use of soft tactics by a member engaging in a task conflict may also make other members more willing to offer constructive feedback on the member's opinion. This may further increase the positive effects of engagement in task conflict on individual understanding (e.g., Olson et al., 2007; Putnam, 1994), and thus on individual performance. We therefore propose that:

*Hypothesis 4a.* Soft tactics moderate the relationship between individual engagement in relationship conflict and individual performance, such that the use of soft tactics during engagement in relationship conflict decreases the negative effect of engagement in relationship conflict on individual performance.

*Hypothesis 4b.* Soft tactics moderate the relationship between individual engagement in task conflict and individual performance, such that the use of soft tactics during engagement in an task conflict increases the positive effect of engagement in task conflict on individual performance.

Rational tactics involve the use of logical reasoning to convince influence targets why they should comply. Past research has found rational

tactics to be the most commonly used influence tactic (e.g., Farmer et al., 1997). We propose rational tactics as also being a successful conflict management technique because they are devoid of emotional elements that could incite or escalate a relationship conflict and because they can help increase understanding of task-related issues. Specifically, we propose that the use of rational tactics may increase the positive effects of task conflict on performance and decrease the negative effects of relationship conflict on individual performance. For example, a member could use rational tactics by calmly explaining his reasoning for a stated position (e.g., “I think we should pursue this goal for reasons x, y, and z”).

The use of rational tactics may help decrease the negative effects of engaging in relationship conflict on individual performance by bringing a voice of reason into emotionally charged interpersonal issues (Jehn, 1997). By focusing on the facts of a personal confrontation in a logical manner, the use of rational tactics may exert a calming influence on relationship conflicts. For example, if a member focuses on the facts in a rational matter (‘in the e-mail you sent on November 30<sup>th</sup>, I felt that your statement about our fundraising efforts made me look bad’ as opposed to just ‘you are making me look bad’), this may help clarify the issue to other members, inject a tone of rationality into the matter, and prevent further misunderstandings. Together, this may reduce the negative emotionality associated with relationship conflicts and the associated cognitive processing detriments (Brief & Weiss, 2002). Furthermore, if members are able to rationally discuss the personal issue in contention without inciting negative emotions, the member engaging in the conflict may be able to help other members better understand what is important to the member. Having other team members understand a focal member better, even on non-work-related matters, has been shown to increase the performance of the focal member through enabling other team members to better adapt to and work with the member interpersonally (Thatcher & Greer, 2008). Therefore, the use of clear, logical reasoning while engaging in a relationship conflict may help reduce the negative effects of an individual’s engagement in relationship conflict.

Members can also use rational tactics to guide task conflicts, such as to clarify issues of contention. This may improve the relationship between task conflict engagement and individual performance. First of all, to structure

one's arguments in an especially rational way may force the individual to even more deeply process the issues at hand in the group. The improved understanding the member gains from this may help the member better meet organizational goals (Woolridge & Floyd, 1990). Additionally, by using rational persuasion to guide task debates, the member engaging in task conflict may improve the ability of others to understand the opinions offered by the member. This will improve the ability of other members to listen to, understand, and acknowledge the member's opinion, which can increase the likelihood of a member feeling a sense of voice (Lind & Tyler, 1988) after engaging in task conflict. Additionally, this may improve the feedback the member is able to get on the opinion from other members. By improving this feedback, this in turn may increase the likelihood of the member's engagement in task conflict resulting in the member's increased understanding of the issues at hand (e.g., Olson et al., 2007; Putnam, 1994) and ability to perform well in the group. Therefore, we propose that:

*Hypothesis 5a.* Rational tactics moderate the relationship between individual engagement in relationship conflict and individual performance, such that the use of rational tactics during engagement in a relationship conflict decreases the negative effect of engagement in relationship conflict on individual performance.

*Hypothesis 5b.* Rational tactics moderate the relationship between individual engagement in task conflict and individual performance, such that the use of rational tactics during engagement in task conflict increases the positive effect of engagement in task conflict on individual performance.

Hard tactics often refer to the use of direct, aggressive requests from a leader to a subordinate to gain compliance. In groups that lack a clear hierarchy, such as the large online listserv groups in this study, the use of hard tactics which clearly communicate a status difference may not be condoned by other group members. For example, a very directive statement such as "everyone quit fighting NOW" would not be well-received when coming from someone a member perceives as a peer, and could lead that person to respond negatively to the statement coming from the member. This could serve to further distract the member from the task at hand, increasing

the negative effects of engaging in relationship conflict on performance and decreasing the positive effects of engaging in task conflict on performance. Negotiation research even suggests that in egalitarian cultures, such as those often found in large online listserv groups, the use of hard tactics may be interpreted by other members as contentious behavior (Adair, Okumura, & Brett, 2001), leading to a conflict spiral that may negatively impact negotiation outcomes for all parties involved (e.g., Brett et al., 1998). Additionally, hard tactics are by nature considered unfriendly (van Knippenberg & Steensma, 2003). For this reason as well, hard tactics are likely to further increase the likelihood of relationship conflict engagement being interpreted as interpersonal abuse and causing retaliatory conflict spirals (Aquino et al., 2001). For example, if a member makes a threatening order (“Stop fighting, or you have to leave our group”), the member might actually escalate the fight as other members may now also have a personal problem with the member attempting to stop the conflict because of his unfriendly statement. This would exacerbate the negative effects of engagement in relationship conflict, reducing an individual’s ability to work towards group goals and therefore reducing individual performance.

Task conflict engagement is also likely to have its potential positive effects reduced by the use of hard tactics. The general unfriendliness of hard tactics (e.g., van Knippenberg & Steensma, 2003) could decrease the willingness of other members to provide constructive feedback on the member’s opinion. This would reduce the information provided to the member based on the member’s task conflict engagement, and thereby reduce one of the primary benefits of task conflict engagement for individual performance – improved understanding of the task at hand (e.g., Olson et al., 2007; Putnam, 1994). Furthermore, as described earlier, the use of hard tactics can communicate an unwelcome power advantage when not coming from a formal leader of a hierarchical organization (Adair et al., 2001), which may lead to retaliatory behaviors by other members (Brett et al., 1998) and reduce the willingness of other members to try to understand the focal member. This may distract the member from the task at hand, and reduce another important benefit of task conflict – improving the understanding others have of the individual (Thatcher & Greer, 2008). Therefore, hard tactics may reduce the positive aspects of task conflict engagement and may

also introduce negative aspects, such as retaliatory conflict spirals (e.g., Aquino et al., 2001) which could distract the member from the task at hand. We therefore propose that:

*Hypothesis 6a.* Hard tactics moderate the relationship between individual engagement in relationship conflict and individual performance, such that the use of hard tactics during engagement in relationship conflict increases the negative effect of engagement in relationship conflict on individual performance.

*Hypothesis 6b.* Hard tactics moderate the relationship between individual engagement in task conflict and individual performance, such that the use of hard tactics during engagement in task conflict decreases the positive effect of engagement in task conflict on individual performance.

## Methods

### Data and Sample

We conducted a three-year longitudinal multi-method field study of political-organizing organizations located in the United States that used e-mail listserves extensively for their communications. These organizations included, for instance, an international women's organization, a university peace organization, an environmental organization, and a community improvement organization. We collected e-mail data from these organizations over a period of 36 months by becoming a member of the general list serves for the organizations, conducting interviews with members, taking field notes at meetings, and collecting hard copies of handouts from organizational meetings and other ideological materials, similar to the methods employed by Phillips and Eisenberg (1993). Given the complexity of influence attempts, as well as conflict, the use of qualitative research methods in conjunction with traditional quantitative methods is an especially useful way to study the relationships between influence, conflict, and performance (c.f. Barry & Fulmer, 2004; Jehn, 1997; Lee, 1999).

The quantitative data in our study stem primarily from text analyses and coding of our e-mail sample. Our total e-mail sample consisted of 7,617 e-mails, sent from a total of 631 members representing 10 different

organizations. Fifty-four percent of the members were female, and the average member age was 33. All e-mails in our sample were sent to the entire organization via the group listserve, and the vast majority of organizational members participated on the e-mail listserve. For example, in an interview, one member stated: “E-mail is, like, very useful. I would say it is much more useful than, like, hanging flyers but does that make sense? It is just a mass mobilization.” No significant differences were found across the organizations on our variables of interest.

On average, members communicated with each other over the e-mail listserve five times per week (and around actions every day), attended meetings once a month, and political action events (e.g., protests) two or three times in the year. We did have two organizations in which members only interacted online, which allowed us to compare conflict engagement between members who interacted only online and who interacted both online and face-to-face. In a multivariate analysis of the variables in our study, we did not find any significant differences to exist between members in organizations who only interacted online and members in organizations who interacted both online and face-to-face.

### ***Measures***

Our study includes three separate quantitative measures (text analysis, coder ratings, and expert ethnographic ratings) as well as qualitative data from interviews. For the purposes of this study, we chose to focus only on active members of the organization - specifically, members who sent more than 1% of an organization’s e-mails, as done in past research by Finholt, Sproull, and Kiesler (2002). This reduced our sample size to 165 members who sent in total 7,501 emails. In the following sections, we will first discuss the procedures by which the text analyses, coder ratings, and interviews were obtained, then discuss the existing literature we drew on for the operationalizations of each construct. Following that, we will discuss our performance variable and the two methods we utilized for that – coder ratings and expert ethnographic ratings.

***Text analyses.*** We analyzed all 7,501 e-mails through a text-analysis engine based on procedures set forth in previous research (e.g., Baker, 1990; Jehn, 1997). The complete list of keywords used can be found in the

Appendix. We first sorted the e-mails into individual text files for each member. These files were subsequently searched for the keywords using the text-analysis engine MonoConc Pro 2.0 (Barlow, 2000). From this, we were able to obtain the frequencies of keywords for each construct. For several keywords, some occurrences in the initial keyword count were actually misleading because they were preceded by a negation phrase, such as “not good”. To account for this, we used a Boolean search in Monoconc to count the number of occurrences a word occurred in conjunction with a negation term. This total was then subtracted from the first overall total of the keyword to give an appropriate measure of keyword use.

**Coder ratings.** The second quantitative measurement we used was the use of independent coders. We hired two student assistants who were blind to the hypotheses of this study to do the coding. Because it was not feasible for the coders to code 7,501 e-mails, we reduced the sample size for coding down to 1031 e-mails based on the procedure use by Finholt, Sproull, and Kiesler (2002). Members who sent more than 1% of a group’s e-mails were chosen for coding, presuming that members who sent less than 1% of the e-mails were not active participants of the group. Of the members who sent more than 1% of the e-mails, one e-mail per month for each month of the study was randomly selected for coding, similar to the selection process of archived reply files done by Finholt et al. (2002). This strategy allowed 13.7% of the e-mails to be sampled, as is common with this method. We employed the two student assistant mention above, who were both blind to the hypotheses of this study, to code this sample of e-mails, with each coder rating each of the 1,031 emails that resulted from the sampling strategy above. The coders read the full e-mail, including the anonymized heading (including who the e-mail was sent from and to, the date the e-mail was sent, if the e-mail was sent with importance, and the name of any attachments) and message content. After receiving verbal instructions including a discussion of the definitions of constructs underlying the questions they were to respond to (see Appendix 1 for list of questions used for each construct), the coders then answered a series of questions about each of the e-mails, responding on a Likert scale of 1-7 (with 7 being high). During this verbal discussion, several decision rules were established between the coders, such as how they would code an e-mail that was just a forward of information (the decision was that if the

information contributed to group's goals, it would receive a higher performance score than if the information did not contribute to group's goals) or how much conflictual behavior needed to be present to ascertain the degree to which an individual was engaging in task conflict (the decision was that task conflict means disagreement, and that signs of disagreement, such as "I oppose Member X on that point" were indicative of higher levels of individual engagement in task conflict).

We will next discuss the interviews conducted, and then, in the ensuing sections, we will detail how our coder questions and keywords were chosen. Additionally, we will discuss how our coder ratings relate to our qualitative data, and we will provide more detailed information on the reliabilities of the specific constructs.

***Individual engagement in relationship and task conflict.*** After an initial pretest of the Jehn (1995) relationship and task conflict items for use in coding (adapted to the individual level), we utilized the questions on which our e-mail coders responded in the most consistent way to the individual level of the Jehn (1995) construct. For example, the relationship conflict item used for the coder ratings was framed very directly to improve construct validity (see Appendix 1). Coders rated each question in the Appendix for each e-mail, implying that each e-mail was given a unique score for the degree to which the individual sending the e-mail was engaging in task and relationship conflict. While e-mails thus could potentially have individuals engaging in both task and relationship conflict in the same e-mail, the correlation between the two constructs ( $r=.54$  at time 1;  $r=.61$  at time 2) is not exceptionally higher than is normal in past research on group-level task and relationship conflict (De Dreu & Weingart, 2003).

We used our interviews with several members of the activist groups to validate instances coders identified as showing an individual engaging in conflict. For example, a member who stated in an interview, "I became convinced that activism can be a vehicle for change because I saw it, I saw it happen, at least at a small scale here at University X. So it made me more inclined to speak up and use my voice and resources and talents to make my voice heard and challenge the structures of Group X" received a high engagement in task conflict score based on our text analyses and coder ratings (6.50). In addition to coding, we also used text analysis to assess the level of



individual engagement in task and relationship conflict occurring in the e-mails. To measure individual engagement in conflict via text analysis, we adapted Jehn's (1997) keyword lists to code for individual behavioral engagement in relationship conflict and task conflict. For optimal reliability, we excluded a few words from Jehn's (1997) lists – for our final list of words used as well as their reliability, please see the Appendix. These two measures – text analysis and coder ratings – exhibited high inter-method agreement and thus were standardized and then averaged together to form our final constructs used in analyses. For example, for engagement in relationship conflict, Cohen's kappa was .94 for the agreement between the two rating types. For full reliability details for both conflict types, please refer to the Appendix at the end of this chapter.

***Conflict tactics.*** The operationalization of our influence tactic measures was guided by both existing literature and an initial pretest of the coder questions. While more traditional influence tactic scale items convey a more overt influence attempt (e.g., Kipnis, Schmidt, & Wilkinson, 1980), we found in our pre-test that coders' identification of influence tactic usage in e-mail was very heavily influenced by the e-mail context. Because the subtleness underlying influence tactics may not be as visible in e-mail (Barsness & Bhappu, 2004), we made our questions for the coders very direct. We based these questions, as well as our keyword selection, on the definitions of hard, soft, and rational tactics as proposed by Kipnis and Schmit (1985) and the definition of verbal style as proposed by Baker (1990). In addition to providing our coders with the questions as seen in the Appendix, we also discussed the underlying definitions of influence tactics with the coders so that the coders were aware of the overall construct they were looking for in the e-mail context. For example, to assess instances of hard tactics, coders were asked to respond on a scale of 1 to 7 to two questions assessing hard tactics (e.g., Is this person telling others what to do?), with a 7 representing a high usage of hard tactics in the e-mail. For influence tactics, we developed a keyword list for each of the variables based on past research (e.g., Kipnis & Schmidt, 1985) and the language actually used by group members (Glaser & Strauss, 1967). To measure verbal style, we utilized a keyword list developed by Baker (1990). All words of this list were included in our final construct. The inter-method agreement for our conflict management tactic measures was

also sufficiently high (see Appendix), thus we standardized and then averaged together the two ratings – text analysis and coder ratings – to form our final conflict management constructs.

***Individual performance.*** Because our sample included large, online political-organizing organizations, rather than corporate organizations, we had to adapt our definition of individual performance to the context of such organizations. Therefore, we defined individual performance as the degree to which the member meets the standards of the group, enabling the achievement of both group goals and individual development as a contributing member in ideas and actions. For our measure of this construct, we used two measures – coding and text analysis. In both of these measures, we tried to capture actual role behaviors which reflect our definition of performance. Role behaviors in political-organizing organizations include such things as “getting the organization mentioned in the local newspaper”, “obtaining access for a press release about the organization”, “helping bring about legal change”, “garnering media attention for a specific action”, “participating in rallies or demonstrations”, “being successful in rallies or demonstrations (getting arrested, getting noticed by public, photos in newspaper, mentioned in internet listserves/newspapers, etc.)”, “writing, calling, or visiting a public official”, “making products (flyers, banners, etc.)”, “coordinating actions”, “taking on organizational work”, and “helping out with the leadership of the organizations”. The common theme across all of these examples of the different types of role behaviors typifying individual performance in our sample is that they show, as in our definition, that the individual is contributing to organizational goals. In activist organizations, common goals include garnering media attention, as media coverage is a means of making political actions more meaningful (e.g., Oliver & Myers, 1999). Therefore, individual role behaviors such as “obtaining a press release about the organization” or “helping the organization to get in the paper” can be clearly seen as contributing to organizational goals. Measurement of such role behaviors has been considered a reliable way to measure performance in the team or organizational context (e.g., Chen et al., 2007; Welbourne, Johnson, & Erez, 1998).

The first measure we used to assess individual performance was coder ratings done on a scale of 1-7 (7 reflecting high performance) by an

expert rater. This rater was a consultant to activist groups and had in-depth personal knowledge of each of the groups included in our study, having done consulting work for each of the organizations in the study over a period of three years. The expert, who was blind to our hypotheses, based the performance ratings upon the definition we adapted for individual performance in activist groups as being the degree to which the member meets the standards of the group, enabling the achievement of both group goals and individual development as a contributing member in ideas and actions. Such ratings of individual performance are similar to supervisor ratings, which are found more commonly in studies of traditional organizations (e.g., Jehn, 1995).

To ensure the reliability of this measure, we also used a second measure of performance. The second measure we used to assess individual performance was, as described above, obtained from coding done by two raters blind to the hypotheses and the groups who rated the sample of e-mails described above based on to what degree on a scale of 1-7 (7 being high) the individual sending the e-mails met our definition of individual performance. Coders rated the e-mail based on how much they felt the member was contributing to the group. For example, a member offering to help the group accomplish its goals (e.g., to help hang flyers over the weekend for an upcoming rally; to contact the press about the group activities; to organize the collection of signatures for a petition to give to a public official; or to take on some of the organizational work of the organization) would be rated toward the higher end of the performance scale. The ratings of our independent coders of the e-mails showed substantial interrater agreement with a Cohen's kappa of .73 (Landis & Koch, 1971) and an inter-class correlation coefficient (ICC[1]) of .19 with significant F-test ( $p < .001$ ), thus showing sufficient justification to average these two ratings together (Klein & Kozlowski, 2000). The variables used in the analyses reflect this averaged number.

***Interview data.*** In addition to these measurements, we also had interview data with four members active in one or more of the unstructured groups. Interviews were conducted in a semi-structured format with one group member at a time, where we used the answers of the member to guide the structure of the interview. Because these interviews were part of a larger scale study, interviews covered a wide array of constructs. Examples of questions

employed in these semi-structured interviews specifically relevant to this study include “What does your group do?” and “Have any conflicts arisen in this group?”. Examples of other questions used in the interviews for the purpose of the larger data collection include “What is the group trying to accomplish (their mission/ goals)?”, “How did you first become interested in being politically active?”, and “What is the extent / nature of your group’s involvement with other political groups (do you work with other groups, what groups, doing what, how often)?”. We used the information obtained in response to these questions to assist in both our operationalization of the variables in this study as well as in the interpretation of our results.

**Controls.** We included four control variables in our study: organizational identification number, total e-mails sent by the member, liking, and gender. We included liking as a control variable because past studies in traditional settings have found that friendship among group members can influence performance outcomes in unstructured groups (Shah & Jehn, 1993), such as in some of the organizational groups in our study. Our measure for liking was obtained with the coder item “Do people in this group seem to like each other?”. Our coders exhibited high reliability for this measure (Cohen’s kappa=.85). We also controlled for gender (this information was obtained from the expert coder members from the groups), total e-mails sent by the member, and organizational identification number (using a dummy variable).

**Causality.** As our data was acquired over three years, we were able to create a time 1 and time 2 variable for each construct in our study, creating two 1.5 year time periods (Koys, 2001; Tekleab, Takeuchi, & Taylor, 2005). Such time periods are commonly used to examine potential causal determinants of individual outcomes in organizations over time (e.g., Chatman, 1991; Tekleab et al., 2005) to assess the effects over time of processes on outcomes. To test our hypotheses, we examined the presence of e-mail conflict, influence tactic usage, and verbal style at time 1 on individual performance at time 2.

**Analysis.** Because our sample contains members of ten different organizational groups, we first checked to see if the presence of the different organizations explained a significant amount of variance in our variables of interest. We computed interclass correlation coefficients, which showed that conflict, influence tactics, and verbal style at Time 1 and individual

performance at Time 2 did not vary between groups (ICCs ranged from .01 to .11, with all F-tests non-significant). This suggests support for conducting our analyses at the individual level of analysis, as well for our proposition that in large online groups, high variation may exist between members in the same group in the degree to which they engage in conflict. However, to ensure that any remaining group level-factors are still accounted for, we do control for organizational identification number to provide a conservative test of our hypotheses.

### Results

Means, standard deviations, and correlations among the variables are shown in Table 1. As seen in the correlation table, individual engagement in task conflict at Time 1 is significantly, positively related to individual performance at Time 1 and marginally positively related to individual performance at Time 2 (1.5 years later). Individual engagement in relationship conflict at Time 1 does not show a significant relationship with individual performance at either Time 1 or Time 2.

In the correlation table, it is also of note that performance at Time 1 is not related to our variables of interest at Time 2, providing some support for the direction of causality proposed in this chapter (Koys, 2001). To test whether individual performance changed significantly between Time 1 and Time 2, we conducted a paired samples t-test. Individual performance did show a significant change between Time 1 and Time 2 ( $t = -2.811, p < .01$ ).

Hypotheses were tested with hierarchical regression analysis. Because our regression includes interaction terms, we centralized our variables before conducting the regression analyses to reduce multicollinearity (Aiken & West, 1991). The results are presented in Table 2. In step 1, we entered the control variables. In step 2, we entered the main effects. In step 3, we entered the interactions of individual engagement in conflict with verbal style and the different types of influence tactics. Multicollinearity was not found to be a problem for our analyses. All tolerance statistics exceeded the requirement of .2 and all variance-inflation factors were below 5. To further interpret the moderation in our model, interaction plots were created (Aiken & West, 1991).

**Table 1. Means, Standard Deviations, and Correlations at Time 1 (T1) and Time 2 (T2) <sup>a</sup>**

Variable	Mean	s.d.	1	2	3	4	5	6	7	8	9
1. Total E-mails Sent per Member	28.00	48.39	--								
2. Engagement in Relationship Conflict (T1)	4.02	.68	-.01	--							
3. Engagement in Task Conflict (T1)	4.54	.91	.19*	.54**	--						
4. Verbal Style (T1)	4.91	1.35	.29**	.36**	.48**	--					
5. Soft Tactics (T1)	4.90	1.64	.32**	.22*	.44**	.78**	--				
6. Hard Tactics (T1)	5.00	1.53	.34**	.18*	.26**	.59**	.58**	--			
7. Rational Tactics (T1)	4.91	1.43	.35**	-.04	.21*	.53**	.52**	.47**	--		
8. Task-related E-mail (T1)	6.21	1.54	.06	.12	.14	.38**	.39**	.25**	.20*	--	
9. Liking (T1)	5.86	1.46	.06	.27**	.42**	.52**	.37**	.28*	.20*	.37**	--
10. Personal-related E-mail (T1)	1.44	.44	-.06	.04	.07	.09	-.06	.17 <sup>+</sup>	-.20*	-.10	.04
11. Engagement in Relationship Conflict (T2)	5.01	1.70	.09	.22*	.19 <sup>+</sup>	.34**	.22*	.32**	.23*	.03	-.05
12. Engagement in Task Conflict (T2)	5.00	1.73	.20*	.23*	.20 <sup>+</sup>	.34**	.12	.26**	.15	-.07	-.11
13. Verbal Style (T2)	4.93	1.20	.05	.23*	.13	.39**	.26*	.34**	.19 <sup>+</sup>	.22*	.05
14. Soft Tactics (T2)	5.10	1.37	.13	-.10	-.02	.14	.10	.17	.16	.27*	.03
15. Hard Tactics (T2)	4.98	1.48	.11	.16	.10	.18 <sup>+</sup>	.15	.31**	.13	.12	-.04
16. Rational Tactics (T2)	4.92	1.46	.34**	.04	.16	.19 <sup>+</sup>	.20 <sup>+</sup>	.37**	.39**	.07	-.09
17. Task-related E-mail (T2)	3.57	.71	.09	-.01	.09	-.02	-.02	.07	.10	-.01	-.18
18. Liking (T2)	5.97	1.49	-.07	-.00	.14	.06	.09	.13	.11	-.06	.10
19. Personal-related E-mail (T2)	1.49	.55	-.22**	.27**	.06	.06	-.02	-.07	-.26*	-.17	-.01
20. Performance (T1)	2.42	.78	-.07	.11	.24*	-.04	-.01	-.21*	-.09	-.06	.09
21. Performance (T2)	3.20	1.01	.12	.04	.15 <sup>+</sup>	.23**	.19*	.08	.11	.12	.24**

	10	11	12	13	14	15	16	17	18	19	20
1. Total E-mails Sent per Member											
2. Engagement in Relationship Conflict (T1)											
3. Engagement in Task Conflict (T1)											
4. Verbal Style (T1)											
5. Soft Tactics (T1)											
6. Hard Tactics (T1)											
7. Rational Tactics (T1)											
8. Task-related E-mail (T1)											
9. Liking (T1)											
10. Personal-related E-mail (T1)	--										
11. Engagement in Relationship Conflict (T2)	.01	--									
12. Engagement in Task Conflict (T2)	.08	.61**	--								
13. Verbal Style (T2)	-.03	.50**	.45**	--							
14. Soft Tactics (T2)	.14	.29**	.38**	.55**	--						
15. Hard Tactics (T2)	-.02	.32**	.34**	.44**	.47**	--					
16. Rational Tactics (T2)	-.18	.17	.30**	.41**	.38**	.45**	--				
17. Task-related E-mail (T2)	.04	.01	.17 <sup>+</sup>	.05	.15	.07	.29**	--			
18. Liking (T2)	-.03	.18 <sup>+</sup>	.32**	.25*	.32**	.27**	.32**	.50**	--		
19. Personal-related E-mail (T2)	.13	.23*	.14	.04	.01	.10	-.42**			--	
20. Performance (T1)	.29**	-.05	-.01	-.08	.03	-.16	-.16	.00	-.03	.05	--
21. Performance (T2)	.07	.20*	.27**	.15	.13	.01	.05	.13	.17	.01	.03

<sup>a</sup> n=165 \*  $p < .05$  \*\* $p < .01$

**Table 2. Results of Hierarchical Regression Analyses<sup>a</sup>**

Independent Variables – Time 1		Performance - Time 2 - $\beta$
Step 1	Liking	.23*
	Gender	-.02
	Total E-mails Sent	.27
	Organizational ID Dummy 1	-.04
	Organizational ID Dummy 2	-.14
	Organizational ID Dummy 3	-.30
	Organizational ID Dummy 4	-.27
	Organizational ID Dummy 5	-.24
	Organizational ID Dummy 6	-.09
	Organizational ID Dummy 7	-.16
	Organizational ID Dummy 8	-.29
	Organizational ID Dummy 9	-.22
	R <sup>2</sup> / Adjusted R <sup>2</sup>	.13/.02
	F	1.16
Step 2	Engagement in Task Conflict	.18
	Engagement in Relationship Conflict	-.09
	Verbal Style	-.07
	Soft Tactics	.21
	Hard Tactics	-.02
	Rational Tactics	.05
	R <sup>2</sup> / Adjusted R <sup>2</sup>	.18/.01
	F	1.05
Step 3	Engagement in Task Conflict * Verbal Style	.72**
	Engagement in Relationship Conflict * Verbal Style	-.87**
	Engagement in Task Conflict * Soft Tactics	-.32
	Engagement in Task Conflict * Hard Tactics	-.10
	Engagement in Task Conflict * Rational Tactics	-.35*
	Engagement in Relationship Conflict * Soft Tactics	.56*
	Engagement in Relationship Conflict * Hard Tactics	-.29
	Engagement in Relationship Conflict * Rational Tactics	.48***
	R <sup>2</sup> / Adjusted R <sup>2</sup>	.31/.18
	F	2.33**
	$\Delta F$	1.12**
	$\Delta R^2$	.14**

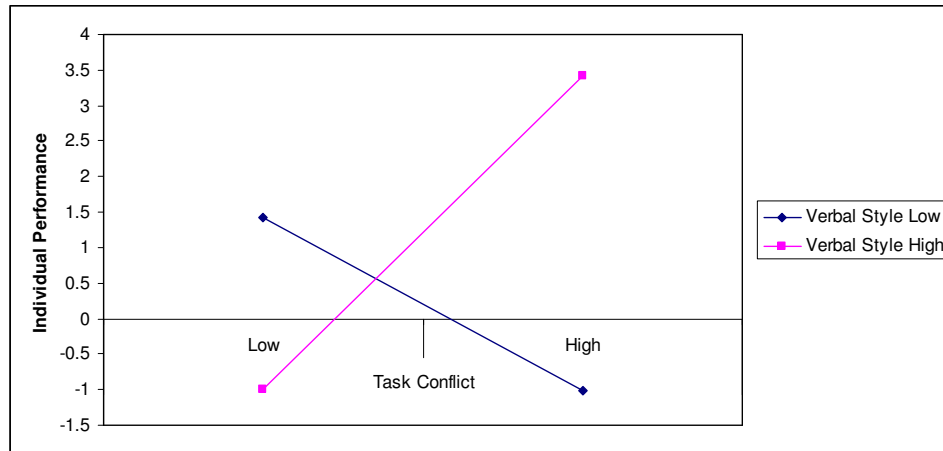
<sup>a</sup> Standardized regression coefficients are shown. \*\*\* $p < .001$  \*\* $p < .01$  \* $p < .05$



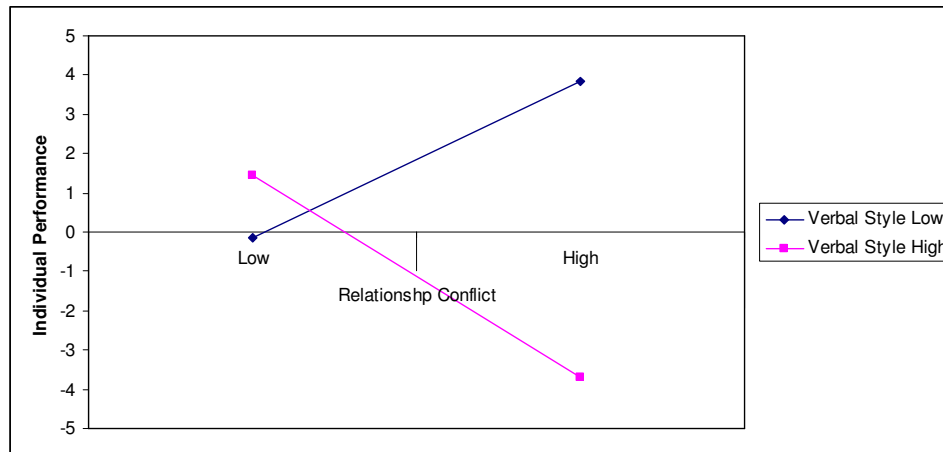
Our first two hypotheses stated that the degree of individual engagement in task conflict would be positively related to individual performance, and that the degree of individual engagement in relationship conflict would be negatively related to individual performance. As can be seen in Table 2, neither hypothesis was supported within our full regression model. However, as seen in Table 1, individual engagement in task conflict at Time 1 does have a marginally significant positive relationship with performance at Time 2 (1.5 years later).

We did find support for our moderating hypotheses. Our third set of hypotheses proposed that strong verbal style would moderate the effects of individual engagement in conflict on individual performance. Strong verbal style had a significant interaction with individual engagement in relationship conflict on performance ( $\beta = -.87, p < .01$ ) and a significant interaction with individual engagement in task conflict on performance ( $\beta = .72, p < .01$ ). Consistent with our hypothesis, when strong verbal style was used, individual engagement in task conflict was more positively related to individual performance. When weak verbal style was used, individual engagement in task conflict appeared negatively related to individual performance. However, for individual engagement in relationship conflict, individual engagement in relationship conflict was actually more positively related to individual performance when verbal style was weak and more negatively related to individual performance when verbal style was strong. The interaction plots for these two interactions are seen in Figures 1 and 2.

**Figure 1. The effects of individual engagement in task conflict and verbal style usage on individual performance**



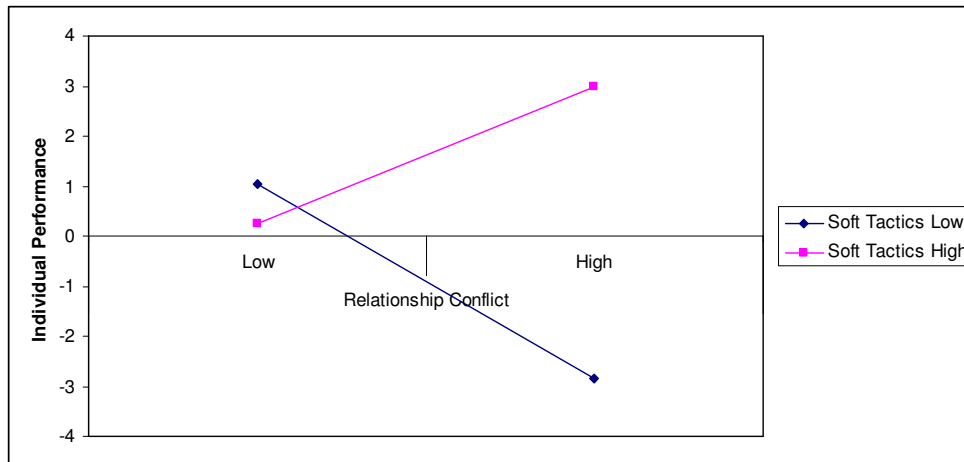
**Figure 2. The effects of individual engagement in relationship conflict and verbal style usage on individual performance**



Our fourth set of hypotheses proposed that the use of soft tactics would moderate the effects of individual conflict engagement on performance. Hypotheses 4a was supported with a significant interaction with soft tactics and individual engagement in relationship conflict on individual performance ( $\beta = .56, p < .05$ ). An interaction plot, as seen in Figure 3, showed support for our hypothesis. When soft tactic usage was high,

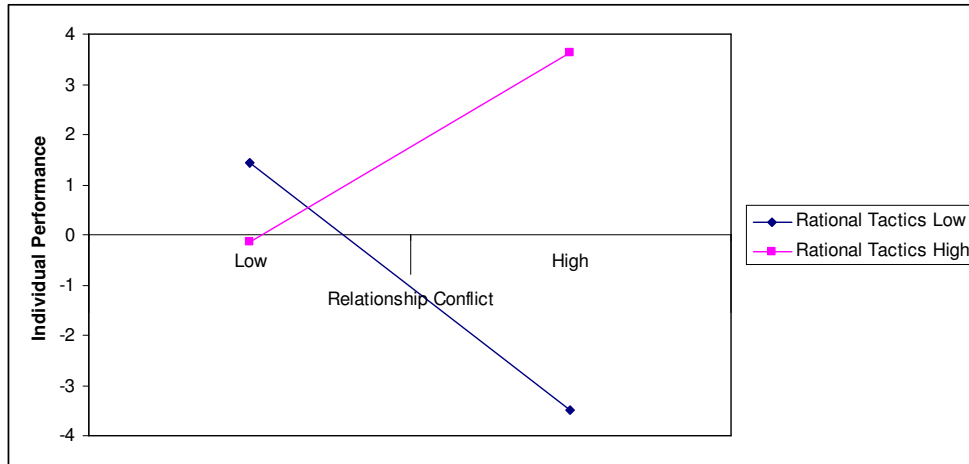
relationship conflict engagement appeared most positively linked to individual performance. When soft tactic usage was low, relationship conflict engagement appeared negatively related to individual performance. Hypothesis 4b was not supported.

