

LISANNE VAN BUNDEREN

Tug-of-War:

Why and when teams get embroiled in power struggles



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Tug-of-War:
Why and when teams get embroiled in power struggles

Ge-touw-trek:
Waarom en wanneer er machtsstrijd uitbreekt in teams

Thesis

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Lisanne van Bunderen
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The Erasmus University logo, featuring a stylized, handwritten-style script of the word "Erasmus" in a dark teal color.

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“What doesn’t kill you, makes you stronger.”

(Kelly Clarkson)

Dear Science,

The last years we danced together,

it wasn't always easy, but along the way we got better.

You swallowed me whole, you spat me out,

you embarrassed me, you made me proud.

You surprised, but also disappointed me,

you liberated, but as well imprisoned me.

You oxygenated,

you suffocated.

You gave me my highs, you gave me my lows,

you made me drown, you made me float.

You boosted my confidence, you crushed my self-esteem,

you were my biggest nightmare, and my greatest dream.

You glorified my cynicism,

you humbled my narcissism.

But above all,

you picked me up, after every fall.

Dear Science, thank you for being there, in my darkest time,

no matter what happens, you'll always be a friend of mine.

- Lisanne

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Doing a PhD is oftentimes compared with running a marathon. Now that I did both, I can indeed see the similarities. Both are quite painful experiences, and in both the pain mainly comes from their extensive length, and the lack of rewards in between. Both require a lot of dedication, resilience, and pushing through when you think there's no way you can continue. However, the most important parallel for me is that I wouldn't have been able to accomplish my PhD nor the marathon without the people around me. Your love, support and belief in me is what kept me going when I really really really wanted to throw the towel in the ring. Clearly, I'll never be able to truly express my gratitude to you, but I'll give it a shot anyway...

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CONTENTS

CHAPTER 1.....	1
General Introduction	
CHAPTER 2.....	17
When Inter-team Conflict Spirals into Intra-team Power Struggles: The Pivotal Role of Team Power Structures	
CHAPTER 3.....	73
Why and When Uncertainty Tears Teams Apart: Uncertainty Ignites Performance- Detracting Power Struggles in Teams with Low Outcome Interdependence	
CHAPTER 4.....	99
Does Organizational Change Divide or Unite Teams? The Critical Role of Internal Team Power Structures	
CHAPTER 5.....	125
General Discussion	
REFERENCES.....	135
Summary.....	167
Samenvatting.....	169
About the Author.....	171
Portfolio.....	173
The ERIM PhD Series.....	176

CHAPTER 1

GENERAL INTRODUCTION

*"Every social act is an exercise of power, every social relationship is a power equation,
and every social group or system is an organization of power."*

(Hawley, 1963)

In May 1985, Apple's CEO at the time, John Sculley asked the board of directors to remove Steve Jobs (Apple's founder and chairman of the board) from his beloved Macintosh¹ group and to put him in charge of the New Product Development group. This seemingly innocent plan of Sculley was anything but innocent, as this transfer would effectively make Jobs powerless within Apple. This is interesting given that it was Jobs who lured Sculley away from Pepsi Cola two years prior with his legendary pitch "Do you want to sell sugared water for the rest of your life? Or do you want to come with me and change the world?" Two years in however, Sculley and Jobs did not see eye-to-eye anymore about resource allocation within Apple. Whereas Jobs wanted to invest more resources towards further development of the new Macintosh, Sculley wanted to keep on focusing on the older, but until then more successful, Apple II. This led to an epic intra-team power struggle, which consumed both the management team and board of Apple. After Jobs heard of Sculley's surprise power attack, he was furious and immediately started to plan a counterattack against Sculley to get rid of him and regain control over Apple. Job's plan to abdicate Sculley was leaked, however, and eventually Jobs was forced to resign from the company he had founded.

While we all know that Jobs returned to Apple eventually and turned it into an exceptionally successful company, during this infamous power struggle, Apple suffered tremendously. Unfortunately, Apple is no exception when it comes to power struggles. Power struggles, which can be defined as competitions over the relative control of valuable resources (Greer & Van Kleef, 2008), are pervasive in organizational life (Pfeffer, 1981). Oftentimes these power struggles take place on the intergroup level, as different divisions or departments may compete with one another for budget allocation or other resources

¹ The Macintosh is a series of personal computers – branded Mac since 1998.

(Kramer, 1991; van Knippenberg, 2003). However, power struggles are also common occurrences on the intragroup level (Greer, van Bunderen, & Yu, 2018; Greer & Van Kleef, 2010). Within small groups, or teams, defined as groups of three to ten interdependent individuals who share responsibility for a collective outcome (Hollenbeck, Beersma, & Schouten, 2012; Ilgen, 1999), members may struggle over who within the team can control team resources (Greer & Van Kleef, 2010). Interestingly, whereas power struggles *between* organizational groups and teams is a widely studied phenomenon (Baldrige, 1971; Kramer, 1991; Pfeffer & Salancik, 1978; Pondy, 1967), the when and why of power struggles *within* organizational teams has hitherto largely remained untouched (for exceptions, see Eisenhardt & Bourgeois, 1992; Greer & Van Kleef, 2010).

The reason for the scant amount of research on the origins of intra-team power struggles may perhaps be because the topic of intra-team power struggles tends to be very sensitive (see also Greer et al., 2017). This sensitivity was reflected during background interviews for the research in this dissertation: whereas interviewees were happy to share anecdotes about the competitive even vicious power dynamics in their team off the record, on the record they were more hesitant to share this information. The taboo surrounding intra-team power struggles is understandable, given that the presence of power struggles within the team implies that members put their own personal interests and gains above those of the team (van Bunderen, Greer, & van Knippenberg, 2017). Indeed, vying for power may bring personal benefits for members – at least for the victor, but for the team they may come with many costs (Greer & Van Kleef, 2010; van Bunderen et al., 2017).

The What and How of Power Struggles

The costs of power struggles for team outcomes can be better understood by shedding light on what intra-team power struggles are exactly and what behaviors they

entail. As mentioned, intra-team power struggles involve competitions over the relative levels of valuable resources controlled by members within the team (Greer & van Kleef, 2010). Valuable resources – the bases for power - can include any type of resource that is either objectively or subjectively consequential and important in the team (Magee & Galinsky, 2008), including material (e.g., budget, salary, bonus, office space, office equipment, personnel) and social (e.g., knowledge, information, status, decision-making opportunities, loyalty) resources (Bourdieu, 1977; Domhoff, 1998; French & Raven, 1959; Keltner, Gruenfeld, & Anderson, 2003). Power struggles over such resources can be for the formal, as well as informal, control of the resources (cf., status conflicts; Bendersky & Hays, 2012, see also Greer & Dannals, 2017). For instance, power struggles may involve fights over which team members should be involved in the hiring process of a new team member, but also fights about who is the most important and esteemed team member. Although power struggles are different from other types of conflicts, such as task conflicts (i.e., disagreements about the goals and outcomes of teamwork), relationship conflicts (i.e., personality or value clashes), and process conflicts (i.e., disagreements about team logistics, such as meeting time, or task distribution) (Jehn, 1995), they may often coincide with these types of conflicts, as power seekers may use these less-condemned types of conflict to express their often socially-stigmatized power quest (Greer, Caruso, & Jehn, 2011). For example, members may purposely criticize the way of working of another team member (i.e., start a process conflict), not because they do not like this member's way of working, but because they want to deprecate this member publicly, and as such corrode this member's power position.

Power struggles can be expressed in numerous ways and encompass a large variety of behaviors (Greer & van Kleef, 2010). While no formal classification of intra-

team power struggles has been formulated yet, different categories of power struggle behaviors can be derived based on research on social rank pursuit (e.g., Cheng, Tracy, Foulsham, Kingstone, & Henrich, 2013) and nonconformist conflict behaviors (de Laat, 1994). The first category is the degree to which behaviors focus on *other-deprecation*, or putting or pulling other members down in order to get ahead and gain or remain in power (cf., Cheng et al., 2013). The second category is the degree to which behaviors focus on *self-promotion*, or making oneself look good – better than other members; the aim is to lift oneself up to gain or remain in power – not to bring others down (Bolino & Turnley, 1999; Rudman, 1998). The third category is the degree to which behaviors are more *overt* versus *covert*. Overt power struggle behaviors are power striving behaviors that everyone can clearly see and identify as power moves, and covert power struggle behaviors are power-procuring behaviors that are hidden, more secretly executed, and not directly identified as power-procuring actions.

While power struggle behaviors could be placed anywhere in this grid of categories, the bulk of (anecdotally) described power struggle behaviors are other-deprecating in nature, and oftentimes more covert than overt (Greer et al., 2018). The covertness may again be due to the taboo-like nature of power struggles: people do not appreciate when their teammates jockey for power. Also, people often perceive power as a fixed pie, i.e., a zero-sum game (Berger, Ridgeway, Fisek, & Norman, 1998; Homans, 1961; Meegan, 2010), meaning that one member's power gain is viewed as another member's power loss. Thus, when a member openly seeks power, this likely feels as a threat to fellow teammates and therefore could result in them contesting the member's power move. As such, members may try to procure power in more hidden manners. Examples of covert other-deprecating power struggle behaviors include behind-the-scenes

coalition formation, withholding information, deceiving, gossiping, and privately undermining authority (e.g., Beersma & Van Kleef, 2012; De Laat, 1994; Eisenhardt & Bourgeois, 1988). Instances of overt other-deprecating power struggle behaviors are openly dominating or controlling others by, for instance, interrupting or ignoring others, using coercion, sabotaging and publicly undermining or overstepping authority (Cheng et al., 2013; De Laat, 1994; Greer & van Kleef, 2010). Behaviors that can be grouped under overt self-promotion power struggle behaviors include openly bragging about one's achievements, and increasing one's effort and performance. Finally, examples of more covert self-promotion power struggle behaviors are using internal rather than external attributions for one's achievements, attempts to control the agenda, and ingratiation (Rudman, 1998).

Power struggle behaviors may not only be expressed in many different ways, they can also be directed in different ways. In more hierarchical teams, this means that power struggle behaviors can be directed upward from lower-ranked members to higher-ranked members, downward from higher-ranked members to lower-ranked members, and unilaterally between members at the same rank (Greer et al., 2017; van Bunderen et al., 2010; van Dijke & Poppe, 2006). When lower-ranked members attempt to gain power, they may do so by trying to take a higher-ranked member down, bringing oneself up, or both. For instance, lower-ranked members may team-up with other members (i.e., form coalitions) to overthrow a higher-ranked member (Eisenhardt & Bourgeois, 1988). Higher-ranked member may – especially when they feel threatened (Fast & Chen, 2009; Georgesen & Harris, 2006; Halevy, 2016; Maner & Mead, 2010; Morrison, Fast, & Ybarra, 2009; Pettit, Yong, & Spataro, 2010) - strike pre-emptively (Halevy, 2016) towards lower-ranked members in order to protect or improve their own power position.

To do so, higher-ranked members may use their power by for instance exerting coercion or withholding important information from lower-ranked members. Last, members of the same rank (in both hierarchical and egalitarian teams) may also struggle for power with one another, such as by sabotaging or spreading gossip about each other.

While power struggle behaviors can vary in type and target, all behaviors do compromise team outcomes (Eisenhardt & Bourgeois, 1988; Greer & Van Kleef, 2010; Greer et al., 2017; Hildreth & Anderson, 2016; Spoelma & Ellis, 2017). Power struggles have been found to impair intra-team conflict resolution (Greer & Van Kleef, 2010), team decision-making quality (Spoelma & Ellis, 2017), and team performance (Greer, Van Kleef, De Hoogh, & De Dreu, 2017; Hildreth & Anderson, 2016). The detrimental effects of intra-team power struggles on team outcomes are both direct as well as indirect. Power struggles can directly detract from team outcomes when members sabotage each other, withhold information from each other, or refuse to cooperate with one another (e.g., Greer & Van Kleef, 2010). Also, power struggles are likely to distract members from their tasks, as they become preoccupied with protecting or improving their own power position in the team (cf. De Dreu & Weingart, 2003; Jehn, 1995). Power struggles can also impair team outcomes in more indirect ways, such as by souring intra-team relationships (Mannix & Sauer, 2006), reducing psychological safety (De Hoogh, Greer, & Den Hartog, 2014), and harming long-term team viability (Edmondson, 1999). As power struggles are oftentimes concealed, they are difficult to resolve and therefore likely to escalate (Greer et al., 2011) and become entrenched and intractable in teams (e.g., Kapferer, 1969; Ridgeway & Walker 1995).