**Figure 3. The effects of individual engagement in relationship conflict and soft tactics usage on individual performance**

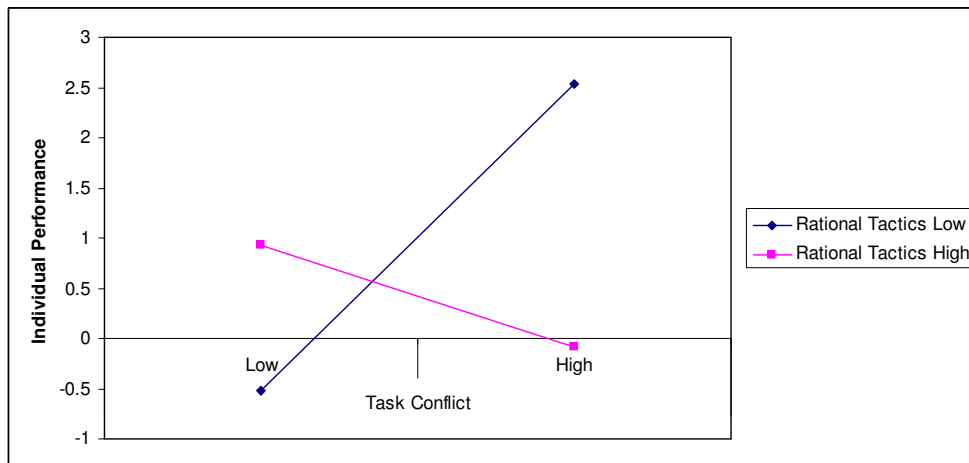


Our fifth set of hypotheses predicted that the use of rational tactics would moderate the effects of individual engagement in each of the conflict types. Hypothesis 5a was supported, as there was a significant interaction between rational tactics and individual engagement in relationship conflict ( $\beta = .48, p < .001$ ). Consistent with our hypothesis, a fan-shaped interaction was revealed (as seen in Figure 4), such that when rational tactic usage was high, individual engagement in relationship conflict appeared to be positively related to performance. However, when rational tactic usage was low, individual engagement in relationship conflict appeared to be negatively related to individual performance. For Hypothesis 5b, there was a significant interaction between individual engagement in task conflict and rational tactics ( $\beta = -.35, p < .05$ ). However, as seen in Figure 5, when rational tactic usage was low, individual engagement in task conflict was the most positively associated with individual performance. When rational tactic usage was high, individual engagement in task conflict appeared negatively associated with individual performance.

**Figure 4. The effects of individual engagement in relationship conflict and rational tactics usage on individual performance**



**Figure 5. The effects of individual engagement in task conflict and rational tactics usage on individual performance**



Our sixth, and last, set of hypotheses proposed that hard tactics would moderate the effects of individual engagement in conflict. We did not find an effect of hard tactics on the relationship between individual engagement in task or relationship conflict and performance.

### Discussion

Our longitudinal, multi-method field study on the individual-level effects and moderators of individual engagement in conflict offers new insight into a traditional organizational process. Past conflict research has often assumed that conflict is a group level phenomenon (c.f. Jehn & Chatman, 2000; Jehn et al., 2006) and overlooked the fact that conflict may often stem from certain individuals choosing to engage in conflict. We found in this chapter that how individuals behave while engaging in conflict may differentially affect their individual performance outcomes. Our study thus adds to the existing conflict literature by acknowledging this discrepancy between theory and reality, and by providing a first examination of the consequences of conflict engagement at the individual level.

Our findings show that how individuals behave while engaging in conflict may determine how their engagement in either task or relationship conflict affects their individual performance. We thus extend past research on conflict (e.g., De Dreu & Weingart, 2003; Jehn, 1995) and conflict communication and management (Brett et al., 1988; De Dreu et al., 2001; Lovelace et al., 2001) by showing that the interaction of conflict type and conflict management strategy can have important implications for how individuals perform. Specifically, we found that a particular set of conflict tactics – namely, verbal style and influence tactics - could be successfully used to manage relationship and task conflicts. The most effective influence strategy depended on the conflict type. We found that engagement in task conflict, but not relationship conflict, was more positively related to individual performance when members used strong verbal style– i.e. when members sent task-related emails that were clear and with correct grammar. Such clear language may have improved the clarity of the message to other members, which would have improved the feedback the member got from them and the individual’s understanding of the task at hand. We also found that engagement in task conflict was more positively related to individual performance when members used a low level of rational tactics – i.e. the member was not overly analytical or didactical. This could be because emails about the task are already fairly rational work related, and when they are coupled with extreme

structure and order, they may come across as too didactical. That would then reduce the acceptance of the message by others.

In contrast, we found that engagement in relationship conflict was more positively related to performance when members used high levels of rational tactics. This means that when members expressed conflictual opinions about interpersonal matters, logical, structured e-mails were the most effective. This could be because when discussing interpersonal differences, which by nature are more subjective and irrational, the application of logic and structure may be more useful in bringing structure to what may be a more unstructured-issue than task-related matters. Additionally, we found that it was important when engaging in relationship conflict to use soft tactics – i.e. to clearly communicate the relationship is important. This may help soften the message being expressed and show that while interpersonal differences may exist, the relationship still matters. These findings extend past work by showing that the tactics with which individuals deal with conflict may shape how their engagement in task and relationship conflicts affects their individual performance. These findings extend past conflict research, which has called for the better integration of conflict tactic research with conflict type research (e.g., Weingart & Jehn, 2000), by showing that the appropriateness of certain conflict management tactics may depend on the topic the conflict is about.

Our findings also extend past conflict management research (e.g., Blake & Mouton, 1964; Brett et al. 1998; Deutsch, 1973; De Dreu et al., 2001; Lovelace et al., 2001; Pruitt & Rubin, 1986; Rahim & Magner, 1995) by providing a set of tactics from which organizational members can pick and use when engaging in conflict, irrespective of their personal style (i.e. cooperative or competitive). We suggest that this differs from past thinking on conflict management by providing a toolbox of conflict tactics for managers that can be used independently of motive or personality type. Such a tool box allows managers the opportunity to incorporate broader situational concerns when choosing how to handle conflicts. For example, managers could choose to use soft tactics when caught in a conflict where signaling appreciation for the other person is important. By being able to choose tactics to match broader situational concerns, rather than just personality or the interest to cooperate or compete in the situation, managers may be able to more affectively address conflicts in their teams.

**Limitations and Future Research**

While we did find conflict management tactics to moderate the effects of conflict on individual performance, we did not find main effects of individual engagement in either conflict type on performance. However, it is of note that in the correlation analyses (see Table 1), individual engagement in task conflict is positively related to performance at Time 1, and marginally positively related to performance at Time 2. These correlations raise the possibility that individuals engaging in task conflict (as opposed to relationship conflict) might reap performance benefits from their engagement in this more work-related form of conflict. This adds to the debate of whether task conflict can be good or bad (c.f. De Dreu & Weingart, 2003; Jehn & Bendersky, 2003) by suggesting that individuals engaging in task conflict may reap performance benefits, irrespective of whether or not the group does. This also suggests that further investigation of the effects of task conflict would benefit from a more multi-level perspective that investigates both the individual- and group- level effects of task conflict.

The context in this study is a specific context – namely, large online discussion groups. Such a contextualized setting may offer important insights for the larger organizational behavior field. In their seminal article, Heath and Sitkin (2001) stressed the importance of contextualized studies which examine behaviors central to the organizing process, such as conflict. They posit that insights gained in a somewhat unique context about essential behaviors for organizing can offer general insights about organizing. Therefore, the study of conflict in this unique context could be seen as a contribution of this study. However, it is still important in future research to investigate whether our findings are indeed also applicable to other settings, such as to smaller groups or groups interacting primarily face-to-face. For example, research has suggested that large group dynamics may differ from small group dynamics in terms of member participation (e.g., Fleishman, 1980; Jones, 1984; Williams, Harkins, & Latane, 1981), justice perceptions (Colquitt & Jackson, 2006; Colquitt, Noe, & Jackson, 2002) and group performance (Gooding & Wagner, 1985). Additionally, while research suggests that in groups working together over time, such as those in this study, groups are able to adapt to online communication media and develop interaction patterns matching those they

employ face-to-face (Carlson & Zmud, 1999; Markus, 1994; McGinn & Croson, 2004; Ocker & Yaverbaum, 1999) and other research has found no significant differences to exist in conflict behaviours in situations occurring face-to-face or virtually (Galinsky & Mussweiler, 2001), future research would also benefit from investigating individual engagement in conflict across different forms of communication media.

Lastly, the focus of this study was on the consequences of individual conflict engagement. We found that conflict engagement may have important consequences for individual outcomes. It would be interesting for future research to compare these effects to those that result from the mere perception of conflict. For example, we can imagine that both individuals who perceive a conflict and do not engage as well as individuals who perceive the conflict and do decide to engage would feel frustrated as a result of the conflict. However, the individual who engages in the conflict might come to feel less frustrated as a result of voicing his or her opinion and would be better able to perform well. Investigation of the potential differences between conflict perception and conflict engagement would be an interesting pathway for future research. It would also be important to identify the factors which cause an individual who has perceived a conflict to decide to behaviorally engage in the conflict. This would build upon the classic work of Pondy (1967) in which he identified conflict perception as a separate conflict phase preceding conflict behaviour, or manifest conflict, by showing how and why conflicts may progress from one phase to another.

### **Conclusion**

In conclusion, our longitudinal, multi-method field study offers insight into the concept of individual conflict engagement. Through the use of clear (but not didactical) language in task debates and the use of flattery and logic during relationship conflicts, managers can effectively control how their engagement in either task or relationship conflicts impacts their individual performance. The implications of our findings can be put to use by anyone engaging in a conflict. By using carefully crafted conflict tactics, managers can influence the conflict process to increase their individual performance.



### Chapter 3 Appendix

#### Scale Summary – Coder Question and Keywords

##### ***Individual Engagement in Task Conflict:***

1. Does this person seem to engage in task conflict within this team?

Text Analyses Keywords: From Jehn 1997: ***differ, disagree, discuss, ends, generate, goals, ideas, negotiate, opinion, perspective, task, viewpoint, work***<sup>1</sup>

For coders: Cohen's kappa=.95; For text analysis and coding: Cohen's kappa=.94,  $\alpha$ =.78

##### ***Individual Engagement in Relationship Conflict:***

1. Does this person seem to engage in personal conflict within this team?

Text Analyses Keywords: From Jehn 1997: *backstabbing, banter, barb, bicker, complain, conflict, destroy, destructive, difficult, disgruntled, dislike, disrupt, enemy, fault, fight, friend, grumbling, hindrance, personal, personality, pressure, problem, relationship, social, trouble* (bold words included in final construct)

For coders: Cohen's kappa =.95; For text analysis and coding: Cohen's kappa =.79,  $\alpha$ =.73

##### ***Verbal Style:***

1. Does this person try to make himself/herself understood by others?
2. This e-mail is very clear.
3. Does this person have good language skills?

Text Analyses Keywords: ***well, like, mean, you know, maybe, perhaps, would, could, might, something, somewhere, interesting*** (Baker, 1990)

For coders: Cohen's kappa =.96; For text analysis and coding: Cohen's kappa =.80,  $\alpha$ =.88

##### ***Rational Tactics:***

1. Does this e-mail seem to be sharing information with the team?

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<sup>1</sup> bold words included in final construct

2. Does this e-mail seem to be providing important information for the team?

3. Does this e-mail seem to be providing knowledge for the team?

Text Analyses Keywords: *event, action, call, forward, www*

For coders: Cohen's kappa =.88; For text analysis and coding: Cohen's kappa =.77,  $\alpha=.77$

***Hard Tactics:***

1. Does this person seem to be giving a direction/instruction/order?

2. Is this person telling others what to do?

Text Analyses Keywords: *now, must, have to, cc*

For coders: Cohen's kappa =.88; For text analysis and coding: Cohen's kappa =.81,  $\alpha=.74$

***Soft Tactics:***

1. Does this person sound like he/she is trying to please someone?

2. Does this person sound like he/she wants the sender(s) to like him/her?

Text Analyses Keywords: *please, just, you, thank (you)*

For coders: Cohen's kappa =.96; For text analysis and coding: Cohen's kappa =.80,  $\alpha=.79$

# Chapter 4

## The Effects of Team Composition on Conflict Engagement

*Based on Greer, Jehn, Thatcher & van Beest (2008)*

Paralleling the dramatic rise of diversity within organizations, interest in diversity research has soared. Despite this rise in research, results about the effects of diversity on team processes and outcomes remain largely contradictory (Jackson, Joshi, & Erhardt, 2003; Mannix & Neale, 2005; Stewart, 2006; Williams & O'Reilly, 1998). The concept of demographic faultlines has arisen as a possible means of explaining the conditions under which diversity will have either positive or negative effects. Demographic faultlines occur when demographic characteristics align within a team in such a way as to create a clear dividing line between dissimilar team members (Lau & Murnighan, 1998). While a growing number of studies have examined the group-level effects of faultlines (e.g., Barkema & Shvyrkov, 2007; Gibson & Vermeulen, 2003; Hart & Van Vugt, 2006; Homan, Van Knippenberg, Van Kleef, & De Dreu, 2007a, 2007b; Lau & Murnighan, 2005; Li & Hambrick, 2005; Molleman, 2005; Pearsall, Ellis, & Evans, 2008; Polzer, Crisp, Jarvenpaa, & Kim, 2006; Rico, Molleman, Sanchez-Manzanares, & Van der Vegt, 2007; Sawyer, Houlette, & Yeagley, 2006; Shaw, 2004; Thatcher, Jehn, & Zanutto, 2003), the majority of studies have only examined situations in which a faultline divides a team into two equal-sized subgroups, such as a team containing three female consultants and three male engineers. This is in spite of the fact that situations in which a single member is excluded from a larger subgroup are quite common in organizational settings.

We extend existing faultline research by distinguishing between different forms of *faultline placement* – specifically, between demographic faultlines that create a solo-split (where a demographic faultline divides a

single member from the rest of the group) and faultlines that create a coalitional split (where a demographic faultline in a group divides subgroups from each other); see Figure 1 for a graphical depiction of how *faultline solo-splits* differ from *faultline coalitional splits*. For example, as seen in Figure 1, a faultline solo-split occurs in a team containing one female consultant and five male engineers, whereas a faultline coalitional-split occurs in a team containing three female consultants and three male engineers. In this chapter, we will investigate how these different forms of faultline placement may lead to important differences between teams, but also between individuals within the same team.

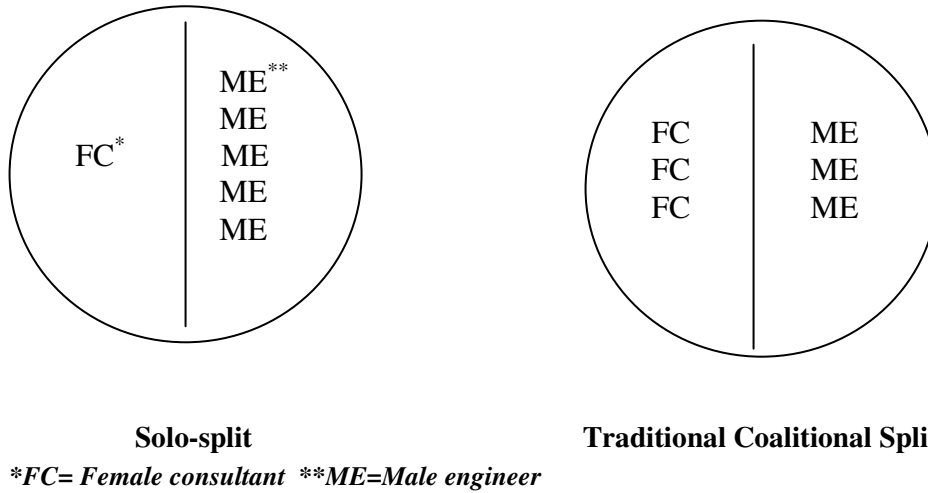
### Overview of Studies

In the three studies in this chapter, including a quasi-experiment, a survey, and a laboratory experiment, we show that faultline placement can have an important impact on team and individual conflict engagement and performance. In Study 1, we show the general relevance of faultline placement for team conflict and performance in a quasi-experiment. We show that teams with a faultline solo-split differ from teams with a faultline coalitional-split in terms of their lower intragroup conflict and lower team performance.

In our next two studies, we investigated the theoretical underpinnings of these findings. We investigated how the solo-member within a solo-split team differed from subgroup members, and how these differences could explain why a team with a solo-member had much less conflict and worse performance than a team with all subgroup members. In a survey study in Study 2, we show that solo members perceived themselves to perform worse than subgroup members, and that this was explained by the fact that they experienced higher levels of relationship conflict than other group members. In a laboratory experiment in Study 3, we show why solos perceived more relationship conflict than subgroup members - they experienced higher levels of relationship problems (discrimination and goal obstruction), but were unwilling to speak out about these problems to their other group members, so other group members were often unaware of the solo member's problems. Together, these studies explain why in solo-split teams, as shown in Study 1, less conflict occurs than in coalitional-split teams - solo-members find themselves in precarious positions that do not allow them to engage their team

in conflict.

**Figure 1. Faultline solo-splits compared to traditional faultline coalitional splits**



### **Study 1: The Team-level Effects of Faultline Placement**

In this first study, we examine whether teams with faultline solo-splits differ from teams with faultline coalitional-splits in terms of their intragroup conflict and performance. We propose that teams with faultline solo-splits will have lower levels of intragroup conflict and team performance than teams with faultline coalitional-splits. In the following section, we will lay out the rationale for this in detail.

### **Theoretical Background**

The effects of demographic faultlines on group processes and performance are often explained using the theories of similarity-attraction, social identity, and social categorization. The similarity-attraction paradigm posits that group members are attracted to similar others (Byrne, 1971), such that members who share a demographic characteristic will be likely to form a subgroup on the basis of the mutual similarity. Social categorization theory argues that the categories that people base their identities on (and thus admire in similar others) proscribe their behavior. When social identities are salient, people will strive to enhance themselves by making their in-group appear

superior to the out-group (Tajfel & Turner, 1986; Turner, 1987). To accomplish this, members may exhibit pride and loyalty to their in-group and derogatory and prejudiced attitudes and behavior toward the out-group (Messick & Mackie, 1989). These processes over time may lead to a breakdown in communication between subgroups (e.g., Lau & Murnighan, 2005) and the eventual polarization of the different subgroups from each other (c.f. Lau & Murnighan, 1998). We propose that faultline placement (whether the faultline creates a solo-split or coalitional split) determines the degree to which these social psychological mechanisms impact team processes and outcomes. While past research has explored whether processes such as these lead faultlines to be associated with higher levels of conflict (e.g., Lau & Murnighan, 2005; Li & Hambrick, 2005; Polzer et al., 2006; Thatcher et al., 2003), research has yet to investigate how the effects of faultlines might vary depending on the placement of the faultline in the group – whether the faultline divides two subgroups from each other or whether the faultline separates a single member from a larger subgroup.

In this chapter, we specifically focus on the group process of conflict as explaining the effects of faultline placement on team and individual performance. Because our study examines team composition, conflict is a particularly relevant construct, as past theory and research has often suggested that these two concepts - team composition and conflict - are closely related (e.g., Jehn, Northcraft, & Neale, 1999; Pelled, Eisenhardt, & Xin, 1999). Additionally, conflict has been found to be a major contributor to the effects of group processes on outcomes such as performance or satisfaction (e.g., Amason, 1996; De Dreu & Weingart, 2003; Jehn, 1995; 1997). Past conflict research has identified three main types of conflict: task conflict, relationship conflict, and process conflict (Jehn, 1997). Task conflicts typically involve disagreements about the task being performed, such as disagreements about what strategic goal to pursue; relationship conflicts are disagreements about personal issues and incompatibilities; and process conflicts are disagreements about logistical issues, such as the assignment of responsibilities or the setting of an agenda (Jehn, 1997). In the following sections, we discuss potential differences between teams with faultline solo-splits or faultline coalition-splits in terms of their levels of intragroup conflict and then discuss the implications of this for group performance.

### **Effects of Faultline Solo-Splits on Intragroup Conflict and Team Performance**

We propose that teams with faultline solo-splits will have lower levels of all three types of intragroup conflict – task, process, and relationship- than teams with faultline coalitional-splits. This is based on past research which has shown that in certain situations, solo members tend to conform rather than express their opinion in the face of a unified majority (Asch, 1952; Latane & Wolf, 1981; Tanford & Penrod, 1984). Asch's (1952; 1956) classic work on conformity demonstrated the extreme power a majority can exert over a minority member, causing minority members to conform to the majority opinion and discard their own opinion, even if they believed it to be true. In faultline situations, where the solo member is dissimilar from the other group members on multiple characteristics, these effects could be expected to be even stronger, implying that teams with faultline solo-splits will have markedly lower levels of conflict than teams with faultline coalitional-splits. A possible explanation for this is that people who express dissenting opinions risk social disapproval from others (Schachter, 1951; Wood, Lundgren, Oullette, Buscene, & Blackstone, 1994), and solo members may consciously recognize that expression of their views may result in the majority subgroup members liking them less if they express a different perspective (Deutsch & Gerard, 1955). Therefore, solo-split groups may be likely to have low levels of all types of conflict within their group as solo members may not wish to engage the majority subgroup members in debate.

In contrast, when a faultline coalitional-split (where each subgroup has two or more members) exists within a team, neither coalition should have trouble expressing their opinion because of increased feelings of social support (Lau & Murnighan, 1998). As seen in the Asch experiments (1952; 1956) and confirmed in later work (e.g., Bragg & Allen, 1972), the presence of just a single additional dissenting minority member dramatically increases the ability of dissenting members to hold to their beliefs and avoid conforming to the majority. This occurs because of feelings of social support (c.f. Lau & Murnighan, 1998) and increased feelings of psychological safety (Edmondson, 1999). In these situations, conflicts of all types become more open confrontations as both sides express their views of each other –over both

interpersonal and work-related problems. This willingness to engage in conflict is likely to be even further exacerbated by the higher levels of competition likely to be present in teams with different subgroups. In coalitional-split groups, subgroup members' support for subgroup interests can lead to competition between different subgroups (Insko & Schopler, 1987; Wildschut, Insko, & Gaertner, 2002), as subgroup members work to favorably influence their own outcomes even at the expense of members of other subgroups (Polzer, Mannix, & Neale, 1998). In such situations, conflicts are more likely than in solo-split teams, where the solo-members are unable to challenge the dominant subgroup because of a lack of social support. We therefore propose:

*Hypothesis 1.* Groups with solo-split faultlines will have lower levels of intragroup conflict (task, relationship, process) than groups with coalitional-split faultlines.

When solo members do not express their views within the group, the value of diversity may be lost (Cox, Lobel, & McLeod, 1991). The tendency for conformity to overpower the potential benefits of diversity in teams has been often lamented in the diversity literature (e.g., Milliken & Martins, 1996; Riordan, 2000; Williams & O'Reilly, 1998). This is because, as in faultline solo-split teams, when the diverse members in their teams do not challenge the perspectives of the majority, groupthink may occur. This can negatively impact performance as groupthink can lead to errors in group decision making (Janis, 1982). Therefore, in solo-split teams, when the diverse member of the team - the solo - does not feel able to speak up or engage in conflict, the performance of these teams may suffer as groupthink may then impair the team's ability to make decisions and perform. In contrast, in coalitional-split groups, members are likely to be vocal during group processes because of increased feelings of social support and psychological safety from their subgroups (Edmondson, 1999). In such situations, the conflict between subgroups can help reduce groupthink and prevent premature consensus, leading to higher quality decisions (e.g., Brodbeck et al., 2002; Janis & Mann, 1977; Schulz-Hardt et al., 2006). This is in line with past faultline and intergroup relations research which shows that competition between subgroups, such as in the case faultline coalitional-splits, can enhance team



learning, decision-making processes, and effectiveness (e.g., Gibson & Vermeulen, 2003; Mulvey & Ribbins, 1999). Additionally, research in the area of conflict suggests that the challenging of opinions can improve group members' understanding of the task at hand and the resulting quality of group decisions and performance (e.g., Fiol, 1994; Janssen, Van de Vliert, & Veenstra, 1999; Pelled, Eisenhardt & Xin, 1999; Putnam, 1994; Schweiger, Sandberg, & Rechner, 1989). For these reasons, we therefore propose:

*Hypothesis 2.* Groups with solo-split faultlines will have lower performance than groups with coalitional-split faultlines.

To tie together the above hypotheses, we further propose that:

*Hypothesis 3.* Intragroup conflict will mediate the effects of faultline placement (whether the faultline creates a solo-split or coalitional-split) on team performance.

### **Study 1 Methods**

#### **Sample**

We tested our hypotheses during executive training courses in the United States. We examined 70 working groups, comprised of 326 high-level company employees from engineering companies and investment banking firms. Because our sample contains real working people, our findings may be more generalizable to organizational settings than traditional samples in field experiments. The average group size was 4.79, 24% of the participants were female, and 80% of the participants were white.

During the course, participants engaged in an information exchange exercise, similar to the traditional Stasser hidden profile task (e.g., Stasser & Titus, 1985), in which groups were required to solve a logic puzzle together. This task offers an appropriate test of our hypotheses as we are able to simulate the decision making processes of real groups, but control the amount of informational diversity held by each group member. This allows us to show that differences between different types of faultline placements do not stem from information imbalances, but rather stem from the unique demographic composition of the groups.

In the task, participants were given introductory information about the puzzle and then were all assigned an equal number of unique clues.

Participants were informed that no other participant had the same information, and that successful completion of the task would require putting together the various clues to come up with a joint solution. Group performance was determined by the number of correct answers the groups came up with in the logic puzzle.

## **Measures**

### ***Solo-splits***

To identify solo-splits, we used the faultline algorithm developed by Thatcher, Jehn, and Zanutto (2003) and later updated by Bezrukova, Jehn, Zanutto, and Thatcher (2005). The faultline algorithm is calculated with the aid of the computer program SAS. The demographic variables included in our faultline calculations were gender, race, job function, and years working experience.<sup>2</sup> Solo-splits were identified when the SAS output showed the strongest faultline split for a group occurring when just one person was excluded from the group. A dichotomous variable was then created to identify groups as containing or not containing solo-splits. Forty-eight of our seventy groups were identified as solo-splits, where the strongest faultline split was between a single dissimilar member and a subgroup consisting of similar members.

Because of the inequality in sample sizes between our two groups of comparison, we checked for Levene's test for equality of variances when comparing group processes and performance between solo-split groups and coalitional-split groups. This test was not violated for any of our hypothesized relationships.

### ***Conflict***

Conflict was measured using Jehn (1995)'s scale of intra-group conflict for task and relationship conflict, and Jehn and Mannix's (2001) scale for intragroup process conflict. The task conflict scale consisted of six items

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<sup>2</sup> Because our solo-split variable allows the possibility of the solo-split occurring either on a functional faultline or a social category faultline, we wanted to verify that the solo experience was similar, no matter what the basis for the solo position was. We reran our analyses looking at functional solo-splits and social category solo-splits separately, as past research has suggested that functional diversity and social category diversity may have different effects on group processes and performance (Jehn, Northcraft, & Neale, 1999). We did not find any significant differences between functional-solo-splits and social category-solo-splits.

(i.e. “How much conflict of ideas was there in this team?”) and had a cronbach alpha of .84. The relationship conflict scale consisted of five items (i.e. “How much were personality clashes evident in this team during this exercise?”) and had a cronbach alpha of .79. The process conflict scale consisted of six items (i.e. “To what extent did this team disagree about the way to do things in their team?”) and had a cronbach alpha of .90. A factor analysis revealed three distinct factors with loadings of .58 or above.

### **Performance**

Performance was measured by the task outcome. The task outcome was assessed by the number of correct answers the groups came up with in response to the logic puzzle, with a guessing penalty applied for incorrect answers.

### **Controls**

We initially controlled for the effects of faultline strength, gender and race heterogeneity, team tenure, and organizational identity. We found none of these variables significantly affected our model in preliminary tests of our hypotheses using regression analysis ( $R^2=.03$ , Adjusted  $R^2=-.03$ ), and that the effect of faultline placement (whether the group was a solo-split or coalitional-split) on the variables in our study remained significant when controlling for these variables in a MANCOVA analysis ( $F [1, 70] = 3.34, p < .05$ ).

### **Study 1 Results**

Means, standard deviations, and correlations are presented in Table 1. To justify aggregation of our survey measures for the group-level analyses, we computed the intraclass correlation coefficients (ICC[1]s). The ICC[1]s and associated F-tests were all significant (task conflict = .29,  $F [1,70] = 2.25, p < .001$ ; relationship conflict = .23,  $F [1,70] = 1.88, p < .01$ ; and process conflict = .16,  $F [1,70] = 1.58, p < .05$ ), confirming the appropriateness of aggregation (Klein and Kozlowski, 2000).

**Table 1. Means, standard deviations (s.d.), and correlations among variables<sup>a</sup>**

Variable	Mean	s.d.	1	2	3	4	5
1. Faultline strength	.81	.11					
2. Solo split group <sup>b</sup>	.81	.41	.33*				
3. Performance	4.55	3.30	-.07	-.27*			
4. Task conflict	2.44	.67	-.19	-.48**	.23		
5. Relationship conflict	1.61	.55	.03	-.33**	.23	.58**	
6. Process conflict	2.19	.74	.13	-.33**	-.12	.74**	.63**

\*  $p < .05$ ; \*\*  $p < .01$ . <sup>a</sup>  $n=70$  groups. <sup>b</sup> Solo-split group is a dichotomous variable, with 0=coalitional-split group and 1=solo-split group.

A MANOVA was conducted as a global test of significance prior to hypothesis testing, entering faultline placement (whether the faultline created a solo-split or a coalitional-split) as the independent variable and the three conflict types and group performance as the dependent variables. The effect of faultline placement (whether the faultline created a solo- or coalitional-split) on intra-group conflict and performance was significant ( $F_{1,70} = 4.71, p < .01$ ). To test our specific hypotheses, we conducted univariate analyses of variances (ANOVA) to compare the group level effects of solo-split groups and coalitional-split groups. The results of these tests, as well as the relevant means and standard deviations, are seen in Table 2.

**Table 2. Hypothesized mean differences**

Variable	<i>F</i>	Solo-split Group		Coalitional-split Group	
		Mean	s.d.	Mean	s.d.
Task Conflict	17.18**	2.24	0.64	3.05	0.57
Relationship Conflict	7.20**	1.48	0.52	1.93	0.60
Process Conflict	7.10**	2.04	0.70	2.64	0.74
Group Performance	4.15*	4.09	3.24	6.31	3.27

\*  $p < .05$ ; \*\*  $p < .01$

Our first set of hypotheses, which stated that solo-split groups would have lower levels of all three conflict types as compared to coalitional-split groups, was supported. Solo-split groups had significantly less task conflict than coalitional-split groups ( $F[1,70] = 17.18, p < .001$ ). In groups containing a solo member, there was significantly less conflict over work ideas as compared to groups containing two subgroups. Solo-split groups also experienced less relationship conflict than did coalitional-split groups ( $F[1,70]$

= 7.20,  $p < .01$ ). When a solo member was present, relationship conflicts were not as pronounced as when two subgroups were present. Finally, solo-split groups experienced less process conflict than coalitional-split groups ( $F[1,70] = 7.10, p < .01$ ). As predicted, a group containing subgroups were more likely to have conflicts over logistical group issues than a group containing a single solo member and a majority subgroup. Our next hypothesis stated that solo-split groups would have lower objective performance scores than coalitional-split groups. Hypothesis 4 was supported, as solo-split groups performed significantly worse than coalitional-split groups ( $F[1,70] = 4.15, p < .05$ ).

Because past research suggests that intra-group conflict may mediate the relationship between diversity measures and group performance (e.g., Jehn et al., 1999), we also checked for mediation using hierarchically regression analysis, following the procedure established by Baron and Kenny (1986). As shown earlier, faultline placement was significantly related to task conflict ( $\beta = -.48, p < .001$ ), relationship conflict ( $\beta = -.33, p < .01$ ), process conflict ( $\beta = -.33, p < .01$ ), and performance ( $\beta = -.27, p < .05$ ). To test the next part of our mediation analysis, we examined the effects of conflict on performance. When entering the three conflict types into a regression together, we found that task conflict was positively related to performance ( $\beta = .58, p < .01$ ), process conflict was negatively related to performance ( $\beta = -.79, p < .001$ ), and relationship conflict was actually positively related to performance ( $\beta = .39, p < .05$ ). To test the final step of the mediation analysis, we examined if the effects of faultline placement on performance disappeared when conflict was controlled for. This step was supported, as after controlling for the three conflict types, faultline placement no longer significantly affected performance ( $\beta = -.15, n.s.$ ). Therefore, we found conflict to successfully mediate the relationship between faultline placement and performance, lending credence to our choice of conflict as a crucial intervening process in groups split by faultlines.

### **Study 1 Discussion**

In Study 1, we introduced the concept of faultline solo-splits, where a single dissimilar group member is excluded from a demographically homogenous subgroup. While past faultline research has often focused on situations where two (or more) subgroups of two or more people are formed

within a group (e.g., Gibson and Vermeulen, 2003; Thatcher et al., 2003), situations in which a single member is excluded from a subgroup are quite common in organizational settings. Our results provide support for the proposition that the placement of a faultline in a group, whether it divides a team into subgroups or differentiates a single member from a subgroup, may have important implications for diversity and faultline theory and research.

When the placement of a faultline in a group differentiated a single member from a subgroup rather than a subgroup from another subgroup, we found that group processes were markedly different. Groups characterized by solo-splits experienced lower levels of all conflict types compared to coalitional-split groups. While solo-split groups experienced lower amounts of traditionally detrimental conflict forms such as relationship and process conflict than coalitional-split groups (De Dreu and Weingart, 2003), solo-split groups also experienced lower levels of task conflict. As moderate levels of task conflict on non-routine tasks may help group performance (Amason, 1996; Jehn, 1995), our findings reveal that a key challenge in managing solo-split groups will lie in finding ways to encourage all members of solo-split groups to express and argue for their different views during debates of work-related issues, but not on interpersonal and process issues.

Most interestingly, solo-split groups scored considerably lower than coalitional-splits on the external performance measure. This is consistent with the “value in diversity” hypothesis (Cox et al., 1991) - when the unique opinions of diverse members are not used in debate, group performance may suffer. By examining group processes as resulting from different forms of faultline splits, our study offers insight into why past results on the effects of diversity on performance have been inconclusive. The placement of faultline splits within groups, in addition to general heterogeneity or general faultline strength, may be one of the major driving forces of the effects of diversity upon group processes and outcomes. When a faultline differentiates a single group member instead of a subgroup, very different processes come into play. Our research thus offers an important extension to faultline theory by demonstrating the importance of the placement of the faultline for performance within groups. Additionally, our study shows that the mere presence of diversity alone is not enough to drive performance in a group. Especially in situations of solo-splits, group members need to not only listen to

the work-related opinions from diverse members, but also actively debate and challenge their opinions. This extends past research on minority influence (e.g., Phillips and Loyd, 2006; Phillips, Mannix, Neale, and Gruenfeld, 2004) by showing the importance of group level processes in determining the influence of minority members on team outcomes.