The Why and When of Power Struggles

Given that intra-team power struggles stymie team outcomes, developing an

understanding of when and why power struggles occur in teams is important. By understanding which factors elicit these competitive power dynamics in teams, insight can be gained into their prevention. Therefore, I aim to identify in this dissertation *when* members are likely to start to compete for power with one another. However, in order to do so, understanding *why* members compete for power is essential. What does power give members that merits intra-team fighting and the jeopardization of team harmony? Power, defined as the asymmetric control over valued resources (Magee & Galinsky, 2008), provides members with a host of benefits, including decision-making authority, prestige, recognition, and independence (e.g., Berger, Rosenholtz, & Zelditch 1980; Davis & Moore 1945; Kipnis 1972; van Dijke & Poppe, 2006), as well as being able to control other members and team outcomes (Greer, 2014). That is, by withholding or granting valued resources, more powerful members are able to enforce their will in the team (Dahl, 1959; Thibaut & Kelley, 1959; Weber, 1947). For instance, high-power members may have the authority to grant or deny a bonus to lower-power members, or to put lower-power members in charge of a high- versus low-profile project.

While the benefits of power may always be desirable for members (e.g., Adler, 1966; McClelland, 1975, 1987; Mulder, 1977; Ng, 1977), there are some situations in which controlling team resources and calling the shots becomes even more appealing, and similarly, not controlling team resources and being at the mercy of others becomes even more problematic. I will argue in this dissertation that (the distribution of) power may become more important to members when their team faces an external threat, such as inter-team conflicts (Chapter 2), uncertainty (Chapter 3), or organizational change (Chapter 4), through which members feel threatened (e.g., Greer et al., 2017). This is because power allows members to protect themselves in this threatening situation (van Bunderen et al.,

2017). For example, when a team has a conflict with another team about budget allocation which threatens the budget of the team, high-power members may use their power and, for instance, coerce others to ensure that they will personally not be affected if the budget indeed gets cut – thereby compromising lower-power members. Team threats may thus encourage members to safeguard or improve their power position in the team (Chen et al., 2003; Deutsch, 1975; Georgesen & Harris, 2006; Keltner et al., 2003; Mannix, 1993), which is likely to ignite intra-team power struggles, as power within teams tends to be viewed as finite and zero-sum (Emerson, 1962; Magee & Galinsky, 2008).

However, team threats do not necessarily spiral power struggles in teams. Indeed, previous research has shown that team threats, such as inter-team conflicts and uncertainty, may in fact work as a unifying force in teams (e.g., Bornstein, 2003; Brewer, 2001; Hogg, 2000, 2007; Stein, 1976). That is, rather than seeking personal power to protect oneself (likely at the expense of other members) in the face of a team threat (Chen et al., 2003; Georgesen & Harris, 2006; Keltner et al., 2003; Mannix, 1993), members may also seek protection in more collective and cooperative manners. This means that instead of procuring resources for oneself, bolstering one's own power position and thereby potentially igniting intra-team power struggles (Greer & Van Kleef, 2010; van Bunderen et al., 2017), members may choose to pool resources with each other (Bornstein, 2003), deal with the threat together as a team (Stein, 1976; Tajfel, 1982), and as such reduce competitive intra-team power dynamics. What determines whether members choose the more individualistic versus the more collectivistic option in response to a team threat, and thus whether threatening situations ignite or damp intra-team power struggles?

Based on classic theories of team goal structures (Deutsch, 1949, 1969; Kelley & Thibaut, 1969), which suggest that internal team structures determine members'

approaches (cooperative versus individualistic) towards intra-team interactions, I postulate that whether teams get embroiled in intra-team power struggles in response to team threats depends on the internal team structure. Intra-team structures that promote individualistic mindsets and approaches are expected to encourage members to seek protection in individualistic ways when their team faces a threat (Deutsch, 1949, 1969; Kelley & Thibaut, 1969), thereby generating intra-team power struggles. However, intra-team structures that encourage cooperative mindsets and approaches are predicted to foster members to seek protection in collectivistic manners when their team experiences a threat (Deutsch, 1949, 1969; Kelley & Thibaut, 1969), thereby reducing intra-team power struggles. While intra-team structures can come in different forms (e.g., Beersma, Hollenbeck, Humphrey, Moon, Conlon, & Ilgen, 2003; Harrison & Klein, 2007; Magee & Galinsky, 2008; Wageman, 1995), I focus in my dissertation research on two specific and very common intra-team structures, namely: the distribution of resources in teams in the form of power structures, or hierarchy (chapter 1 and 3) and the dependency of future resources, in the form of the outcome interdependence structure of the team (chapter 2). Other team structures will be revisited in the general discussion.

Internal team power structures can be more hierarchical or more egalitarian in teams, meaning that power (resource control) can be more unequally or more equally divided over members in the team (e.g., Blau & Scott, 1962; Magee & Galinsky, 2008). Functionalist accounts of hierarchy have argued that hierarchical power structures are a functional solution for teams that experience threats, due to their structure providing qualities (e.g., Friesen, Kay, Eibach, & Galinsky, 2014; Gruenfeld & Tiedens, 2010; Halevy, Chou, Galinsky, 2011; Magee & Galinsky, 2008). However, I provide grist to the mill of conflict accounts of hierarchy (e.g., Greer, De Jong, Schouten, & Dannals, 2017;

Tarakci, Greer, & Groenen, 2016; Greer & Van Kleef, 2010) by theorizing that the opposite is more likely to be true, and that hierarchy may in fact backfire in difficult times. Power differentiation in teams promotes an individualistic approach towards team threats because differently ranked members are likely to have different and even conflicting perspectives, needs, and concerns – which become especially salient in such situations (cf., Aquino & Reed, 1998; van Bunderen et al., 2017). For instance, high-power ranked members may be concerned that they will be held accountable or scrutinized for the threat, and low-power ranked members may feel vulnerable and afraid that they will be sacrificed for the threat. Therefore, members of hierarchical teams are expected to seek self-protection in competitive manners, and as such, to engage in power struggles when their team faces a team threat. Egalitarian power structures on the other hand, where all members hold similar amounts of power, foster a cooperative approach towards team threats, as members feel like they are “in the same boat” (cf., Aquino et al., 1992; Deutsch, 1975; Kabanoff, 1991; van Bunderen et al., 2017). This similarity encourages solidarity between members, and as such members try to get through this difficult time together (i.e., seek protection in cooperative manners), thereby reducing internal power struggles (van Bunderen et al., 2017).

The internal outcome interdependence structures can be higher or lower in teams, meaning that members are more or less dependent on each other for their future resource outcomes (i.e., are presented with team versus individual goals and rewards; e.g., Campion, Medsker, & Higgs, 1993; Guzzo & Shea, 1992; Van der Vegt, Emans, & Van de Vliert, 2000). Scholars have shown that the degree of outcome interdependence is an important determinant for intra-team mindsets and motivations (Campion et al., 1993; Guzzo & Shea, 1992; Van der Vegt et al., 2000). Low outcome interdependence has been

found to cause members to adopt a pro-self or competitive mindset, as members do not need each other and are sometimes even a frustration for each other's outcomes (Beersma et al., 2003; Beersma, Homan, Van Kleef, & De Dreu, 2013; De Dreu, 2007). For example, a sales team where the member with the highest sales of the week receives a bonus. High outcome interdependence, on the other hand, has been found to lead members to adopt a pro-team or cooperative mindset because members need each other to receive good outcomes (Campion et al., 1993; Kelley & Thibaut, 1959; Wageman & Baker, 1997). Accordingly, I theorize that when teams with a low outcome interdependence structure face a threat, members are likely to seek protection in individualistic manners, meaning that they will pursue power, igniting intra-team power struggles. However, when teams with a high outcome interdependence structure are confronted with a threat, I expect members to seek protection in more cooperative manners, meaning that they will refrain from power struggles with one another and instead work to share resources.

To summarize, I develop a theoretical model (see Figure 1) to explain that intra-team power struggles erupt as a consequence of a team's external environment and internal team structure. When teams have an internal team structure that encourages members to have a competitive mindset (i.e., a hierarchical power structure or low outcome interdependence) and these teams face a threatening situation, members are likely to seek personal power as a way to protect themselves, thereby igniting team-performance detracting power struggles.

Dissertation Overview

In order to test my model, the three upcoming chapters focus on the impact of different combinations of external team threats and internal team structures on intra-team power struggles and team outcomes. Chapter 2 studies in a multi-method manner how

resource threatening inter-team conflicts may cause performance-detracting intra-team power struggles when teams have a more hierarchical power structure. We show with a laboratory study of 85 three-person teams with a self-designed negotiation-paradigm and a field study of 158 organizational work teams that while inter-team conflicts are generally assumed to unite teams internally (e.g., Brewer, 2001; Campbell, 1965; Coser, 1977; Stein, 1976; Tajfel, 1982), this only holds true when teams have an egalitarian power structure. When teams have a hierarchical power structure, spill-over theories of conflict apply (Jehn, Rispens, Johnson, & Greer, 2013; Keenan & Carnevale, 1989; Sassenberg, Moskowitz, Jacoby, & Hansen, 2007). In sum, our findings suggest that resource-threatening inter-team conflicts promote performance-detracting power struggles in hierarchical (but not egalitarian) teams.

Chapter 3 examines how uncertainty in teams may spiral intra-team power struggles in teams with low outcome interdependence. While organizational teams have to increasingly deal with uncertain circumstances (Allen, Jimmieson, Bordia, & Irmer, 2007; DiFonzo & Bordia, 1998; Greenwood & Hinings, 1996), research on the team-level effects of uncertainty is scant. We integrate and extend individual-level theories of uncertainty, which pose that uncertainty instills the feeling that one lacks control in the situation (Ashford, 1988; Bordia, Hunt, Paulsen, Tourish, & DiFonzo, 2004), and theories of power, which posit that power is a primary way to (re-)gain control in a social situation, to propose that uncertainty in teams is likely to stimulate power-seeking behavior in members and to thereby provoke intra-team power struggles. We expect an exacerbated effect in teams with lower levels of outcome interdependence, and mitigation in teams with higher levels of outcome interdependence (Campion et al., 1993; Guzzo & Shea, 1992; Van der

Vegt et al., 2000). We find support for our predictions in a field study of 149 teams in a health insurance organization.

Chapter 4 examines how organizational change in teams can result in intra-team power struggles via social comparison in more hierarchical teams. Organizational change tends to be experienced as an unsettling situation in which identities, resources, and positions have to shift and take new forms (e.g., Ashford, 1988; DiFonzo & Bordia, 1998; Lau & Woodman, 1995; Rafferty & Griffin, 2006), and therefore members may be eager to protect themselves in these changing situations. We propose that members of more hierarchical teams will seek to protect themselves in more competitive manners (by focusing on their own individual position and survival, leading to intra-team social comparison and consequently team performance-detracting power struggles) when their team faces organizational change, and that members of more egalitarian teams will do so in more cooperative manners (by focusing on the team as a whole, thereby reducing internal social comparisons and power struggles). A field study of 142 teams lends support for our hypotheses.

Finally, Chapter 5 provides a summary of the previous chapters and a discussion of how these chapters are related, align, and fit into the overarching model. There will also be a discussion on the theoretical implications of this dissertation, and how this dissertation may inspire future research avenues. Finally, the chapter will close with a discussion of the practical implications of the research in this dissertation.

Contributions

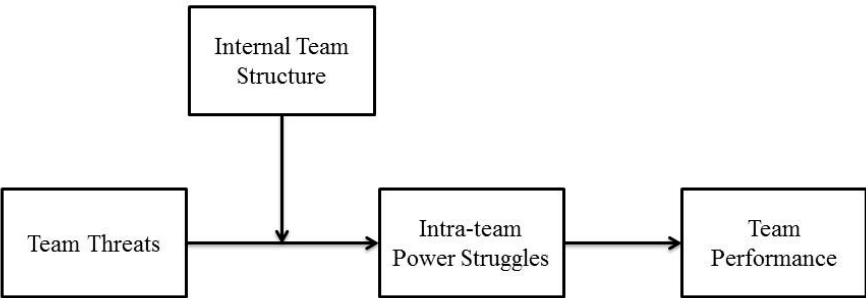
With my dissertation on power struggles in teams I aim to make several contributions. The first and utmost goal of this dissertation is to unravel why and when intra-team power struggles emerge. By showing that power struggles are elicited through

the combination of a threatening team environment and individualistic internal team structures, I extend the literature of power in teams (e.g., Bloom, 1999; Eisenhardt & Bourgeois, 1988; Greer et al., 2017, 2018; Greer & Van Kleef, 2010; Magee & Galinsky, 2008), which has primarily focused on power structures in teams (i.e., team power-level; Eisenhardt & Bourgeois, 1988; Greer et al., 2011; Groysberg, Polzer, & Elfenbein, 2012; or team power dispersion; e.g., Bloom, 1999; Greer & Van Kleef, 2010; Shaw, Gupta, & Delery, 2002), and the consequences rather than the origins of power struggles (Bensersky & Hays, 2012; Hildreth & Anderson, 2016; Spoelma & Ellis, 2017; for exceptions, see Eisenhardt & Bourgeois, 1988; Greer & Van Kleef, 2010). Second, by identifying team threats as a key factor for intra-team power struggles, I challenge previous research which has argued threatening team situations to unite teams internally (e.g., Bornstein, 2003; Brewer, 2001; Hogg, 2000, 2007; Stein, 1976). I qualify this large and diverse body of research by showing that threatening situations only have unifying effects on teams when the internal team structure fosters a collective stance, but not when the team structure fosters an individualistic stance, towards the situation. Finally, by pointing out that hierarchical power structures are a prime determining factor for team threats to result in intra-team power struggles, I qualify previous research that has advocated the benefits of hierarchy in such situations (e.g., Friesen et al., 2014; Gruenfeld & Tiedens, 2010; Halevy et al., 2011; Magee & Galinsky, 2008). Whereas I acknowledge that the structure-providing qualities of hierarchy may at times elicit positive responses of individual members, the research in my dissertation makes a strong case that in the turbulent setting of real-life teams, the negative (i.e., individuating) effects of hierarchy take precedence over the positive.

Declaration of Contributors

The work in this dissertation is not just a result of my hard work, but also of the hard work and dedication of my collaborators. The experimental study in Chapter 1 was designed by Lisanne van Bunderen (LvB) and Lindred Greer (LG), LvB collected, video-coded the data (Jasmien Khattab coded part of the data for inter-rater reliability), and analyzed the data. For the field study in Chapter 1, LvB constructed some of the measurements, collected, and analyzed the data. Chapter 1 was written by LvB, under supervision of LG, and Daan van Knippenberg (DvK). The field study in Chapter 2 was designed by LvB and LG, and LvB collected and analyzed the data. Chapter 2 was written by LvB under supervision of LG and reviewed by DvK. Chapter 3 was designed by LvB, and LvB also collected and analyzed the data. Chapter 3 was written by LvB, and reviewed by DvK and LG

Figure 1. Theoretical Model



CHAPTER 2

WHEN INTER-TEAM CONFLICT SPIRALS INTO INTRA-TEAM POWER STRUGGLES: THE PIVOTAL ROLE OF TEAM POWER STRUCTURES

Abstract

Organizational teams frequently come into conflict with one another over limited resources. Core theories of intergroup conflict suggest that such inter-team resource conflicts unite teams internally, reducing intra-team power struggles. However, conflict spill-over theory suggests that inter-team conflicts may also stimulate competitive power dynamics within teams. We reconcile these two opposing lines of thought by introducing the internal power structure of teams as the key moderator that determines whether inter-team conflict reduces or promotes power struggles *within* teams. We theorize that while the common fate of members of egalitarian teams makes them likely to unite and pool resources when facing an inter-team conflict, the power differences in hierarchical teams cause members to be differently impacted by the resource-threatening inter-team conflict, leading them to have different perspectives and concerns, thereby promoting internal fights over resources (i.e., power struggles). In turn, such power struggles are expected to negatively affect team performance. We tested these hypotheses with a laboratory study of 85 three-person negotiation teams and a field study of 158 organizational work teams, and find, as expected, that a resource-threatening inter-team conflict promotes performance-detracting power struggles in hierarchical (but not egalitarian) teams.

Introduction

Relationships between organizational teams are often conflictual (e.g., Baldridge, 1971; Blake, Shepard & Mouton, 1964; Kramer, 1991). Due to their mutual dependence on the same valuable but finite organizational resource pool, teams may come into conflict over the allocation of scarce resources, such as budgets, personnel, or help from management (e.g., Baldridge, 1971; Kramer, 1991; Pfeffer & Salancik, 1977; Pondy, 1967). Resource conflicts between teams inherently pose a threat to a team's own internal resources, as these conflicts may result in teams losing out on desired resources. For example, when two teams get into a conflict over budget allocation, one, or perhaps even both, of the teams may end up not getting their desired budget. Such inter-team conflicts not only affect inter-team relations (e.g., Jackson, 1993; van Knippenberg, 2003), but can also influence the dynamics within each of the teams caught up in the conflict (cf., Sherif & Sherif, 1964, 1966). That is, when teams face a resource-threatening inter-team conflict, this will impact the availability of *internal* team resources and as such, affect how members behave towards one another *within* their own team (e.g., Mead & Maner, 2012; Staw, Sandelands, & Dutton, 1981).

The general assumption about the impact of inter-team conflicts on intra-team functioning is that inter-team conflicts unite teams internally (e.g., Brewer, 2001; Campbell, 1965; Coser, 1977; Stein, 1976; Tajfel, 1982). Members are expected to pool their resources and work together to collectively fend off the impending resource threat posed by an inter-team conflict (e.g., Dahrendorf, 1969; Sherif, 1966; Simmel, 1955). Indeed, many studies have shown that inter-team conflicts can increase intra-team resource contribution and cooperation (see the Appendix for an overview of these studies). For example, Bornstein and colleagues (see Bornstein, 2003, for an overview) have repeatedly

shown with experimental team games that inter-team conflicts over resources increase members' voluntarily resource contribution to the team pool. As such, resource-threatening inter-team conflicts can promote within team resource sharing and reduce within team competitions over resource control (i.e., power struggles, Greer & Van Kleef, 2010).

However, conflict spill-over theory suggest that conflicts can also have negative cross-level effects (Jehn, Rispens, Johnson, & Greer, 2013; Keenan & Carnevale, 1989; Sassenberg, Moskowitz, Jacoby, & Hansen, 2007). For instance, conflict has been theorized to spread from the dyadic to the team level (Jehn et al., 2013), and shown to carry-over from the team to the inter-team level (Keenan & Carnevale, 1989; Sassenberg et al., 2007). We build upon this theory by proposing that inter-team conflicts may instigate intra-team conflicts because the resource threat posed by the inter-team conflict may provoke fights over resources within the team internally. That is, each individual team member may also experience (a fear of) personal resource deprivation due to the inter-team conflict. This fear of resource deprivation, combined with the competitive mind-set that is oftentimes engendered by (inter-team) conflicts (Deutsch, 1969; Pruitt & Rubin, 1986; Sassenberg et al., 2007), may make members want to protect their own individual resource share (Esses, Jackson, & Armstrong, 1998; cf. Kerr, 1983). Therefore, instead of combatting the resource threat together, the possibility exists that when an inter-team conflict threatens a team's resources, members will choose to cope individualistically and safeguard their own resources by engaging in competitive resource-acquiring behaviors within their team, i.e., intra-team power struggles (e.g., Bendersky & Hays, 2012; Greer & Van Kleef, 2010)². Intra-team power struggles, in turn, reduce the sharing of information

² While other forms of conflict may also be similarly reduced, such as status conflicts, i.e., disputes over people's relative status (i.e., respect) positions in their team's social hierarchy (Bendersky & Hays, 2012), we expect that

and distract members from their tasks (cf. De Dreu & Weingart, 2003; Jehn, 1995), thereby impairing team performance – the degree to which a team accomplishes its goals or mission (Bell, 2007; Devine & Phillips, 2001) as seen by a variety of task-oriented indicators, including team output quality, quantity, and efficiency (Gibson, Zellmer-Bruhn, & Schwab, 2006).

In this paper, we seek to reconcile these two research streams by proposing that the key in understanding whether resource-threatening inter-team conflicts encourage or discourage performance-detracting intra-team power struggles is the internal power structure of the team. We note that most research that has found inter-team conflict to bring teams together was conducted in the context of egalitarian teams (see the Appendix)³. In egalitarian teams, where all members have equal amounts of power, or control over valued resources (e.g., Blau & Scott, 1962; Magee & Galinsky, 2008), members are similarly impacted when an inter-team conflict threatens team resources (Bornstein, 1992). The egalitarian power structure of such teams thus enforces a common fate of team members when they are confronted with a resource-threatening inter-team conflict (Aquino, Steisel, & Kay, 1992; Deutsch, 1975; Kabanoff, 1991). This means that when such teams face a resource-threatening inter-team conflict, they are likely to unite, pool resources internally and respond collectively to the resource threat, and as such, be less embroiled by internal power struggles.

the form of conflict most likely to be impacted by inter-team resource conflicts are conflicts specifically about resources – power struggles. We therefore focus on the role of power struggles in our theorizing and model here, but return to this point in our discussion, where we suggest that our theory and findings may also apply, albeit to a lesser degree, to other forms of conflict in teams, including status conflicts.

³ The only studies which have looked at inter-team conflicts in hierarchical settings are Maner and Mead (2010) and Mead and Meaner (2012), who looked at how inter-team competition changes the perceptions and behaviors of different personality types of leaders towards their subordinates, and Van Vugt and Spisak (2008) who examined how inter-team conflict impacts preferences for male versus female leaders. No studies to our knowledge have compared egalitarian to hierarchical team settings in determining how *teams* respond to inter-team conflict.

However, in hierarchically structured teams, where power is unequally divided, conflict over resources may spill-over from the inter-team to the intra-team level. The unequal division of power within hierarchical teams implies that members of different power ranks are differently affected when there is an inter-team resource conflict (cf. Aquino & Reed, 1998; van Dijk & Wilke, 1995. For instance, high ranked members may face greater scrutiny when there is a resource threatening inter-team conflict (Georgesens & Harris, 2006; Hamblin, 1958; Mead & Maner, 2012; Pettit, Yong, & Spataro, 2009). Alternatively, low ranked members may face removal from their team or even the entire organization when an inter-team conflict threatens team resources (Chen, Brockner, & Greenberg, 2003; Keltner et al., 2003; Kramer, 1996; Solomon, 1960; Tjosvold, 1981). These rank-specific concerns caused by the inter-team conflict stress the inequity of the hierarchical power structure, and highlight the different and sometimes even incompatible perspectives, needs, and concerns that differently ranked members may have. As such, a hierarchical power structure encourages members to focus on the individual-level, rather than the team-level, consequences of a resource-threatening inter-team conflict. This individualistic focus will make members of hierarchical teams, both high and low ranked, primarily concerned with their own power position and resource share (cf. Mannix, 1993). Therefore, in hierarchical teams facing an inter-team conflict, members are expected to try to safeguard or improve their own individual position, thereby fostering spill-over from inter-team resource conflicts to intra-team power struggles (Deutsch, 1975; Rapoport, Bornstein, & Erev, 1989). To summarize, we develop a theoretical model (see Figure 1) in which we propose that the internal power structure of teams – more hierarchical or more egalitarian – is pivotal in determining whether members will fight or unite in response to a resource-threatening inter-team conflict.