### **Study 2: Effects of Faultline Placement on Individual Differences within Teams**

In Study 2, we examine the mechanisms underlying our findings in Study 1 by investigating whether the placement of a faultline in a team may lead to differences between members *within* the same team – whether solo members do indeed have different experiences in the team than subgroup members. Specifically, we examine whether solo members experience more or less conflict than other team members, and we look at the effects of this on individual performance. We define faultline solo members as solo members divided by a demographic faultline in their group from a majority subgroup on the basis of multiple demographic characteristics. We investigate whether faultline solo members experience more conflict than subgroup members – i.e. whether they have *asymmetric* perceptions of conflict in their group. We then examine whether being a faultline solo member impacts perceived individual performance. We contribute to existing faultline research by focusing on how the placement of a faultline may differentially impact members within the same team. Past faultline research has primarily focused on how faultlines may affect team processes and performance (e.g., Lau & Murnighan, 2005; Thatcher et al., 2003) and has overlooked the possibility that faultlines may lead members within the same team to have very different experiences from one another. We thus extend this research by investigating how different forms of faultline placement may differentially affect both the experiences and performance of different individuals within a team. Additionally, we build upon work which has found demographic composition to impact individual participation and knowledge sharing (Larson, Christenson, Abbott, & Franz, 1996; Phillips, 2003; Phillips, Mannix, Neale, & Gruenfeld, 2004; Wittenbaum, 1998; Wittenbaum, 2000) by looking at the effects of faultlines on within group differences in *individual* experiences and outcomes. Specifically, we focus on how within a team with a faultline, faultline-solo

members may differ from faultline-subgroup members in terms of conflict and performance. Lastly, we extend past research on tokenism and proportional representation in the organizational setting (e.g., Ely, 1995; Kanter, 1977; Niemann & Dovidio, 1998) by examining how findings on organizational tokens can be applied to explain differences in perceptions of and contribution to *intragroup* processes in the small group setting. Specifically, we look at how individuals who are solo members (i.e. tokens) differ in their perceptions of intragroup conflict from subgroup members in the team. This offers a first examination of how numerical representation may differentially affect members' perceptions of conflict within the same team.

### **Theoretical Background**

We propose that when faultlines create solo splits, solo members (members excluded from a majority subgroup) may have different perceptions and experiences of intragroup processes than other group members who are part of a demographic subgroup. Past research has shown that organizational solo members are in a position of heightened visibility (Niemann & Dovidio, 1998). This heightened visibility may make solo members more likely targets of prejudice and discrimination (Lau & Murnighan, 1998). Additionally, solo members are in a position which lacks the support and safety of a subgroup of similar members. These factors thus may lead solo group members to have different expectations and experiences of conflict in their group, which in turn may alter how well members may ultimately perform in their group.

### **The Mediating Role of Conflict Asymmetry**

In line with past research which has identified conflict as having a large impact on individual performance and well-being (e.g., Bergman & Volkema, 1989; Dijkstra, van Dierendonck, & Evers, 2005; Jehn, 1995), we focus in this study on experiences of conflict as mediating the relationship between individual-level differences in faultline placement (whether an individual is a solo member or a subgroup member as a result of a demographic faultline split) on individual performance.

In this chapter, we propose that solo members may be more likely to experience conflict than subgroup members. These asymmetric perceptions of conflict are likely to exist for several reasons. First of all, past research has



proposed and found that ‘numerical distinctiveness’ may lead to the heightened visibility of an organizational solo member (Kanter, 1977; Niemann & Dovidio, 1998). Visibility has been shown to increase solo members’ own expectations of negative stereotypes, or stereotype threat (e.g., Goffman, 1963; Steele, 1997). This visibility, or distinctiveness, in turn may lead majority subgroup members to exaggerate the differences between themselves and the solo (e.g., Taylor, Fiske, Etcoff, & Ruderman, 1978). Such negative treatment of the solo member, such as discrimination or social exclusion, may lead the solo member to experience negative feelings such as anger (e.g., van Beest & Williams, 2006; Williams, 1997; Williams et al., 2000; Wong et al., 2003). This negative treatment and resulting negative emotions may increase a solo member’s experience of conflict compared to subgroup members. Relatedly, the solo member is the diverse member in a group with other members – the subgroup – who are demographically similar. The solo member, as the diverse member in the team, may have a potentially different way of approaching task and process issues within the team. For example, past research has suggested that members who differ from each other may have different ‘thought worlds’ (Dougherty, 1992). This implies that solo members may have different perspectives and experiences relating to the task, processes, and relationships in the team than subgroup members.

Secondly, past research on minority status within a group suggests that a solo member may be less likely to voice his or her ideas and more likely to conform to the opinion of the majority members (e.g., Asch, 1952, 1956; Bragg & Allen, 1972; Latane & Wolf, 1981; Tanford & Penrod, 1984). This is because the solo may suffer from both a lack of both social standing within the team as well as a lack of social support within the team (Lau & Murnighan, 1998). When solo members do not voice their opinion, others in the team may not become aware of the opinions or experiences of the solo member and may not perceive the same level of conflict as the solo member feels. For example, solo members may feel victims of discrimination and injustices (e.g., van Beest & Williams, 2006; Williams, 1997; Williams et al., 2000; Wong et al., 2003), but may not share these feelings with other group members and therefore other group members may not necessarily be aware of the conflict the solo member is experiencing. Therefore, we propose that solos are likely to experience higher levels of conflict than subgroup members.

*Hypothesis 1.* Solo members are more likely to experience conflict (task, relationship, process) than subgroup members.

We further propose that these differing conflict experiences will affect the performance of the individuals in the group. Initial research examining the idea of conflict asymmetry had found asymmetric perceptions to detract from group level outcomes (Jehn & Chatman, 2000) as well as satisfaction with mediation outcomes in dyadic negotiations (Jehn et al., 2006). In this study, we propose that higher, asymmetric perceptions of conflict are likely to impact individual performance for several reasons. First of all, past research has suggested that conflict may lead to a decrease in individual performance because of distraction from the task at hand and misspent time and energy (c.f. Jehn & Bendersky, 2003). This is likely because conflicts are often tightly linked to negative emotions, such as anger (Jehn & Bendersky, 2003; Pinkley, 1990; Thomas, 1992). Negative emotions such as this may overrun and oversimplify rational reasoning (c.f. Brief & Weiss, 2002; Thomas, 1992). Therefore, members experiencing higher levels of conflict can be expected to have lower performance due to more disengagement from the task, both cognitively and physically, than other group members. Secondly, the experience itself of having asymmetric perceptions from other group members, such as in the case of a member perceiving a higher level of conflict than other group members, may impair individual performance. This is because when a member has an asymmetric view from other group members, the member is unable to verify his or her perceptions of reality. Such verification processes are thought to be critical for member comfort and performance within the group (Swann, 1999). Additionally, when members hold an asymmetric view, they may also have higher feelings of injustice as they perceive conflicts that others do not and are therefore not being addressed. Feelings of injustice have been found to be associated with discomfort and feelings of inequity within the group (Lind & Tyler, 1988; Tyler, 1986), which may also distract an individual from task performance. Therefore, we propose that individuals experiencing higher, more asymmetric levels of conflict compared to other group members will have lower levels of performance.

*Hypothesis 2.* Asymmetric conflict perceptions (task, relationship, process) will be negatively related to perceived individual performance.

Finally, we draw together our hypotheses by proposing that the likelihood of solo members to experience heightened levels of conflict will explain the lower performance of solo members. Therefore, we propose:

*Hypothesis 3.* Asymmetric perceptions of conflict (task, relationship, process) will mediate the relationship between faultline placement and perceived individual performance.

### **Study 2 Method**

#### **Sample**

We surveyed 103 employees (26 teams) of the sales unit of a telecommunications company in the Netherlands. Seventy-eight percent of the participants were male, the average age was 41, and the average group size was 4.48.

#### **Measures**

All teams surveyed exhibited faultlines. This was based on the actual, objective demographic characteristics present in the group. We specifically looked at faultlines based on gender and educational level.

#### ***Faultline Placement***

Faultline placement – whether the member was a solo or subgroup member – was assessed by whether the demographic faultline in a team divided two subgroups or a single member from a subgroup. In the latter situation, the single member dissimilar from the larger subgroup was identified as a solo-member, and other members were identified as subgroup members. As a manipulation check, we also asked participants whether they perceived themselves as being a solo member with three questions (e.g., “How alone do you feel in this team?”). The three items exhibited high reliability ( $\alpha=.87$ ). The manipulation check was successful as solo members reported higher feelings of being a solo than did subgroup members ( $F(1, 103) = 5.29, p$

< .05; Solo members:  $M = 2.37$ ,  $SD = .27$ , subgroup members:  $M = 1.68$ ,  $SD = .13$ ).

### ***Asymmetric Conflict Perceptions***

Task and relationship conflict were assessed using the scale of Jehn (1995), and process conflict was assessed using the scale of Jehn and Mannix (2001). All three scales exhibited high internal reliability (task conflict:  $\alpha=.90$ ; relationship conflict:  $\alpha=.80$ ; process conflict:  $\alpha=.91$ ), as well as sufficient discriminant validity (a factor analysis revealed three distinct factors, with all loadings above .80).

The degree to which member perceptions were asymmetric for each conflict type was then calculated by a group-mean deviance score (the individual conflict score minus the mean conflict score of other group members). This score thus reflects the degree to which the member perceived more or less conflict in the group than other group members, with positive scores reflecting higher perceptions of conflict than other group members and negative scores reflecting lower perceptions of conflict than other group members.

### ***Perceived Individual Performance***

Perceived individual performance was assessed on the basis of two self report items (“I work effectively in this team” and “In general, I think I perform well within the group”;  $\alpha=.85$ ).

### ***Controls***

As group level characteristics, such as team size, team tenure, and objective faultline strength (the number of characteristics the faultline was based upon), may affect the experiences of solo members, we control for them in our model.

### ***Analysis***

The individuals in this study were members of existing organizational teams. Group-level variables, particularly the strength of group-level faultlines (both perceived and objective), are likely to affect the degree to which individual perceptions of solo status affect conflict

and performance. This nonrandom assignment, as well as these group level variables, needed to be accounted for in our data analysis.

Hierarchical linear modeling, or HLM, can be used to control for the lack of independence in the dependent variable caused by the nesting within raters (Bryk & Raudenbush, 1992). HLM is able to overcome the limitations of the other options, such as aggregating all variables or running everything at the individual level of analysis, by simultaneously investigating both with- and between- group effects on an individual-level dependent variable (Hofman, Griffin, & Gavin, 2000). To accomplish this, HLM utilizes an empirical Bayesian estimation process in which models at both levels are estimated iteratively. Parameter estimates and standard errors are based on the group-level sample weighted by the reliabilities of the individual-level dependent variable in each group. Therefore, we utilize hierarchical linear modeling (HLM) to test our proposed relationships.

To calculate the explained variance in HLM, we use the formula suggested by Kreft and de Leeuw (1998) and Singer (1998) where the difference between the unrestricted error and restricted error in the model is divided by the unrestricted error.

### **Study 2 Results**

Means, standard deviations, and correlations of our variables are displayed in Table 1. As seen, in the correlation table, faultline placement is significantly correlated with asymmetric perceptions of relationship conflict, and asymmetric perceptions of relationship conflict are negatively correlated with perceived individual performance.

**Table 2. Study 2 means, standard deviations, and correlations<sup>a</sup>**

Variable	Mean <sup>b</sup>	s.d. <sup>b</sup>	1	2	3	4	5	6	7
1. Team Size	4.48	1.92		.16	.40*	-	-	-	-
2. Team Tenure	3.23	2.78	-		-.23	-	-	-	-
3. Objective Faultline Strength	.51	.42	-	-		-	-	-	-
4. Solo or Subgroup Member	1.81	1.17	-	-	-		-	-	-
5. Task Conflict Asymmetry	1.12	.51	-	-	-	.09		-	-
6. Relationship Conflict Asymmetry	2.10	1.01	-	-	-	.23*	.28**		-
7. Process Conflict Asymmetry	1.21	.64	-	-	-	-.07	.61**	-.02	
8. Individual Performance	5.77	.84	-	-	-	-.31**	-.12	-.20*	.04

\*p<.05; \*\*p<.01; \*\*\*p<.001. <sup>a</sup> individual level correlations, n=103

**Table 4. Results of HLM analysis for Study 2**

	Task Conflict Asymmetry		Relationship Conflict Asymmetry		Process Conflict Asymmetry		Individual Performance			
	$\gamma$	s.e.	$\gamma$	s.e.	$\gamma$	s.e.	$\gamma$	s.e.	$\gamma$	s.e.
Level 2 Variables:										
Team Size	.11	.09	-.03	.04	.09	.08	.05	.07	.04	.03
Team Tenure	-.10	.09	.02	.04	-.06	.10	.04	.07	.05	.07
Faultline Strength	-.06	.06	.03	.03	.05	.05	-.01	.05	.02	.04
Level 1 Variables:										
Solo or Subgroup Member	.29	.17	.43*	.18	.08	.16	-.51**	.17	-.13	.19
Task Conflict Asymmetry									-.04	.12
Relationship Conflict Asymmetry									-.27**	.09
Process Conflict Asymmetry									.01	.09
R <sup>2</sup>	.04		.44		.12		.22		.23	

\*\*p<.01; \*p<.05.

To verify we entered our variables into HLM at the right level of analysis (individual or group), we computed intra-class correlation coefficients for our variables of interests to determine whether or not they were varying significantly between groups. We did not find these variables - conflict asymmetry (task, relationship, and process) and perceived individual performance - to vary between groups (non-significant F-tests, ICC[1]s below .10), showing the appropriateness of examining these variables at the individual level. We therefore entered team size, team tenure, and faultline strength as Level 2 group-level, variables in HLM. We entered solo-or-subgroup member, conflict asymmetry (task, relationship, and process), and perceived individual performance as Level 1 individual-level, variables in HLM.

**Hypothesis Testing**

Our first hypothesis proposed that solo members would experience higher, more asymmetric levels of conflict compared to subgroup members. As seen in Table 2, this hypothesis was partially supported. HLM analyses yielded a significant positive effect of solo status on relationship conflict asymmetry ( $\gamma = .43, t = 2.41, p < .05$ ), such that solos experienced more relationship conflict than subgroup members. We did not find an effect of task or process conflict asymmetry.

Our second hypothesis proposed that higher, asymmetric perceptions of relationship conflict would be negatively related to perceptions of individual performance. This hypothesis was also supported. HLM analyses showed that relationship conflict asymmetry was significantly negatively related to performance ( $\gamma = -.27, t = -3.19, p < .01$ ), such that members perceiving more relationship conflict than their other team members also reported the lowest individual performance. We did not find an effect of individual task or process conflict asymmetry on individual performance.

We then tested whether the experience of relationship conflict mediated the effect of faultline placement on performance. We employed the technique of Baron and Kenny (1986). In this procedure, relationships between the independent variable (faultline placement - solo or subgroup member) and both the mediator (relationship conflict asymmetry) and dependent variable (performance) need to be established, as well as a relationship between the mediator (relationship conflict asymmetry) and the dependent variable (performance). As the final step to show mediation in this procedure, the relationship between the independent variable (faultline placement) and the dependent variable (performance) needs to disappear when the mediator (conflict) is controlled for in the regression equation.

Following this procedure, we found support for mediation. Firstly, as detailed above in our findings for our first hypotheses, we found that solo members had significantly higher, asymmetric perceptions of relationship conflict ( $\gamma = .43, t = 2.41, p < .05$ ) and lower perceptions of individual performance ( $\gamma = -.51, t = -2.91, p < .01$ ). Secondly, we found that relationship conflict asymmetry was significantly negatively related to performance ( $\gamma = -.27, t = -3.19, p < .01$ ). Finally, we found that the effects of being a solo or subgroup member on individual performance decreased to non-significant



when relationship conflict asymmetry was controlled for. The Sobel test for this mediation was significant ( $z = 1.98, p < .05$ ).

### **Study 2 Discussion**

In Study 2, we show the importance of considering how faultline placement (whether individuals are solos or subgroup members) impacts individual experiences within groups. We find that solo members were more likely to experience a higher amount of relationship conflict and a lower level of individual performance than other group members. The asymmetric perception of relationship conflict fully explained the negative impact of faultline placement – being a solo or subgroup member - on individual performance. Our findings extend existing faultline research (e.g., Lau & Murnighan, 2005; Thatcher et al., 2003) by showing how faultline placement can lead to asymmetries *within* a team. Our findings also extend the recently growing literature on asymmetric perceptions (e.g., Jehn et al., 2006; Jehn & Rispens, 2007) by identifying a situation wherein asymmetric perceptions are likely to exist, and by finding that these asymmetric perceptions do have a negative impact on individual performance.

These findings offer some insight into why in Study 1 we find that teams with solo-splits had less overall conflict and lower performance than teams with coalitional-splits. Namely, as suggested in Study 1, we find in Study 1 that solo members are in a very precarious position in their team - they experience conflicts but are apparently unable to express them, as their fellow team members do not report being aware of the same degree of conflicts as solo members report experiencing. This offers support for why at the group level, teams with solo-splits may not experience as much overall expressed conflict as teams with coalitional-splits.

### **Study 3: The Role of Demographic Status in Faultline Placement**

In Study 3, we expand and refine the theoretical underpinnings of our model. First of all, in this study, we investigate the differences between the experience of relationship problems and the expression of relationship problems. By doing so, we hope to explain the findings in the previous two studies. Specifically, we found in Study 1 that teams with solo-splits had less conflict than teams with coalitional-splits. We built this reasoning on the idea

that solo-members within solo-splits would not challenge the ideas of the larger subgroup, leading to situations of group think (Janis, 1982) in solo-splits. In Study 2, we found that solo members experienced more conflict, and specifically, more relationship conflict, than subgroup members. In Study 3, we reconcile these findings by proposing that solo members experience *more* relationship problems in the team (explaining the findings in Study 2), but are less willing to express this to other members in the team (explaining the findings in Study 1). Indeed, this contrast between the experience and expression of conflict may provide an important basis for the existence of asymmetric conflict perceptions, as shown in Study 2 - when members experience relationship problems, but do not voice these or engage in conflicts, other group members may be unaware of the relationship issues in the group, leading to asymmetric perceptions regarding the degree to which relationship issues, or conflicts, exist within the group.

A second contribution of this study is that we also incorporate the role of demographic status. Demographic characteristics and status are often closely intertwined (e.g., Berger, Rosenholtz, & Zelditch, 1980), which implies that demographic status may have an important moderating impact on the experiences of solo and subgroup members. While demographic status may dramatically alter the role of a solo member (i.e. a female boss with three male subordinates may have a very different experience than a female subordinate in a group with three male bosses), it is difficult to examine in an organizational setting because of the multiple factors contributing to an individual's status in the organization. We suggest that an individual's status and placement in a faultline group- whether the individual is a solo member or subgroup member- will have interacting effects on an individual's willingness to engage in conflict and performance. To understand these relationships, we draw upon status characteristics theory. Status characteristics theory (c.f. Berger Cohen, & Zelditch, 1972) posits that performance expectations in work groups are guided by the status that is assigned to the personal characteristics of group members (e.g., Berger, Rosenholtz, & Zelditch, 1980). Certain visible demographic characteristics which may cause the formation of faultlines, such as gender or race, may also carry implicit weights and expectations. For example, characteristics such as gender and ethnicity may be used by members to provide information about their teammates' general aptitude or ability

(Berger, Rosenholtz, & Zelditch, 1980), especially in short-term groups (Bunderson, 2003). In teams where demographic faultlines are placed in such a way that high and low status subgroups exist, this informal status structure may determine the power and prestige within the group, whether or not the demographics underlying the faultline are directly related to the team's task (Berger, Cohen, & Zelditch, 1972). Therefore, in Study 3, we examine the effects of faultline placement as well as demographic status on conflict and performance. In the following sections, we will elaborate on how we predict faultline placement (characterized as the interaction between solo or subgroup members and low or high status members) will affect both the experience of relationship conflict, the likelihood to engage in relationship conflict, and ultimately individual performance.

### **The Individual Level Effects of Demographic Faultlines and Status**

In line with past research which has shown solo placement and status to have interactive effects on solo members at an organizational or societal level (Craig & Feasel, 1998; Ditto & Jemmott, 1989, Sackett et al., 1991; Sekaquaptewa & Thompson, 2003), we propose that faultline placement and status will have an interactive effect on individuals' willingness to engage in conflict, experience of relationship problems, and their performance. Specifically, we suggest that when a single higher demographic status member is alone in a team of lower demographic status members, the effects may be very different than a single low status member in a team of high status members (e.g., Heikes, 1991; MacCorquodale & Jensen, 1993; Sackett et al., 1991). For example, Tropp and Bianchi (2006) found across three studies that members of low demographic status were less likely to expect diversity to be valued. This may be explained by the fact, that despite valuing equality and diversity initiatives more than other members, minority groups are less likely than majority groups to perceive progress being made in terms of equal opportunities for minority members (Eibach & Ehrlinger, 2006). This frustration at a societal level may lead members of traditionally disadvantaged demographic status to come into groups with lowered expectations for their treatment within the group. However, when these low status group members are surrounded by a supportive subgroup, low status subgroup members may be less sensitive to relationship issues because of the increased social support

from their subgroup members (Lau & Murnighan, 1998).

The visibility of solo members has also been shown to increase expectations of negative stereotypes (e.g., Goffman, 1963; Steele, 1997). For low status solo members, these negative stereotypes may be much more intimidating than for high status solo members. For example, past research has found that solos from a traditionally disadvantaged background (e.g., females, blacks) were more discriminated against by majority group members on task assignments than solos of traditionally higher demographic status (Craig & Feasel, 1998). Therefore, we propose that expectations and experiences such as these may lead low status solo members to expect more relationship issues than high status solo members, who may have more positive expectations about the degree to which diversity will be valued and subgroup members who do not find themselves in such a visible position.

In contrast, when multiple high status members, as is the case for a high status subgroup member, are present, high status subgroup members may be more likely to experience relationship issues because of this increased in-group competition. For example, research has shown that teams composed of primarily high status members are less trusting of each other than teams composed of low status members (Greer, Caruso, & Jehn, 2006). Because of these suspicions between high status members, high status subgroup members, similarly to low status solo members, may be likely to expect relationship issues in the team. Therefore, we propose:

*Hypothesis 1.* Status will moderate the relationship between faultline placement and likelihood to experience relationship issues (discrimination, goal obstruction). High status solo members are likely to experience less relationship issues than high status subgroup members. Low status solo members are likely to experience more relationship issues than low status subgroup members. Between solo members, low status solo members are more likely to be willing to experience relationship issues than high status solo members. Between subgroup members, high status subgroup members are more likely to experience relationship issues than low status subgroup members.

While we propose that low status solos and high status subgroups may be likely to expect to *experience* relationship problems, we also propose that

these same members may be less likely to *express* these problems. This is because solo members may often be viewed primarily in terms of their category membership (Niemann & Dovidio, 1998), and for low status solos, this may place them in a low status position in the group, which may inhibit their ability to express relationship issues. Furthermore, compliance pressures on solos (e.g., Asch, 1952, 1956; Bragg & Allen, 1972; Latane & Wolf, 1981; Tanford & Penrod, 1984) may be more powerful on low status solos than high status solos (c.f. Randel, Chay-Hoon, & Earley, 2005). This is because low status members may be more likely to comply to their opinions of their fellow group members (Cohen & Zhou, 1991; Montgomery, 1971) in order to experience increased acceptance (Van Maanen & Schein, 1979) and because they perceive themselves to lack the influence to alter group opinions (Maas & Clark, 1984). Therefore, this tendency of low status solo-members to conform to the majority is likely to mean that low status solo-members are less willing to engage in conflict than other group members.

On the other hand, high status solo members may be more likely to engage in conflict. Research on status and power suggests that this is because status and power are often associated with more approach behavior (Keltner, Gruenfeld, & Anderson, 2003). For example, high status participants are more likely to display visual dominance (a higher ratio of looking while speaking as opposing to looking while listening) (Dovidio et al., 1988), to exert voice, or to 'speak up' (Islam & Zyphur, 2005), to take action in given situations (Gallinsky et al., 2003), to interrupt other group members (e.g., Smith-Lovin & Brody, 1989), and to more frequently question the suggestions of others (e.g., Stewart, 1988). A potential reason for this more assertive behavior of high status solo-members is that individuals with high status are less hindered by external consequences (c.f. Keltner et al., 2003) and less likely to perceive themselves as being solo-members (Yoder, 1994). For example, research by Anderson and Berdahl (2002) found high status individuals to be more likely than low status individuals to believe that others like them and are not angry with them. Therefore, we expect that high status faultline solo members will be more likely to engage in conflict than low status faultline solo members.

However, we propose that status will have a different effect on subgroup members. We propose that in groups where the majority subgroup is of high rather than low status, these high status subgroup members will be

more reluctant to engage in conflict than low status subgroup members. Low status subgroup members are surrounded by similar individuals, who can offer them social support (Lau & Murnighan, 1998) and empower them to speak up (Asch, 1952, 1956; Bragg & Allen, 1972). The Asch experiments (1952, 1956) showed that the presence of just a single other subgroup member greatly enabled participants to stand up for themselves and not comply with the majority rule. We suggest, however, that these benefits of subgroup support will only apply to low-status subgroup members.

Members of a high status subgroup may now find themselves in a position where they do not feel willing to engage in conflict. In situations where multiple equally high status team members are present, research has shown that these high power individuals need to have a clear hierarchy among themselves in order to perform well (Smith, Houghton, Hood, & Ryman, 2006) and to voice their opinions in the team. Indeed, a need for hierarchy is acknowledged in status characteristics theory (c.f. Berger Cohen, & Zelditch, 1972) which suggests that the diffuse characteristics, or external sources of subgroup status, such as demographic characteristics, influence specific status within the team, but that over time, status differentiation will occur via other factors, such as individual behavior profiles (e.g., Berger, Ridgeway, & Zelditch, 2002). In situations where status differentiation has not yet occurred, high status subgroup members may become more inhibited in their behavior, as without a clear within-team hierarchy, members may not know the degree of their influence within the team (Bales, 1950; Berger, Rosenholtz, & Zelditch, 1980). Members may not want to inadvertently overstep their boundaries by exerting influence greater than what they actually hold because of their desire to belong to the team (Baumeister & Leary, 1995). For example, imagine a group of scientific experts from different fields meeting together for the first time as part of a project-team, which also includes a single research assistant. The high status members – the multiple scientific experts in the team - know that they all have been identified as being the leaders in their fields, but they do not yet know what the internal hierarchy within their team will be. Their behavior then may be inhibited as members do not want to inadvertently offend their new teammates by overstepping their status role in the team. Recent research by Anderson et al. (2006) shows support for this, as they found that members who perceived themselves to have more status than they

actually did were less socially accepted, and that perhaps because of this, members tended to err more on the side of humility than self-exaggeration when estimating their own status in the team. Relatedly, Lammers, Galinsky, Gordijn, and Otten (2008) found that when the legitimacy of powerful group members was brought into question, such as in the situation in our study where multiple members with high status characteristics are brought together, high power members actually become more inhibited in their behavior. These findings suggest that when multiple high status individuals are present, high status members may actually become more inhibited in their behavior, and thus less likely to engage in conflict. Therefore, we propose:

*Hypothesis 2.* Status will moderate the relationship between faultline placement and willingness to engage in relationship conflict. High status solo members are more likely to be willing to engage in relationship conflict than high status subgroup members. Low status solo members are less likely to be willing to engage in relationship conflict than low status subgroup members. Between solo members, high status solo members are more likely to be willing to engage in relationship conflict than low status solo members. Between subgroup members, low status subgroup members are more likely to be willing to engage in relationship conflict than high status subgroups members.

Past research has shown that solo placement and status do have interacting effects on performance. For example, at an organizational or societal level, being a numerical minority has been found to be associated with lower performance scores for female minority groups and solos, but not male minority groups or solos (Sackett et al., 1991; Sekaquaptewa & Thompson, 2003). Sekaquaptewa and Thompson (2002) showed that these findings were not gender specific, but rather applied to traditionally low status demographic characteristics, by finding that traditional racial minorities experienced similar performance hindrances to females. In our study, we propose that these performance differences can be explained by discrepancies in experiences of relationship conflict compared to willingness to enter into relationship conflict. In line with work by Bhappu and Milton (2005) which proposed that when experienced conflict is high and expressed conflict is low, teams and individuals are likely to have low levels of performance, we predict that

members likely to experience relationship conflict but unwilling to discuss it (i.e. low status solos and high status subgroup members) will have lower levels of performance. Members in such situations may experience cognitive overload as they wrestle with their situations, as either visible low status solos or as a high status member in a group with multiple other high status members. Additionally, members in such situations are likely to be unable to resolve their perceived relationship problems in the group as they are unwilling to openly discuss them with group members. Without resolution, these relationship problems may distract the member from task at hand as well as lead to member withdrawal from group activities (Jehn & Bendersky, 2003). In such situations, these members (low status solo members and high status subgroup members) are likely to perform worse than members who experience less relationships problems and who are more willing to discuss such issues when they arise with other group members. Therefore, we propose that:

*Hypothesis 3.* Status will moderate the relationship between faultline placement and performance. High status solo members will perform better than high status subgroup members. Low status solo members will perform worse than low status subgroup members. Between solo members, high status solo members will perform better than low status solo members. Between subgroup members, low status subgroup members will perform better than high status subgroups members.

### **Study 3 Method**

#### **Sample**

We recruited 77 students (44 female students and 33 male students) (mean age=21.18,  $SD=3.56$ ) from Leiden University to participate in our experiment. Participants were randomly placed in a 2 (solo or subgroup) X 2 (low or high demographic status) between subjects design.

#### **Procedure**

Upon entering the lab, students were placed at separate computers. Students were told that they would be working on a task together with five other students located in other labs (although these people did not exist). Participants were then asked to enter their own demographic information and were then assigned to conditions such that they were either similar to or



different from other team members on the basis of these characteristics. Half of the participants being placed in the situation where they were dissimilar from all other team members and the other half of the participants were placed in a situation where they were part of a team containing a subgroup similar to themselves. Demographic status was manipulated by informing female students that all male students were of a higher educational level, and informing male students that all female students were of a lower educational level. This combination of demographic status characteristics was done to create a status-based faultline (faultlines are based on the alignment of *multiple* demographic characteristics) based on multiple demographic characteristics with traditional status connotations. Throughout the rest of this experiment, the information about the team demographics was also continually displayed on the top of the screen so participants could see at all times the demographic characteristics of their teammates.

Before starting the task, participants were asked to rate their expectancies about interactions in the team based on their placement in the demographic composition of their group. Participants answered, for example, whether or not they would be likely to engage in task or relationship conflicts in their teams. Following the completion of these questions, the participants then participated in the NASA task (Cammalleri, Hendrick, Pittman, Blout, & Prather, 1973). In this task, participants are asked to order 14 objects (e.g., a matchstick or an oxygen tank) from the most to the least useful to survive on a mission on the moon. Participants in our experiment were told that they would work individually on this task, but their performance would be assessed by the sum of individual performance within their team, with a reward of €50 for the highest performing team. A benefit of this task is that it allows an objective, external performance measure of participant decision-making performance.

## Measures

### *Willingness to Engage in Relationship Conflict*

The scale for the willingness to engage relationship conflict was adapted from the scale of Jehn (1995). The likelihood to engage in relationship conflict was assessed with 6 items (e.g. “*When a personality differences occurs in the team, I will discuss it with the team.*”) and exhibited sufficient reliability

( $\alpha=.90$ ).

### ***Likelihood to Experience Relationship Problems***

To assess the degree to which participants expected relationship problems in the team, we measured discrimination (2 items, e.g., “Discrimination is likely to exist in this team,  $\alpha=.86$ ) and goal obstruction (adapted from Chen & Tjosvold (2002)) (7 items, e.g., “Team members will structure things in a way to favor their own goals, rather than goals of other group members”,  $\alpha=.82$ ). Because these items loaded onto two separate factors with all loadings of .68 or above, we looked at them separately in our ensuing analyses.

### ***Performance***

Performance was assessed by comparing the ranking of the participants to that of the correct ranking of items for use on a moon walk as identified by NASA (Cammalleri et al., 1973).

## **Study 3 Results**

### **Manipulation Checks**

All manipulation checks were successful. To assess whether solo members did indeed feel like solos, we asked participants a series of three questions (e.g., “How alone do you feel in this team?”). A 2 X 2 ANOVA on the manipulation check of faultline placement yielded only a main effect of faultline placement ( $F(1,73)=80.36, p<.001$ ). Participants in our demographic solo condition reporting higher feelings of being a solo ( $M = 5.25, SD = 1.38$ ) than members in our demographic subgroup condition ( $M = 2.87, SD = .78$ ). For our status manipulation, participants were able to recall whether or not they had high status within their team, based on a series of three questions which asked their status in the team (e.g., “Others had more status than I did”). A 2 X 2 ANOVA on the manipulation check of status yielded only a main effect of status ( $F(1,73)=8.64, p<.01$ ). Participants in the high status condition reported higher self-perceptions of status ( $M = 4.85, SD = .97$ ) than participants in the low status condition ( $M = 4.18, SD = .97$ ).

### Hypothesis Testing

Multivariate analysis on likelihood to engage in relationship conflict, likelihood to experience relationship problems (as assessed by expected discrimination and expected goal obstruction), and task performance revealed that the interaction between status and faultline placement ( $F(1,73)=3.68$ ,  $p<.05$ ) significantly affected these constructs.

Univariate analyses revealed that the interaction of faultline placement and status had a significant effect on likelihood to engage in relationship conflict ( $F(1,73)=10.06$ ,  $p<.01$ ). We also conducted specific two-tailed t-tests to interpret this interaction. High status solos were marginally significantly more willing to engage in relationship conflict than low status solo (high status solos  $M=3.51$ ,  $SD=.99$ , low status solos  $M=2.99$   $SD=1.14$ ,  $t(38)= -1.53$ ,  $p<.10$ )(see Fig. 2). In contrast, low status subgroup members were more willing to engage in relationship conflict than high status subgroup members (low status subgroup members  $M=3.81$ ,  $SD=1.39$ , high status subgroup members  $M=2.71$ ,  $SD=.88$ ,  $t(35) = 2.92$ ,  $p < .01$ ). Furthermore, low status solo members were less willing to engage in relationship conflict than low status subgroup members (low status solo members  $M=2.99$ ,  $SD=.99$ , low status subgroup members  $M=3.80$ ,  $SD=1.40$ ,  $t(31) = -1.96$ ,  $p < .05$ ). In contrast, high status solo members were more willing to engage in relationship conflict than high status subgroup members (high status solo members  $M=3.51$ ,  $SD=1.14$ , high status subgroup members  $M=2.71$ ,  $SD=.88$ ,  $t(42) = 2.56$ ,  $p < .01$ )

In terms of expected relationship issues, univariate analyses showed a main effect of faultline placement on expected discrimination ( $F(1,73)=7.61$ ,  $p<.01$ ). Specific two-tailed t-tests were also conducted to interpret this interaction. Solo members were more likely to expect discrimination than subgroup members (solos  $M=2.70$ ,  $SD=1.41$ , subgroup members  $M=1.89$ ,  $SD=.90$ ). An interaction effect between faultline placement and demographic status was also significant ( $F(1,73)=5.07$ ,  $p<.05$ ). The interaction plot of these findings (see Fig. 3) shows that, in contrast to the likelihood to engage in relationship conflict, that low status solo members were more likely to expect discrimination to occur in the team than high status solo members (low status solos  $M=3.13$ ,  $SD=1.51$ , high status solos  $M=2.12$ ,  $SD=1.04$ ,  $t(38) = -2.38$ ,  $p < .05$ ). For subgroup members, status did not significantly alter their expectations of discrimination (low status subgroup members  $M=1.88$ ,

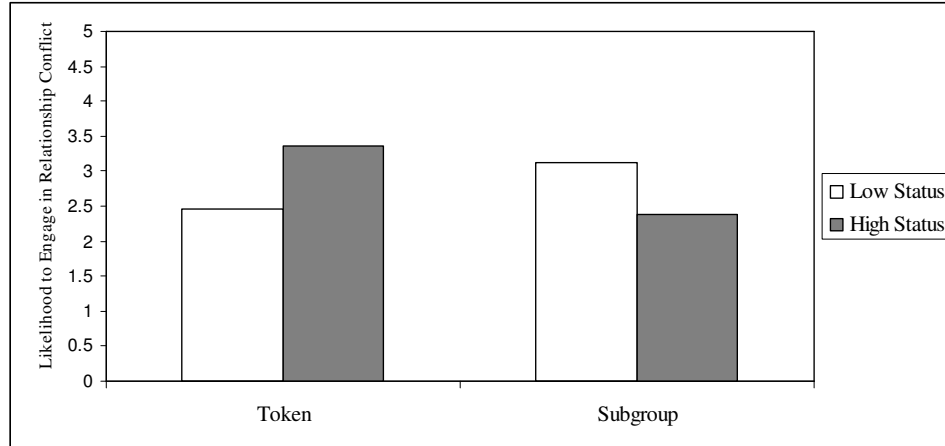
$SD=.96$ , high status subgroup members  $M=1.91$ ,  $SD=.84$   $t(35) = .08$ , *n.s.*). For low status members, differences in expected discrimination did not differ significantly for solo members and subgroup members (low status solo members  $M=2.12$ ,  $SD=1.04$ , low status subgroup members  $M=1.91$ ,  $SD=.84$   $t(35) = .64$ , *n.s.*). However, for high status members, high status solo members expected more discrimination in the group than high status subgroup members (high status solo members  $M=3.13$ ,  $SD=1.51$ , high status subgroup members  $M=1.88$ ,  $SD=.96$   $t(42) = 3.24$ ,  $p < .01$ ).

Univariate analyses also showed a marginally significant interaction of faultline placement and demographic status on expected goal obstruction ( $F(1,73) = 2.63$ ,  $p < .10$ ). As depicted in Figure 4, low status solo members and high status subgroup members appeared the most likely to expect goal obstruction to occur within the team. However, specific two-tail t-tests did not show these specific differences to reach statistical significance (low status solo members  $M=4.96$ ,  $SD=.90$ , high status solo members  $M=4.37$ ,  $SD=.90$ ,  $t(38) = -1.50$ , *n.s.*; low status subgroup members  $M=3.70$ ,  $SD=.90$ , high status subgroup members  $M=3.30$ ,  $SD=1.01$ ,  $t(35) = .91$ , *n.s.*; low status solo members  $M=4.38$ ,  $SD=.90$ , low status subgroup members  $M=4.70$ ,  $SD=.90$   $t(35) = -.85$ , *n.s.*; high status solo members  $M=4.96$ ,  $SD=.90$ , high status subgroup members  $M=4.29$ ,  $SD=1.01$ ,  $t(42) = 1.37$ , *n.s.*).

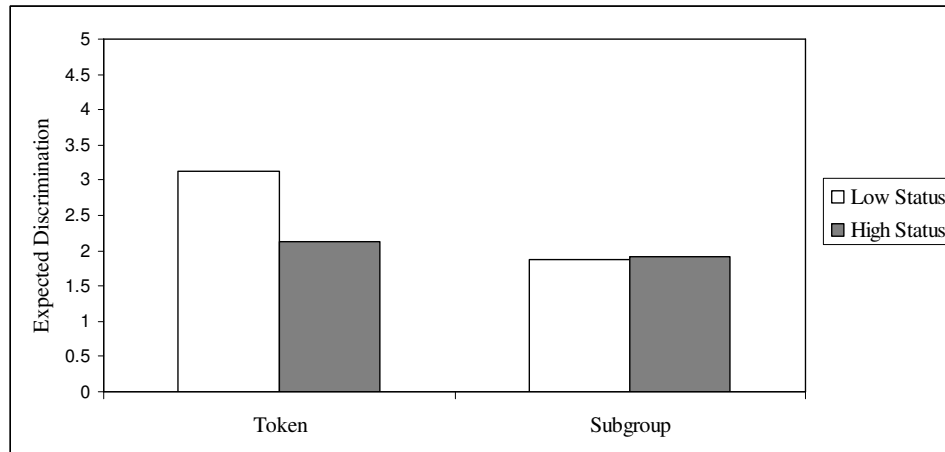
Univariate analyses also revealed that the interaction between faultline placement and demographic status had a significant impact on performance ( $F(1,73) = 4.29$ ,  $p < .05$ ). As depicted in Figure 5, members of low demographic status appeared to perform worse when alone in a team of high status members than when other low demographic status members were present. However, specific two-tailed t-tests did not reveal a significant difference (low status solo members  $M=2.47$ ,  $SD=1.37$ , low status subgroup members  $M=3.13$ ,  $SD=1.70$ ,  $t(35) = -1.22$ , *n.s.*). Members of high demographic status appeared to perform worse when other high demographic status members were present than when they were along with low status members (high status solo members  $M=3.35$ ,  $SD=1.70$ , high status subgroup members  $M=2.38$ ,  $SD=1.72$ ,  $t(42) = 1.88$ ,  $p < .10$ ). Finally, high status solos appeared to outperform low status solos, while low status subgroup members appeared to outperform high status subgroup members (low status solo members  $M=2.47$ ,  $SD=1.37$ , high status solo members  $M=3.34$ ,  $SD=1.69$ ,

$t(38) = -1.75, p < .10$ ; low status subgroup members  $M=3.13, SD=1.71$ , high status subgroup members  $M=2.38, SD=1.72, t(35) = 1.31, n.s.$ .

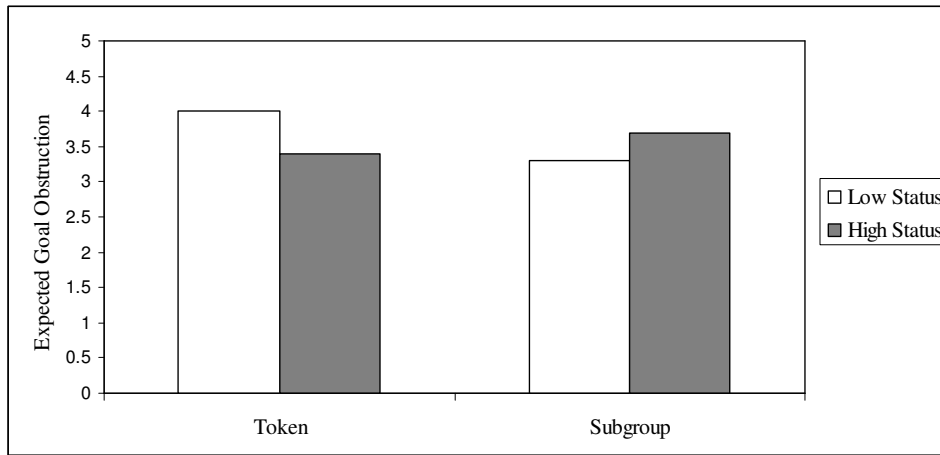
**Figure 2. The effects of faultline placement and status on individual willingness to engage in relationship conflict**



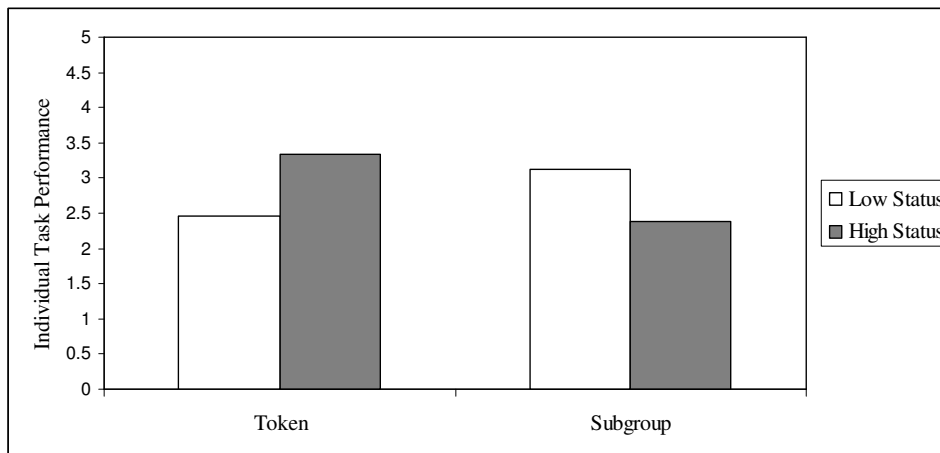
**Figure 3. The effects of faultline placement and status on individual expected discrimination**



**Figure 4. The effects of faultline placement and status on individual willingness on expected goal obstruction**



**Figure 5. The effects of faultline placement and status on individual performance**



Following the procedure of Baron and Kenny (1986), we tested for mediation of the relationship between faultline placement and performance by willingness to engage in relationship conflict and the experience of relationship problems. We found that willingness to engage in relationship

conflict was positively related to individual performance ( $\beta = .25, p < .05$ ). We also found that the relationship between faultline placement (the interaction term of solo versus subgroup and low versus high status) and performance ( $\beta = -.24, p < .05$ ) became non-significant when willingness to engage in relationship conflict was entered into the equation ( $\beta = -.17, n.s.$ ). The Sobel test for this mediation was marginally significant ( $z = -1.83, p < .10$ ). We did not find a significant effect of either expected discrimination on performance ( $\beta = .13, n.s.$ ) or of goal obstruction on performance ( $\beta = .01, n.s.$ ), preventing us from finding the experience of relationship problems to mediate the relationship between faultline placement and performance.

### Study 3 Discussion

In this third study, we found that high status solo members performed better than low status solo members whereas low status subgroup members performed better than high status subgroup members. These effects were partially explained by the expectations participants had about relationship conflict within the team. Specifically, both high status solo members and low status subgroup members were more willing to engage in relationship conflict than low status solo members or high status subgroup members. Additionally, despite being unwilling to engage in relationship conflict, low status solo members were more likely to expect relationship problems such as discrimination to exist within the group. The findings primarily support our hypotheses. We had suggested that low status solo members are in precarious positions in their groups because of a lack of social support and social standing, whereas we had suggested that high status subgroup members would experience tension and competition from the presence of other high status subgroup members that would also put the high status members in precarious positions within their groups. Together, these findings show that being a solo member is only bad for those with low status. However, having high status is not always an improvement for group members – when multiple high status members are present in the group, high status subgroup members actually appeared to under perform high status solo members and low status subgroup members.

A strength of this study is showing the linkages between faultline perceptions and realities in a controlled setting, and how we

operationalized this. Faultlines are based on the alignment of multiple demographic characteristics. The theory underlying faultlines suggests that the more numerous the characteristics that divide a group are, the more strong the effects (Lau & Murnighan, 1998). Therefore, the focus in this study was not on the specific characteristics that divide, but the consequences of having a compound of characteristics align in such a way as to create a clearly visible dividing line in a group. A critic could argue that faultlines, and their placement, could be manipulated orthogonally, through, for example, just telling someone they are a solo member in their group. However, we feel that our method of examining faultlines offers several benefits to this method. First of all, our operationalizations of faultlines closely align with faultlines as they actually occur in the organizational environment, improving the generalizability of our findings to organizational settings. Additionally, we do find, based on our manipulation checks, that members do perceive themselves as excluded and as having different levels of status, just on the basis of telling them the demographic characteristics of their other group members. One could argue then that our operationalization of faultlines thus offers a subtle and generalizable operationalization of the faultline construct, and contributes to existing faultline research (e.g., Lau & Murnighan, 2005) by showing that faultline placement is likely to be perceived.

### **General Discussion**

In all three of the studies in this chapter, we found faultline placement to have a significant impact on conflict and performance for both individuals and teams. In Study 1, we showed that teams with faultline solo splits had lower levels of intragroup conflict and performance than teams with faultline coalitional splits. In our next two studies, we worked to explain these findings by focusing on how faultline solo-splits may lead members within the same team to have very different experiences. In Study 2 and Study 3, we found faultlines to have a significant impact on within-group differences in individual members' expectation and experience of conflict as well as on their perceived and actual performance. We found in Study 2 that solo members perceived themselves to perform worse than subgroup members, and that this



was explained by the fact that they experienced higher levels of relationship conflict than other group members. In Study 3, we showed why solos perceived more relationship conflict than subgroup members - they experienced higher levels of relationship problems (discrimination and goal obstruction), but were unwilling to speak out about these problems to their other group members, so other group members were often unaware of the solo member's problems. Additionally, we incorporated the role of demographic status. We found that both low status solo members and high status subgroup members were less willing to engage in conflict compared to other team members, but experienced higher levels of relationship problems in the team (i.e. discrimination, goal obstruction). Additionally, we found high status solo members to outperform low status solo members, but we also found that low status subgroup members outperformed high status subgroup members. This shows the precarious position of solo members, particularly low status solo members – they are the most likely to experience relationship problems in the team, but are the most unwilling to voice these problems – i.e. engage in conflict. At the team level, this suggests that teams in which a faultline divides a low status member from a high status subgroup may have lower levels of performance than teams where the faultline separates a high status solo member from a low status subgroup.

Our findings offer several contributions. First of all, we contribute to existing diversity and faultline research (e.g., Gibson & Vermeulen, 2003; Lau & Murnighan, 2005) by demonstrating the impact of faultline *placement* on differences both between- and within- teams. Taken together, these findings emphasize the impact that demographic faultlines can have on teams, and suggest that as researchers, we should also consider the impact that the placement of a faultline - the way in which a faultline divides a subgroup, dividing a subgroup from a subgroup or separating a solo member from a majority subgroup- may have on teams and the individuals within them. Additionally, our study shows that the mere presence of diversity alone is not enough to drive performance in a group. Especially in situations of solo-splits, group members need to not only listen to the work-related opinions from diverse members, but also actively debate and challenge their opinions. This extends past research on minority influence (e.g., Phillips & Loyd, 2006; Phillips, Mannix, Neale, & Gruenfeld, 2004) by showing the importance of

group level processes in determining the influence of minority members on team outcomes.

Our findings also extend literature on tokenism in organizations. The majority of past literature on ‘tokens’ or ‘solos’ in organizations has only examined the individual-level experiences of minority members within the broader organization and has not examined the resulting impact of tokenism on group-level processes and outcomes (e.g., Barreto, Ellemers, & Palacios, 2004; Kanter, 1977; Niemann, & Dovidio, 1998; Sackett, DuBois, & Noe, 1991). Our results show that tokenism in the team setting may also have a large impact on team- and individual- level processes and performance. Additionally, our findings also extend past related work on relational demography (e.g., Tsui, Egan & O’Reilly, 1992; Tsui & O’Reilly, 1989), which has examined how being dissimilar from others in a team may impact individual conflict and performance. Specifically, past work on relational demography has not looked at the effects of being a dissimilar solo against a unified majority subgroup - rather it has looked at the degree to which a member is distinctive in a potentially homogenous or heterogeneous team. Our findings thus expand on the different types of situations in which an individual can be dissimilar. We show that being an individual dissimilar from not just the rest of the team, but dissimilar from a subgroup of people who are all just like each other may be an especially negative experience for individuals.

This chapter also offers insights which are potentially relevant for research on multi-party negotiation and coalition formation (e.g., De Dreu & Carnevale, 2003; Komorita & Parks, 1995; Murnighan, 1978), and in particular, the literature on social inclusion and exclusion in the context of negotiations (e.g., Van Beest et al., 2003; Van Beest, & Williams, 2006; Williams, 1997). This literature has primarily examined the consequences of social exclusion, such as negative affect (van Beest & Williams, 2006; Williams, 1997; Williams, Cheung, & Choi, 2000; Wong, Eccles, & Sameroff, 2003). In this chapter, we identify a potentially potent antecedent of social exclusion in groups. We show that exclusion can occur on the basis of demographic characteristics and can have powerful effects on individual experiences and outcomes. Our findings thus suggest that exclusion based on demographic faultlines could also potentially guide behavior within the negotiation context. For example, our findings suggest that low status solo

members may be more avoidant in multi-party settings, which could potentially influence the outcomes of a multi-party negotiation. These findings highlight the importance for both researchers and managers of paying special attention to solo members in teams.

While our focus was on the precarious position of solo members in workgroups, our findings also bring forward an interesting finding in terms of status and group dynamics. We find in our second study that members of high status subgroups experience as many behavioral and performance deficits as low status solo members. While past research has often looked at the impact of power or status on individual perceptions and decision-making (e.g., Galinsky, Magee, Inesi, & Gruenfeld, 2006; Keltner, Gruenfeld, & Anderson, 2003), little research has examined the consequences of having several members of high status working together. We find that having ‘too many cooks in the kitchen’ may also be a large problem for organizational workgroups and is a situation that should be actively managed.

Lastly, our findings are also relevant to the intragroup conflict literature (e.g., De Dreu & Weingart, 2003; Jehn & Bendersky, 2003). Our findings that task and relationship conflict in Study 1 and individual willingness to engage in conflict in Study 2 are positively related to performance suggest that not all forms of conflict are necessarily detrimental, as suggested by the meta-analysis of De Dreu and Weingart (2003) of intragroup conflict. To gain the value from diversity, our findings show that it is critical for teams and individual members to engage in conflict in faultline situations. However, future research would benefit from further investigation into the mechanisms by which intragroup conflict and individual willingness to engage in conflict affect team and individual performance. Through such investigation we may better understand exactly when and why certain forms of conflict are positively related to performance in individuals and teams.

Additionally, our findings also offer insight into existing intragroup conflict research by identifying a situation in which asymmetric perceptions are likely to occur, thus extending this new line of asymmetry research (e.g., Jehn et al., 2006). We show that members likely to have asymmetric conflict perceptions – solo members – are also likely to experience higher levels of relationship issues than other group members, but are less willing than other group members to

discuss these issues in relationship conflicts. This discrepancy between experienced and expressed conflict may be a central factor in leading to asymmetric conflict perceptions within a group. As asymmetric perceptions may decrease important individual outcomes (Jehn et al., 2006), better understanding the mechanisms that lead to asymmetric perceptions may provide both managers and researchers with tools to better understand how groups can most effectively manage their conflicts.

### **Managerial Implications**

The results of these studies suggest that managers need to pay special attention to how group composition affects internal team dynamics. Teams containing a low status solo member or a high status subgroup may be especially susceptible to performance difficulties. By being aware of these dynamics and working with team members to overcome them, managers can ensure that faultline placement does not impair the performance of their team members. For example, when a team contains a low status solo member, managers can encourage other team members to support this member and encourage the member to engage in debate and conflict, so that the team can still benefit from the diversity within it. Additionally, when a team contains multiple high status members, managers should be aware of the sensitivity of this situation and work to enable higher levels of trust between the high status members. One way to accomplish this would be to help members identify a new status hierarchy within the team based on demonstrated skills and competencies on team tasks, such that there is no longer confusion or perceived illegitimacies of power within the team resulting from multiple members possessing high status based on demographic characteristics.

### **Conclusion**

Across three studies, using both laboratory and field samples, we have shown that both between and within teams, faultline placement can cause differences in both team and individual performance. We have highlighted the role of the individual within the team and suggest that small group research can gain from a more thorough understanding of how differences between individuals in terms of their placement within the team (solo or subgroup

member) and their status can affect their behavior within the team and ultimately the performance of not only themselves, but their team as a whole. By better appreciating the unique role of the individual within the team, managers and researchers alike can learn how to better utilize the unique individuals within their teams to achieve higher performance.

### **Chapter 4 Appendix**

#### **Study 4 Willingness to Engage in Conflict Items**

1. I am willing to enter into task-related conflicts in this team.
2. When I am in disagreement with other members about the task, I will tell them.
3. In this team, I will defend my views about the task.
4. In this team, I will stand up for my own viewpoints about the task.
5. When a personality difference occurs in the team, I will discuss it within the team.
6. If I don't like someone in this team, I will tell my team.
7. I won't mind taking part in person-related conflicts in this team.
8. In this team, I will not find it hard to tell someone if they are being unkind.

# Chapter 5

## Perceptions and Realities Surrounding Team Composition and Conflict

*Based on Greer & Jehn (2008b)*

Diversity in organizations has dramatically increased in recent years. While interest in diversity research has soared, findings on the effects of diversity on team processes and performance remain contradictory (cf. Mannix & Neale, 2005; cf. Williams & O'Reilly, 1998). The concept of demographic faultlines has arisen as a new means of explaining how diversity affects teams.

Demographic faultlines are hypothetical dividing lines within a team that are formed on the basis of the alignment of demographic characteristics (Lau & Murnighan, 1998). In a strong faultline situation, clear subgroups exist based on the alignment of demographic characteristics (e.g., gender, race, job description) of the team members. For example, a strong faultline would be present in a team containing two white female consultants and two black male accountants. However, the initial findings in faultline research remain contradictory. Some studies have found faultlines to improve team processes and performance (Gibson & Vermeulen, 2003; Lau & Murnighan, 2005; Thatcher, Jehn, & Zanutto, 2003) while other studies have found faultlines to harm team processes and performance (Hart & Van Vugt, 2006; Li & Hambrick, 2005; Molleman, 2005; Polzer et al., 2006; Sawyer, Houlette, & Yeagley, 2006). In this chapter, we investigate a more nuanced view of the faultline concept, focusing on how various aspects of faultline perceptions and realities may influence intersubgroup conflict and team functioning.

A potential factor that could explain past inconclusive findings on the effects of faultlines on team processes and performance is perception. Thus

far, faultline researchers have primarily focused on the effects of having demographic faultlines based on traditionally salient demographic characteristics, such as gender or race or nationality (e.g., Lau & Murnighan, 2005; Li & Hambrick, 2005; Polzer et al., 2006; Thatcher, Jehn & Zanutto, 2003) and have not answered the question of whether these faultlines are actually perceived by team members. This in spite of the fact that many of the theories commonly used to explain the effects of faultlines, such as social identity theory or self-categorization theory, carry implicit assumptions of perception. Additionally, perceptions may play a large role in explaining the effects of faultlines in teams, as not all demographic faultlines in a team may necessarily be perceived by team members. For example, the saliency of characteristics such as gender or race may fade over time as knowledge of fellow team members grows and issues such as work values become more salient (e.g., Harrison, Price, & Bell, 1998). When investigating the effects of gender faultlines in teams that have been together a long time, for example, perceptions may not match reality.

Therefore, the simultaneous investigation of both perceived and objective faultlines – both perceptions and reality – may help to better and more accurately explain the effects of faultlines on workteam functioning. While the role of perceptions has yet to gain a prominent position in the faultline literature, research on dissimilarity and heterogeneity in dyads and teams has begun to recognize the importance of perception when examining the effects of demographic differences. For example, Lawrence (1997) was one of the first to suggest that the effects of objective demographic characteristics may be contingent on the perception of these differences as making a difference. While this acknowledges the mutual importance of perception and reality in diversity research, researchers at the dyad-level of analysis have gone ever farther by showing that perceived differences are more potent in predicting differences in dyadic outcomes than actual differences (Orpen, 1984; Strauss, Barrick, & Connerley, 2001; Turban & Jones, 1988).

This suggests that the traditional focus in team research on objective demographic differences may not only be better served by examining perceptions, but may also be better served by examining perceptions as driving the effects of demographic differences on individual and team outcomes.



Indeed, initial research at the team level of analysis has found perceived diversity to have a powerful impact on outcomes such as helping behavior (Van der Vegt & Van de Vliert, 2005), perspective taking (Williams, Parker, & Turner, 2007), work team involvement (Hobman, Bordia, & Gallois, 2003, 2004), individual perceptions of task and relationship conflict (Hobman, Bordia, & Gallois, 2003), and individual perspective taking (Williams, Parker, & Turner, 2007). These studies show the powerful impact that perceptions of composition may have on individual and team outcomes.

While perceptions may thus be a useful force in explaining the effects of demographic differences, perceptions may vary between individuals. Factors such as personality, past experiences, and the current situation may all impact individual perceptions (Bless & Forgas, 2000). In teams, when members' perceptions differ from each other, *asymmetric* perceptions are said to exist (Jehn & Chatman, 2000; Jehn, Rupert, & Nauta, 2006). In such situations, dispersion may exist in member perceptions within the team (Chan, 1998; Kozlowski & Klein, 2000). Asymmetry, or dispersion, in member perceptions has gained increasing prominence in recent years. For example, research on organizational climate has begun to examine the impact of individual differences in perceptions of organizational climate (e.g., Lindell & Brandt, 2000; Schneider, Salvaggio, & Subirats, 2002). In the team setting, individual differences in perception may also have an important impact on team outcomes. When team members experience asymmetric perceptions, members may experience feelings of discomfort and injustice, as members are not able to verify their own view of reality with those around them. Literature on self-verification suggests that when members are not able to verify their view, this may negatively impact their satisfaction, motivation, and performance within the team (Swann, 1999). Initial research on asymmetric perceptions in teams has shown support for this, as members with asymmetric perceptions have been shown to experience higher levels of conflict (Klein & House, 1995; Pelled, 1996) and stress and dissatisfaction (Bliese & Halverson, 1998; Jehn, Rupert, & Nauta, 2006). These findings suggest the importance of the acknowledgment and investigation of potential asymmetries when investigating faultline perceptions and realities.

Another important factor of perceptions in faultline research is how individuals explain faultlines to themselves. We have mentioned that whether

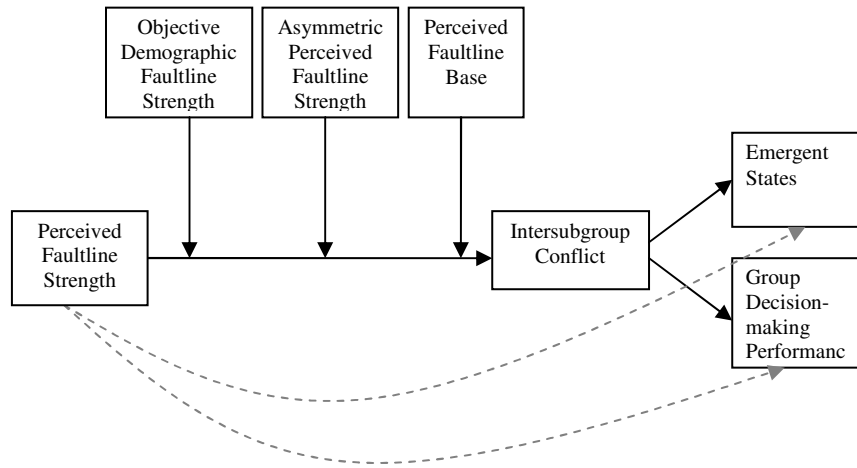
or not an individual perceives a faultline and whether or not this is in agreement with other team members' perceptions is of importance, but the *type* of faultline an individual perceives may also matter. Past diversity research has distinguished between different types of diversity, such as social category or functional diversity (Jehn, Northcraft, & Neale, 1999) or visible versus non-visible diversity (Harrison, Price, & Bell, 1998). This research has proposed that different types of diversity may have different impacts on team processes and outcomes. For example, visible objective demographic differences, such as gender or age, have been suggested to elicit more negative categorizations or biases than more underlying forms of differences, such as job function or personality (Milliken & Martins, 1996). However, research on differences between objective demographic differences has not shown consistent results (Mannix & Neale, 2005). One reason for this may be that the role of perception was overlooked in past studies comparing the different types of diversity – the effects of different types of diversity were compared without examining whether which (or all) of the different diversity types were perceived by or salient to the team members. Therefore, comparing the effects of different forms of diversity in conjunction with measures identifying which forms of diversity are most salient may provide a better means of understanding the effects of different forms of diversity (Harrison, Price, & Bell, 1998; Randel, 2002) and faultlines (Jehn, Bezrukova, & Thatcher, 2007). For example, in a team containing two black engineers and two white consultants, a team in which members perceive the differences between themselves to be stemming from job function may have fundamentally different dynamics than where the members perceive a divide in the team based on race.

To address these issues, we provide one of the first investigations of the role of perceptions in understanding the effects of demographic faultlines on intersubgroup conflict and team functioning. We utilize both qualitative and quantitative data to build upon a new line of theoretical and empirical diversity research which has looked at objective demographic characteristics as playing a more contextual, moderating role in teams (e.g., Jehn, Northcraft, & Neale, 1999; Phillips & Lloyd, 2006), and we extend this line of thought by investigating whether the *perception* of team composition may be what 'drives' the primary effects of diversity on team process and outcomes. We

acknowledge past research which has focused on ‘traditional demographic’ faultlines by also including traditionally demographic faultlines in our model as a moderator of faultline perceptions, suggesting that the presence of demographic faultlines may exacerbate the effects of perceived faultlines, when perception meets reality.

In addition to looking at the degree to which members perceive themselves to be divided into subgroups, we suggest that the basis on which members perceive these faultlines to exist may also be of impact. Therefore, we provide one of the first investigations of the bases on which work team members perceive faultlines to exist. We employ the concept mapping technique of Jackson and Trochim (2002) to identify the most common bases that people perceive faultlines to exist on within their workteam (e.g., job function, status, or nationality). We then examine how the base on which members perceive a faultline to exist upon can further exacerbate or ameliorate the effects of faultline strength on intersubgroup conflict and team dynamics. In addition to identifying the type and strength of faultline perceptions, we also look at the role of (a)symmetry in verifying members perceptions of faultlines and propose that disagreement between members on the existence of faultlines within the team can exacerbate the effects of perceived faultline strength on intersubgroup conflict.

Therefore, in this study, we build upon past research on diversity and faultlines by delving into the perceptions members in existing teams have of the faultlines within their teams. We look at the impact of these perceptions and the actual demographic characteristics of team members on team functioning. We investigate team functioning using the dichotomy of Marks, Mathieu, and Zaccaro (2001), who distinguish between team processes and emergent states as two sets of factors of workteam functioning which influence workteam outcomes. Team processes are characterized by the interdependent actions of members, whereas emergent states are characterized by the cognitive, motivational, and affective states within the team. Therefore, when investigating the impact of faultline perceptions and realities on workteam functioning, we specifically look at the effects of perceived faultlines and conflict on emergent states (e.g., trust, respect, psychological safety, relationship quality) and team processes (e.g., team decision-making performance).

**Figure 1. Theoretical model**

### Faultline Perceptions and Realities

Demographic faultlines are hypothetical dividing lines within a team formed on the basis of the alignment of demographic characteristic(s) (Lau & Murnighan, 1998), such as in a team containing two white female employees and two black male employees. In explaining how demographic faultlines impact team dynamics and performance, social categorization theory (Tajfel & Turner, 1986; Turner, 1987) is often employed. Social categorization theory posits that individuals classify themselves and others into social categories. This process may often lead to inteam favoritism and out team hostility (Turner, 1987), including such behaviors as outteam derogation. However, given the contradictory results thus far in faultline research (e.g., Lau & Murnighan, 2005; Li & Hambrick, 2005; Molleman, 2005; Thatcher, Jehn & Zanutto, 2003), it remains to be seen whether faultlines consistently incite these categorizations and behaviors. In this chapter, we propose that perceptions of faultlines, or of subgroup existence, may exist independently of objective demographic faultlines, as defined in past research as objective splits based on *demographic* characteristics (e.g., Lau & Murnighan, 2005). For example, team members may perceive faultlines based on characteristics such

as status or work values, which have not been included in past conceptualizations of traditional demographic faultlines. We do propose that the effect of perceived faultlines within a team is likely to be exacerbated when perceptions of faultlines align with objective demographic faultlines. We further propose that the categorization processes and ingroup-outgroup related behaviors may stem from the perception of the existence of faultlines, which may occur even in the absence of objective demographic faultlines.

Coalition formation, or the alignment of members into subgroups, underlies the basis of faultline theorizing (Lau & Murnighan, 1998). Some coalition research has found that coalitions may form on the basis of demographic similarity (Eisenhardt & Bourgeois, 1988). Other past coalition research has suggested that coalitions form on the basis of how team members think about the task or certain issues (Murnighan & Brass, 1991). This suggests that while demographic faultlines and perceived faultlines (coalitions) may overlap, they do not necessarily have to.

When faultlines are perceived by teams members, in-group versus out-group categorizations are likely, which may increase biases between subgroups (Polzer, Mannix, & Neale, 1998; Sherif et al., 1961). These categorization processes and biases may harm intersubgroup relations, increasing discomfort, hostility, anxiety, and ultimately intersubgroup conflict between members of different subgroups. Additionally, past research on coalitions has suggested that subgroup members' support for subgroup interests can lead to competition between different subgroups (Insko & Schopler, 1987; Wildschut, Insko, & Gaertner, 2002), as subgroup members work to favorably influence their own outcomes even at the expense of members of other subgroups (Polzer, Mannix, & Neale, 1998). Additionally, when members perceive others as dissimilar – i.e. create in-group/out-group categorizations, members are less likely to be able to take the perspectives of the other members (Williams, Parker, & Turner, 2007). This resulting inflexibility could also further exasperate tense relations in the team.

Initial research on faultlines has shown support for the competitive, tense relations that can exist between subgroups in teams split by faultlines. For example, Hart and Van Vugt (2006) found that members of teams split by faultlines were likely to trust members of an opposing subgroup less than members of their own subgroup. As trust and conflict have been found to be

inversely related (e.g., Porter & Lilly, 1996), intersubgroup conflict can be expected to be higher in situations where subgroup members distrust members of another subgroup within the team. Relatedly, Williams et al. (2007) found that when individuals perceived themselves to be different from others on multiple dimensions, such as may occur in faultline situations, individuals were less able to take the perspectives of their teammates, which could also lead to heightened intersubgroup conflict in the teams, as subgroups are not able to understand each others' viewpoints. Furthermore, Hart and Van Vugt (2006) found that participants in teams split by strong, as opposed to weak, faultlines identified less with the overall team. This suggests that subgroups may be more inclined to work towards subgroup, rather than team goals. This pursuit of different goals could incite competitive relations between subgroups that could also lead to intersubgroup conflict (c.f. Lau & Murnighan, 1998). Therefore, we propose:

*Hypothesis 1.* Perceived faultline strength is positively related to intersubgroup conflict.

### **The Moderating Role of Objective Demographic Faultline Strength**

In this study, we suggest, contrary to past research (e.g., Lau & Murnighan, 2005; Thatcher, Jehn, & Zanutto, 2003), that perceptions of faultlines may drive the effects of faultlines, and that the strength of this effect is moderated by the existence of demographically based faultlines. We propose that when perception meets reality – when perceptions of faultline strength are matched by the existence of objective faultlines – perceived faultline strength is the most likely to lead to intersubgroup conflict. To give an example, in a team containing two black male engineers and two white female accountants, perceived faultline strength aligns with an objective demographic faultline, but in a team containing one white female engineer, one black male accountant, one white male consultant, and one asian female computer programmer, perceived faultline strength can exist (for example, on the basis of gender or common values or interests outside of work), even though a traditional, fully aligned objective demographic faultline does not exist. In both cases, we suggest that perceived faultline strength may negatively impact team functioning. However, in the prior case, where perception meets reality, we propose that when faultlines are perceived and

objective demographic faultlines exist, perceived faultline strength will have the most negative impact on intersubgroup conflict.