With our study we offer a few notable contributions. First, we contribute to the literature on inter-team and intergroup conflict (e.g., Bornstein, 2003; Sherif, 1966; Van Vugt, De Cremer, & Janssen, 2007) by reconciling two seemingly opposing views on the impact of inter-team conflict on intra-team dynamics. We show that past conclusions about the cooperative benefits of inter-team conflicts for intra-team dynamics have been driven by the setting in which these studies were conducted. We demonstrate that when the internal team power structure is taken into account, inter-team conflicts may not foster intra-team cooperation; rather, conflict spill-over theory may apply (Jehn et al., 2013; Keenan & Carnevale, 1989; Sassenberg et al., 2007; Smith, 1989). That is, in more hierarchically structured teams, inter-team conflicts may promote intra-team struggles, rather than cooperation, around resources. Second, we contribute to the conflict spill-over literature (Jehn et al., 2013; Keenan & Carnevale, 1989; Sassenberg et al., 2007), which has until now focused on how conflict may spill-over from lower-levels to higher levels (i.e., from dyads to the team; from the team to the inter-team context). We expand conflict spill-over research by showing that the reverse effect is also possible, that conflicts at higher levels may also spill-over to lower levels, as we demonstrate that inter-team conflicts may lead to intra-team power struggles. Third, we speak to the rapidly growing literature on social hierarchy in teams (e.g., Halevy, Chou, Galinsky, & Murnighan, 2012; Ronay, Greenaway, Anicich, & Galinsky, 2012; Van der Vegt, de Jong, Bunderson, & Molleman, 2010). While much research on social hierarchy has advocated for positive effects of power hierarchies for team functioning (i.e., the functionalist account of hierarchy, see Anderson & Brown, 2010; Halevy, Chou, & Galinsky, 2011; Keltner, Van Kleef, Chen, & Kraus, 2008; Magee & Galinsky, 2008), a growing line of research suggests that power hierarchies can also spark intra-team power struggles (e.g., Greer &

Van Kleef, 2010; Taracki, Greer, & Groenen, 2015). We extend theory on power hierarchies by identifying when a power hierarchy may be functional (i.e., when resources are abundant) versus harmful (i.e., when resources are threatened and scarce – with one instantiation of this being inter-team conflict) for team functioning; we show that a power hierarchy may backfire in settings where resources are under threat. Finally, by looking at how resource-threatening inter-team conflict may result in intra-team power struggles, we extend the burgeoning literature on power dynamics in teams (e.g., Aime, Humphrey, DeRue, & Paul, 2014; Bendersky & Hays, 2012; Greer & Van Kleef, 2010; Hays & Bendersky, 2015; Humphrey & Aime, 2014) by providing a first illustration of how intra-team power dynamics are jointly impacted by the inter-team setting and the internal team power structure.

Theoretical Background and Hypotheses

Organizational teams tend to be part of a larger network of teams that are mutually dependent on a common pool of organizational resources (e.g., Kramer, 1991; Miles, 1980; Swingle, 1976). Most of these organizational resources are tangible and concrete (e.g., budget, personnel, office space), but others may be intangible and symbolic (e.g., respect, recognition). Although these resources may be replenishable over time, they are at limited supply at any given time (Kramer, 1991). In some situations, teams may experience their resource supplies to become especially threatened and scarce, due to for instances changes in the external environment (e.g., general economic declines), organizational-wide failure or other teams making conflicting demands upon the same resource base. In this paper, we focus on this last specific cause of resource threat, i.e., inter-team resource conflict (e.g., Bobo, 1983; LeVine & Campbell, 1972; Sherif & Sherif, 1953; Stephan & Stephan, 2000), as both empirical and anecdotal evidence suggests that

inter-team conflicts over resources are frequent occurrences in organizations (Baldrige, 1971; Blake et al., 1964; Kramer, 1991). However, we note that other situations that put a press on team resources, such as economic turndowns, may produce similar effects on teams.

Inter-team conflict ensues when teams have incompatible needs or goals and make claims on the same resources (Realistic Group Conflict Theory; Sherif, 1966; Sherif et al., 1961; Sherif & Sherif, 1953). For example, teams may make conflicting appeals on scarce organizational resources, such as budget, office space, talented personnel, prestige or organizational rewards (e.g. Pfeffer & Salancik, 1977; Pondy, 1967; van Knippenberg, 2003). Such conflicts between teams are often seen as zero-sum and intractable (e.g., Esses, Jackson, & Armstrong, 1998), and are known to sour inter-team relations and effectiveness (e.g., Kramer, 1991; Richter, Scully, & West, 2005; van Knippenberg, 2003). However, Realistic Group Conflict Theory and related research (Sherif, 1966; Sherif et al., 1961; Sherif & Sherif, 1953) suggests that the effects of inter-team conflicts over resources are not contained to the inter-team level, but may also permeate team boundaries, impacting intra-team dynamics and performance (see also Mead & Maner, 2012). Having a conflict over resources with another team implicitly creates a threat to the resources available to a team and its members (e.g., Bobo, 1983; LeVine & Campbell, 1972; Sherif & Sherif, 1953; Stephan & Stephan, 2000). This is because such inter-team conflicts may result in teams losing out on desired resources, and combatting them may require expenditure of existing resources. Inter-team conflicts thus threaten current and future intra-team resources, which will have implications for the individual members within a team.

The burning question then is how members cope when inter-team conflicts threaten their team's internal resources. On the one hand, members could join forces and pool resources to fend off the resource threat together (e.g., Brewer, 2001; Campbell, 1965, 1972; Coser, 1977; Dahrendorf, 1969; Sheriff, 1966; Simmel, 1955; Stein, 1976; Tajfel, 1982). Indeed, a plethora of research has shown that members of teams that face an inter-team conflict are likely to unite. For instance, inter-team conflict has been found to increase intra-team cooperation (Benard, 2012; Bornstein & Ben-Yossef, 1994; Bornstein, Budescu, & Zamir, 1997; Bornstein & Erev, 1994; Dion, 1979; Sherif, Harvey, White, Hood, & Sherif, 1961), and contribution to the team resource pool (Halevy, Weisel, & Bornstein, 2011; Erev, Bornstein & Galili, 1993; Gunnthorsdottir & Rapoport, 2006). This increased pooling of resources of members suggests that inter-team conflicts are likely to reduce intra-team competitions over resources, i.e., power struggles.

On the other hand, negative cross-level "spill-over" effects of conflict may exist, with conflicts over resources at the inter-team level propagating conflicts over resources between individual members at the intra-team level (cf., Jehn et al., 2013; Keenan & Carnevale, 1989; Sassenberg et al., 2007). Research on conflict spill-over has postulated that conflicts may spill-over from one level to the other. For instance, Jehn and colleagues (2013) have argued that dyadic conflicts between members may spread to the team, and both Keenan and Carnevale (1989) and Sassenberg and colleagues (2007) have experimentally shown that intra-team conflicts may carry-over into inter-team conflicts. We propose here that the opposite may also occur, i.e., that cross-level spill-over effects of conflicts may also exist from the inter-team to the intra-team level. We argue that this is because inter-team conflicts induce a resource threat, which has not only team-level but also individual-level ramifications. Losing out on team resources translates into levies on

team members' individual resources (Esses et al., 1998; cf. Kerr, 1983). Team members may therefore experience not only a threat to the resources of the team as a whole, but also a personal resource threat as result of the inter-team conflict. In addition, conflicts have been argued to cause individual members to adopt a competitive mind-set (Sassenberg et al., 2007) through which they are likely to distance themselves from others, and develop hostile attitudes and a win-lose mentality (Deutsch, 1969; Pruitt & Rubin, 1986). Then, in our context, this resource threat combined with a competitive mind-set may further urge members to let the individual-level repercussions of the inter-team conflict take precedence over the team-level repercussions, leading them to compete with members within their team over the remaining available resources (Bornstein et al., 1997; Grossman & Mendoza, 2003; Putnam, 1988; Roux, Goldsmith, & Bonezzi, 2015). Therefore, rather than working together, pooling resources, and acting as a unified team, members could also respond to inter-team conflicts in individualistic manners by fighting over internal resource control. As such, conflicts over resources between teams may lead to within team fights over resources – power struggles.

The Moderating Role of Intra-team Power Hierarchy

We propose that the key in reconciling these different views on the effects of resource-threatening inter-team conflicts on intra-team power dynamics, and thus whether inter-team conflict elicits cooperative or competitive responses within the team, lies in the way in which power is internally structured within the team. When teams have a hierarchical power structure, there are clear power rank differences between members (Harrison & Klein, 2007; Magee & Galinsky, 2008). These power differences can provide teams with structure, stability and clarity of resource allocation (Frenkel-Brunswik, 1949; Neuberg & Newsom, 1993), thereby reducing uncertainty and chaos (Hogg, 2001; Parson,

1961), and improving intra-team coordination (Halevy et al., 2012) (see functionalist accounts of hierarchy; e.g., Halevy et al., 2011; Keltner et al., 2008). However, power differences may also facilitate individualistic approaches to team interactions, through which intra-team conflicts are fostered, as proposed in conflict accounts of hierarchy (e.g., Bloom, 1999; Greer & Van Kleef, 2010; Harrison & Klein, 2007; Hays & Bendersky, 2015; Taracki et al., 2016). Members at different ranks in the power hierarchy will have different perspectives, concerns, and needs, and at times, these different standpoints may come into conflict. Although there is evidence for power hierarchies to be both a positive and a negative force for teams, a recent meta-analysis (Greer, De Jong, Schouten, & Dannals, 2018) shows that at this point in the literature, power hierarchies are more likely to stimulate competitive dynamics in teams, rather than coordination, especially in competition-prone situations that stress the inequity of the power structure (for related recent reviews on the importance of context in determining the effects of hierarchy, see Anderson & Brown, 2010; Anderson & Kennedy, 2012; Anderson & Willer, 2014). For example, Greer and Van Kleef (2010) find that power hierarchies lead to power struggles in high-power teams, which are susceptible to internal conflicts, but not in low-power teams.

We extend this work here, and examine how teams that have a more or less hierarchical power structure react differently to the competitive landscape set into play by resource-threatening inter-team conflicts. We draw on these recent trends in the literature on power hierarchies to propose that resource-threatening inter-team conflict may provide a competitive climate that may lead hierarchical teams to turn on one another, while egalitarian teams may be more likely to face the threat together. We base our reasoning for this prediction on the notion that the differentiation in power ranks in hierarchical teams

leads members to be differently impacted by a resource threatening inter-team conflict, and therefore to have different perspectives and concerns when facing this conflict (cf. Aquino & Reed, 1998; van Dijk & Wilke, 1995). For example, high ranked members may have reputational concerns both inside and outside of the team, as all eyes will be on them during an inter-team conflict, and they will be held responsible for the outcome. Similarly, high ranked members may worry that they (as the responsible ones) are pushed to take the biggest burden if the team's resources get reduced due to the inter-team conflict. Low ranked members on the other hand, may be afraid that they will become (further) marginalized as higher ranked members' focus is now on the inter-team conflict. Likewise, lower power members may worry that reduced resources will result in a situation where higher power individuals protect their own resources at their expense, perhaps even removing low ranked members from the team or the entire organization. These rank-specific perspectives and concerns of members highlights the inequity of members' positional ranks, and, as such, encourages an individual focus rather than a team focus regarding the impending resource threat (Deutsch, 1975; Mannix, 1993; Rapoport et al., 1989). Members of hierarchical teams will thus mainly be concerned with the implications of the resource-threatening inter-team conflict for their own power position and resource share (cf. Mannix, 1993). This focus on individual consequences, in turn, makes them eager to safeguard their own power position and individual resource share in the light of inter-team conflicts (e.g., Chen et al., 2003; Georgesen & Harris, 2006; Keltner et al., 2003; Pettit et al., 2009). Hence, we propose that hierarchical power structures in teams stimulate the spill-over from inter-team resource conflicts to intra-team power struggles, as they encourage individualistic approaches towards the resource threat, and thus promote competitive power struggles between members within the same team.

To illustrate, when a team with a hierarchical power structure has a conflict about a budget allocation with another team, those at the top of the hierarchy may fear that they will be held responsible for the press on the team's budget, and, as such, that the inter-team conflict will jeopardize their powerful position within their team (Hamblin, 1958; Mead & Maner, 2012). Therefore, high ranked members may try to bolster their powerful position by, for instance, securing budgetary or other resources for themselves – likely at the expense of lower ranked members (Eisenhardt & Bourgeois, 1988; Fast & Chen, 2009; Georgesen & Harris, 2006; Greer & Van Kleef, 2010; Maner & Mead, 2010; Morrison, Fast, & Ybarra, 2009). Those at the bottom of the hierarchy may also feel vulnerable in the face of a resource-threatening inter-team conflict, as they may fear to be mistreated or misused in this situation by more powerful team members (e.g., Chen et al., 2003; Keltner et al., 2003; Kramer, 1996; Solomon, 1960; Tjosvold, 1981). For example, low ranked members may be afraid that their budget will get disproportionately cut, making them even less powerful than they already are. Low ranked members may respond to their fears by trying to safeguard or improve their own position, through pre-emptive strikes such as involving lobbying or forming coalitions to improve their own resource share (Fleming & Spicer, 2008; Halevy, 2016; cf. Martorana, Galinsky, & Rao, 2005). As such, resource-threatening inter-team conflicts may spill over into intra-team power struggles in hierarchical teams.