We propose in this chapter that objective demographic faultlines will moderate the effects of perceived faultlines on intersubgroup conflict, such that when perception meets reality – when faultlines are perceived *and* objective demographic faultlines exist, perceived faultlines are most likely to be associated with intersubgroup conflict. This is because when objective faultlines exist, member perceptions of faultlines are further verified by an objective demographic reality. In such situations, the categorization processes (e.g. Turner, 1987) associated with both active coalitions or subgroups as well as those associated with diversity or team composition will align and exacerbate each other. For example, research investigated cross-categorization theory has found that when identities (such as perceived subgroup or demographic trait) converge, perceived differences between dissimilar subgroups will be exaggerated (Migdal, Hewstone, & Mullen, 1998) and in-team-outteam biases between subgroups will increase (Brewer, 2000). When perception and reality do not align in this way, cross-cutting categorizations (i.e. members of different subgroups share a common trait) could exist (e.g., Crisp & Hewstone, 2001; Hogg & Terry, 2000). When such overlapping membership occurs (such as in a situation where members perceive subgroups to exist, but members of both subgroups are all white females), this may reduce the psychological distances between different subgroup members (Brewer, 2000). Therefore, we propose that when both perceived and objective demographic faultlines converge, such that team members perceived faultlines to exist and the subgroups are demographically dissimilar from each other on multiple characteristics, intersubgroup conflict is more likely than when perceived and objective faultlines do not converge.

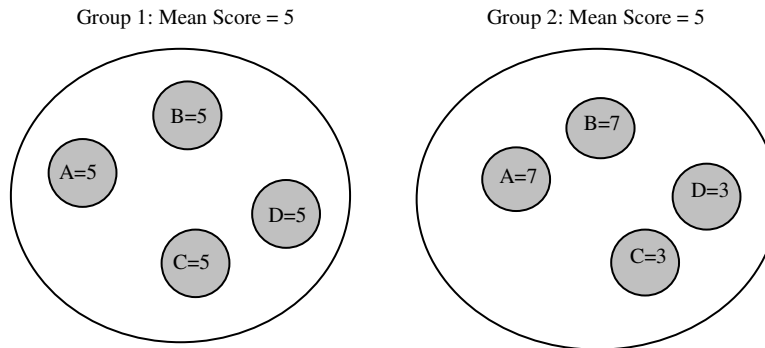
*Hypothesis 2.* Objective demographic faultline strength moderates the relationship between perceived faultline strength and intersubgroup conflict, such that in teams where objective demographic faultlines are stronger, perceived faultline strength is more likely to be positively related to intersubgroup conflict.

### **The Moderating Role of Asymmetric Perceptions**

While a team on average may perceive a high level of faultline

strength, disagreement may still exist among team members about the degree to which faultlines are present. For example, in two teams that perceive similar levels of faultline existence, different levels of agreement may exist about this in the two teams. As seen in Figure 2, these teams could potentially have very different dynamics, despite their similar average scores.

**Figure 2. Depiction of asymmetry in perceived faultline strength**



“At meetings of our team, subgroups will sit together.” (Scale 1-7 (7 high))

Past research on asymmetric perceptions has proposed that when asymmetric conflict perceptions occur, feelings of dissatisfaction may exist (Jehn & Chatman, 2000; Jehn, Rupert, & Nauta, 2006). Other related research has found that asymmetric justice perceptions negatively impact individual performance in the team (Colquitt, 2004). Similarly, in the case of asymmetric faultline perceptions, when two team members perceive strong faultlines to exist within their team and one member does not, the members may perceive the relationship to be unjust, as their view of the team is not being verified or respected. Research on feelings of injustice (e.g., Lind & Tyler, 1988) suggests then that, similar to feelings of injustice, feelings of asymmetry in a team may also lead to discomfort and inequity, which may thus exacerbate the effects of perceived faultline strength on intersubgroup conflict. Furthermore, where an individual’s view is not matched by fellow team members, self-verification theory (Swann, 1999) suggests that this inability to verify an individual’s views may lead individuals to question the validity of their own



view in order to make their social environment more coherent (Swann, Rentfrow, & Guinn, 2002). This process is often accompanied with frustration and withdrawal (Swann, 1999), which are associated with decreased satisfaction and task effort. These negative emotions may also lead to poor decision making, as frustration and anger may override rational reasoning (c.f. Brief & Weiss, 2002; Thomas, 1992). This may further exacerbate the relationship of perceived faultline strength and intersubgroup conflict as members' ability to rationally reason with each other decreases. Emotional tensions resulting from asymmetries of perceptions may also serve to escalate the positive effect of perceived faultline strength on intersubgroup conflict. Initial research on the team level effects of such asymmetries, or incongruencies, has found that diversity was more likely to be positively related to relationship conflict and less likely to be positively related to social integration and team identification when asymmetric, rather than symmetric perceptions existed in the team (Polzer, Milton, & Swann, 2002). In line with this reasoning and past findings, we propose:

*Hypothesis 3.* Asymmetric faultline strength perceptions within the team moderates the effect of the perceived faultline strength on intersubgroup conflict, such that perceived faultline strength is most likely to lead to intersubgroup conflict when there is asymmetric perceptions of faultline strength within the team.

### **The Moderating Role of Perceived Faultline Base**

The third factor that we propose that may influence the relationship between perceived faultline strength and intersubgroup conflict is perceived faultline base. We define perceived faultline base as the primary category that members ascribe to the faultline in their team. For example, in a team containing two black male engineers and two white female accountants, if team members ascribe existing faultlines to functional area, this may impact the relationship between faultline strength and intersubgroup conflict more constructively than if team members ascribe faultline existence to social category characteristics, such as gender or race. When faultlines are perceived to be based on person-related diversity characteristics, this may be more likely to exacerbate the relationship between perceived faultline strength and intersubgroup conflict than job-related diversity for several reasons. First of

all, visible, nonwork related demographic categories are thought to be more likely to evoke negative stereotypes or bias than more non-visible work-related characteristics such as job function or work values (Milliken & Martins, 1996). In support of this, research by Pelled, Eisenhardt, and Xin (1999) found that job-related diversity increased potentially beneficial task-related conflicts, but that racial diversity increased destructive relationship conflict. Secondly, person-related diversity, such as gender or race, has often been found to increase member turnover and dissatisfaction (e.g., Greenhaus, Parasuraman, & Wormley, 1990; Tsui, Egan, & O'Reilly, 1992). This has been suggested to result from the fact that visible, person-related differences, such as gender or race, may lead to discomfort (Jackson et al., 1991). Thirdly, diversity along these lines may also impact the affect of team members, as Tsui and O'Reilly (1989) found that supervisors reported more positive affect for their relation with subordinates who were of the same gender as themselves. Thus, feelings such as these may lead the relationship between perceived faultline strength and intersubgroup conflict to be exacerbated when the faultline in the team is perceived to exist on such person-based, rather than job-based categories. We thus propose:

*Hypothesis 4.* Perceived faultline base moderates the relationship between perceived faultline strength and intersubgroup conflict, such that in teams where members perceive subgroups to be based on functional, rather than social category lines, perceived faultline strength is less likely to be related to intersubgroup conflict.

### **The Impact of Intersubgroup Conflict on Team Outcomes**

Lastly, we propose that the effects of faultline strength on emergent states and team decision-making performance will be mediated by the effect of faultlines on intersubgroup conflict. Marks, Mathieu, and Zaccaro (2001) distinguish between team processes and emergent states as two sets of factors that influence team outcomes. They define team processes as the interdependent *acts* of members that help teams organize and accomplish collective goals. Examples of team processes include communication and cooperation, such as required in team decision-making. Emergent states are defined as the cognitive, motivational, and affective *states* of teams, rather than their behavioral interactions. Examples of such emergent states included

trust, respect, relationship quality, and psychological safety. We propose in this chapter that intersubgroup conflict will benefit team decision-making performance. Such conflict may provide the team with cognitive benefits (e.g., Putnam, 1994), including improved decision-making (e.g., Brodbeck et al., 2002; Janis & Mann, 1977; Schulz-Hardt et al., 2006). This is because the challenging of opinions may increase members' understanding of the task at hand, thereby increasing the quality of team decisions and performance (e.g., Fiol, 1994; Janssen, Van de Vliert, & Veenstra, 1999; Pelled, Eisenhardt & Xin, 1999; Putnam, 1994; Schweiger, Sandberg, & Rechner, 1989).

Intersubgroup conflict in particular has been shown to reduce team think and prevent premature consensus, thereby enabling higher quality decisions (e.g., Brodbeck et al., 2002; Janis & Mann, 1977; Schulz-Hardt et al., 2006). This is because the competition between subgroups that occurs during intersubgroup conflict can enhance team learning, decision-making processes, and effectiveness (e.g., Gibson & Vermeulen, 2003; Mulvey & Ribbins, 1999) through increasing the effort of subgroups as well as their consideration of multiple decision alternatives. Therefore, we propose:

*Hypothesis 5a.* Intersubgroup conflict is positively related to team decision-making performance.

When intersubgroup conflict may provide cognitive benefits to a team, the quality of emergent states in the team, such as trust or respect, is likely to be negatively affected. First of all, open contact has been found to enhance emergent states, such as trust (Dawes, McTavish, & Shaklee, 1977; Rapaport, 1974). When intersubgroup conflict impedes such contact through the polarization of subgroups, emergent states are likely to suffer. Secondly, in the conflict literature, conflict is often associated with negative affect (e.g., Sessa, 1996; Thomas, 1992; Wall & Callister, 1995). This negative affect is also likely to be associated with intersubgroup conflict, thereby damaging the emergent states in the team. For example, in a team where members are angry as a result of an intersubgroup conflict, emergent states, such as psychological safety, are likely to be lower because of the tense environment within the team. Research in the area of the emergent state of trust also suggests that negative emotion is a critical factor in the dissolution of trust (Jones & George, 1998). Thirdly, intersubgroup conflict is likely to negatively impact

emergent states because intersubgroup conflict may violate or decrease member expectations about existing emergent states in the team. For example, trust stems from the expectation that others will behave in a helpful, rather than hurtful manner (Gambetta, 1988). When conflicting subgroup interests escalate into an intersubgroup conflict, the conflict may violate or decrease expectations of trust, lowering the level of emergent states within the team. Therefore, we propose:

*Hypothesis 5b.* Intersubgroup conflict is negatively related to emergent states.

To tie together our model, we now put forth the full mediation hypothesis:

*Hypothesis 6.* Intersubgroup conflict mediates the relationship between perceived faultline strength and team decision-making performance and emergent states.

### **Methods**

We test our hypotheses using both qualitative and quantitative data collected from 46 teams (351 employees) of a multinational financial corporation with offices in the Netherlands. Seventy-five percent of the respondents were Dutch, and 51 percent were female. The average age of employees was 32. Data was obtained from company archives as well as survey data, including both quantitative and qualitative, open ended questions. Employees completed the survey as part of a company training program mandated by their managers, enabling a response rate of eighty percent. The survey, the items of which are detailed below, used Likert scales for responses, with 1 indicating low agreement with the question or item and 7 indicating high agreement.

### **Procedure**

On the day of the corporate trainings, pre-existing organization teams entered the training room and filled in an initial baseline survey, assessing demographic and team characteristics. Following this, team members were informed that they were going to be completing a decision-making task

together to assess the quality of their team dynamics. Teams were told that their performance was important for the quality of the report they would receive following the training, and that they would be benchmarked in this report against other teams in the organizations. This was done to ensure that all teams exerted efforts towards the task.

The task the teams completed was a logic puzzle in which teams had to match together pieces of information to find out which of five different managers worked in which business unit in which location on which project and with which budget. Each team member received an equal amount of shared and unshared clues. For example, one clue a member could receive read “Manager D does not work in Asia”. After the clues were distributed to members, teams were informed they had fifteen minutes to accomplish the task, and that all answers had to be filled in on the common team solution sheet which was placed in the middle of their table.

The task used in this study is similar to the traditional Stasser hidden profile task (e.g., Stasser & Titus, 1985) in which teams complete a logic puzzle together. This task offers the ability to simulate decision making processes in real teams as well as the possibility of an objective outcome measure. Following the task, teams filled in another survey, which assess their interactions during the task, including, for example, the presence of intersubgroup conflict. Upon completion of the final surveys, teams were debriefed.

### **Measurement**

*Perceived faultline strength and asymmetry.* We measured perceived faultline strength using six items developed by Jehn and Bezrukova (2006) which assess the presence of subgroups based on demographic faultlines. In the heading above these questions, participants were told that informal divides could exist within their team on the basis of a number of differences, such as gender or personality or job function or common hobby. They were then asked several questions about the degree to which subgroups were perceived to be present in the team. These items (e.g., “At meetings of our team, subgroups will sit together”) exhibited high reliability ( $\alpha=.91$ ).

Asymmetric perceptions of faultline existence was measured using the coefficient of variation (the standard deviation of a value divided by its mean)

of the perceived faultline strength variable, which is the standard practice to use when measuring variance in continuous variables in diversity research (c.f. Harrison & Klein, 2007) and has been recommended as the preferred formula to use when measuring differences in members' perceptions of processes (Roberson, Sturman, & Simons, 2007). Past research on asymmetric, or relational, conflict perceptions has also used this formula to capture asymmetries in team member perceptions of team processes and phenomena (Jehn & Chatman, 2000). Scores for asymmetric perceptions of faultline perceptions ranged from .28 to .75.

**Objective demographic faultline strength.** We measured demographic faultline strength using the measure developed by Thatcher, Jehn, and Zanutto (2003). This formula uses a cluster algorithm to quantitatively assess the degree to which team members align into subgroups on the basis of objective demographic characteristics. In this study, we included gender, race, and nationality as traditionally salient demographic characteristics (c.f. Williams & O'Reilly, 1998). Because full demographic data is required for all members of the team, we had to remove 13 teams from our analyses because of missing data, leaving us with a total of 33 teams. Objective faultline scores can potentially range from 0 (no faultlines) to 1 (perfectly aligned faultlines on all characteristics). Scores in our sample ranged from .38 to 1.

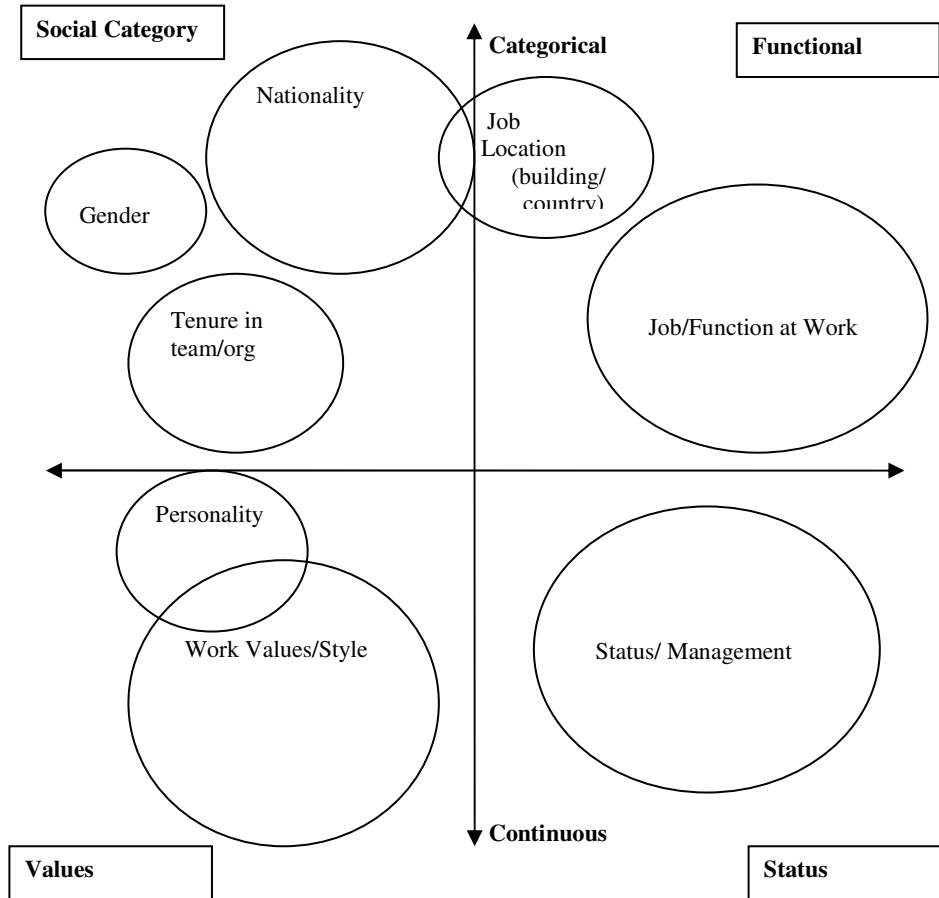
**Perceived faultline base.** The variable for perceived faultline base was based on coding of answers to a qualitative picture participants were asked to draw. After answering the questions for perceived faultline existence, participants were then asked to draw a picture of their team. In the picture, they were told to use the first names of members to represent people, and to give titles to subgroups that existed within the team. Examples of subgroup titles that were given include "The Brazilians", "The females", "Management", and functional titles. Participants could draw an unlimited number of subgroups in the picture. If participants did not perceive any subgroups, they were not required to draw a picture. However, most of our participants (92%) did draw a picture of the subgroups within their team.

These subgroup titles were then taken and coded to establish the most common bases of faultline formation, using the concept mapping technique of Jackson and Trochim (2002). Following this technique, fourteen coders (technique requires a minimum of ten coders) blind to the hypotheses of this

study were given a randomly selected sample of 150 subgroup titles written onto a set of note cards. Coders then had to sort the note cards into meaningful categories, and put a post-it with a label for the team on top of each stack. This data was then input to a multidimensional scaling program, which revealed that the most common categories for the perceived bases of subgroup existence could be classified along two dimensions – person- versus job-related and variables that assessed variety (e.g., categories, such as gender) versus dispersion (e.g., distances, such as the degree to which someone values a particular work norm). These dimensions are consistent with several lines of past research. One line of past research has demarcated diversity into the degree to which it is job-related (functional diversity, e.g., job function or education) or person-related (social category diversity, e.g., gender or race) (Jehn, Northcraft, & Neale, 1999; Pelled, Eisenhardt, & Xin, 1999), proposing that person-related diversity may be more negative for team dynamics than functional diversity. Other more recent research has separated diversity characteristics on the basis of whether the diversity characteristics are categorical or continuous (Harrison & Klein, 2007). Categorical variables are by nature more susceptible to negative categorization processes and discrimination than continuous variables (“Disparity” variables, as named by Harrison & Klein, 2007), and thus may have more negative effects on team processes and performance.

Stress levels for our model indicated good fit, with a stress level of .17, which is under the .2 threshold mark. As seen in Figure 3, the upper right quadrant of job-based, categorical included job function and location, the lower right quadrant of job-based, continuous included status and position in the management hierarchy, the lower left quadrant of person-based, continuous included work values and personality, and the upper right quadrant of person-based, categorical variables included gender, tenure, and nationality.

**Figure 3. Results of multi-dimensional scaling analysis of perceived faultline bases**



For our ensuing analyses, all subgroup titles were then assessed on the basis of the degree to which each title was either job- or person-based or if the type of variable was either categorical or continuous by two coders blind to the hypotheses. For example, a member who listed two subgroup titles of “Dutch” and “Foreigners” was placed in the faultline base categories of “person-based” and “categorical”. The coders assessed the first thirty subgroup titles together, during which the coders resolved discrepancies and reached some common decision rules, such as “Dutch” was a person-based characteristics while “Amsterdam office” was a job-based characteristic. The coders then went on and rated the titles of all 350 members of the dataset independently. Interrater agreement was high ( $r=.85$ ). As our hypothesis had only proposed a



distinction between person-based and job-based characteristics, we focus on that distinction in the main body of our results by looking at the percent of people in a team saying that the faultline is based on personal characteristics as opposed to job characteristics. Following the presentation of the analyses to match our original hypotheses, we then present results also looking at the effects of the second dimension that emerged (categorical versus continuous demographic variables) in the supplementary analyses section.

***Intersubgroup conflict.*** We measured intersubgroup relationship and task conflict using the scales of Rink and Jehn (2006), who adapted their scales from the original intragroup conflict scales of Jehn (1995). Intersubgroup relationship conflict was assessed with three items (“It is sometimes easy to notice that some members of the different subgroups don’t get along very well interpersonally”, “It is clear that some members of the different subgroups dislike each other”, “The tension between some of the members of different subgroups is rather awkward”). Intersubgroup task conflict was measured using four items (“Members of different subgroups often have different ideas about the issues that need to be dealt with”, “There are often differences of opinion between the members of the different subgroups”, “Members of different subgroups often have diverging perspectives on the issues that we have to discuss”, “Contrasting views between the members of the different subgroups are more the rule than an exception”).

Because the items did not factor analyze separately (all loadings on a single factor above .64) and showed a high reliability together ( $\alpha=.86$ ), we collapsed the two subscales of task and relationship intersubgroup conflict into a general intersubgroup conflict scale reflecting the level of intersubgroup conflict present within the team.

***Emergent states.*** Emergent states were assessed with 13 items which assessed trust, respect, psychological safety, and relationship quality. The four items for trust were drawn from Simons and Peterson (2000), and the five items for psychological safety were from Edmondson (1999). Respect was measured with a single item (“do members in the team respect each other”), and relationship quality was measured with four items (“How close are the members in this team”, “How concerned were your teammates about maintaining a friendship with the other team members”, “How well do members seem to know each other in this team”, “I like the people on my

team”). These items exhibited high reliability together ( $\alpha=.84$ ) and loaded onto a single factor in factor analysis, with all loadings above .65.

**Team decision-making performance.** The decision-making performance of the team was assessed by their outcome on the task. Their task outcome was determined by the number of correct answers the team had on the logic puzzle. Scores could and did range from 0 to 20. A team with a score of 20 would have correctly matched each manager to his or her business unit, project, location, and budget.

**Controls.** We controlled for diversity in terms of gender, race, nationality, years of work experience, and educational level to show that the effects of faultline perceptions and realities go beyond that of general diversity effects. Gender, race, and national diversity were measured using Blau’s index ( $1-\sum pk^2$ , where  $p$  is the proportion of unit members in  $k$ th category), as recommended by Harrison and Klein (2007). Diversity in terms of length of work experience and educational level was measured using the coefficient of variation (the standard deviation of a variable divided by its mean), as recommended by Harrison and Klein (2007).

We also controlled for team size and the length of time the team was together, as is traditional with small group research. When testing for the mediating effects of intersubgroup conflict on the relationship between perceived faultline strength and team decision-making performance and emergent states, we also control for objective faultline strength, in addition to our other control variables, to show that the effects of perceived faultline strength explain more than demographically-based measures.

### **Analysis**

We tested our hypotheses using hierarchical regression analysis. All variables were centered, according to the procedure of Aiken and West (1991). Significant F-tests generally confirmed the appropriateness of aggregating our variables to the team level (Klein & Kozlowski, 2000). The intra-class correlation coefficient and corresponding F-test for perceived faultline strength was marginally significant ( $ICC[1]=.07$ ,  $F=1.61$ ,  $p<.10$ ). The aggregation tests for our other team level variables showed stronger support: intersubgroup conflict ( $ICC[1]=.13$ ,  $F=1.56$ ,  $p<.05$ ) and emergent states ( $ICC[1]=.11$ ,  $F=1.59$ ,  $p<.05$ ), providing justification for the aggregation of

these variables.

### Results

Means, standard deviations, and correlations are presented in Table 1. As seen in Table 1, perceived faultline strength is positively correlated with intersubgroup conflict and negatively correlated with emergent states. Intersubgroup conflict is positively correlated with team decision-making performance and negatively correlated with emergent states. Also of note is the lack of correlation between objective demographic faultlines and perceived faultline strength. This finding shows that people may indeed be perceiving faultlines other than those captured by traditionally used objective demographic faultline measures.

**Table 1. Means, standard deviations, and correlations<sup>a</sup>**

Variable	Mean	S.D.	1	2	3	4	5
1. Team Size	7.74	3.03					
2. Team Tenure	2.51	.40	.10				
3. Gender Diversity	.38	.15	.21	.16			
4. Racial Diversity	.26	.23	-.03	.17	.19		
5. National Diversity	.35	.26	-.18	-.02	.14	.34*	
6. Work Experience Diversity	.49	.39	.15	-.36*	.12	-.03	-.07
7. Educational Diversity	.22	.18	.26	.31*	-.03	-.07	-.02
8. Perceived Faultline Strength	3.04	.73	.10	-.29*	-.01	.23	.15
9. Objective Faultline Strength	.58	.16	-.05	.24	-.27	-.14	-.47*
10. Asymmetry Perceived Faultline Strength	.46	.14	.01	.04	-.06	.08	-.06
11. Faultline Base-Proportion Person-Based	.39	.50	-.32	.18	.13	-.09	-.17
12. Intersubgroup Conflict	3.72	.52	.20	-.04	.10	.24	.10
13. Emergent States	4.97	.34	-.06	-.09	-.28	-.10	-.11
14. Group Performance	6.59	4.06	.08	-.22	-.14	.12	.30*

Variable	6	7	8	9	10	11	12	13
1. Team Size								
2. Team Tenure								
3. Gender Diversity								
4. Racial Diversity								
5. National Diversity								
6. Work Experience Diversity								
7. Educational Diversity	-.16							
8. Perceived Faultline Strength	.37*	-.26						
9. Objective Faultline Strength	.20	.16	.31					
10. Asymmetry Perceived Faultline Strength	-.09	.22	-.69**	-.18				
11. Faultline Base- Proportion Person- Based	.08	-.01	.20	-.39	-.29			
12. Intersubgroup Conflict	.01	-.01	.63**	-.05	-.42	.25		
13. Emergent States	-.22	.01	-.54**	.31	-.04	-.12	-.54**	
14. Group Performance	-.05	-.21	.17	-.13	-.15	-.10	.29*	-.11

\* p < .05, \*\* p < .01. <sup>a</sup> N=46 teams

**Table 2. Results of hierarchical regression analyses**

	Predictor Variable	Intersubgroup Conflict	
Step 1.	Team Size	.29	
	Team Tenure	.40*	
	Gender Diversity	-.18	
	Racial Diversity	-.08	
	National Diversity	.44*	
	Work Experience Diversity	.01	
	Educational Diversity	.27	
	<i>F</i>	1.90	
	<i>R</i> <sup>2</sup> / Adj. <i>R</i> <sup>2</sup>	.38	
Step 2.	Perceived Faultline Strength	.59*	
	Objective Faultline Strength	-.03	
	Asymmetry of Perceived Faultline Strength	.05	
	Faultline Base: Job or Person Based	.07	
		3.05*	
	<i>R</i> <sup>2</sup> / Adj. <i>R</i> <sup>2</sup>	.66	
	<sup>4</sup> <i>R</i> <sup>2</sup>	.28*	
Step 3.	Perceived Faultline Strength X Objective Faultline Strength	.88*	
	Perceived Faultline Strength X Asymmetric Faultline Strength	.23	
	Perceived Faultline Strength X Faultline Base – Job or Person Based	.38*	
	<i>F</i>	3.83**	
	<i>R</i> <sup>2</sup> / Adj. <i>R</i> <sup>2</sup>	.79	
	<sup>4</sup> <i>R</i> <sup>2</sup>	.13+	
	+ p < .10, * p < .05, ** p < .01		
	* Reported values are standardized regression weights.		

Table 2 shows the results of our hierarchical regression analyses. Our first hypothesis proposed that perceived faultline strength would be related to increased intersubgroup conflict. This hypothesis was supported, as perceived faultline strength was significantly, positively related to intersubgroup conflict ( $\beta = .59, p < .01$ ).

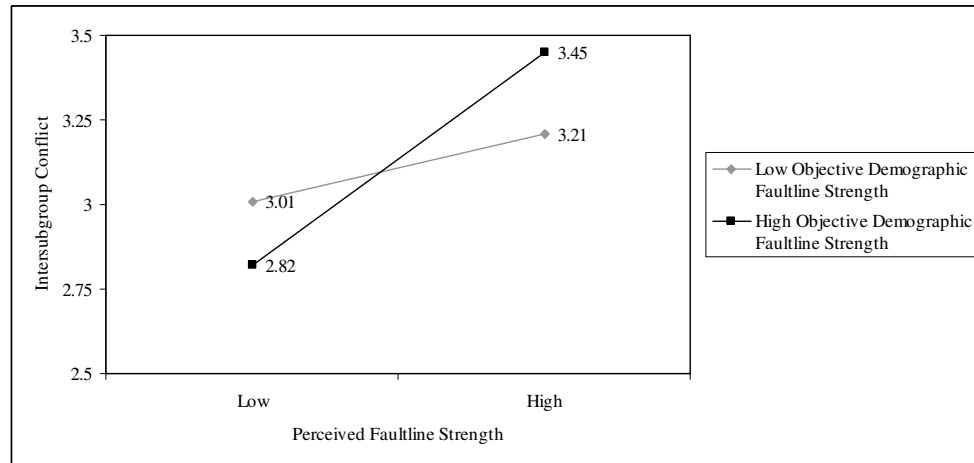
In our second hypothesis, we proposed that objective demographic faultline strength would moderate the effect of perceived faultline strength, such that perceived faultline strength would be more strongly related to increased intersubgroup conflict when objective faultlines were also present in the team. We found support for this, as objective faultline strength moderated the effect of perceived faultline strength on intersubgroup conflict ( $\beta = .88, p < .05$ ), such that perceived faultlines were the most strongly related to intersubgroup conflict when objective faultlines were present, where perceptions matched reality. In our third hypothesis, we proposed that asymmetry of faultline perceptions would exacerbate the relationship between perceived faultline strength and intersubgroup conflict. We did not find support for this hypothesis ( $\beta = .23, n.s.$ ).

In our fourth hypothesis, we proposed that the base of faultline perception would moderate the effect of perceived faultline strength on intersubgroup conflict. We found support for this, as faultline base (person or job) significantly moderated the effects of perceived faultline strength on intersubgroup conflict ( $\beta = .38, p < .05$ ), such that perceived faultline strength was the most strongly related to intersubgroup conflict when the faultline was perceived to be based on person-based rather than job-based characteristics.

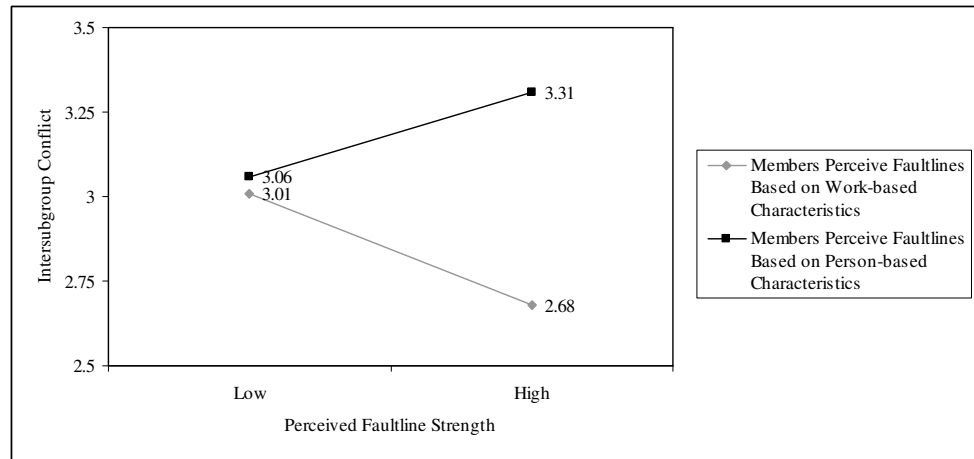
Following the procedure of Aiken and West (1991), for each significant interaction term, we plotted the relationship between perceived faultline strength and intersubgroup conflict at values of one standard deviation above the mean and one standard deviation below the mean of each of the significant moderators (objective demographic faultline strength and faultline base). These plots can be seen in Figures 4 and 5. As seen in Figure 4, perceived faultline strength is more strongly related to intersubgroup conflict when objective demographic faultlines are also present. Figure 5 shows, also as predicted, that perceived faultline strength

is more strongly related to intersubgroup conflict when team members perceive the faultline in their team to stem from person-based rather than job-based characteristics.

**Figure 4. Effect of objective demographic faultline strength on the relationship between perceived faultline strength and intersubgroup conflict**



**Figure 5. Effect of proportion of members perceiving a work-based or person-based faultline on the relationship between perceived faultline strength and intersubgroup conflict**



Finally, to establish the mediating effect of intersubgroup conflict on the relationship between perceived faultline strength and both emergent states and team performance, we employed the technique of Baron and Kenny (1986). We first established, as shown above in hypothesis 1, that our independent variable was related to the mediator – namely, that perceived faultline strength is related to intersubgroup conflict. To examine the next parts of the mediating chain, we then found that intersubgroup conflict was negatively related to emergent states ( $\beta = -.73, p < .001$ ) and positively related to team performance ( $\beta = .29, p < .05$ ) showing that our mediator was related to our dependent variables. Finally, for the last step of mediation, we investigated whether our independent variable directly impacts the dependent variables and if this effect disappears when our mediator is controlled for. Perceived faultline strength did indeed significantly impact emergent states ( $\beta = -.58, p < .001$ ), but did not significantly impact team performance ( $\beta = .17, n.s.$ ). The effects of intersubgroup conflict fully mediated the effect of perceived faultline strength on emergent states, as the main effect of faultline strength on emergent states became non-significant when intersubgroup conflict was entered into the regression equation. This finding was also supported by the results of a Sobel test ( $z = -3.46, p < .001$ ). We also found some evidence for indirect mediation by intersubgroup conflict for the relationship between perceived faultline strength and team performance, as we found perceived faultline strength to be related to intersubgroup conflict but not team performance and we found intersubgroup conflict to be significantly related to team performance. The Sobel test for this indirect mediation approached significance ( $z = 1.68, p < .10$ ).

### **Supplementary Analyses**

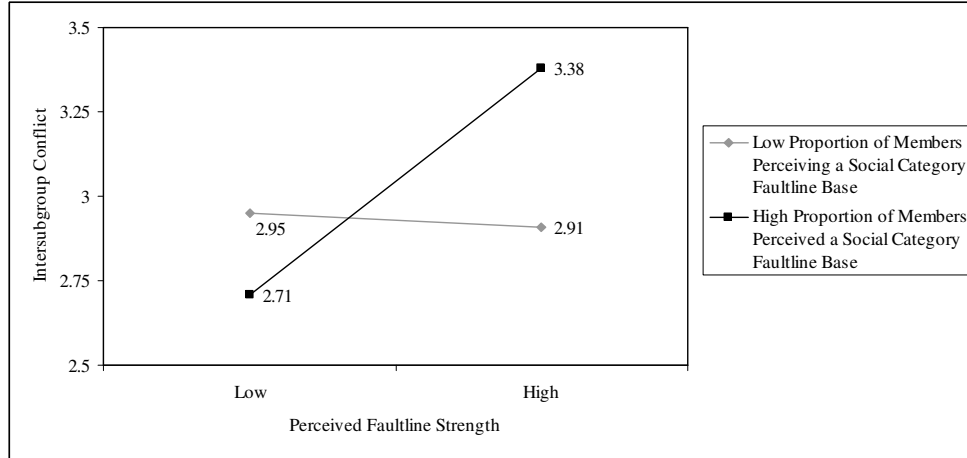
In hypothesis 4, we proposed that person-based versus job-based perceptions of faultlines would impact the relationship between perceived faultline strength and intersubgroup conflict. As discussed in our methods section where we established the most common categories of perceived bases of faultline existence, four distinct categories of faultline bases emerged – social category, functional, status, and values, rather than two. In this section, we now provide more detailed analyses comparing the



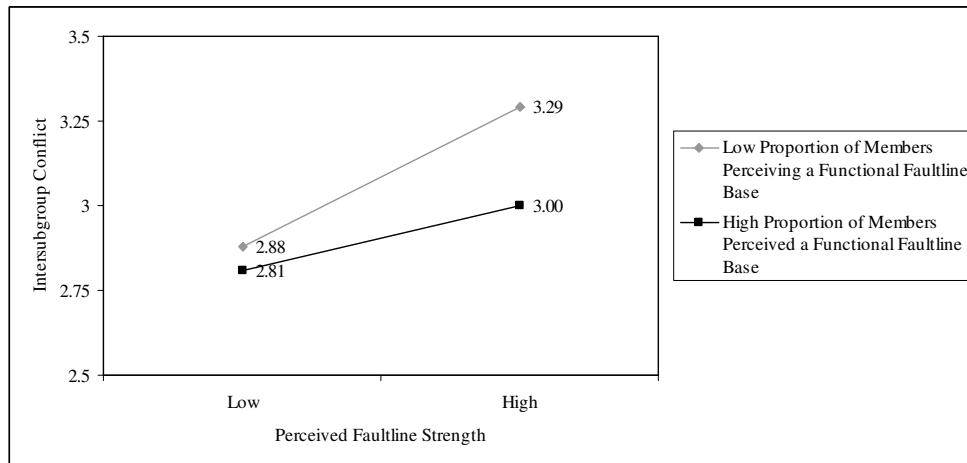
effects of all four of these faultline bases.

We conducted hierarchical regression analysis looking at the separate moderating effect of each of the four faultline bases. Using the same controls as in our previous analyses, we then looked at the interaction of perceived faultline strength and each type of faultline base. We found that a social category faultlines base significantly moderated the relationship between perceived faultline strength and intersubgroup conflict ( $\beta = -.38, p < .05$ ), such that the positive relationship between perceived faultline strength and intersubgroup conflict was exacerbated when members perceived the faultline to be based on a social category characteristic. As seen in Figure 6, the highest amount of intersubgroup conflict occurred when there were strong perceptions of faultline existence and a high proportion of members perceived the faultline to be based on a social category characteristic. We also found that function faultline base significantly moderated the relationship between perceived faultline strength and intersubgroup conflict ( $\beta = .35, p < .05$ ), but, in contrast to a social category faultline base, this moderated was found to exist such that the positive relationship between perceived faultline strength and intersubgroup conflict was ameliorated when members perceived the faultline to be based on functional characteristics. As seen in Figure 7, intersubgroup conflict was higher when there was a perceived faultline, but when members perceived a faultline to be base on function, intersubgroup conflict was lower than when they did not. We also found that the degree to which members perceived a faultline to be based on status differences marginally significantly moderated the relationship between perceived faultline strength and intersubgroup conflict ( $\beta = .31, p < .10$ ), such that the positive relationship between perceived faultline strength and intersubgroup conflict was exacerbated when members perceived the faultline to be based on status. As seen in Figure 8, the highest amount of intersubgroup conflict occurred when members strongly perceived faultlines to exist and perceived these faultlines to be based on status. We did not find faultlines based on values to significantly moderate the relationship between perceived faultline strength and intersubgroup conflict.

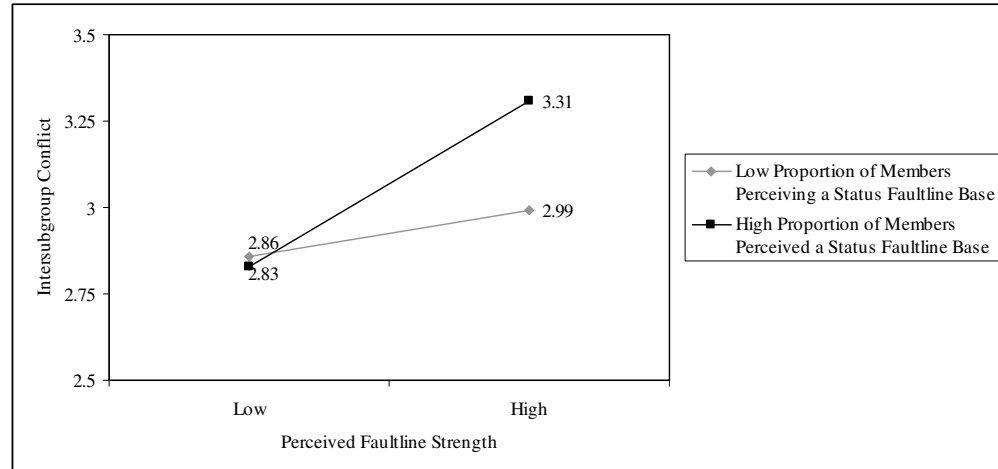
**Figure 6. Effect of members perceiving a social category faultline base on the relationship between perceived faultline strength and intersubgroup conflict**



**Figure 7. Effect of members perceiving a functional faultline base on the relationship between perceived faultline strength and intersubgroup conflict**



**Figure 8. Effect of members perceiving a status faultline base on the relationship between perceived faultline strength and intersubgroup conflict**



### Discussion

This chapter shows the importance of both perception and reality when considering team composition. We find that *perceived*, but not objective, faultline strength is positively related to intersubgroup conflict and negatively related to emergent states. This finding extends past faultline research by showing that the perception of faultlines may have a more powerful direct effect than the objective demographic faultline. However, we do find that the perception of faultline strength is more strongly positively related to intersubgroup conflict when high objective faultline strength is also present – that is, when perception matches reality.

Interestingly, we also find situations in which faultlines could potentially exist apart from faultlines based on traditional demographic characteristics. This suggests, as shown also in the identification of the most common faultline bases, that strong perceptions of faultlines can form based on characteristics such as status or personality, that are not always included in traditional demographic faultline calculations. Future research would thus benefit from exploring more of these differences that can apparently make a difference in workteams. For example, exploring the

effects of heterogeneity in power or personality type on team dynamics and outcomes would offer interesting pathways for future research.

Our chapter also offers insight into the bases on which people perceive faultlines to exist in organizational teams. On the basis of concept mapping (Jackson & Trochim, 2002), we found that perceived faultline bases could be classified onto a two-dimensional plot (see Figure 3), with the degree to which the perceived faultline base was job-based or person-based serving as one dimension and whether the base was a categorical or continuous variable serving as the second dimension. This finding ties together several lines of diversity research which have separately proposed that the distinction between job- and person- forms of diversity may have relevance for the effects of diversity on team outcomes (e.g., Jehn, Northcraft, & Neale, 1999; Pelled, 1996) and which have proposed that the type of variable – whether categorical (“variety”) or continuous (“dispersed”) is also of relevance when considering the impact of diversity on team outcomes (Harrison & Klein, 2007). Based on these two dimensions, four categories emerged as faultline bases, represented by each quadrant created by the intersection of these two dimension.

We found that when faultline bases were perceived to exist based on person-based demographic variables that perceived faultline strength was more strongly positively related to intersubgroup conflict. In more specific analyses looking at each category separately, we also found that when faultline bases were perceived to exist based on social category or status, perceived faultline strength was more strongly related to intersubgroup conflict, and when faultlines were perceived to exist based on work function, perceived faultline strength was less strongly related to intersubgroup conflict. We thus extend faultline research by showing that how people explain the base of faultline existence to themselves may have an important impact on how faultlines affect intersubgroup and intragroup dynamics

We did not find a significant effect of asymmetric perceptions of faultline strength in our study. This might be due to asymmetric perceptions of faultline strengths having two separate effects. On the one hand, asymmetric perceptions of team processes in general have been suggested to increase discomfort and dissatisfaction among team members

(Jehn, Rupert, & Nauta, 2006). On the other hand, the more that all team members perceive faultlines exist (so when perceptions become symmetric), the more likely it becomes for negative categorization processes to take place which could also cause discomfort among team members. Future research would benefit from further refining the conditions under which asymmetric perceptions may help or hurt teams.

Finally, we provide one of the first empirical examinations of intersubgroup conflict as mediating the effects of perceived faultline strength on team dynamics. We find that intersubgroup conflict does fully mediate the effects of perceived faultline strength on emergent states. We also find some evidence that intersubgroup conflict indirectly mediates the effects of perceived faultline strength on team decision-making performance. We thus offer some support for the often theorized (e.g., Jehn, Bezrukova, & Thatcher, 2007; Lau & Murnighan, 1998), but seldom tested, proposition that the effects of faultlines may be understood through their propagation of intersubgroup conflict.

#### **Limitations and Future Directions**

Our study does have several limitations. Our data came from one specific organization with its own specific politics and history. Future research would benefit from examining the effects of faultline perceptions in different organizational settings. For example, in a less hierarchical firm, status may not be as relevant of a faultline base. Relatedly, investigation of the role of organizational culture on faultline perception of strength and of specific faultline base would also be beneficial. Secondly, our sample is cross-sectional. Because of this, we cannot determine any casual linkages between our variables. Future research would benefit from looking at the relationships proposed in this study over time, as it could also be suggested that emergent states might reduce intersubgroup conflict.

#### **Managerial Implications**

For managers, our findings show that it is important to be aware of not only the demographic composition in a team, but also the way in which team members *perceive* the composition of their team. By identifying whether members perceive subgroups to exist or not in the team, managers

may then be better able to manage members in working to overcome subgroup divides. If the manager addressed a team with a strong demographic faultline (e.g., two white male managers, two Asian female consultants) to work to overcome the faultline, but the team did not perceive a faultline to exist, a manager may inadvertently trigger subgroup perceptions and resulting 'us vs them' actions. By first identifying whether or not members perceive subgroups, through for example observation and informal dialogue, managers may then be able to better identify situations in which faultlines do or do not need to be addressed in order to prevent them from harming team processes.

In addition, our findings show that not only the perception of subgroups matters, but also the way in which people explain the subgroups to themselves – whether they ascribe the subgroups as existing to work function or more personal characteristics can have different effects for the team. For example, when members ascribe subgroups to nationality, the subgroups are more likely to have conflict than when the members ascribe the subgroups to the division of tasks within the team. Interestingly, one form of work divide – namely status or power within the team – was found to exaggerate negative relations between subgroups. While employees are able to deal with work divides based on the nature of their task, work divides based on divisions between, for example, management and non-management, are much more negative. Therefore, as a manager, it is important to be aware of not only the existence of subgroups in a team, but also the underlying reasons the subgroups exist. With this knowledge, managers can then hope to better manage their diverse teams.

### **Conclusion**

Our study shows the importance of perception when considering the effects of team composition on team dynamics. We find that perceptions of team composition may have even larger implications for intersubgroup conflict and team dynamics than actual demographic composition. However, we do find that team composition has its largest effect when perception matches reality – that is, faultlines that are both perceived and based on objective demographic characteristics are the most likely to be associated with intersubgroup conflict.

## Chapter 6

### **Power as a Determinant of Team Composition and Conflict: Linking Team Power to Conflict, Interpersonal Power Congruence, and Team Decision-making Performance**

*Based on Greer, Caruso, & Jehn (2008)*

Given the rise of work teams in recent decades (Cohen & Bailey, 1997), enhancing team effectiveness has become a significant concern throughout modern organizations. While an abundance of literature exists on the hallmarks of effective teams (for a review, see Kozlowski & Ilgen, 2006), research has yet to examine whether teams at different levels in the organization - i.e. teams with different levels of power - are equally effective. This lack of attention is surprising given the pervasiveness of power to social interaction (Fiske, 1993). Indeed, research suggests that power hierarchies are inevitable – no society, organization, or team can exist over time without one (Sidanius, 1993). Therefore, investigation of the impact of power and hierarchy on teams may be critical in understanding the dynamics and effectiveness of organizational teams (cf. Mannix & Sauer, 2006).

In this chapter, we hope to help break new ground in exploring differences in conflict and performance for teams with different levels of collective power. In particular, we are interested in teams with high and low levels of *team power*, defined here as the collective capacity to modify others' states by administering (i.e., providing or withholding) actual resources or punishments to others (French & Raven, 1959; Keltner,

Gruenfeld, & Anderson, 2003). High-power teams in an organization include, for example, management teams or advisory teams who are in a position to control the outcomes of others in the organization while lower power teams include teams, for example, of entry-level employees who do not control resources which affect the outcomes of others in the organization. Our goal is to compare the quality of team performance for both types of teams and explore team dynamics that could undermine or improve their performance.

We also suggest that the internal power balance *within* teams is of importance. We propose that the effects of team power may be contingent upon the degree to which teams have a high level of agreement about the relative power hierarchy *within* the team. This is in line with research which has shown that if team members experience interpersonal incongruence—failure to get their peers to see them as they see themselves—on an important characteristic, social interactions can be severely strained (e.g., Polzer, Milton & Swann, 2002). In particular, it can undermine team members' willingness to work toward common interests (Polzer et al., 2003; Milton & Westphal, 2005; Swann, Kwan, Polzer, & Milton, 2003). This suggests that interpersonal congruence regarding relative power levels within the team (power congruence) may play a significant role in understanding the effects of team power on team dynamics.

With this research, we offer several contributions to the existing literatures on teams, power, and team composition. First of all, we extend existing literature on team effectiveness (see Kozlowski & Ilgen, 2006) by theorizing about and testing potential differences in team effectiveness based on a team's power within the organization. Secondly, we extend past research on team composition (for a review, see Mannix & Neale, 2005) as well as past research on the intrapersonal and interpersonal effects of power (for a review, see Keltner, Gruenfeld, & Anderson, 2003) by examining *power* as a differentiating characteristic both *between* and *within* teams. While research in the psychological tradition has found important differences to exist between low- and high-status (or power) individuals (c.f. Keltner et al., 2003), scant research has examined the relevance of power, both theoretically and empirically, for team-level interactions (c.f.



Mannix & Sauer, 2006). We thus extend past research on the individual level effects of power as well as past work on team composition by both theorizing about and testing the *team* level effects of power.

### **Overview of Studies**

In our first study, we examine the differences between high- and low- power teams in terms of their intragroup conflict and team performance. We investigate this in a field study of existing organizational teams. Our second study then replicates this with a second field sample. Additionally, in our second study, we introduce the role of power congruence in moderating the relationship between team power and intragroup conflict. We suggest that when team members agree on a hierarchy within the team, high power teams may have lower levels of intragroup conflict.

### **Study 1: Linking Team Power to Team Performance**

High-power teams find themselves in leading roles in the organization. However, in this chapter, we suggest that they may not always perform as effectively as low power teams. We specifically propose that this may be because of the potentially high levels of counterproductive conflicts in high-power teams.

### **Team Power and Intragroup Conflict**

We draw upon past literature to define intragroup conflict as the process arising from perceived incompatibilities or differences between team members (Boulding, 1962; De Dreu, Harinck, & Van Vianen, 1999; Thomas, 1992; Wall & Callister, 1995). Three types of conflict have been suggested to exist in teams: task conflicts, process conflicts, and relationship conflicts (Jehn, 1997). Task conflicts occur about task goals or outcomes, process conflicts occur around the logistics of task accomplishment, and relationship conflicts concern, for example, personality conflicts (Jehn & Bendersky, 2003). While past research has suggested that task conflict may benefit team performance (e.g., Jehn, 1997), the majority of research has found all three types of conflict to detract from team performance (De Dreu & Weingart, 2003).

In the present research, we propose that a high level of power will be positively related to a team's level of all types of intragroup conflict for several reasons. We first propose that high power teams will have higher levels of task conflict than low-power teams. Teams with high power are likely to contain a group of individuals who all have high levels of self-efficacy and dominance. This is because those in high-power teams are often seen by themselves and others as the 'winners' of the career tournament within the organization (Lazaer & Rosen, 1981). The resulting high levels of self-efficacy may lead members to commit to certain courses of action, even if they are no longer successful (Whyte et al., 1997). When members pursue task objectives in different manners and are unwilling to change their course of action to fit with the approaches of other members, task conflicts are likely to arise. Furthermore, team power may reduce the ability of team members to understand each others' thoughts, feelings, or perspectives (Galinsky et al., 2006) as well as to accurately perceive, estimate, or adapt to each others' needs or views (e.g., Anderson & Berdahl, 2002; Anderson, Keltner, & John, 2003; Cast, 2003; Ebenbach & Keltner, 1998; Keltner & Robinson, 1997). This inability to understand each others' perspectives and insensitivity to teammates' ideas may increase task conflict within high-power teams as members will have difficulty in discussing work-related opinions within the team.

High-power teams are also likely to have higher levels of process conflict. High levels of efficacy and dominance, as likely to be found in those who have 'won' the career tournament to gain a place in a higher power organizational team (Lazaer & Rosen, 1981), can lead to dissatisfaction when leadership positions are withheld (Elangovan & Xie, 1999). In high-power teams, not every member of a higher power team can be a leader *within* the team - in the small group hierarchy, only a limited amount of prestige is available (cf. Baumeister, Smart, & Boden, 1996). Therefore, in high-power teams, members may feel disgruntled that while their team occupies a high-power position in the organization, not all members may occupy high-power positions *within* the team. In such situations, high-power teams may experience high levels of process conflict, as members battle for different roles within the team, disagree about who should take the lead, and fight over how resources should be

allocated within the team. These process conflicts are especially likely, as those with high levels of confidence are likely to have a high level of competitiveness (Camerer & Lovallo, 1999) and because those in powerful teams in the organization are unlikely to want to give up the feeling of being in power when functioning within the hierarchy of the high-power team – i.e. power is addictive (Bruins & Wilke, 1992; Mulder, 1977). Members of high-power teams may thus be especially likely to want to claim valuable resources and roles for themselves, and thus may be especially likely to have process conflicts about the delegation of these resources and roles within the teams. This implies that teams with high power may have higher levels of process conflict than low-power teams.

Lastly, high-power teams may also be likely to have higher levels of relationship conflicts than low-power teams. Because members of high power teams have high power in the organization, they may feel threatened when having to occupy a low-power position within the high-power team. Indeed, Scheepers and Ellemers (2005) found that when those with high status evaluated a change in their high status position, they exhibited a physiological threat response (i.e. elevated systolic blood pressure and mean arterial pressure). Resulting anxieties or feelings of threat may then cause members of high-power teams to lash out against each other (Baumeister, Smart, & Boden, 1996; Martorana, Galinsky, & Rao, 2005). Such negative interpersonal behaviors can lead to a high level of relationship conflicts within high power teams. As an example of these negative interpersonal behaviors, research has shown that those in power are less likely to behave politely towards others (e.g., Keltner et al., 1998; Smith, Jost, & Vijay, 2008) and more likely to express their own personal attitudes and disagree with the personal attitudes of others (Anderson & Berdahl, 2002). When members are more likely to express personal views (i.e. of politics) and disagree with those of others, relationship conflicts are more likely to arise. Additionally, the negative behaviors often exhibited by high-power members, such as interrupting other members and behaving rudely, have been shown to be especially likely in situations where multiple high-power members are interacting with each other (Smith-Lovin & Brody, 1989). In such situations, wherein members routinely treat each other in a rude and discourteous manner, relationship conflicts are likely to

result. Therefore, high-power teams may be more likely to experience higher levels of relationship conflict than low-power teams. We propose:

*Hypothesis 1.* High-power teams will have higher levels of conflict (task, process, relationship) than low-power teams.

We propose that the higher levels of conflict in high-power teams may have a negative impact on team performance. In line with recent literature reviews (De Dreu, 2007) and a meta-analysis (De Dreu & Weingart, 2003), we propose that intragroup conflict will be negatively related to team performance. The reasoning for this is that conflicts of all types are often linked with negative emotions (cf. Jehn & Bendersky, 2003). This is because conflicts arise from perceived incompatibilities, and perceived incompatibilities which block a desired outcome may lead to negative emotions (c.f. Bell & Song, 2005; Lazarus, 1991; Roseman, Antoniou, & Jose, 1996), such as frustration, resentment, anger, and approach (Guetzkow & Gyr, 1954; Russell, 1978; Stearns, 1972). These negative emotions can impair the cognitive functioning of team members (Brief & Weiss, 2002), as negative emotions overrun and oversimplify rational reasoning. In addition to this negative emotionality, conflicts can distract members from task accomplishment, decreasing team productivity and task efficiency (Evan, 1965). Therefore, we propose:

*Hypothesis 2.* Conflict (task, process, relationship) will have a negative relationship with team performance.

Furthermore, we believe that the crucial role of conflict in hampering effective team performance explains our prediction that high-power teams will exhibit lower levels of performance than low-power teams. We believe that the performance disadvantage experienced by high-power teams relative to low-power teams is primarily attributable to the higher levels of conflict in high-power teams. Therefore, we propose:

*Hypothesis 3.* Conflict will mediate the relationship between team power and team decision-making performance, such that high-power teams will have higher levels of conflict than low-power teams, and conflict will have a negative relationship with team performance.

### **Study 1 Methods**

We tested the hypotheses in this study using a sample of 22 workgroups (94 employees) within the sales unit of a telecommunications company located in the Netherlands. The average age was 41.9 years old ( $SD = 4.6$ ), and 24% of the participants were female. The average team had worked together for 3.0 years ( $SD = 1.8$ ).

### **Measures**

The teams completed questionnaires seated together in a conference room on the day of the study. In return for their participation, teams were given reports on how their team functioning compared to other teams in the organization. On the survey the teams completed, all survey items utilized a 1 to 7 Likert scale, with 1 indicating low agreement with the item and 7 indicating high agreement.

### ***Team Power***

We assessed team power based on the organizational level of the teams within the business unit. We obtained this information from company records provided to us. In line with our definition of team power, teams that had control over other teams and/or had the ability to make decisions that would impact the rest of the company were classified as high-power teams. Seven teams were identified as high-power teams, and fifteen teams were identified as low power teams. Examples of high-power teams included the management teams of several departments within the business unit, as well as an internal steering committee. In addition, as a manipulation check, we also asked teams whether they occupied a high-power position within the company. This was successful, as high-power teams reported having significantly more power within the company ( $t = -1.82, p < .05$ ).

### ***Conflict***

Intragroup conflict was measured using the 8-item scale of Jehn (1995) for task and relationship conflict, and the 3-item scale of Jehn and Mannix (2001) for process conflict. Each scale exhibited sufficient internal

reliability (task conflict  $\alpha = .90$ ; relationship conflict  $\alpha = .76$ ; process conflict  $\alpha = .91$ ). A factor analysis revealed three distinct factors per each conflict type, with all loadings above .75, showing sufficient discriminant validity between the scales as well.

### ***Team Performance***

To assess team performance, we had an external supervisor of each team rate the team's performance on the basis of 3 items ("I believe this group performs well at work", "This group is effective in getting things done in time", and "I think in general this group is effective with respect to work"). This scale had sufficient internal reliability ( $\alpha = .93$ ). We also had teams rate their own performance based on the same items. This scale also had sufficient internal reliability ( $\alpha = .87$ )

### ***Controls***

We initially controlled for team size, team tenure, organizational tenure, and diversity in gender, nationality, and work function. However, they did not significantly affect the relationships in our model, so were removed from ensuing analyses.

### ***Aggregation***

To assess the appropriateness of aggregating the conflict variables as well as the perceived team performance variable to the team level, we first examined the inter-rater agreement ( $r_{wg}$ ) and the inter-class correlation coefficients (ICCs) as well as their corresponding F-tests. We found sufficient evidence to aggregate the conflict variables to the team level. For all three conflict types, significant F-tests indicated significant between-group variance. Additionally, the ICCs and  $r_{wgs}$  for each variable exceeded acceptable levels, indicating sufficient within-group agreement (task conflict:  $r_{wg} = .76$ , ICC[1] = .31, ICC[2] = .66; relationship conflict:  $r_{wg} = .80$ , ICC[1] = .22, ICC[2] = .55; process conflict:  $r_{wg} = .70$ , ICC[1] = .28, ICC[2] = .62; perceived team performance:  $r_{wg} = .82$ , ICC[1] = .26, ICC[2] = .60). Therefore, individual responses were averaged together to create team-level scores.

### Study 1 Results

Means, standard deviations, and correlations are displayed in Table 1. As seen in the table, team power is positively related to process and relationship conflict and negatively related to both measures of team performance.

**Table 1. Study 1 means, standard deviations, and correlations<sup>a</sup>**

Variable	Mean	s.d.	1	2	3	4	5
1. Team Power <sup>b</sup>	-	-	-				
2. Task Conflict	3.26	.82	.30	-			
3. Relationship Conflict	2.00	.56	.65 <sup>***</sup>	.65 <sup>***</sup>	-		
4. Process Conflict	3.01	.79	.56 <sup>**</sup>	.72 <sup>***</sup>	.75 <sup>***</sup>	-	
5. Team Performance - Supervisor Rating	5.25	.84	-.50 <sup>**</sup>	-.41 <sup>+</sup>	-.51 <sup>*</sup>	-.60 <sup>**</sup>	-
6. Team Performance - Team Rating	5.54	.71	-.46 <sup>**</sup>	-.66 <sup>***</sup>	-.58 <sup>**</sup>	-.72 <sup>***</sup>	.44 <sup>+</sup>

<sup>+</sup>  $p < .10$ . <sup>\*</sup>  $p < .05$ . <sup>\*\*</sup>  $p < .01$ . <sup>a</sup>  $n=22$  <sup>b</sup> dichotomous variable

In Hypothesis 1, we proposed that high-power teams would have higher levels of conflict than lower power teams. In line with this hypothesis, we found that high-power teams had significantly higher levels of relationship conflict ( $F = 14.03$ ,  $p < .001$ , high power  $M = 2.57$ ,  $SD = .33$ ; low power  $M = 1.87$ ,  $SD = .44$ ) and process conflict ( $F = 8.84$ ,  $p < .01$ , high power  $M = 3.78$ ,  $SD = .84$ ; low power  $M = 2.74$ ,  $SD = .63$ ). We did not find a significant effect on task conflict ( $F = 1.87$ ,  $n.s.$ ).

In Hypothesis 2, we proposed that all three forms of conflict would be negatively related to team performance. In line with this, we found that relationship conflict was negatively related to the supervisor rating of team performance ( $\beta = -.51$ ,  $p < .05$ ) as well as team members' perceived team performance ( $\beta = -.58$ ,  $p < .01$ ). We also found that process conflict was negatively related to the supervisor rating of team performance ( $\beta = -.60$ ,  $p < .01$ ) as well as team members' perceived performance ( $\beta = -.72$ ,  $p < .001$ ). We also found that task conflict had a marginal negative effect on the supervisor rating of performance ( $\beta = -.41$ ,  $p < .10$ ) and a significantly negative effect on the members' perceived rating of team performance ( $\beta =$

-.66,  $p < .001$ ).

Lastly, in Hypothesis 3, we proposed that conflict would mediate the relationship between team power and team performance. To test this, we followed the procedure of Baron and Kenny (1986). To establish mediation, four steps are required. First, the independent variable must be related to the mediator. As shown in Hypothesis 1, team power was significantly related to both relationship and process conflict. Secondly, the mediator must be related to the dependent variable. In Hypothesis 2, we showed that both relationship and process conflict were both negatively related to both the supervisor rating of team performance as well as members' perception of team performance. Thirdly, the independent variable must be shown to be significantly related to the dependent variable. We find support for this, as we find team power to be significantly related to both the supervisor rating of team performance ( $F = 5.09$ ,  $p < .05$ , high power  $M = 4.50$ ,  $SD = 1.41$ ; low power  $M = 5.50$ ,  $SD = .50$ ) as well as the team members' rating of perceived team performance ( $F = 5.10$ ,  $p < .05$ , high power  $M = 5.00$ ,  $SD = .89$ ; low power  $M = 5.76$ ,  $SD = .57$ ). Lastly, the effect of the independent variable should become non-significant when the mediator is controlled for. We also find support for this. The effect of team power on the supervisor rating of team performance becomes non-significant when the conflict types are controlled for (before adding conflict into the equation:  $\beta = -.51$ ,  $p < .05$ ; after adding conflict into equation:  $\beta = -.14$ , *n.s.*), as does the effect of team power on members' perceived team performance (before adding conflict into the equation:  $\beta = -.46$ ,  $p < .05$ ; after adding conflict into equation:  $\beta = -.18$ , *n.s.*). We also tested for mediation using Sobel tests. This also offered support for our findings. Namely, we find that conflict mediates the relationship between team power and the supervisor's rating of team performance (process conflict:  $z = -2.10$ ,  $p < .05$ ; relationship conflict:  $z = -1.99$ ,  $p < .05$ ). We also find that conflict mediates the relationship between team power and members' perceptions of team performance (process conflict:  $z = -2.50$ ,  $p < .05$ ; relationship conflict:  $z = -2.40$ ,  $p < .05$ ).



### **Study 1 Discussion**

In this first study of the effects of team power, we find that team-power had a predominantly negative effect for teams. Team with high levels of power had lower levels of team performance. This effect was fully explained by the level of process and relationship conflict in high power teams - high power teams had higher levels of process and relationship conflict, and process and relationship conflict were significantly, negatively related to team performance. We did not find a significant effect of team power on task conflict, suggesting that the effects of team power may be felt predominantly in the interpersonal and process issues of teams.

#### *Limitations*

While this study provides an important first test of the notion that the power of a team may have an impact on its processes and performance, there are several limitations to this study. First of all, the sample size is small. While tests for the inequality of variances were not violated, replication of our findings in a larger sample would still be desirable. Secondly, the teams in this organization performed different tasks. Perhaps the tasks of high-power teams such as management teams were more difficult, which is why they performed worse. Therefore, investigating the performance differences between low- and high-power teams on a common, single task would be desirable in order to remove extraneous factors from the picture. Thirdly, our findings paint a very bleak picture for the management of organizations - namely, that the teams in power in an organization are often ineffective. Future research would benefit from identifying factors which could give more hope to this picture. By identifying potential moderating conditions of the relationship between team power and conflict and performance, researchers may be able to provide organizations on ways to help their high-power teams avoid the pitfalls of being in power.

### **Study 2: The Moderating Role of Power Congruence**

In Study 2, we address the limitations of Study 1 as well as incorporate an important and theoretically relevant moderator of the relationship between power and intragroup conflict. We examine the basic hypotheses proposed in Study 1 in a larger, more diverse sample. We test

the differences between high- and low- power teams during a controlled information sharing task, which simulates a task common to the interactions of both low- and high- power teams.

Additionally, we suggest in this study that the relationship between a team's power and intragroup conflict may be ameliorated when individuals have a higher level of agreement about the relative power hierarchy *within* the team. Power (and in the broader sense 'disparity') has often been overlooked as a demographic variable driving team processes and performance (c.f. Harrison & Klein, 2007), which is surprising given the centrality of power to social interaction (Fiske, 1993). Indeed, research has suggested that hierarchies are inevitable in groups (Overbeck, Correll, & Park, 2005; Sidanius, 1993; Wegener, 1992). However, hierarchies are dynamic, and perceptions of relative power within the team may conflict (Owens & Sutton, 2001) – i.e. members may have discrepant views of each others' power within the team. In such situations, interpersonal congruence is low. Interpersonal congruence is defined as the degree to which group members see others in the group as they see themselves (Polzer, Milton, & Swann, 2002). When members have discrepant views of each others – i.e. when interpersonal congruence is low, this may negatively affect the team environment (e.g., Polzer, Milton & Swann, 2002). In particular, low levels of congruence can undermine team members' willingness to work toward common interests (Milton & Westphal, 2005; Polzer et al., 2002; Swann, Kwan, Polzer, & Milton, 2003), which may exacerbate the relationship between team power and conflict. This suggests that interpersonal congruence regarding power levels *within* the team may play a significant role in understanding the effects of team power on team dynamics. We therefore extend past research which has suggested that power dynamics *within* high-power teams may have an important effect on team functioning (e.g., Greve & Mitsuhashi, 2007) by showing how power congruence may affect the relationship between team power and team conflict. We test Hypotheses 1-3, as outlined in Study 1, and additionally, we introduce a new hypothesis focusing on the moderating role of power congruence, which we will outline below.

### **The Moderating Role of Power Congruence**

We propose that the positive relationship between power and conflict is likely to be affected by the degree to which team members agree upon the hierarchy *within* their team. Within the team context, members will have a hierarchy specific to the team. In order to function well within the team, members need to know their place within the hierarchy. Knowing one's place within the team's hierarchy provides important information for team members, such as their reputation within the group (De Cremer & Tyler, 2005) or the degree of influence appropriate for members to wield (Bales, 1950; Berger, Rosenholtz, & Zelditch, 1980). This information in turn may reduce members' uncertainty about their social position in the group (c.f. Van den Bos & Lind, 2002; De Cremer & Sedikides, 2005). Indeed, decades of research has suggested that people have a critical need to reliably predict how others will interact with them (Cooley, 1902; Mead, 1934; Swann, 1987; Tajfel & Turner, 1986; Turner, 1987), and that because of this, clear hierarchies are often viewed as a necessity for social interaction (Berger Cohen, & Zelditch, 1972).

In teams, interpersonal congruence, or the degree to which team members see others in the team as they see themselves (Polzer et al., 2002), regarding power levels in the group may be a good indicator of the degree to which teams have a clearly agreed upon hierarchy. Therefore, in this study, we examine the degree to which members' perceptions of the relative power of themselves and others is in agreement – i.e. we look at the level of power congruence in the team. We predict that when these perceptions are in alignment, there is high-power congruence and a clearly agreed upon hierarchy can be said to exist in the team. This will enable the team members to better structure their interactions with each other. This in turn should help ameliorate the relationship between team power and intragroup conflict. Specifically, we suggest that when members perceive each others' power level accurately, the predictability and coherence of their working world remains intact (Mead, 1934; Swann, 1987). This allows members to verify their own self-views of the hierarchy with others, and this self-verification process enables them to form confident expectations of one another's behavior (c.f. Swann, 1987).

Research on power has shown support for this. For example,

research on hierarchy in teams has suggested that stable, clearly agreed upon hierarchies - i.e. legitimate hierarchies, such as those that exist under high-power congruence, will give members a better sense of 'place' within the team and reduce uncertainty about members' positions within the team (e.g., Berger, Ridgeway, Fisek, & Norman, 1998; Ridgeway & Berger, 1986; Overbeck, Correll, & Park, 2005). This will enable members to act appropriately - in a way that is in line with team roles (Owens & Sutton, 1999) and will reduce the confusion that may occur especially in high power teams over the roles members are supposed to assume within the team. Recent work by Keltner and colleagues (2008) suggests that clear power hierarchies may help serve as a prioritization device in teams, providing guiding lines for resource allocation and related member behaviors. This may also help reduce the likelihood of status contests in high-power teams (Keltner et al., 2008), thereby attenuating the effect of team power on conflict. Lastly, power congruence may increase the reliability of team members' knowledge of each others' role in the team, may counter the negative effects of team power on perspective taking and collaboration by enabling teammates to better anticipate, acknowledge, and appreciate one another's contributions (Wittenbaum & Stasser, 1996). All of these influences may help interpersonal power congruence to reduce the threat and uncertainty felt in high-power teams and stave off intragroup conflict. Therefore, we propose:

*Hypothesis 4.* Power congruence will weaken the positive relationship between team power and conflict, such that high-power teams will have lower levels of conflict (task, process, relationship) when power congruence exists.

### **Study 2 Methods**

We tested our hypotheses using data collected from 42 pre-existing work teams (322 employees) of a multinational financial corporation with offices in the Netherlands. The average team size was 7.67 (SD = 3.04), and the average team had worked together for 3.65 (SD = 2.01) years. Twenty-five percent of the respondents were non-Dutch, and 51% were female. The average age of employees was 32 (SD=5.19). The teams participating in our study came from a variety of departments across the

company, including the internal audit department, the investment banking department, and the human resources department.

### **Procedure**

We recruited teams for our study by contacting departmental heads within the corporate office of the financial corporation where the study took place. Departmental heads required all teams within their department to attend. In return for their participation, teams received a training and individualized team reports on how their team processes were affecting their team performance following completion of the training program.

On the day of our study, teams entered a conference room and were given an initial survey assessing demographic and other baseline team characteristics, including perceptions of power within the team. Following completion of this survey, team members were told they were going to be doing a task together to assess team dynamics. They were then informed that performance on the task was important for the quality of feedback they would get in their post-training individualized report, and that they would be benchmarked against other teams participating in the workshop.