Teams with an egalitarian power structure, on the other hand, are expected to respond differently to inter-team conflicts than hierarchical teams. Rather than leading to more intra-team power struggles, we predict that resource-threatening inter-team conflicts will reduce power struggles in egalitarian teams. Although the equal distribution of resource control and lack of power rank differences between members in these teams can

promote a harmonious climate (e.g., Deutsch, 1975; Kabanoff, 1991; Kerr & Slocum, 2005; Lawler & Yoon, 1998), which benefits team functioning (e.g., Glew, 2009; Lawler & Yoon, 1998; Leventhal, Karuza, & Fry, 1980; Smith & Cook, 1973), there may, at times, also be temptations for members within egalitarian teams to engage in self-interested power seeking behaviors, i.e., to increase one's individual control over resources within the team (Hays & Bendersky, 2015). For instance, members of egalitarian teams may also, in certain situations, try to improve their individual power position by withholding information, exerting dominance, or forming coalitions. However, we expect these tendencies to be reduced by resource-threatening inter-team conflicts, as members of egalitarian teams tend to be similarly impacted by the resource threat (Bornstein, 1992). That is, as members of egalitarian teams all have the same power rank, the resource threat will not affect one member in a different way than another member. As such, members of egalitarian teams will have similar perspectives and concerns regarding the inter-team conflict. This common fate of members with respect to a resource-threatening inter-team conflict emphasizes the equitable structure of the team (Aquino et al., 1992; Deutsch, 1975; Kabanoff, 1991), and enhances a team focus – rather than an individual focus, leading to unification rather than polarization (Stein, 1976; Tajfel, 1982). Therefore, when egalitarian teams are confronted with a resource-threatening inter-team conflict, we expect them to join forces, and reduce internal competitive responses (e.g., Bornstein, 2003; Sherif et al., 1962), thereby decreasing power struggles within the team. In sum, we propose:

Hypothesis 1: There is an interaction effect between inter-team conflict and intra-team power structure on intra-team power struggles, such that inter-team conflict is positively related to intra-team power struggles in teams with a hierarchical power structure, and negatively in teams with an egalitarian power structure.

Intra-team Power Struggles and Team Performance

Intra-team power struggles are competitions over resource control within a team (Greer & Van Kleef, 2010).⁴ We expect power struggles to have negative consequences for team performance. First, power struggles distract members from the team task at hand (cf. De Dreu & Weingart, 2003; Jehn, 1995), as members' attention goes to managing their own individual concerns around resource control within the team, and as such, they can lose sight of team task activities. Second, power struggles increase the likelihood of performance-detracting political behavior, which is characterized by observable, but often covert, actions by which members enhance their power to influence decisions (Eisenhardt & Bourgeois, 1988). These actions encompass (behind-the-scenes) coalition formation, offline lobbying, withholding information, gossiping, and attempts to control the agenda (Pettigrew, 1973; Pfeffer, 1981). When political behavior is employed during an intra-team power struggle, team performance and outcomes suffer because members are less likely to cooperate and share information openly with one another (Bendersky & Hays, 2012; Greer & Van Kleef, 2010; Keller, 1999). Third, power tends to be seen as zero-sum and therefore

⁴ Power struggles are different from conflicts over the task (ie. goals and outcomes of work), relationship (i.e., interpersonal personality conflicts), process (i.e., logistics, such as meeting time), and status (ie. the array of respect within a team) (cf., Bendersky & Hays, 2012; Greer & Van Kleef, 2010) in that power struggles are explicitly about the control of valued team resources, such as money and personnel. Although task conflict can in certain situations be good – or at least not bad – for teams, all other types of conflict tend to be more harmful for team functioning and performance (De Wit, Greer & Jehn, 2012; Jehn, 1995), including power struggles (e.g., Greer & Van Kleef, 2010).

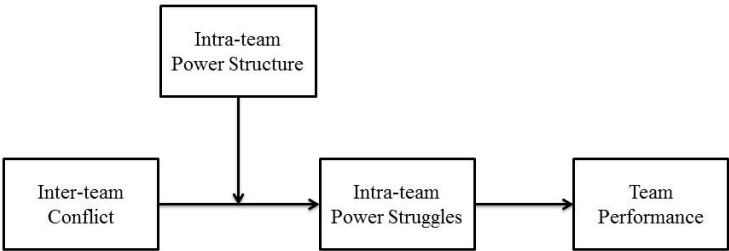
struggles over power can induce competitive behaviors (Berger, Ridgeway, & Fisek, 1998; Gould, 2003; Homans, 1961), which in turn, harm interpersonal relationships in teams (Mannix & Sauer, 2006) and thereby impair team performance (Greer, 2012). Last, when one or more members challenge the intra-team power structure, quite quickly the whole team gets involved. This is because members are very sensitive to losing power (Anderson & Brion, 2014; Magee & Galinsky, 2008; Mead & Maner, 2010), and therefore when one or more members show power striving behaviors, other members are inclined to respond with power protecting behaviors, quickly spreading power struggles throughout the whole team. Also, power struggles between a subset of members are likely to impact all members (also members that are not part of the power struggle), as power relations with non-participating members may change due to the power struggle they are not part of (cf., Bendersky & Hays, 2012). Therefore, power struggles tend to quickly escalate to include the whole team, and likely long-term and intractable (Kapferer, 1969; Morrill, 1991; Ridgeway & Walker 1995), thereby forming a systematic deterrent to effective teamwork that hurts team performance.

Based on this reasoning, we propose that:

Hypothesis 2: Intra-team power struggles are negatively related to team performance.

Hypothesis 3: There is a moderated mediation effect of inter-team conflict and intra-team power structure on team performance through intra-team power struggles.

Figure 1. Theoretical model



Study 1

Methods

Participants

Participants included 267 business students ($M_{\text{age}} = 19.8$ years, $SD_{\text{age}} = 2.10$; 131 women) whom were randomly assigned to 89 three-person teams⁵. The experiment utilized a 2 (inter-team conflict: present vs absent) x 2 (intra-team power structure: hierarchy vs equality) between-subjects factorial design. Participants took part in the experiment either for partial course requirement or to earn monetary compensation.

Procedure

Upon arrival in the laboratory, team members were welcomed, introduced to their fellow team members, and informed that the experiment would be video recorded. In addition, they were told that there was another team in an adjacent lab, which was taking part in the study. In reality, teams were operating independently of each other. Next, participants were told that they were going to be working together with their teammates on

⁵ Two teams were excluded from analyses as there was a technical issue leaving their videos unrecorded, one team was excluded as it failed to follow instructions (discussed the amount of points with each other), and one team was excluded as it did not reach agreements within the allotted time. This left us with a final sample of 85 teams (21 in the inter-team conflict-intra-team hierarchy condition; 22 in the inter-team conflict-intra-team equality condition; 20 in the no-conflict-intra-team hierarchy condition and 22 in the no-conflict-intra-team equality condition).

a consultancy project and that today would be their first meeting, which would consist of three parts (Part 1: Choosing a company; Part 2: Team decision task, and Part 3: Meeting the other team). Crucial to our experiment, members were informed that the three teams with the best performance (assessed by the quality of their final company-choice, their pitch, and their performance on the decision task)⁶ would win a monetary team prize (3 team prizes of 150 euros each), and that there were also individual prizes for the highest individual outcomes on the team decision making task (3 individual prizes of 50 euros each).

Part 1: Choosing a Company

In the first part of the meeting, teams had to decide for which company they wanted to do the consultancy project (they could choose between four companies for whom they were given descriptions) and write a pitch explaining why they preferred this company and why the company should opt for their team to be their consultants. Teams were informed that the quality of the choice of the company as well as the pitch was important, as it would affect their chances of winning the monetary team prize.

Part 2: Team Decision Task (Intra-team Negotiation)

In the second part, teams engaged in a negotiation task in which they were required to make team decisions on four integrative issues regarding their plan of approach for the consultancy project. The issues on which they had to negotiate included the amount of interviews they would hold with the client, the form and frequency of the client-contact, the amount of training for the client (misaligned issue), and the frequency of intra-team contact (see Table 1). For this decision task (based on the team negotiation task by Beersma & De Dreu, 1999 and Greer & Van Kleef, 2010), each member of the team was

⁶ In reality the team prize was only determined by teams' performance on the team decision task.

given a unique preference table explaining their personal preferences for each of these issues. Members were told that their individual preference table was confidential, and they were not to discuss their points associated with the issues with their teammates. For three of the issues, there was a difference in profit-size between members, meaning that Member A could obtain relatively more points for issue 1 and considerably less points for issues 2 and 4, while Member B could obtain relatively more points for issue 2, and considerably much less for issues 1 and 4, and Member C could obtain relatively more points for issue 4, and considerably less points for issue 1 and 2. However, the preference table for the issue that was most profitable to a specific member was never aligned with the preference tables of the other two members for this issue. The preference tables of the other members were however relatively aligned on this (for them less important) issue, thereby inviting coalitions between those members. Teams would perform best if they would create value by logrolling over these issues and opt for the preferred option of the team member who gets more points for that issue. The one diverging issue (issue 3) was for all members of equal importance, and all preference tables were for this issue “misaligned”. Combining three classic integrative issues (e.g., Beersma & De Dreu, 1999; 2002; Weingart et al., 1993) with this misaligned issue makes the symmetry in the payoff matrix less obvious, so that the negotiation is more difficult and realistic.

Teams were then given 20 minutes to try to reach internal agreement on all four issues, and were told that if they failed to reach agreement they would receive zero points. Intra-team negotiations mimic typical decision-making meetings in the organizational team context well, as also there team members tend to have “mixed-motives” - they are motivated to do well for themselves as well as to contribute to the team’s collective

success, while working together to obtain a team-level decision (e.g., Beersma & De Dreu, 2002).

Table 1. Profit schedules used in the intra-team negotiation task.

Amount of Interviews	Client-contact	Amount of training	Team-contact
Profit schedule of Consultant 1			
2 (200)	Weekly calls (50)	6 (90)	2 x week (100)
1 (150)	Weekly emails & calls every other week (37.5)	5 (60)	1 x week (75)
3 (100)	Emails every other week & weekly meetings (25)	4 (30)	1 x 2 weeks (50)
5 (50)	Weekly emails & meetings every other week (12.5)	3 (0)	1 x 3 weeks (25)
4 (0)	Weekly emails (0)		1 x 4 weeks (0)
Profit schedule of Consultant 2			
2 (0)	Weekly calls (100)	6 (60)	2 x week (0)
1 (12.5)	Weekly emails & calls every other week (75)	5 (30)	1 x week (50)
3 (25)	Emails every other week & weekly meetings (50)	4 (0)	1 x 2 weeks (100)
5 (37.5)	Weekly emails & meetings every other week (25)	3 (90)	1 x 3 weeks (150)
4 (50)	Weekly emails (0)		1 x 4 weeks (200)
Profit schedule of Consultant 3			
2 (0)	Weekly calls (0)	6 (30)	2 x week (50)
1 (25)	Weekly emails & calls every other week (50)	5 (0)	1 x week (37.5)
3 (50)	Emails every other week & weekly meetings (100)	4 (90)	1 x 2 weeks (25)
5 (75)	Weekly emails & meetings every other week (150)	3 (60)	1 x 3 weeks (12.5)
4 (100)	Weekly emails (200)		1 x 4 weeks (0)

Part 3: Post-task Questionnaire

After the decision task, teams were informed that the other team was not done yet with their decision task, and that they were required to individually complete a questionnaire while waiting to meet the other team and go on with the study. When all

team members were finished with the questionnaire, members were told that there was no third part. They were then debriefed, probed for suspicion, and thanked for their participation.