For the task, teams completed a logic puzzle together. In this logic puzzle, teams were given information about five different managers at their company who worked in five different business units in five different locations and were managing five different projects with five different budgets. Teams were asked to match which manager worked in which business unit in which location and which project with which budget the manager was responsible for on the basis of clues distributed to each of the team members (for example, a member would receive five clues, one of which would read “Manager D does not work in Asia”). Each member received the same amount of clues and the same amount of shared versus unshared clues compared to other team members. Because all clues were critical to full completion of the puzzle, the presence of the unshared clues meant that no one member could solve the puzzle on his or her own – members had to share information in order to reach a joint solution. Teams were then informed that their performance would be based on what they were able to match on the team solution sheet before time was up. Fifteen minutes were allotted for the task and teams were informed when there

were five minutes remaining and one minute remaining. After the task, teams were debriefed.

This task resembles traditional hidden-profile tasks (e.g., Stasser & Titus, 1985) where members are given clues and asked to come together to a common solution which no one member has sufficient clues to produce. Group decision-making tasks, such as this one, which involve high demands for collective information processing present an ideal opportunity to contrast the dynamics and performance of high- and low-power teams. In such tasks, the importance and implications of any single team member's knowledge are not likely to be apparent until the team can process that knowledge in the context of what other teammates know – compilation and integration of group members' task-relevant information are critical to success (Wittenbaum, Hollingshead, & Botero, 2004). Therefore, such a task brings to immediate light the quality of group processes evident in the team and the ability of the team to compile and integrate information in order to make effective decisions.

In our task, every member of the team was given an equal amount of shared and unshared clues. We chose to use this task because it resembles a decision-making procedure of both high- and low- power teams, with members coming to the table to solve a dilemma based on their own unique information. Indeed, effective teams are able to identify a problem, gather relevant information, and evaluate and select alternatives to the problem that emerge from the relevant information (e.g., Abelson & Levi, 1985; Donaldson & Lorsch, 1983; Janis, 1982; Kahneman, Slovic, & Tversky, 1982; Simon, 1976). Not only must high-power teams in the organization, such as top management teams, rely on their collective decision-making ability to perform their jobs (e.g., Henderson & Fredickson, 1996), low-level teams (e.g., customer service, production) are being increasingly given analogous responsibilities that require them to regularly make collective decisions about operating procedures, member roles, scheduling, and other issues (LaFollette, Hornsby, Smith, & Novak, 1996; Roming, 1996; Wellins, Byham, & Dixon, 1994; Wellins et al., 1990). Additionally, this task also provides the advantage of a clear objective performance outcome, providing a reliable measure of performance (McGrath, 1984).

**Measures**

A baseline survey was given before the task to assess interpersonal power congruence. A follow-up survey was administered immediately following the task to ask about group dynamics specifically during the decision-making task, such as the level of conflict perceived by team members. All survey questions were answered on a 1-7 scale, with 1 being low agreement with the item and 7 being high agreement. These measures were complemented by coder ratings of video-tapes of the team's interaction during the task.

***Team Power***

Our distinction between high- and low-power teams was based on the organizational level of the teams. Fitting our definition of team power, teams that had control over other teams and/or had the ability to make decisions that would impact the whole company were classified as high-power teams. This ranking was done separately by two experts of the company (one internal, one external) using organizational charts and company knowledge. Initial inter-rater agreement was 98%. The rating for the one team that was disagreed upon was discussed and resolved. Twelve teams were then identified as high-power teams, and thirty teams were identified as low-power teams. Our team power variable is thus a dichotomous variable where -1 represents low-power teams, and 1 high-power teams. In addition, as a manipulation check, we also asked teams whether they occupied low- or high-power positions in the company. This manipulation check was successful as high-power teams reported occupying more high-power positions than low-power teams ( $t=-4.43$ ,  $p<.001$ ).

Of the twelve teams identified as high-power teams, five teams were management teams, such as supervisory teams of business units (e.g., the management team of the internal auditing department), while seven teams were policy setting teams in the company who did not have teams reporting directly to them but still who controlled enormous resources in the organization and had a large impact on company policy (i.e. the advisory teams for organizational communications or the human resources department). The low power teams included, for example, secretarial teams

and lower levels teams in the departments of the management teams, such as teams of junior auditors. We did not find any significant differences to exist between the different types of high-power teams or different types of low-power teams in a multivariate analysis on the variables in our study. This suggests that our results are likely only due to the power of the team in the organization, rather than to certain responsibilities or issues attached only to certain team functions, such as management teams.

### ***Power Congruence***

Individual-level power was measured on the basis of a round robin question wherein team members had to respond to the question “How much influence does each member of your team have within the team?” for each of the members in their team, including themselves. Self-perceptions of power were based on participants’ responses for themselves, and other-perception of power was based on the average of how each participant was rated by his or her other members. In rating the power of other members of the team, members showed high agreement with each other ( $ICC[1] = .49$ ,  $ICC[2] = .88$ ,  $F [1,274] = 5.71$ ,  $p < .001$ ;  $r_{wg} = .90$ ).

To calculate the degree to which members’ power self-views were congruent with how others in the team viewed them, we followed the procedure employed by Polzer et al. (2002). We first calculated an individual-level *incongruence* score for each participant. To accomplish this, we calculated the absolute difference between the individual’s power self-view and each other member’s appraisal of that individual’s power. We then took the average of these difference scores across all team members who rated the focus individual, which resulted in an individual level incongruence score for the focal individual. Significant F-tests, ICCs, and  $r_{wg}$  scores confirmed the appropriateness of aggregating power congruence ( $ICC[1] = .19$ ,  $ICC[2] = .44$ ,  $F = 106.71$ ,  $p < .001$ ;  $r_{wg} = .78$ ) to the team level (Klein & Kozlowski, 2000). To obtain a team level incongruence score, we averaged the individual level incongruence score of all team members. This team level incongruence score was then reverse coded to reflect congruence, rather than incongruence, to ease interpretation of results.



***Intragroup Conflict***

Intragroup conflict was assessed by coders who rated the videos of the team task as well as by self-report measures of team members as given during the post-task survey about their experience during the task. Such triangulation of measures is especially important in studies of intragroup conflict, as De Dreu and Weingart (2003) note that too much of past conflict research has relied purely on self-report survey measures, which may not necessarily be as insightful as other more objective methods, such as behavioral ratings.

For the video coder ratings, two coders, blind to the hypotheses, rated each of the videos of the interactions of each of the teams during the 15-minute decision-making task. For their ratings, they answered the scale items of the intragroup conflict scale of Jehn (1995) for task and relationship conflict and the scale of Jehn and Mannix (2001) for process conflict on a scale of 1 to 7 (7 indicating high agreement). The coders exhibited high reliability in their rankings (for task conflict,  $r_{wg} = .98$ , for relationship conflict,  $r_{wg} = .78$ , for process conflict,  $r_{wg} = .99$ ). Additionally, the internal reliability of the scales for each conflict type was sufficient (task conflict  $\alpha = .75$ , relationship conflict  $\alpha = .91$ , process conflict  $\alpha = .95$ ), and a factor analysis showed high discriminant validity for the conflict types as well (three distinct factors, with all loadings above .79).

For the self-report ratings, we used the same measures – the scales of Jehn (1995) for task and relationship conflict and the scale of Jehn and Mannix (2001) for process conflict. These measures again showed sufficient internal reliability (task conflict  $\alpha = .92$ , relationship conflict  $\alpha = .84$ , process conflict  $\alpha = .91$ ) and discriminant reliability as well (three distinct factors, with all loadings above .78). Additionally, we found support for averaging individual team member responses to the team level, as supported by significant F-tests and inter-class correlation coefficients (ICCs) (task conflict: ICC[1] = .33, ICC[2] = .79; relationship conflict: ICC[1] = .26, ICC[2] = .73, process conflict: ICC[1] = .27, ICC[2] = .74).

These two methods – self-report survey ratings and video-coder ratings of actual behavior – were then triangulated together to form our measure of conflict. There was high agreement between these two methods (task conflict:  $r_{wg} = .83$ ; relationship conflict:  $r_{wg} = .89$ ; process conflict:

$r_{wg} = .91$ ), so the two measures were averaged together for each conflict type to form the final measure of conflict.

### ***Task Performance***

Task performance was assessed by the number of correct answers the teams had for the logic puzzle. For each correct match (e.g., identifying a manager with the correct project he managed), teams received a point. Scores could potentially range, and did actually range, from 0 to 20.

### ***Controls***

We initially controlled for gender diversity, national diversity, educational heterogeneity, job department, average team and organizational tenure, team size, and a video-rating of task focus ('How focused was this team on the task?',  $r_{wg} = .89$ ). However, initial regression tests showed that only national diversity, team and organizational tenure, and task focus significantly affected our model, so they were the only variables included in ensuing analyses.

### ***Analysis***

We tested our hypotheses using hierarchical regression analysis. All variables were centered, according to the procedure of Aiken and West (1991).

## **Study 2 Results**

Means, standard deviations, and correlations are presented in Table 1. As seen in Table 1, team power has a significant positive relationship with all three conflict types and a significant negative relationship to task performance.

**Table 2. Study 2 means, standard deviations, and correlations<sup>a</sup>**

Variable	Mean	s.d.	1	2	3	4	5	6	7	8	9
1. National Diversity	.35	.26									
2. Team Tenure	3.65	.40	-.04								
3. Organizational Tenure	8.78	.61	-.38*	.38*							
4. Task Focus <sup>b</sup>	3.07	1.39	-.15	.17	.08						
5. Team Power <sup>c</sup>	--	--	-.11	.25	.45**	-.09					
6. Power Congruence	.78	.41	-.13	.16	.32	.06	.19				
7. Task Conflict <sup>b</sup>	2.32	.79	-.21	.18	.04	-.07	.47**	-.24			
8. Relationship Conflict <sup>b</sup>	1.52	.38	-.07	.17	.25	-.15	.48**	-.19	.65**		
9. Process Conflict	2.38	1.08	-.36*	.12	.14	-.10	.36**	-.11	.48**	.43**	
10. Task Performance	6.59	4.06	.30*	-.22	-.19	.23	-.30*	-.12	-.18	-.33*	-.32*

<sup>+</sup>  $p < .10$ . <sup>\*</sup>  $p < .05$ . <sup>\*\*</sup>  $p < .01$ . <sup>a</sup>  $n=42$  <sup>b</sup>  $n=37$  <sup>c</sup> dichotomous variable

**Table 3. Results of hierarchical regression analysis**

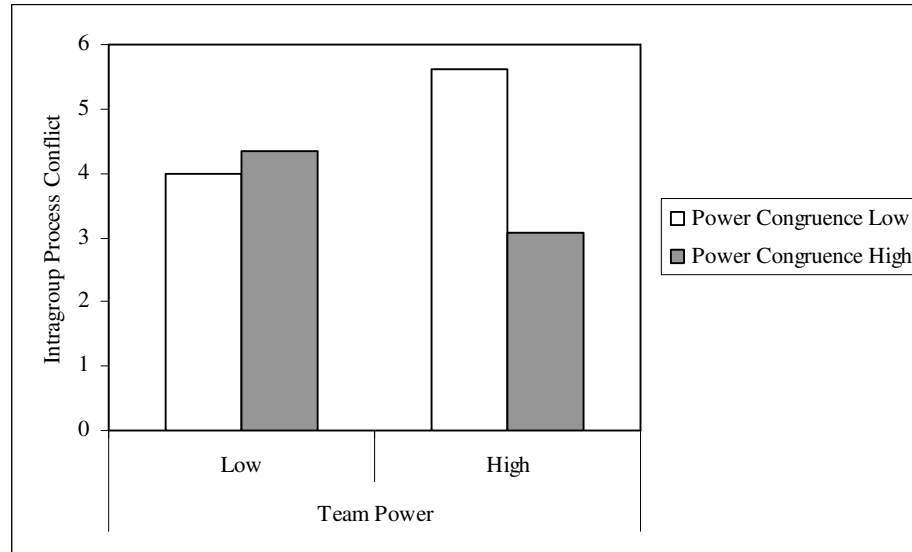
		Intragroup Task Conflict	Intragroup Relationship Conflict	Intragroup Process Conflict
Step 1.	National Diversity	-.14	.18	-.35
	Team Tenure	.14	-.04	.34
	Organizational Tenure	.32	.45*	.11
	Task Focus	-.05	-.16	-.20
	<i>F</i>	2.41	2.53	3.04*
	<i>R</i> <sup>2</sup> / Adj. <i>R</i> <sup>2</sup>	.24/.14	.25/.15	.33/.22
Step 2.	Team Power	.47*	.37*	.52*
	Power Congruence	.15	-.19	.01
	<i>F</i>	3.11*	3.49*	3.67**
	<i>R</i> <sup>2</sup> / Adj. <i>R</i> <sup>2</sup>	.39/.27	.42/.30	.49/.36
	<sup>Δ</sup> <i>R</i> <sup>2</sup>	.13	.15	.14
Step 3.	Team Power X Power Congruence	-.01	-.05	.51*
	<i>F</i>	2.58*	2.90*	4.14**
	<i>R</i> <sup>2</sup> / Adj. <i>R</i> <sup>2</sup>	.39/.24	.42/.28	.57/.43
	<sup>Δ</sup> <i>R</i> <sup>2</sup>	.00	.00	.07

<sup>a</sup> n=37 \* p < .10, \* p < .05, \*\* p < .01, \*\*\* p < .001

To test our first hypothesis, we used hierarchical regression analysis to investigate if high-power teams differed from low-power teams in the amount of intragroup conflict present in the team. As seen in Table 2, this was supported as high-power teams had a significantly higher amount of conflict than low-power teams: high-power teams had higher levels of task conflict ( $\beta = .47, p < .05$ ), relationship conflict ( $\beta = .37, p < .05$ ), and process conflict ( $\beta = .52, p < .05$ ).

In our second hypothesis, we proposed that power congruence would moderate the relationship between team power and conflict, such that when high-power congruence existed within the team, team power would be less positively related to conflict. This was supported for process conflict ( $\beta = .51, p < .05$ ). The interaction plot, as seen in Figure 2, revealed an ordinal interaction, such that power congruence did not appear to affect low-power teams, but for high-power teams, when power congruence was high, team power was less positively related to process conflict. We did not find effects of power congruence on the relationship between power and either task or relationship conflict.

**Figure 2. Moderating effect of power congruence on the relationship between team power and process conflict**



In our third hypothesis, we proposed that intragroup conflict would be negatively related to team performance. This hypothesis was supported for process conflict ( $\beta = -.38, p < .05$ ) as process conflict had a significant negative effect on team decision-making performance. This hypothesis was also supported for relationship conflict ( $\beta = -.33, p < .05$ ), as relationship conflict also had a significant negative impact on team decision-making performance. We did not find a significant effect of task conflict on team performance.

In our fourth and final hypothesis, we proposed that conflict would mediate the relationship between team power and task performance. We find support for this. Specifically, we find that team power is significantly related to both process and relationship conflict (as shown in table 2) and task performance ( $\beta = -.30, p < .05$ ), that both process and relationship conflict are significantly, negatively related to task performance, and, finally, that the significant relationship between team power and task performance disappears ( $\beta = -.03, n.s.$ ) when process and relationship conflict are added into the equation. We also tested for mediation with a Sobel test, which yielded a significant result as well (mediation by

relationship conflict:  $z = -1.90, p < .05$ ; mediation by process conflict:  $z = -2.08, p < .05$ ). Process and relationship conflict were thus found to mediate the relationship between team power and decision-making performance.

### **Study 2 Discussion**

In this multi-method quasi-experimental field study, we find that powerful teams demonstrate significantly poorer decision-making ability than low-power teams on a decision-making task. This effect is fully explained by the higher levels of performance-detracting process and relationship conflict in high-power teams. We do find a situation though where team power is not always negative – specifically, when high-power teams have a clear idea of the relative balance of power within their team, they are likely to have lower levels of conflict and therefore better team decision-making performance. This suggests a potential pathway for managers to utilize to improve the performance of the high power teams in their organizations.

### **General Discussion**

Across two studies, we have shown that high-power teams perform worse than low power teams. In both studies, we find these effects can be fully explained by the higher levels of process and relationship conflict present in high-power teams - high-power teams have significantly more process and relationship conflict, and process and relationship conflict are significantly, negatively related to team performance. A strength of this chapter is showing these findings in different organizational contexts (including the financial and telecommunications industries) and on different outcome variables, including general team performance in its daily life in the organization as well as team performance in a controlled setting on a collective decision-making task. Additionally, this chapter offers hope to managers by showing that when team members establish a clearly agreed upon hierarchy within the team, the negative effects of team power on may be avoided.

These findings offer several contributions to existing research. First of all, our findings extend existing research on individual differences in power as well as research on team composition. Research in the field of

psychology has found, for example, that individuals in high-power positions are more responsive in setting priorities and using information than less powerful organizational members (Overbeck & Park, 2006). However, our findings suggest that when these powerful individuals are asked to utilize information and make decisions as a team, they are actually less effective than low-power teams. We find that this is because a high level of conflict impeded effective team decision-making and performance in high-power teams, suggesting that the interpersonal issues associated with a team of high-power individuals working together may override the cognitive benefits of being in power. We thus extend psychological research which has shown power at the individual level to decrease perspective taking and understanding of others (e.g., Galinsky et al. 2006; Keltner & Robinson, 1997) by showing that power may indeed lead to impaired interpersonal interactions in a team environment. Relatedly, our findings also extend research on team composition (e.g., Harrison & Klein, 2007; Mannix & Neale, 2005) by finding significant differences in conflict and task performance based on differences in power composition between and within teams. Our chapter thus shows power to be a new and important determinant of team composition to account for when studying team dynamics.

Secondly, our findings contribute to research on top management teams (TMTs). Though there is some variance in how past researchers have defined TMTs (e.g., Hambrick & Mason, 1984; Carpenter et al., 2004; Keck, 1997), we believe that most conceptualizations of TMTs can be classified as a form of high-power team. Indeed, despite many variations in composition, TMTs have remarkably consistent effects on firm outcomes, suggesting that they operate mainly through a significant and shared characteristic like power (Carpenter et al., 2004). However, the specific role of power in shaping TMT dynamics has not received much investigation (c.f. Certo, Lester, Dalton & Dalton, 2006), nor have the underlying team dynamics or processes of TMTs (c.f. Certo et al., 2006; Vyakarnam & Handelberg, 2005). Our findings may therefore be of relevance for researchers in the TMT field. Specifically, our results show that high-power teams may actually have poorer performance than low-power teams when high-power teams lack a clear internal hierarchy within

their team. Our findings therefore point to the importance of internal hierarchies within TMTs in helping them to achieve better team performance.

Thirdly, our findings contribute to research on identity processes in organizations by providing an example of how the importance of identity verification and interpersonal congruence processes can vary across team contexts. Specifically, our findings suggest that power congruence appears to have a larger impact on members of high-power, rather than low-power teams. This may be because high-power contexts make the power of team members a characteristic of paramount importance. Indeed, an individual's power in some part of the organization is often a significant aspect of how the individual gains legitimacy on a high-power team. Past literature has demonstrated that when individuals consider a characteristic to be important, verification (or the lack thereof) becomes a greater and more influential concern (Swann & Pelham, 2002). Our results add nuance to this finding by suggesting that a characteristic's importance may not only be determined by an individual's personal feelings, but also by the team context in which he or she operates. In addition, the results suggest that a characteristic's importance moderates consequences not only for individuals, but also for teams.

Lastly, our findings contribute to the intragroup conflict literature (e.g., De Dreu, 2007; De Dreu & Weingart, 2003; Jehn & Bendersky, 2003) by looking at an important new antecedent of conflict – team power-level. Our findings across both studies suggest that a team's power in the organization, as well as the internal power balance within the team, may have a substantial impact on the conflict that occurs in the team. This extends past research on the antecedents of intragroup conflict which has primarily focused on demographic characteristics (e.g., Jehn, Northcraft, & Neale, 1999; Pelled, Eisenhardt, & Xin, 1999) by showing a new and important factor of team composition which may influence intragroup conflict. Additionally, we found, in line with a growing amount of evidence (e.g., Greer & Jehn, 2007; Jehn, Northcraft, & Neale, 1999; Matsuo, 2006), that process conflict is negative for team decision-making performance. While past research has suggested that process conflict may benefit performance through improving task-fit (cf. Jehn & Bendersky, 2003),



other research has suggested that process conflict may be negative for performance because of the high emotionality associated with issues such as task delegation and its associated personal connotations (Greer & Jehn, 2007). Our findings therefore contribute to this debate by showing support for the proposition that process conflict is negative for team performance. While we do not find a strong effect of task conflict on objective performance measures in either study, this is not surprising. A recent meta-analysis by De Dreu and Weingart (2003) also did not find a strong effect of task conflict on team performance and suggested that the effects of task conflict may be largely contextual. As the focus of this chapter was on the impact of power on conflict and performance, we did not examine the many potential moderating factors of the relationship between task conflict and performance, but rather focused on the effects of power and power congruence on conflict and team performance. Future research would thus benefit from further investigation into the conditions in which task conflict is good or bad for team performance.

#### **Future Directions and Limitations**

The findings in these studies open up the possibility for several new research directions. Future research would benefit from further examination of factors that can ameliorate the negative relationship between team power and task performance. While we identified power congruence as one potential factor that may reduce conflict, and ultimately improve performance, in high-power teams, other such factors are possible, such as the quality of a team's climate. Secondly, future research would benefit from examining ways in which teams can establish clear hierarchies. For example, clear communication of roles and team-building exercises which allow members to get to know each other better may help allow hierarchy formation. Future research would thus benefit from investigating the antecedents of power congruence in teams.

#### **Managerial Implications**

Our findings offer important implications for managers. Specifically, our findings highlight the precarious positions of high-power teams. As shown in this paper, high-power teams may suffer from a high

level of process and relationship conflict, which may negatively impact their team performance. As a manager, this does not mean that high-power teams should not be making decisions, but rather, that particular care should be taken in high-power teams to reduce process and relationship conflicts. One potential way to reduce such conflicts, as shown in this paper, is to make sure that members of high-power teams are clear about the relative power hierarchy *within* their own team. By clearly defining roles, explicitly recognizing the various bases of members' power, and openly discussing power and relationships within the team, high-power teams can improve their power congruence and thereby boost their decision-making ability.

### **Conclusion**

High-power teams are not always high performers. This is because members of high-power teams may have high levels of process and relationship conflict, which may interfere with effective decision-making and performance. In such situations, low-power teams are likely to outperform high-power teams. However, high-power teams do have the potential to overcome the potential pitfalls in their teams. By making clear the internal power balances within the team, high-power teams can become more effective decision makers. Both managers and management researchers can use these findings to better understand how teams high in power differ from teams low in power and to identify ways in which the performance of high-power teams can be improved.

# Chapter 7

## General Discussion

Despite decades of research on team composition and conflict, research in both fields has yielded largely contradictory results (for reviews, see Harrison & Klein, 2007; Jehn & Bendersky, 2003; Jehn, Greer & Rupert, 2008; Mannix & Neale, 2005; Kochan et al., 2003; Van Knippenberg & Schippers, 2007; Williams & O'Reilly, 1998). Team composition has been shown to both help and hurt team performance, as has intragroup conflict. Several reasons may exist for these contradictory findings. First of all, past conceptualizations and operationalizations of team composition and conflict have been primarily at the team level and have overlooked the importance of individual differences within the team, especially in terms of individual differences in perceptions and behaviors. This is surprising as many of the key theories used to explain the effects of team composition and conflict on team outcomes carry an implicit assumption of perception. For example, theories of self-categorization and social identity suggest that people are constantly busy with categorizing themselves and those around them on the basis of salient characteristics (Tajfel & Turner, 1986; Turner, 1985, 1987; for reviews, see: Ellemers et al., 2002, 2003). Despite this assumption that the effects of demographic differences are driven by their perception, scant research on team composition or conflict has looked at how members' perceptions may vary or impact team interactions. Secondly, past research in these fields has often overlooked a key factor with the potential to greatly shape the effects of team composition and conflict on team outcomes - namely, power differences in teams. Classic research in social psychology has suggested that power may have a profound impact on all social interaction (Fiske, 1993); however, research on teams has yet to acknowledge this ubiquitous presence of power and to investigate its impact on team interaction.

The central goal of this dissertation was therefore to integrate these two key themes – the role of individual differences in perceptions and behaviors and the role of power differences in relation to teams – to create a framework which will allow for a better understanding of the relationships between team composition, conflict, and team outcomes. In this dissertation, I explored these relationships using multiple methods, including field (survey, quasi-experiment, interviews, and observation), laboratory, and archival methods of research. In the following sections, I will provide an overview of the main findings in this dissertation and discuss how these findings help advance past theories and frameworks. I will then present a new theoretical model for understanding the multi-level nature of team phenomena, such as team composition and conflict.

### **Overview of the Results**

The primary finding in this dissertation is that acknowledging individual differences in perceptions and behaviors is critical in gaining an accurate knowledge of team dynamics. While past work has acknowledged the potential for differences in individual perceptions and behaviors within teams (Kozlowski & Klein, 2000), still scant research has theoretically and empirically pursued the meaning of these differences for team interactions (for exceptions, see Jehn & Chatman, 2000; Jehn & Rispens, 2007). The findings in this dissertation therefore contribute towards this more multi-level understanding of teams, in which individual differences in perceptions and behaviors are acknowledged when investigating team-level phenomena. Specifically, I find across multiple studies and contexts that differences in individual perceptions and behaviors help explain key team processes and outcomes. For example, I find that differences in individual conflict engagement within a team can have implications for team-level conflict and performance. I also find that differences in perceptions of team composition may help explain the effects of team composition on team processes and outcomes. Additionally, I find that differences in perceptions of team power structures may play an important role in explaining the effect of power on team-level conflict and performance. Together these findings show the importance of considering not only team-level factors but also individual-level factors and differences when developing and

testing theories of team interaction.

A second main finding in this dissertation is the centrality and importance of power to team interactions. While a rich literature exists on the interpersonal and intrapersonal effects of power (see Keltner et al., 2003), investigation of power in the team setting is just beginning. This dissertation has set forward that power (and members' potentially divergent perceptions of it) may have a dramatic impact on team and individual processes and outcomes. I investigated how several different aspects of power may influence interactions and performance in the team setting. Building upon past research which has identified power, status, and relative group size as three closely related constructs which determine the ability of a group or an individual to influence others (e.g., Wolf & Latane, 1985), I investigated the impact of social power, demographic status, and relative subgroup size in understanding the relationships between team composition, conflict, and team outcomes. I find that a team's social power within the organization may affect the team's internal levels of conflict and performance. Additionally, I find that dividing lines in teams based on perceived differences in social power had a negative effect on group functioning. In another line of work, I find that power differences as stemming from relative subgroup size within a team altered individual and team conflict engagement and performance, and that these relationships were moderated by the demographic status of the members involved. Together, these findings show that power is an important variable in shaping team and individual perceptions, behaviors, and outcomes. Additionally, these findings show that across the potentially different conceptualizations of power - social power, status, or numerical size, power has a consistently strong impact on team functioning, helping to further our understanding of the nature of power. The findings in this dissertation therefore extend past research on power (Keltner et al., 2003) and teams (see Kozlowski & Ilgen, 2006 for a review) by integrating theories of power into the team setting. In the following section, I will discuss more in-depth the findings from the specific studies that have led to these conclusions.

In Chapter 3, I built upon past research which has suggested that members within the same team may have different perceptions of

intragroup conflict (e.g., Jehn & Chatman, 2000; Jehn et al., 2006; Jehn & Rispens, 2007) to investigate how members' behavior may diverge in conflict situations. I specifically investigated whether a member's choice to engage in conflict affected the member's performance in the group. I also incorporated relevant theory on power and influence to investigate how the influence tactics the member used during the conflict altered the effect of conflict engagement on individual performance. Using an archival dataset including over 7,500 emails sent to the organizational list-serves of political-activist organizations, I utilized multiple methods, including text analysis and coder ratings to determine the effects of conflict engagement on individual performance. My findings were in line with my initial expectations - the effects of conflict engagement were found to be contingent upon the type of conflict the individual engaged in and the manner in which the individual behaved while engaging in the conflict. Specifically, I found that when engaging in task-related conflicts, individuals performed best when using clear (but not didactical language), and when engaging in relationship conflicts, individuals performed best when using flattery and logic to influence others. The findings in this study contribute to past theory and research on power and influence (e.g., Keltner et al., 2003; Yukl & Falbe, 1990) and conflict management (e.g., De Dreu & Van de Vliert, 1997; Rahim & Magner, 1995) by showing the relevance of influence strategies to conflict management. To engage in conflict and to convince others of one's opinion, power and influence are central. However, conflict management research has yet to draw on the extensive literature in the fields of power and influence (e.g., Keltner et al., 2003; Kipnis & Schmidt, 1988; Yukl & Tracey, 1992) to develop theory and propositions regarding how power and influence strategies may be of use in conflict settings. The theory and findings in this chapter therefore extend research on conflict management by showing the relevance of power and influence processes for theories and studies of conflict. Additionally, the theory and findings in this chapter extend past conflict research which has primarily focused on conflict perceptions (see Jehn & Bendersky, 2003) by introducing the concept of conflict engagement, with its unique focus on individual differences in conflict behavior in the team setting.

In Chapter 4, I looked at both the antecedents as well as the

individual- and team-level consequences of conflict engagement. Specifically, I proposed that the power (as determined by the relative numerical representation of similar team members) and status of a member in a team would predict when members would choose to engage in conflict. I also proposed that in teams where diverse members did not feel able to engage in conflict, teams would have less intragroup conflict and team performance would suffer. I thus investigated the effects of conflict engagement in teams at multiple levels of analysis. Across three studies, involving both laboratory and field data, I find that conflict engagement is critical for team and individual performance. Teams with higher levels of conflict performed better on a decision-making task. Additionally, a member's position in the team, in terms of power and demographic status, affected the member's perceptions and behaviors regarding conflict. Members with low power (in terms of relative numerical representation of similar members) and low demographic status were more likely to *perceive* conflict than other team members, but were less likely to *engage* in conflict. The awkward position of these members was shown to translate into lower levels of performance for these members, both in individual performance in the field and individual cognitive performance in the laboratory. The findings in this chapter offer several extensions to existing theory and research. First of all, they extend existing research on intragroup conflict (cf. De Dreu & Weingart, 2003; cf. Jehn & Bendersky, 2003) by showing the antecedents and consequences of individual differences in conflict engagement. Secondly, this chapter contributes to research on team composition (e.g., Lau & Murnighan, 1998; Mannix & Neale, 2005) by looking at how power and status differences may play a large role in determining team composition and its effects on team and individual conflict engagement and performance. Past research has commonly looked at the effects of demographic differences on conflict and performance without taking into account the relative status of certain demographic characteristics. However, theory suggests that such investigations may be naïve, as demographic characteristics are often tightly intertwined with status and eventual power differences within a team (e.g., Berger Cohen, & Zelditch, 1972). Relatedly, past research has also often overlooked how the proportional representation of members in a team can create power

differentials within the team. This in spite of the fact that past research has suggested that relative (sub)group size may be an important determinant of power (e.g., Ebenbach & Keltner, 1998; Guinote, Brown, & Fiske, 2000; Wolf & Latane, 1985) and of individual perceptions and behaviors (e.g., Ely, 1995; Guinote, 2004). Therefore, the findings in this chapter help to address these past limitations in theory and research on team composition by showing that power in terms of status and relative group size is indeed critical in shaping the effects of team composition on team and individual conflict engagement and performance.

In Chapter 5, I investigated the interplay between objective demographic characteristics and members' perceptions of these characteristics in understanding the effects of team composition. I built upon past theories which have suggested the importance of perception when investigating team composition (e.g., social identity theory and self-categorization theory, Ellemers et al., 2002, 2003; Tajfel & Turner, 1986; Turner, 1985, 1987) to provide one of the first theoretical integrations of perceptions and realities of team composition (for notable exceptions, see Harrison, Price, & Bell, 1998; Hobman, Bordia, & Gallois, 2003, 2004; Randel, 2002; Rink & Ellemers, 2007; Van der Vegt & Van de Vliert, 2005). I proposed that the more team members perceived divides, or faultlines, in their team, the worse their group functioning and team performance would be. I also proposed that this effect would be exacerbated when objective demographic divides also existed in the team, when members disagreed about the extent of the divide, and when members perceived the divide to stem from person-based, rather than job-based, characteristics. I tested these ideas in a field study at a multinational financial corporation using a mix of both quantitative and qualitative data, including ethnographic observation, interviews, surveys, and a quasi-experiment. My theoretical model concerning team composition was largely supported. The more members perceived a divide within their team, the worse their functioning. This was made even worse when an objective demographic divide also existed in the team, when members all agreed upon the divide, and when members perceived the divide to be based on person, rather than job, related characteristics. When investigating the reasons to which people ascribed divides in their teams, I utilized a



qualitative approach which resulted in more reasons for divides within teams than initially expected. I found that in addition to social category and functional differences, as commonly examined in past research (e.g., Jehn et al., 1999; Pelled et al., 1999), value differences and power differences were also two other primary perceived causes of divides, or faultlines, in teams. In supplemental analyses, I found that divides in teams were negative for team functioning when the divides were perceived to be based on social category, value, or power characteristics, and positive for team functioning when based on functional characteristics. These findings contribute to past research on team composition by showing the importance of both values and power differences in shaping team composition. While a larger literature exists on how social category or functional differences may shape team interactions (for a review, see Mannix & Neale, 2005), still scant research has examined the role of value or power differences within teams. The findings in this study therefore suggest important new pathways to explore in understanding differences in team composition - namely, to better understand how differences in member values or power levels may impact team processes and outcomes. Additionally, the findings in this study show the importance of examining both perceptions and realities when investigating the impact of team composition on team outcomes. These findings extend past research on team composition (e.g., Mannix & Neale, 2005; Williams & O'Reilly, 1998) and demographic faultlines in particular (e.g., Lau & Murnighan, 1998; Li & Hambrick, 2005; Thatcher et al., 2003) by showing that the effects of faultlines may be best understood through investigating not just demographic differences, but the interplay between these differences and members' perceptions.

In Chapter 6, I built on an emerging theme in the preceding chapters in this dissertation - namely the importance of power differences in understanding team interactions and performance - to provide one of the first theoretical frameworks and investigations of power in the team setting. I proposed that a team's power in the organization, as well as the internal power balance within the team, may impact the conflict and performance of the team. In a first survey-based field study and a second quasi-experimental study utilizing multiple methods (including archival data, video-ratings, and survey data), I found across both studies that teams with

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high power in the organization had higher levels of conflict and lower levels of performance than teams with low levels of power in the organization. In the second study, I introduced the concept of power congruence - the degree to which members agree upon the internal power hierarchy within the team - as a relevant moderating factor. In line with previous findings in this dissertation, I found that individual perceptions and differences were key in this situation as well - specifically, I found that when individuals' in the team had similar perceptions of the team hierarchy - i.e. when interpersonal power congruence existed, the negative effects of team power were diminished. These findings extend the large, but separate literatures on team composition (see Mannix & Neale, 2005) and the individual-level effects of power (see Keltner et al., 2003) by integrating power into the study of team composition. Additionally, these findings further show the importance of considering both objective realities and subjective perceptions when studying team composition. As shown in this chapter, the effects of group-level realities, such as team power, may be largely contingent on differences in members' perceptions. Therefore, future research would strongly benefit from further integration of perceptions and realities as well as theories of power when studying team dynamics and outcomes.