Manipulations

Inter-team Conflict. We manipulated inter-team conflict in the first part of the experiment when teams had to choose a company. Teams were told that choosing the “best” company was important as it directly affected their chances of winning the monetary team prize. However, teams were also told that their team and the team in the other room were not allowed to choose the same company. If they would choose the same company, there would be a conflict between the teams. In this case, teams would in the third part of the experiment have to battle with each other about which of the teams would ultimately become the consulting team for the company they both had chosen, and still be in the running to win the monetary team prize. Therefore, having chosen the same company as the other team, and thus being in a conflict with the other team, threatened a team’s chances of winning the team prize, and as such team resources. This could either lead members to combine forces and exert all their efforts to perform well as a unified team on the team decision task, focusing on the team prize, or it could lead members to focus on doing well for themselves in the team decision task - at the expense of other members, so they would increase their own chances to win the individual prize. If the teams immediately chose different companies, then the teams would meet up in the third part of the experiment to give each other tips on how to approach the project.

After teams had chosen a company and written a short pitch (to increase their commitment to their choice), teams received a (bogus) note presented to them by the experimenter - ostensibly from the other team - with the name of the company the other

team had chosen. For the teams in the inter-team conflict condition, this note had the same company name on it as their own company choice; for the other half of the teams the note had a different company name on it (no-inter-team conflict condition). The manipulation was reinforced by an experimenter-note stating in the inter-team conflict condition: *“Both teams have chosen the same company. This means that there is a conflict between both teams and that teams will have to battle it out in the third part to see who can have the company they initially chose. Remember: your team’s chance to do well in the experiment and win one of the monetary prizes is partly dependent on the quality of the company you end up with.”* In the no inter-team conflict condition the note stated: *“Both teams have chosen a different company. This means that there is no conflict between the teams. In the third part teams will exchange tips on how to approach the project.”*⁷

Intra-team Power Structure. We manipulated intra-team power structure by informing participants about the formal power structure within their team, including individual members’ positions within that given team power structure. In the hierarchy condition, team members were given the role of senior consultant, consultant, and junior consultant. Members were informed that senior consultants had the most power and control over team resources and outcomes during the consultancy project, consultants had intermediate power and control over team resources and outcomes, and junior consultants had the least power and control over team resources and outcomes. This implied that in the team decision task the more powerful members had the power to enforce their will on the decision making process, thereby strongly influencing team and individual outcomes of the task. In the equality condition, team members could have the role of consultant A, B, or C.

⁷ The inter-team resource conflict was symmetric, i.e., teams had equal amounts of power. This was not explicitly mentioned, but there was no reason to assume that the other team would have more/less power than the own team.

Members were informed that they all had an equal moderate amount of power and control over team resources and outcomes during the consultancy project.

The manipulation of hierarchy versus equality was reinforced by power structure charts in participants' instruction booklets (including their place in the power structure), power structure charts on the wall of the laboratory room, and by giving participants name-tags that stated their role. Additionally, to increase the perceived legitimacy of this manipulation, participants were asked to fill out an online leadership questionnaire the day before the experiment. They were told that their placement in the team power structure was based on the results of this questionnaire; in reality their placement was random.

Manipulating intra-team power structure and "true" power in this manner is common in experimental research, and similar legitimization and reinforcement of power manipulations has been shown to be effective in past power research (e.g., Briñol, Petty, Valle, Rucker, & Becerra, 2007; Chen, Lee-Chai, & Bargh, 2001; Greer & Van Kleef, 2010; Lammers, Galinsky, Gordijn, & Otten, 2008; Maner & Mead, 2010; Mead & Maner, 2012).

Measures

Intra-team Power Struggles. Power struggles were measured through video-coding of the team decision task (intra-team negotiation). A power struggle coding-scheme was constructed based on the definition of power struggles, and the power struggle scale of Greer and Van Kleef (2010; an example item is "In my team, we contested who can control outcomes."). The coding scheme contained concrete power struggle behaviors (including examples of how they may manifest in this context), such as asserting dominance and forcing one's will by raising one's voice, taking control by interrupting others, forming explicit coalitions (i.e., "If we team up, it's two against one"), preventing

others from gaining control by ignoring suggestions, using the own or others' position to gain influence (e.g., "You're only a junior consultant, why should we listen to you?" or "You're just a consultant like me, you can't just force your will like that!") and explicitly referring to the power structure of the team to contest who can control outcomes (i.e., "Our team has a clear hierarchy, so basically I can decide whatever I want" or "We're all equal in power, so we should all agree before we decide"). Two coders were shown a few videos that exemplified teams with a low degree of power struggles (a score of 1), a medium degree of power struggles (a score of 3.5) and a high degree of power struggles (a score of 7), and were instructed to use these as anchor-points. The coders tallied power struggle behaviors, and then both based on the frequency and intensity of power struggles in a team, an overall power struggle score on a 1-7 scale was determined. One coder scored and rated all teams, and the second coder scored and rated a subset of 35% of the teams to determine inter-rater reliability, $ICC(1) = .92$; $ICC(2) = .96$. Twenty-nine percent of power struggle scores had perfect agreement between coders. The rest varied slightly – between .2-.5. As reliability was sufficiently high, the ratings of the first coder were used in analyses.

Team Performance. Team performance was assessed through the joint outcomes of the intra-team negotiation task. Joint outcomes are defined as the sum of the profits of the individual negotiators (Tripp, 1992), calculated by summing the points of the three members across the four issues. The minimum number of points a team could generate was 540, and the maximum number of points was 780. Within the context of an intra-team negotiation, joint outcomes can be viewed as the most important indicator of team performance. This is because joint outcomes are determined by a team's ability to find integrative potential through the integration of members' interests, and as such signal the

quality of their decisions (Rubin, Pruitt, & Kim, 1994). When joint outcomes are high, an integrative solution has been reached, and the individual outcomes of members are similar and on average high. Joint outcomes are also relevant in the light of intra-team power struggles. Namely, in order for high outcomes to be achieved, members need to engage in integrative and cooperative behaviors such as information exchange about preferences and priorities, logrolling, and the cooperative creation of value (Lax & Sebenius, 1986; Lewicki, Saunders, & Minton, 1999; Neale & Bazerman, 1991; Pruitt & Carnevale, 1993). The competitive nature of power struggles however may cause information to be withheld or manipulated, and voices not to be heard. This undermines the behaviour that is necessary to reach integrative potential and as such stands directly in the way to the achievement of high joint outcomes.

Controls. We controlled for whether students knew each other in advance, as knowing each other often affects performance (Shah & Jehn, 1993). We coded whether participants knew none (0), one (1) or both (2) of the other participants before the experiment.

Results

Means, standard errors, and correlations of the observed variables can be seen in Table 2 and 3. All analyses were run at the team-level.

Manipulation Checks

To check whether our inter-team conflict manipulation was effective, we asked participants what the situation was between their team and the other team, with answer option A) We had a conflict with the other team (coded as 1), and B) We had no conflict with the other team (coded as 0). Our manipulation was indeed effective, as teams in the conflict condition were significantly more likely to report having a conflict with the other

team ($M = 0.95, SD = .12$) than participants in the no-conflict condition ($M = 0.06, SD = .18$), $t(83) = -25.96, p < .001$.

To check whether our power structure manipulation was effective, we asked participants what kind of power structure their team had, with answer option A) We had a hierarchical power structure (coded as 1), and B) We had an egalitarian power structure (coded as 0). In support of our manipulation, teams in the hierarchy condition were significantly more likely to report having a power hierarchy ($M = 0.85, SD = .20$) than teams in the equality condition ($M = 0.05, SD = .12$), $t(83) = -23.18, p < .001$.

At the end of the experiment, we probed participants for suspicion – both verbally and on paper. Participants did not indicate suspicion about the other competing team, nor did they express concerns about the legitimacy of the manipulated power structure and/or role assignment

Table 2. Marginal means and correlations among the observed variables (Study 1)

		Descriptive statistics (<i>M, SE</i>) ^a				Correlations ^b
Variable		Full Sample	Inter-team Conflict		No Inter-team Conflict	
			Hierarchy	Equality	Hierarchy	Equality
1.	Power	3.86	4.99	2.86	3.60	4.01
	Struggles	(0.22)	(0.39)	(0.39)	(0.40)	(0.39)
2.	Joint	662.15	659.53	657.83	656.15	674.42
	Outcomes	(4.92)	(9.79)	(9.58)	(10.03)	(9.60)

N = 85

a Means (with standard error in parentheses) controlled for knowing.

b The reported correlations are partial correlations, controlling for knowing, and the effect of the experimental conditions and their interaction. * $p < .05$

Table 3. Raw Descriptives and Zero-order Correlations (Study 1)

Variable	M	SD	1	2	3	4
1. Knowing	0.29	0.46				
2. Inter-team Conflict	0.51	0.50	.10			
3. Intra-team Hierarchy	0.48	0.50	.02	.01		
4. Intra-team Power Struggles	3.86	1.99	.26*	.05	.23*	
5. Team Performance	622.15	45.36	.21	-.06	-.09	-.14

N = 85

Hypothesis testing⁸. In Hypothesis 1, we proposed that intra-team power structure would moderate the effects of inter-team conflict on intra-team power struggles, such that inter-team conflict would be positively related to intra-team power struggles in hierarchical teams and negatively related to intra-team power struggles in egalitarian teams. This hypothesis was supported, as an analysis of variance revealed that inter-team resource conflict and intra-team power structure had a significant interactive effect on intra-team power struggles, $F(1, 80) = 10.47, p = .002$. The effect size ($\eta^2 = .12$) is considered normal in this type of research (cf. Bell, 2007; Horwitz & Horwitz, 2007; Joshi & Roh, 2009)^{9,10}.

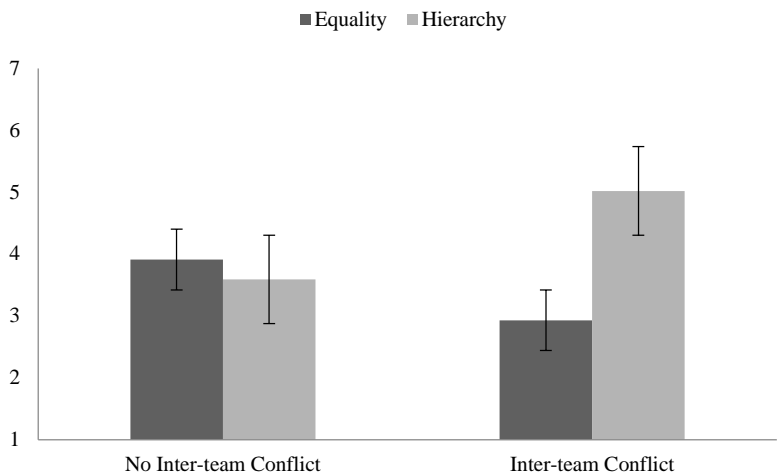
When decomposing this interaction, we found that there were significantly more intra-team power struggles when hierarchical teams had an inter-team resource conflict compared with no inter-team conflict, *Mean Difference (I-J)* = 1.39, *SE* = 0.56, $p = .02$, 95% *CI* = 0.27, 2.52. In contrast, egalitarian teams experienced less intra-team power struggles when they were involved in an inter-team conflict compared with no inter-team

⁸ When running all analyses controlling for gender, this did not alter the direction or conclusions of our results.
⁹ We obtained similar results when we ran the analyses using our manipulations checks as independent variables rather than the manipulation codes.
¹⁰ In order to exclude the possibility that there were other unaccounted mechanisms caused by our independent variables that micro-mediated the relationship between inter-team conflict and intra-team power structure on the one hand and power struggles on the other hand, we ran analyses on cohesion-like constructs (i.e., intra-team trust and team identification), which we had as back-up measures. Analyses showed that there was no main effect of inter-team conflict or intra-team power structure on cohesion, nor an interaction effect of inter-team conflict and intra-team power structure on cohesion, nor a three-way interaction between inter-team conflict, intra-team power structure, and cohesion on power struggles.

conflict, *Mean Difference (I-J)* = -1.15, *SE* = 0.55, *p* = .04, 95% *CI* = -2.23, -0.06 (for a graph of the interaction, see Figure 2).