### **Final Theoretical Framework**

In this dissertation, I have shown that understanding differences in perceptions and behaviors is central to the study of teams. In this section, I advance a new theoretical framework which future research can utilize to incorporate the existence and evolution of differences in individual perceptions and behaviors in the study of teams. Additionally, I discuss the important role of power and influence in understanding how individual differences in perceptions and behaviors may affect team-level phenomena. For clarity, I specifically focus in this section on differences in individual perceptions and behaviors of intragroup conflict. This framework, however, could also be easily applied to understanding how perceptual differences regarding other team constructs may affect team outcomes and evolve over time.

### **Towards an Integrative Theory of Individual Differences in Teams**

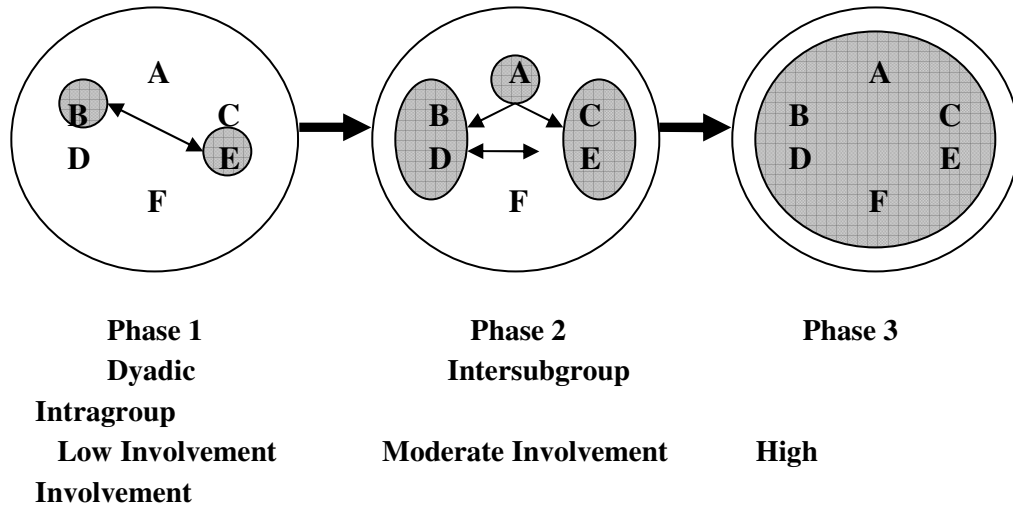
In moving forward towards more advanced conceptualizations of team composition and conflict, better highlighting the multi-level nature of the team setting is imperative. In this dissertation, I have built on past work which has suggested that individual perceptions and behaviors within a team may vary (Kozlowski & Klein, 2000) by showing the consequences of divergent member perceptions and behaviors. However, it is of interest if over time, members' perceptions will come to converge or not. Recent research suggests team-level factors may have an important impact on individual perceptions and behaviors, for example, in relation to conflict (Jehn & Greer, 2007; Weingart et al., 2007). This suggests that members' perceptions and behaviors do not take place in a vacuum - rather team members are constantly being influenced the other members in their team. Indeed, research suggests that people in groups over time may converge in their perceptions based on their interaction and sharing interpretations of common group features, events, and processes (James, 1982; Kozlowski & Hatstrup, 1992). However, there is not yet clear theory to understand how such shared interpretations, especially of team composition and conflict, may emerge in team or how team dynamics may vary at different stages of this process. For example, when only a few members in a team perceive a conflict, the team may have different dynamics than when the entire team perceives a conflict. By developing theory to better understand the interplay between the individual and the team - how the individual is impacted by the group and how individuals in turn may impact the group - we may gain a better understanding of team-level variables (Kozlowski & Klein, 2000).

#### **A Theory of Conflict Contagion**

In a recent theoretical piece with Karen Jehn and Sonja Rispens (Greer, Jehn, & Rispens, 2008), we developed an initial framework for understanding the emergence of group processes and perceptions, and in particular the process of intragroup conflict. In this paper, we introduced the concept of conflict contagion, which is the process by which conflict may evolve from an initial individual's perception of an obstructed goal to a fully involved intragroup conflict in which all team members are behaviorally engaging in the conflict. See Figure 1 for a graphical depiction

of what groups with differing levels of intragroup conflict involvement could look like at different points in time in the conflict contagion process. In the following sections, I present an abbreviated outline of this new theoretical framework. While the focus of this framework is conflict, the basic concepts of it, in understanding how team processes and perceptions of emerge could easily be applied to other topics, such as team diversity cultures or communication norms.

**Figure 1. A model of conflict contagion**



As an illustration of this concept of conflict contagion, imagine a weekly meeting of an existing organizational team. During this meeting, one member makes a suggestion about how to tackle a team task. Another member disagrees with this approach. A dyadic conflict now exists within the team. However, this dyadic conflict is not taking place in isolation – the other team members are present and watching and have the potential to join in the conflict. For example, one team member may join in on the side of the member who initially proposed the idea, as this member is a close personal friend. As the debate goes on, another member may join in on the other side, as he dislikes the member who joined the conflict on the other side. As tensions and emotions rise, these emotions may infect other initially uninvolved group members, leading them to become behaviourally

involved in the conflict as well. Additionally, other group members may feel the need to step in and mediate the conflict, in order to protect their own and team outcomes, but may very likely get swept up into the conflict themselves. By the end of the meeting, the entire team may be embroiled in a conflict that began as a simple disagreement between just two individual team members.

As seen in this example, several mechanisms are present which may serve to spread conflict between team members. The primary mechanisms of conflict contagion which we identify in our theoretical framework of conflict contagion are coalition formation, emotional contagion, and threats to team outcomes (Greer, Jehn, & Rispens, 2008). Coalition formation occurs when two or more persons jointly act to affect the outcomes of others (Thibaut & Kelley, 1959). Coalitions may form following conflicts when, for example, members feel compelled to support friends or allies in the team. In line with Heider's balance theory (1958), it is important that the enemy of your friend is your enemy as well. Relatedly, members involved in the initial conflict may also proactively recruit other members to form coalitions (Smith, 1989). If an interpersonal conflict takes place in a team, one of the parties may discuss the issue with his or her private support networks in the team (Kolb & Bartunek, 1992). Therefore, after initial interpersonal conflicts in teams, coalitions may form as initially uninvolved group members feel the need to also negatively judge and oppose the opponent(s) of the members they are close to, thereby leading to the involvement of the initially uninvolved members in the conflict.

In addition to coalition formation, the negative emotions present in conflict situations may also lead initially uninvolved team members to become behaviorally involved in the conflict. When conflicts arise, negative emotions are likely to result (e.g., Bodtker & Jameson, 2001; Greer & Jehn, 2007), such as frustration, resentment, anger, and approach (Allport, 1937; Guetzkow & Gyr, 1954; Russell, 1978; Stearns, 1972). When negative emotions arise from an interpersonal conflict within a team, these negative emotions may spread to other team members through a process of emotional contagion (Barsade, 2002; Barsade & Gibson, 1998; Hatfield et al., 1994; Kelly & Barsade, 2001). These negative emotions may serve to heighten members' behavioral involvement in the conflict.

This linkage between emotional contagion and behavioral conflict involvement is supported by research which suggests that emotions may manifest themselves in actual behaviors (e.g., Morris & Keltner, 2000). For example, when emotional expression is negative, behavioral responses by other group members are likely, such as the raising of voices, hostility towards others, the making of threats, the pressure or intimidation of others (c.f. Yang & Mossholder, 2004), and the engagement in workplace deviance (Lee & Allen, 2002). Therefore, emotional contagion, in addition to coalition formation, is another mechanism by which interpersonal conflicts may lead initially uninvolved team members to behaviorally engage in a conflict.

The third primary mechanism we propose that facilitates conflict contagion is members' defense of own and team outcomes. This stems from the interdependency that is inherent to teams (Hackman, 1987; Langfred, 2000; Wageman, 1995). Because team members are often reliant on each other to accomplish a task (e.g., Van de Ven, Delbecq, & Koenig, 1976), when certain members become involved in a conflict, other members may become involved when the behaviors of the conflicting members inhibit the outcomes of the team or other team members. Indeed, past research has suggested that interdependence may strengthen the effects of conflict (Gladstein, 1984; Schmidt & Kochan, 1972). For example, team members who witness other team members involved in a conflict may feel obligated to engage in the conflict, in order to protect their own outcomes, as these are dependent on the other fighting members. However, when an unobjective party intervenes in a conflict, such a party is likely to become part of the conflict. This is supported by research which has shown that an intervention by an unobjective party, such as a fellow team member, may serve to strengthen existing conflicting viewpoints (Morrill & Thomas, 1992). Therefore, members' defense of own and team outcomes may lead to conflict contagion, as an increasing number of members become behaviorally involved in the conflict.

The identification of how conflicts may spread in teams through coalition formation, emotional contagion, and members' defense of team and individual outcomes provides an initial framework to utilize when understanding the multi-level nature of conflicts in teams. As proposed in

this initial multi-level theoretical model of conflict contagion, intragroup conflicts may not be as straightforward as often assumed in the existing literature. Rather, intragroup conflicts may often stem from a dyadic conflict that has spread through a group over time. During this process of conflict contagion, differing levels of conflict involvement may exist which may lead to differing dynamics and performance of teams according to the relative level of member conflict involvement within the team.

By providing a preliminary outline for the emergence of team level and processes cognitions, the theoretical framework introduced in this section may help researchers better understand how complex multi-level team phenomena, such as intragroup conflict, may come to exist. Future research would benefit from empirical investigation of the ideas presented in this section, as well as from utilizing this framework to develop theories to explain how other team level phenomena, such as perceptions of diversity, emerge in the team and spread from one member to another. In understanding this contagion process, theories of power and influence are likely to be important. The degree to which an individual's perception of, for example, conflict or diversity, may spread to other team members may be largely contingent on the power of the individual within the team and the manner in which the individual attempts to influence others. Therefore, future research would benefit from further development and investigation of frameworks for understanding how individual differences in teams come to shape team-level processes and perceptions over time and how power and influence may be central factors in this process.

### **General Contributions and Implications of the Dissertation**

In this dissertation, I have shown the importance of considering individual differences in perceptions and behaviors when investigating team composition and conflict. This dissertation offers several important contributions to and implications for research on team composition and conflict. As discussed above, the theory and findings presented in this dissertation further multi-level theory and research regarding team-level phenomena, such as team composition and conflict. Specifically, this dissertation demonstrates that within teams, members may have very different perceptions and behaviors relating to team composition and

conflict. This realization is important for small group research, as research has often assumed that concepts such as conflict or team composition are equally experienced by all members of the team. This assumption may explain many past contradictory findings in these fields (cf. Jehn & Bendersky, 2003; De Dreu & Weingart, 2003). By better taking into account individual differences, either by controlling for them when not relevant for the current research question or by developing more complex theories and models which incorporate both the similarities and differences in team member perceptions and behaviors, researchers may gain a better understanding of team composition and conflict. Ideally, research would begin to move towards this latter option - to the development of better multi-level theory to explain team phenomena, such as composition or conflict. A single-focus on the group level effects or antecedents of these variables does not do justice to their multi-level nature. My findings show that both team composition and conflict are shaped by differences and similarities between individual team members in terms of their perceptions and behaviors. By developing theory to explain how these individual perceptions and behaviors may create emergent team-level phenomena, small group researchers may gain a more accurate and nuanced picture of teams.

The theoretical framework presented in this chapter offers an initial theoretical framework which researchers can utilize when looking at multi-level team phenomena, such as conflict or perceptions of team composition. This framework offers several potential pathways for research on multi-level phenomena in teams. For example, the theoretical framework in this chapter would suggest that a team's perception of its own diversity may be an emergent process, wherein initially only a few members perceive the team as diverse. Over time, the views of these members may come to be shared by other members through as members' views become visible to other members in the team. Relatedly, the value members have for certain forms of team composition, such as for gender diversity, may also be such an emergent process. By investigating this multi-level temporal nature of group perceptions, research may gain more insight into the effects of team composition on team dynamics and outcomes. This opens up multiple new pathways in research on team



composition and conflict, such as investigating whether some forms of team composition (such as gender) or conflict (such as task conflict) are more quickly perceived by all team members than other forms of team composition (such as value differences) or conflict, whether the views of powerful members matter more in the eventual emergence of team-level perceptions than the views of less powerful members, and the processes and mechanisms by which individual views of team composition and conflict may or may not converge over time.

In addition to the implications of this dissertation for multi-level theory and research on team composition and conflict, my dissertation has also shown the relevance and importance of power differences to team interaction. While much research exists on the effect power has on individuals (see Keltner et al., 2003 for a review), power is just now beginning to be acknowledged as a critical factor in understanding team structures and processes (c.f. Mannix & Sauer, 2006). This dissertation offers several relevant theoretical frameworks (supported by empirical findings) that may help explain how power affects team interactions. Specifically, I show that power imbalances may affect conflict engagement, absolute team power levels may affect conflict and performance, misperceptions of team hierarchy may exasperate the effects of team power on conflict, and power-based faultlines may negatively impact both team functioning and team outcomes. This has important implications for research on both group composition and conflict. My findings suggest that when investigating team composition and conflict, theory and measures of power differences in teams may help provide a more complete explanation of how diverse team members interact and fight. For example, when examining demographic differences in a team, incorporation of theory and methods that also capture how these differences affect the power structures in the team may help researchers gain a more in-depth understanding of how demographic differences affect team outcomes. Status characteristics theory (Berger et al., 1972) offers a useful pathway for this. Specifically, status characteristics theory suggests that individuals are continually busy in assessing their and others' status. They base these assumptions on, for example, demographic characteristics. Therefore, by understanding how individuals assess and give status to certain individual

characteristics and how these status beliefs influence the emergence of hierarchies and power differentials in the team, researchers may better unravel the complexities of team composition.

The theory and findings presented in this dissertation also suggest the importance of power for studies of intragroup conflict as well. Specifically, I show that the power a member holds in the group dramatically affects whether or not that individual will choose to engage in a conflict in the team setting. Additionally, I also show that the wielding of power through the use of influence tactics may help determine the effects of conflict engagement on individual performance. Therefore, by better integrating notions of power and influence into theory and research on conflict, researchers may gain additional insights into the nature and management of conflicts in teams. Therefore, in future multi-level investigations of the emergence and development of intragroup conflict, developing theory and methods to investigate how power may affect not only conflict engagement, but conflict contagion (a leader engaging in a fight may have more influence than a subordinate), may help further advance the field of intragroup conflict.

In addition to these theoretical contributions, this dissertation also contributes to research on team composition and conflict through its investigation of theories using multiple methods. The theories presented in this dissertation were investigated using a mix of both quantitative and qualitative research techniques, including ethnographic observations, interviews, surveys, archival studies, field-based quasi-experiments, and laboratory experiments. Through investigating the theoretical concepts put forward in this dissertation across a variety of samples and methodological techniques, the generalizability and reliability of the theory and findings presented in this dissertation is increased. Therefore, the methodological diversity of this dissertation is also a central aspect of its contribution to research on team composition and conflict.

### **Issues for Further Research**

The theory and findings presented in this dissertation suggest a number of interesting pathways for future research. Further investigation of the perceptions and realities surrounding team composition is certainly in

order. Much still remains to be known about when and why certain demographic characteristics are more salient than others, as well as about how the values, or stereotypes, attached to these characteristics influence team interaction. In the realm of intragroup conflict, the model of conflict contagion presented in this chapter has a number of interesting aspects that could be tested, such as identifying the mechanisms which may influence the speed and extend of conflict contagion, and identifying the point at which individual perceptions of conflict translate into individual conflict behaviors. Relatedly, development and testing of such models for the emergence of team perceptions of team composition would also provide an interesting pathway for future research. Lastly, but equally important, much still remains to be known about how power affects the above processes - how power may determine the effects of team composition and conflict. In the following sections, I will discuss each of these future research directions in more detail.

### **Perceptions of Team Composition**

As briefly discussed in the new theoretical framework put forward in this chapter, team members may have a considerable influence on each others perceptions and behaviors. However, still little is known about how individual level perceptions evolve into group-level phenomena. Numerous pathways are available in exploring this emergence of group-level perceptions and beliefs of team composition. For example, researchers could investigate the degree to which the beliefs of high-power individuals in the group, such as leaders, affect the perceptions and beliefs of other members in the group and eventual shared group cognitions. Relatedly, another aspect of perceptions that is showing promise is the value members attach to their perception of diversity. For example, when team members perceive their team to be diverse on race, this diversity may be more likely to help team performance when members have positive perspectives, or beliefs, about the value of racial diversity (e.g., Ely & Thomas, 2001; Homan & Greer, 2007; Homan et al., 2007a; van Knippenberg, Haslam, & Platow, 2007). For example, Van Knippenberg et al. (2007) have shown that diversity is more positively related to team identification when high diversity beliefs exists, and Homan et al. (2007a) showed that diversity was

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more positively related to team performance when teams had positive diversity beliefs. Not only may diversity beliefs help teams perform better, recent research by Homan and Greer (2007) suggests that diversity beliefs may also reduce the likelihood of diverse teams seeing themselves as diverse. Future research would thus benefit from further investigating the interplay between the perceptions and values members attach to their team composition. For example, researchers investigating team composition could begin to better draw on the large literature on intergroup-relations to better understand how stereotyping and discrimination may explain the effects of team composition and intragroup conflict. Ayub and Jehn (2006; 2007) are doing some promising work in this area, which suggests that indeed the effects of group composition and conflict may be better understood by taking into account the stereotypes held by members within a team. They identify how factors such as nationalism or cultural preference may determine the degree to which national diversity may impact intragroup conflict and performance. Further research along these lines, which better integrates research on intergroup relations with that on team composition may help researchers better understand the effects of team composition on team processes and performance.

### **Conflict**

In this dissertation, team members were shown to have potentially divergent conflict behaviors and perceptions. Further investigation of such asymmetric perceptions and behaviors is in order. For example, I show that the status and power level (in terms of numerical support) of a member may affect differences in members' conflict perceptions and behaviors. Other factors may also have an effect on these perceptions and behaviors, such as the norms surrounding conflicts in a team. In teams with more open conflict norms (Jehn, Greer, Szulanski, & Levine, 2008), members might be expected to have more symmetric perceptions and behaviors as members are encouraged to share their perceptions regarding conflicts in the team and thus have more opportunity to potentially converge in views than in teams where members keep their perceptions to themselves. Relatedly, future research would benefit from identifying the 'tipping' point at which members decide to engage in conflict. Pondy (1967)

suggested that the perception of conflict is a different phase in the conflict process than engaging in conflict behaviors, but still little is known about what pushes members from phase to phase - why members would choose to engage in conflict and how conflict may spread through a team. Future research would thus benefit from investigating the interplay between perceptions and behaviors in conflicts in the team setting and using this knowledge to understand how conflicts evolve in teams over time.

### **Power and Teams**

This dissertation has set forward the notion that power may dramatically alter team functioning and outcomes. While research has suggested that power hierarchies are inevitable in the team setting (Sidanius, 1993), still scant research has investigated the effects of power in the team setting. This dissertation has set forward several ways in which power, status, and influence can shape team interactions, but much more theoretical development and empirical investigation is needed in this area. For example, I show in this dissertation that influence tactics may be important tools of conflict management. Future research could explore the potential linkages between these two large but disparate research fields – influence and conflict – to further identify the best influence strategies in certain conflict situations. For example, research on influence tactics has suggested that the most effective influence tactic strategy may depend on the relative power levels of those whom one is trying to influence (Yukl & Falbe, 1990). Therefore, a boss intervening in a conflict may need to use different influence tactics than a subordinate trying to intervene in a conflict where several more senior team members are involved. As another pathway for future research on the role of power in the team setting, I show in this dissertation that power balances in teams, in term of the numerical representation of members, may impact both team and individual performance. However, I restrict my focus in this dissertation to the extreme end of this spectrum – whether or not there is a solo. Future research would benefit from also examining other areas of this spectrum, such as the effects of different sized subgroups. Does a subgroup with less members than another subgroup suffer the same negative consequences as a solo member? As a final pathway for future research, I show in this

dissertation that members may have different levels of power within the same team, and that members' perception of this is important in understanding the effects of power on team performance. This leads into another area that has not yet been extensively looked at - power differences, or power diversity within teams. Keltner and coauthors (2008) suggest that power differences in teams may improve conflict resolution through serving as a prioritization device for teams, and indeed recent empirical work by Greer and Van Kleef (2008) shows initial support for this idea. This implies that power diversity may help team performance. In line with this, recent research has shown that in groups with diversity in demographic status, members of higher status had better cognitive performance than when functioning in homogenous groups (Sommers, Warp, & Mahoney, 2008). Future research would thus benefit from more in-depth examination of how power differences within teams may affect team and individual outcomes.

### **Managerial Implications**

Perceptions are critical to understanding the effects of team composition on team processes and outcomes. Organizational members may not always perceive team composition as traditionally assumed in past research. For example, individuals in teams may not always perceive the same differences within the same team, and this heterogeneity in cognitions may have important repercussions for team and individual performance. My research thus suggests that managers should pay attention not to just the external realities of their teams (such as their demographic diversity), but also to employees' perceptions of these realities. How employees think about their team's composition or conflict may ultimately determine the effects of the team's composition and conflict on team performance.

Given the importance of perceptions, and the likelihood that individuals with teams may have divergent perspectives, it seems logical that organizations should focus on these perceptions in their diversity agendas. However, it seems that diversity programs are not as effective as they could be – Ely (2004) in a study of 486 retail bank branches found virtually no effect of diversity training programs in improving the effects of diversity on branch performance. Rynes and Rosen (1995) identified a few

conditions which, if in place, could enhance the success, or at least perceived success, of diversity programs. Namely, they found that diversity programs were more likely to be perceived as successful when they included mandatory attendance for all managers, long-term evaluation of training results, rewards for managers who increase diversity within their units, and an inclusionary definition of diversity within the organization. Therefore, future research would benefit from investigating the most effective ways to influence employee perspectives regarding team composition (e.g., diversity) and conflict.

Lastly, this dissertation suggests that conflict may be a more multi-level phenomenon than traditionally thought. Therefore, managers should make sure that interventions and trainings to address conflict focus on conflict at the individual (i.e. by coaching individuals on the best tactics to utilize in engaging in conflict and in understanding the most appropriate situations to engage in conflict), dyadic (i.e. by noticing and resolving conflicts between a few members within the team before the conflict engulfs the entire team), and team (i.e. by providing teams with trainings on conflict norms and resolution to allow teams to better manage conflicts if they do come to encompass the entire team) levels. Through acknowledging the multi-levels at which conflict may occur, managers may be able to better manage and resolve conflicts in their teams.

### **Conclusion**

In this dissertation, I have examined new theoretical perspectives which may help shed more light on the effects of team composition and conflict on team outcomes. I build upon past research and theory which has suggested the importance of perception in understanding team composition (e.g., social identity theory and self-categorization theory, Ellemers et al., 2002, 2003; Tajfel & Turner, 1986; Turner, 1985, 1987) and conflict (e.g., Pondy, 1967; Jehn et al., 2006; Jehn & Rispens, 2007) by developing theory to integrate the interplay between perceptions and realities concerning team composition and conflict. Additionally, I build upon this past research by also looking at how individual perceptions and behaviors and vary, and show how discrepancies between members' views may also have a large influence on team dynamics and outcomes. In the final chapter

of this dissertation, I propose a theoretical framework to understand how members' views may emerge and change over time and what the differences in these views may mean for team processes and outcomes at different points in a team's life. Lastly, I extend a rich history of social psychological research on the effects of power on individual cognitions and behaviors (for a review, see Keltner et al., 2003) by incorporating power into theory and investigation of teams. My findings show that power may have a profound effect on teams and may be an integral component in understanding the complex relationships between team composition, conflict, and team outcomes. Taken together, this dissertation advances past research on team composition and conflict through its focus on the role of the individual in the team. By better understanding how individuals differ, we may come to better understand the process by which team level phenomena may emerge.



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## Nederlandse Samenvatting

### *Summary in Dutch*

Teams spelen een belangrijke rol in moderne organisaties (Devine, Clayton, Phillips, Dunford, & Melner, 1999; Mathieu, Marks, & Zaccaro, 2001). Doordat teams de organisatie prestaties in belangrijke mate beïnvloeden, is het belangrijk om inzicht te krijgen in team dynamica. Ondanks dat er de afgelopen 50 jaar veel onderzoek is gedaan naar teams, is er nog veel onbekend over team dynamica (cf. Kozlowski & Ilgen, 2006). Twee onderwerpen met sterk tegengestelde resultaten zijn team compositie en conflict. Vanuit een theoretisch standpunt hebben onderzoekers al gedurende lange tijd de potentiële meerwaarde laten zien van diverse teamsamenstellingen en de daarbij geassocieerde cognitieve conflicten (bijv. Hoffman, 1959; Hoffman & Maier, 1961; Levine & Resnick, 1993; Triandis, Hall, & Ewan, 1965). Echter, empirisch gezien is er hiervoor geen eenduidige ondersteuning gevonden (voor overzichten, zie Harrison & Klein, 2007; Jehn & Bendersky, 2003; Jehn, Greer & Rupert, 2008; Mannix & Neale, 2005; Kochan et al., 2003; Van Knippenberg & Schippers, 2007; Williams & O'Reilly, 1998). Het centrale doel van dit proefschrift is daarom een meer genuanceerd perspectief op deze onderwerpen te ontwikkelen en dit perspectief te onderzoeken. Dit proefschrift gaat met name over individuele verschillen in percepties en gedragspatronen binnen teams, en vormen van team compositie, status en machtsverschillen, die vaak zijn genegeerd.

De resultaten van dit proefschrift laten het belang zien van individuele verschillen in percepties en gedragspatronen binnen teams voor team dynamica en prestaties. Onderzoekers hebben het potentieel belang van individuele verschillen in percepties en gedragspatronen binnen teams weliswaar erkend (Kozlowski & Klein, 2000); er is echter nog maar weinig onderzoek dat zich heeft bezig gehouden met de theoretische en empirische betekenis van deze verschillen voor team dynamica en prestaties (voor uitzonderingen, zie Jehn & Chatman, 2000; Jehn & Rispens, 2007). De

bevindingen in dit proefschrift dragen bij aan een beter multi-level begrip van teams, waarin individuele verschillen in percepties en gedragspatronen binnen teams een centrale plaats krijgen in het onderzoek van dynamische processen op team niveau. Ik heb in de verschillende studies en contexten gevonden dat verschillen in individuele percepties en gedragspatronen belangrijke teamprocessen en uitkomsten kunnen verklaren. Verschillen tussen individuen in hun conflict gedrag blijken bijvoorbeeld een belangrijke invloed te kunnen hebben op conflict op het teamniveau en uiteindelijk op de teamprestatie. Ook blijkt dat verschillen in individuele percepties van team compositie de effecten van team compositie op team processen en uitkomsten goed kunnen verklaren. En als laatste blijkt uit dit proefschrift dat verschillen in individuele percepties van macht van invloed zijn op de relatie tussen macht, team conflict en prestaties. Samenvattend laten deze bevindingen zien dat verschillen in individuele percepties en individueel gedrag van belang zijn voor theorieën over en onderzoek naar teams.

De tweede belangrijkste bevinding van dit proefschrift is de alomtegenwoordigheid en het grote belang van macht voor de samenwerking van teams. Terwijl veel bekend is over de interpersoonlijke en intrapersoonlijke gevolgen van macht hebben (zie Keltner et al., 2003), is er nog steeds weinig bekend over macht in de team context. Dit proefschrift laat zien dat macht (en verschillen in de percepties van teamleden van macht in hun team) een sterke invloed kan hebben op team processen en prestaties. Gebaseerd op onderzoek dat onderscheid heeft gemaakt tussen drie aspecten van macht: 1) sociale macht (controle van anderen door de capaciteit om te belonen of te straffen) 2) status, en 3) relatieve groepsmacht (macht in aantallen) (bijv. Wolf & Latane, 1985), heb ik het verband tussen deze drie aspecten van macht en team processen en prestaties onderzocht. Uit de resultaten blijkt dat sociale macht in een team een negatieve invloed kan hebben op team conflict and prestatie. Daarnaast blijkt dat waargenomen scheidslijnen op basis van status in teams ook een negatieve invloed kunnen hebben op team processen en prestaties. Tenslotte laten de resultaten zien dat de invloed van conflicten tussen de subgroepen binnen een team op de uiteindelijke team prestatie een functie is van de grootte van de subgroep en de demografische status

van de subgroep. Het meeste conflict ontstaat tussen twee subgroepen met een gelijk aantal leden die allemaal een hoge status hebben. Deze bevindingen laten zien dat macht van belang is voor team processen en prestatie.

### **Samenvatting van de Empirische Hoofdstukken**

In de volgende paragrafen ga ik dieper in op elk empirisch hoofdstuk in dit proefschrift. Ik zal de theorie, methode, and resultaten van de studies kort bespreken.

In Hoofdstuk 3 bouw ik voort op onderzoek waarin gesuggereerd wordt dat leden binnen hetzelfde team kunnen verschillen in hun percepties van team conflict (bijv. Jehn & Chatman, 2000; Jehn et al., 2006; Jehn & Rispens, 2007). Ik heb hierbij onderzocht hoe ook het conflict *gedrag* van teamleden zou kunnen verschillen. In het bijzonder heb ik onderzocht of de keuze van een teamlid om conflictgedrag te vertonen van invloed is op de prestatie van het teamlid. Daarbij maak ik gebruik van theorie op het gebied van macht en invloed om te suggereren dat de invloed tactieken die een persoon gebruikt, de impact van het conflictgedrag op de prestatie van die persoon kunnen beïnvloeden. Om dit allemaal te onderzoeken, heb ik gebruik gemaakt van archief data van 7.500 e-mails, gestuurd via de listserve van activisten organisaties in de Verenigde Staten. Ik heb meerdere methoden gebruikt, zoals tekstanalyse, coder ratings, en interviews. De uitkomsten ondersteunen mijn oorspronkelijke verwachtingen: de gevolgen van het vertonen van conflict gedrag hangen af van het type conflict en de manier van communiceren. Als iemand verwickeld is in een conflict over de taak, zou die persoon het meest effectief zijn door duidelijke (maar niet didactische) taal te gebruiken. Als iemand betrokken is bij een relationeel conflict, zou deze persoon het meest effectief zijn door een samenstelling van vleierij en logica te gebruiken.

In Hoofdstuk 4 onderzoek ik de oorzaken en gevolgen van het aangaan van conflicten voor het team en het individuele teamlid. Mijn veronderstelling is dat macht (als een functie van het aantal mensen in de subgroep van een teamlid) en demografische status van invloed zijn op de vraag of het individu het conflict al dan niet aangaat. In een team waarin één teamlid is zonder subgroep of met weinig status zal op teamniveau

weinig conflict voorkomen, omdat dit teamlid niet snel conflicten zal aangaan met andere teamleden. In drie studies, waaronder veld- en laboratorium onderzoek, vind ik ondersteuning voor deze ideeën. Teamleden zonder status of grote subgroepen gingen conflicten niet aan, en deze teams hadden minder conflict op teamniveau. Deze teams presteerden bovendien minder, hetgeen verklaard kan worden door de verminderde taakgerelateerde conflicten.

In Hoofdstuk 5 kijk ik naar het samenspel tussen objectieve demografische kenmerken en hoe mensen deze kenmerken waarnemen. Voortbordurend op theorieën die veronderstelden dat percepties van belang zijn in het onderzoek van diversiteit (bijv. Ellemers, et al., 2002, 2003; Tajfel & Turner, 1986; Turner, 1985; 1987), creëer ik een model over percepties en werkelijkheden van team diversiteit. Mijn veronderstelling is dat hoe meer teamleden scheidslijnen waarnemen binnen hun team, hoe slechter de samenwerking en prestatie is van hun team. Ik veronderstel daarbij dat dit effect het sterkste zal zijn 1) wanneer teamleden het oneens zijn met elkaar over de mate waarin scheidslijnen bestaan in hun team, 2) wanneer teamleden denken dat de scheidslijnen bestaan op basis van persoonskenmerken in plaats van werkgerelateerde kenmerken en 3) wanneer hun percepties van de scheidslijnen in lijn zijn met objectieve scheidslijnen in de groep. Deze veronderstellingen onderzocht ik in een veldstudie die plaats vond binnen een grote financiële instelling in Nederland. In deze studie heb ik gebruik gemaakt van etnografische observatie, interviews, enquêtes en een quasi-experiment. De veronderstellingen van mijn model werden grotendeels ondersteund. Hoe meer teamleden scheidslijnen hadden waargenomen, hoe slechter het functioneren van hun team. Dit effect werd versterkt wanneer een objectieve scheidslijn ook ervaren werd in de groep, wanneer leden het eens waren over de mate waarin de scheidslijn aanwezig was en wanneer leden vonden dat de scheidslijn op basis van persoonskenmerken was in plaats van werkgerelateerde kenmerken. Om het laatste beter in kaart te brengen, heb ik mensen gevraagd welke andere scheidslijnen in hun groep bestonden. Daaruit bleek dat er naast persoonskenmerken zoals geslacht of etniciteit, ook vaak scheidslijnen bestonden op de basis van waarden, persoonlijkheden en machtsverschillen.



In Hoofdstuk 6 bouw ik voort op de thema's die naar voren kwamen in de laatste drie hoofdstukken en heb ik een studie ontwikkeld die expliciet ingaat op de invloed van macht in teams. Mijn veronderstelling in deze laatste studie is dat de macht van een team van invloed zal zijn op conflicten en prestaties in het team. Daarbij verwacht ik tevens dat de manier waarop teamleden machtsverschillen ervaren binnen het team een belangrijke rol zal spelen. In de eerste enquête studie en de tweede quasi-experimentele studie, laat ik zien dat teams met relatief veel macht binnen een organisatie meer conflict en slechtere prestaties hebben dan teams met relatief weinig macht in de organisatie. In de tweede studie vind ik tevens een aanbeveling voor teams met veel macht: als leden binnen een team met veel macht het eens zijn met elkaar over hun rollen en functies hebben deze teams veel minder proces conflicten en daardoor betere prestaties.

### **Conclusie**

In dit proefschrift heb ik nieuwe theoretische perspectieven onderzocht die meer inzicht kunnen geven in de invloed van team compositie en conflict op team functioneren en prestaties. Ik ben met name op de rol van individuele verschillen binnen teams ingegaan. Mijn proefschrift laat zien dat leden binnen hetzelfde team heel verschillende percepties en gedragspatronen kunnen hebben en dat dit van groot belang is om inzicht te krijgen in de rol van team samenstelling en conflicten in teams. Mijn interesse ging in dit proefschrift tevens uit naar de rol van macht binnen een team. Ik heb laten zien dat macht invloed heeft op individuele en groepsconflicten en –prestaties. Samengevat bouwt dit proefschrift voort op onderzoek naar team compositie en conflict door de focus op de rol van macht en individuele verschillen binnen teams. Door meer inzicht te krijgen in hoe teamleden kunnen verschillen, kunnen we onze kennis vergroten over hoe processen zich op team niveau kunnen ontwikkelen.

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## Curriculum Vitae



Lindred Leura Greer was born on March 14<sup>th</sup>, 1982 in Monte Vista, Colorado, the United States. After graduating from Goddard High School in Roswell, New Mexico in 2000 (*summa cum laude*), she studied management at the Wharton School of Business at the University of Pennsylvania. During her time at Wharton,

she worked as a research assistant for Professor Karen Jehn which led to her interest in research in organizational behavior and psychology. Therefore, after completing her Bachelors of Science at the Wharton School in 2004, she began her PhD project under the supervision of Professor Karen Jehn at Leiden University. She is now an assistant professor at the University of Amsterdam in the department of Work and Organizational Psychology.

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