Additionally, in an exploratory analysis, we found that hierarchical teams had significantly more intra-team power struggles than egalitarian teams when involved in an inter-team conflict, *Mean Difference (I-J)* = 2.13, *SE* = 0.55, *p* < .001, 95% *CI* = 1.03, 3.22. There was no difference between hierarchical and egalitarian teams when there was no inter-team conflict, *Mean Difference (I-J)* = -0.41, *SE* = 0.56, *p* = .47, 95% *CI* = -1.52, 0.70.

Figure 2. Interactive Effects of Inter-team Conflict and Intra-team Power Structure on Intra-Team Power Struggles (Study 1)



Hypothesis 2 predicted that intra-team power struggles would negatively relate to team performance. This hypothesis was tested using hierarchical regression analyses and was supported ($\beta = -.27$, $t = -2.23$, $p = .03$, *Adj. R*² = .07); power struggles were negatively associated with joint outcomes.

Hypothesis 3 predicted that there would be a moderated mediation effect of inter-team resource conflict and intra-team power structure on team performance through intra-team power struggles. We performed a test of moderated mediation with bootstrapping using the PROCESS macro (Model 7) with 5000 repetitions by Hayes (2013). Simulation research shows that bootstrapping is one of the most valid and powerful methods for testing intervening variable effects (MacKinnon et al., 2004; Williams & MacKinnon, 2008), and is therefore the preferred statistical method when indirect effects are tested (Hayes, 2009). In line with our predictions, we found a negative indirect effect of inter-team conflict on joint outcomes via power struggles in hierarchical teams ($b = -6.56$; Bias and accelerated 95% CI: -18.10, -0.30), and a positive significant effect of inter-team conflict on joint outcomes via reduced power struggles in egalitarian teams ($b = 5.39$; Bias and accelerated 95% CI: 0.15, 16.32). Hypothesis 3 thus was supported.

Table 4. Results of Regression Analysis (Study 1)

	Power Struggles		Team Performance		
Variable	Step 1	Step 2	Step 1	Step 2	Step 3
Controls					
Knowing	-.26*	-.27*	.22 [†]	.22 [†]	.29*
Inter-team Conflict	.02	.02	-.08	-.08	-.07
Intra-team Hierarchy	.22*	.22*	-.09	-.09	-.03
Conflict x Hierarchy		.32**		.11	.20 [†]
Power Struggles					-.27*
R ²	.12	.22	.06	.07	.12
Adjusted R ²	.09	.18	.02	.02	.07
Change in R ²	.05	.10	.01	.01	.06
Overall <i>F</i>	3.62*	5.65**	1.61	1.47	2.24 [†]
df	3, 81	4, 80	3, 81	4, 80	5, 79

N = 85
 Note. Standardized beta coefficients are presented. [†] < *p* .10. * *p* < .05. ** *p* < .01

Although the indirect effect is the effect as predicted, and evidence for the indirect effect supports our hypothesis even in the absence of a direct effect (see Rucker, Preacher, Tormala, & Petty, 2011, on the importance of indirect effects), we do note that we do not find a direct interaction effect of inter-team conflict and intra-team power structure on team performance (see Table 4).¹¹

Additional Analyses

Although we did not hypothesize there to be differences in power struggle participation and initiation between members of different hierarchical power ranks, as we consider power struggles to be a team-level variable concerning all members of a team (e.g., Greer & Van Kleef, 2010), we did explore the potential for there to be differences in participation and initiation in power struggles per hierarchical position. We coded power struggle behaviors for each individual member, using the same coding scheme as described for team-level power struggles, and determined an overall individual power struggle-score (1-7) for power struggle participation. We also coded which of the members initiated the power struggle, i.e., made the first power struggle move. When analyzing our data in a multi-level manner, we did not find a main effect of individual position on power struggle participation, $F(2,116) = 0.93, p = .40$, nor an interaction of individual position and inter-team conflict, $F(2,116) = 0.06, p = .94$, suggesting that power struggles are indeed a team-level phenomenon which can be driven as much by high-power members protecting their positions as by low(er)-power members trying to bolster or improve their position.

¹¹ We also note that the lack of significance of the overall regression model test should not be a concern here because our focus is on the specific hypothesis tests and not on the development of an overall predictive model (i.e., we include controls and main effects for which nonsignificant findings are irrelevant to our theory).

In addition, we examined whether members of certain hierarchical positions were more likely to initiate a power struggle compared to others, and whether this was affected by the presence of an inter-team conflict. Results showed that position mattered in terms of who initiated the power struggle ($W = 10.56; p = .005$); both high ranked (senior consultants) and low ranked members (junior consultants) were more likely to initiate a power struggle than middle ranked member (consultants) (respectively $b = -1.83, W = 10.25, p = .001$; $b = -1.63; W = 8.09; p = .004$). There was no difference between high and low ranked members in terms of who was more likely to start a power struggle ($b = -0.20; W = 0.20, p = .66$), nor did inter-team conflict moderate the effect of position on power struggle initiation ($W = 0.72, p = .70$).¹²

Discussion

In line with our hypotheses, the results of Study 1 indicate that inter-team conflict and intra-team power structure interactively determine the level of intra-team power struggles, which in turn negatively affect team performance (in this study, joint outcomes). In teams with a hierarchical power structure, inter-team conflict was positively related to intra-team power struggles, whereas in teams with an egalitarian power structure, inter-team conflict was negatively related to intra-team power struggles. Intra-team power struggles, in turn, were negatively related to team performance. Moderated mediation analysis showed that

¹² The finding that high and low ranked members are more likely to begin a power struggle echo's Competition Theory (Garcia, Tor, & Gonzalez, 2006), which postulates that people which are proximal to a meaningful standard, such as the top or the bottom of a hierarchy, are more likely to compete. This is because the proximity to meaningful standards directly impacts our unidirectional drive upward, thereby fostering social comparison processes and increasing competition (Festinger, 1954). High and low ranked members may thus - due to their proximity to the top and the bottom of the hierarchy - be more occupied with their position in the hierarchy than middle ranked members, and therefore more active in protecting or improving their power position. However, once a power struggle has started within the team, middle ranked members are just as likely to participate in the intra-team power struggle. This in line with work on conflict contagion (Jehn et al., 2013) which argues that intra-team conflicts tend to spread among all members, and work on hierarchy conflicts in teams (Kapferer, 1969; Morrill, 1991; Ridgeway & Walker 1995), which argues that this is especially likely to happen when the conflict is about the power structure in the team, as the outcome of such conflicts affects all members in the team.

there was an indirect effect of inter-team resource conflict and intra-team power structure on team performance through intra-team power struggles.

With this study, we aimed to provide causal evidence for our hypothesis that inter-team conflict causes performance-detracting power struggles in hierarchically structured teams and reduces power struggles in egalitarian teams. We chose an experimental method to maximize internal validity and to allow us to conduct behavioral coding of power struggles as the mediating process between cause and outcome. Also, being able to randomly assign teams to conditions (and members to roles) wards off concerns about endogeneity and self-selection, as we can ascertain that it is intra-team hierarchy per se that causes inter-team conflict to result in intra-team power struggles, and not the composition of team members in the different power structures in terms of abilities and preferences. However, experimental set-ups may raise concerns with external validity. It might for instance be that (parts of) our effects are only applicable to newly-formed, shortly-lived student teams. Therefore, replication of our results in an organizational setting with pre-existing organizational work teams would be beneficial.

We find in this laboratory study the predicted interaction effect of inter-team conflict and intra-team power structure on intra-team power struggles, the predicted negative association between intra-team power struggles and team performance, and an indirect effect of inter-team conflict on team performance through intra-team power struggles. One may therefore expect to also find a direct effect of inter-team conflict and intra-team power structure on team performance. However, the direct effect in this laboratory study did not reach significance¹³. Yet, our findings (i.e., the interactive effects on our mediator, effects

¹³ A possible reason for this is that there are other factors outside of our model that have influenced the performance of teams on the decision task, such as individual differences in social value orientation (e.g.,

of our mediator on our dependent variable, and indirect effects from our independent variable through our mediator on the dependent variable) suggest that rather being non-existent, the direct interactive effects are relatively weak in this setting (e.g., Hayes, 2009; Rucker et al., 2011). Because field studies tend to provide stronger effects than laboratory experiments when it comes to team research (LePine, Piccolo, Jackson, Mathieu, & Saul, 2008; van Dijk, van Engen, & van Knippenberg, 2012), another advantage of replication in a field study is that it would give us a stronger test of the performance effects of inter-team resource conflict and power struggles. To address these limitations of Study 1, we conducted a second study in a field setting with pre-existing organizational teams. In addition, we employ in this field study a more general measure of team power structure, namely perceived power structure rather than formal power structure. Therefore, Study 2 allows for replication, as well as a test of generalizability and potentially stronger (direct) effects.

Study 2

Methods

Participants

In this study, we test our hypotheses regarding the consequences of inter-team conflict on intra-team power struggles and performance in a field study. Our sample included 158 pre-existing teams (1809 employees) of a Dutch health insurance corporation¹⁴. The average team contained 11.45 ($SD = 6.11$) members. The average age of the participants was 42.81 years ($SD = 9.66$), and 45.4% of participants were male. The

Beersma & De Dreu, 1999) and epistemic motivation (De Dreu, Beersma, Steinel, & Van Kleef, 2007). Indeed, the total effect on a dependent variable is the sum of many different paths of influence, direct and indirect, not all of which may be part of the formal model (Hayes, 2009). Therefore, several methodologists have argued for the importance of assessing indirect effects, also in the absence of direct effects (Hayes, 2009; Rucker et al., 2011).

¹⁴ We used as inclusion criteria a minimal team response rate of 50 percent and availability of team performance ratings. This allowed us to include 72 percent of the teams in the company (our survey went out to all teams).

participating teams came from all departments in the insurance company (e.g., care-purchase, commerce, customer service, human relations, information technology, marketing, sales, staff) and executed a wide variety of tasks, including signing contracts with caregivers (e.g., hospitals, clinics and general practitioners), customer acquisition (private and companies), solving customer-related problems, and handling reimbursements.

Procedure

To assess the variables in our study, we had access to multi-source data, including surveys distributed to managers and employees. Inter-team conflict, intra-team hierarchy and intra-team power struggles were rated by team members, whereas team performance was rated by managers.

Measures

Our survey items utilized a 1-5 Likert scale, with 5 indicating high agreement.

Inter-team conflict. Inter-team conflict was measured with three items (e.g., “My team experiences conflict with other teams” and “My team experiences competition with other teams about the allocation of valued resources, such as budget, personnel, or prestige”). The scale exhibited sufficient internal reliability ($\alpha = .74$).

Intra-team power structure. Intra-team power structure was measured with seven items [e.g., “In my team, there is a clear distance between the top and the bottom of the hierarchy” and “There are virtually no differences in authority between the members of my team” (reverse coded)]. The scale exhibited sufficient internal reliability ($\alpha = .84$).

Intra-team power struggles. We measured power struggles with three items (e.g., “I have disagreements with other team members about who has control in the team” and “I have disagreements with other team members about who can take decisions”), based on the

scale of Greer and Van Kleef (2010). The scale exhibited sufficient internal reliability ($\alpha = .84$).

Team performance. To assess team performance, we had each manager rate his or her team's performance on the basis of four items (e.g., "I believe this team performs well at work," and "This team is effective in getting things done in time"), previously used by Greer, Caruso, and Jehn (2011). This scale exhibited sufficient internal reliability ($\alpha = .84$).

Control variables. To rule out possible alternative explanations for our results, we controlled for team size, gender composition (standard deviation), and intra-team goal interdependence. Team size could affect our results in several ways. Team size has been argued to negatively affect team processes (Hare, 1981; Mueller, 2012), including the degree of (power) conflicts (e.g., Amason & Sapienza, 1997; Edmondson, 1999). Team size has also been argued to relate to hierarchy, as larger teams tend to have higher coordination demands (Mueller, 2012; Staats, Milkman, & Fox, 2012). Thus, we want to exclude the possibility that a relationship between hierarchy and power struggles reflects a team size effect. Gender composition may also affect intra-team processes, specifically those related to hierarchy and power (Greer & Bendersky, 2013; Hays, 2013), as men and women tend to value and especially handle power differently (Hays, 2013; Mann, 1995). Intra-team goal interdependence is the extent to which members are dependent on one another to achieve their goals, which is known to affect how members interact with one another, their degree of cohesiveness and their performance (e.g., Beersma, Hollenbeck, Humphrey, Moon, Conlon, & Ilgen, 2003) – all of which could alter our results. Goal interdependence was manager-rated and assessed via two items ("Team members receive feedback based on the performance of the team" and "Team members are informed about

the goals they need to achieve as a team”), which had sufficient reliability ($r = .45, p < .001$).

Analysis

To test the appropriateness of conducting our analyses at the team-level (Klein & Kozlowski, 2000), we calculated intra-class correlations (ICCs) and inter-rater agreement (r_{wgs}) (LeBreton & Senter, 2008). In our sample, all F -tests were significant, and all ICCs and r_{wgs} were sufficient to aggregate our data to the team level of analysis (inter-team conflict: ICC[1] = .13; ICC[2] = .63; $r_{\text{wg}} = .78$; intra-team hierarchy: ICC[1] = .17; ICC[2] = .70, $r_{\text{wg}} = .85$; and intra-team power struggles: ICC[1] = .15; ICC[2] = .67; $r_{\text{wg}} = .82$) (LeBreton & Senter, 2008).

Results

Means, standard deviations, and correlations are presented in Table 5. To test our hypotheses, we used hierarchical regression analysis. Independent variables were centered before creating interaction terms (Aiken & West, 1991).

In Hypothesis 1, we proposed that there would be an interaction effect between inter-team conflict and intra-team power structure on intra-team power struggles, such that inter-team conflict would be positively related to intra-team power struggles in more hierarchical teams and negatively related to intra-team power struggles in more egalitarian teams. This hypothesis was partly supported. There was an overall significant interaction effect of inter-team conflict and intra-team power structure on intra-team power struggles ($\beta = .15, t = 2.14, p = .03$; see Table 6). The adjusted explained variance [Adj. $R^2 = .33$] and the change in adjusted explained variance [$\Delta R^2 = .02$] are comparable with other research on intra-team dynamics (cf. Chun & Choi, 2014; Schippers, Den Hartog, Koopman, & Wienk, 2003; Steward & Barrick, 2000). Following the procedure of Aiken

and West (1991), we examined the simple slopes of this interaction at values one standard deviation above and below the moderator values. We found that inter-team conflict was positively related to intra-team power struggles when teams had a more hierarchical power structure ($\beta = .26, t = 3.40, p = .001$), but was not related to intra-team power struggles when teams had a more egalitarian power structure ($\beta = .05, t = 0.54, p = .59$, see Figure 3).

In addition, we also did find in this field study a direct interaction effect of inter-team conflict and intra-team power structure on team performance (Adj. $R^2 = .23, \Delta R^2 = .02$; see Table 6). When we examined the simple slopes, we found that inter-team conflict was negatively related to team performance when perceived hierarchy was high ($\beta = -.47, t = -3.61, p < .001$), but not when it was low ($\beta = -.07, t = -0.48, p = .63$, see Figure 4).

Table 5. Means, Standard Deviations, and Correlations (Study 2)

Variable	M	SD	1	2	3	4	5	6
1. Team Size	11.45	6.11						
2. Gender SD ^a	0.38	0.20	-.01					
3. Goal Interdependence	4.10	0.54	.00	.02				
4. Inter-team Conflict	2.62	0.40	-.01	.06	-.09			
5. Intra-team Hierarchy	2.80	0.34	.05	.14	-.20*	.37**		
6. Intra-team Power Struggles	1.94	0.38	.03	-.03	-.13	.36**	.54**	
7. Team Performance	3.88	0.60	.08	-.02	.40**	-.28**	-.23**	-.30**

N= 158

^a gender was coded as male=0, female=1

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

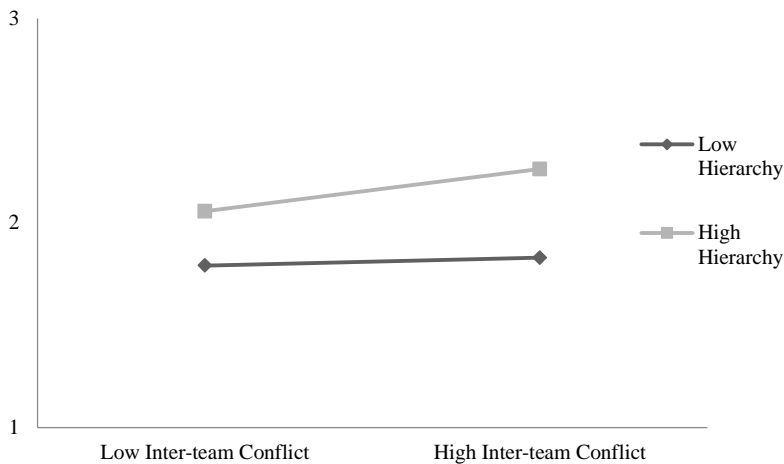
Table 6. Results of Regression Analysis (Study 2)

Variable	Power Struggles		Performance		
	Step 1	Step 2	Step 1	Step 2	Step 3
Controls					
Team Size	.01	.02	.08	.07	.08
Gender	-.11	-.09	-.00	-.02	-.04
Goal Interdependence	-.02	-.00	.37**	.35**	.35**
Inter-team Conflict	.19**	.16*	-.21**	-.18*	-.15
Intra-team Hierarchy	.48**	.46**	-.08	.06	.02
Conflict x Hierarchy		.15*		-.17*	-.15*
Power Struggles					-.17*
R ²	.34	.35	.23	.26	.28
Adjusted R ²	.31	.33	.21	.23	.25
Change in R ²	.34	.02	.23	.03	.02
Overall F	15.30**	13.81**	9.28**	8.88**	8.34**
df	4, 152	5, 151	5, 152	6, 151	7, 150

N= 158

Note. Standardized beta coefficients are presented. * $p < .05$. ** $p < .01$

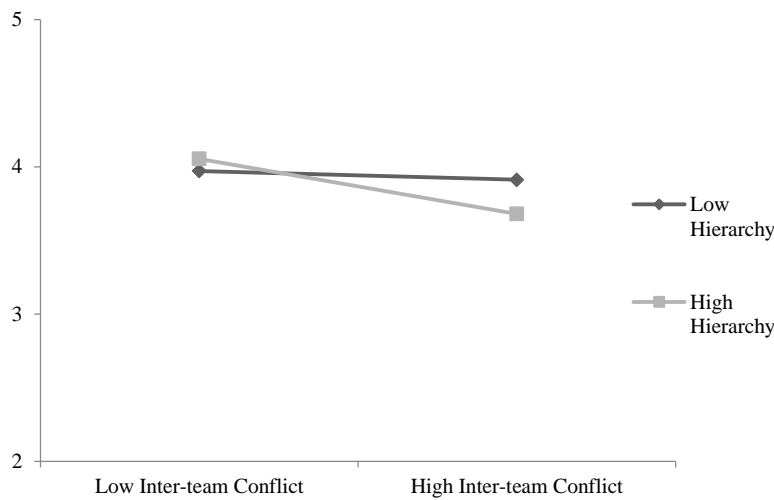
Figure 3. Interactive effects of Inter-team Conflict and Intra-team Power Structure on Intra-team Power Struggles (Study 2)



In Hypothesis 2, we proposed that intra-team power struggles would be negatively related to team performance. This hypothesis was supported ($\beta = -.17, t = -2.00, p = .047, \text{Adj. } R^2 = .25$).

Lastly, in order to test Hypothesis 3, we tested for moderated mediation with bootstrapping using the PROCESS macro (Model 7) with 5000 repetitions by Hayes (2013). We found support for indirect moderated mediation, as there was a negative relationship between inter-team conflict and team performance via intra-team power struggles when perceived intra-team hierarchy was high ($b = -.08$; Bias and accelerated 95% CI: -0.18, -0.01) and moderate ($b = -.05$; Bias and accelerated 95% CI: -0.11, -0.01), but not when perceived intra-team hierarchy was low ($b = -.01$; Bias and accelerated 95% CI: -0.07, 0.03).

Figure 4. Interactive Effects of Inter-team Conflict and IntraTeam Power Structure on Team Performance (Study 2)



Discussion Study 2

In this multi-source field study of teams working in a health insurance organization, we replicate most of our findings of Study 1. Similarly to Study 1, we find that inter-team conflict is associated with performance-detracting intra-team power struggles in teams with a hierarchical power structure, but not in teams with an egalitarian power structure. We find this while looking at a different operationalization of intra-team power structure, and now also in the field context, lending support to the generalizability and replicability of the findings in our first experimental study. Additionally, we now also find a direct effect of inter-team conflict and intra-team power structure on team performance, in line with other research showing that such effects in teams research are stronger in the field than in the lab (LePine et al., 2008; Van Dijk et al., 2012).

Although we replicate the key findings of our lab study in this field study— inter-team conflicts can tear apart hierarchical, but not egalitarian, teams – we do not find the predicted negative association between inter-team conflict and intra-team power struggles in egalitarian teams (which we do find in our lab study). This divergence in findings may be because in our field study none of the teams was perceived as completely egalitarian by its members (minimum *M*-score was 1.9 on a 5-point likert scale), which is not surprising considering that all teams had a manager. It may be that in order to find a negative relationship between inter-team conflict and intra-team power struggles, the power structure within a team needs to be completely egalitarian and not just less hierarchical. Indeed, most studies documenting the benefits of inter-team conflict for internal team interactions were done in short-term, experimental settings (e.g., Bornstein, 1992; Mulvey & Ribbins, 1999; Rabbie, Benoist, Oosterbaan & Visser, 1974), where maintaining complete equality is feasible. The only two (quasi-experimental) field studies (Erev et al.,

1993; Sherif et al., 1953, 1961, 1966) that found inter-team conflict to benefit intra-team dynamics (respectively decreased free-riding and increased intra-team affiliation) were done with high school boys in short-lived teams, which makes them similar to our laboratory study with undergraduate students. To conclude, the findings of our field study with ongoing organizational teams do not contradict previous findings (of our laboratory study or other studies) nor are they necessarily unsupportive of our hypotheses. Rather, they show the strict contingency of power structure as a moderating variable for the relationship between inter-team conflict and intra-team power struggles. That is, in order to find full support for our first hypothesis (a full cross-over effect), teams need to have a true egalitarian structure. When that is not the case, we show across both studies that inter-team conflicts will promote performance-detracting power struggles, with these effects being enlarged by the strength of the internal team power hierarchy. Together, our studies provide an important redirection of the inter-team conflict literature, showing that inter-team conflicts have just as much, if not more, potential to tear teams apart.

General Discussion

Inter-team conflicts have often been argued to encourage intra-team cooperation and resource sharing (e.g., Brewer, 2001; Campbell, 1965, 1972; Coser, 1977; Dahrendorf, 1969; Simmel, 1955; Sherif, 1966; Stein, 1976; Tajfel, 1982). However, other research suggests that inter-team conflict also has the potential to spill-over into the intra-team domain (e.g., Jehn et al., 2013; Keenan & Carnevale, 1989; Sassenberg et al., 2007; Smith, 1989). In our paper, we aim to make sense of these seemingly contradictory expectations for the impact of inter-team conflict on intra-team dynamics. Based on an extensive review of the literature, we note that the literature showing that inter-team conflicts promote resource-pooling only reflects studies conducted in the context of egalitarian teams (e.g.,

Bornstein, 2003; Halevy et al., 2011; Sherif et al., 1962; Van Vugt et al., 2007). Given the ubiquity of power hierarchies, especially in organizational settings (Magee & Galinsky, 2008), teams facing an inter-team conflict may more often than not have a hierarchical power structure, and in such situations, we proposed, and found, that conflict spill-over effects may be more likely to apply. Namely, we show across two studies (a laboratory study involving a three-person intra-team negotiation, and a field study of pre-existing organizational work teams) that when hierarchical teams are impacted by an inter-team conflict, they are likely to implode into performance-detracting internal power struggles. When teams have a more egalitarian structure on the other hand, our results show that the negative effects of inter-team conflict on intra-team dynamics are attenuated. Specifically, our field study shows that when teams have a less hierarchical structure (i.e., are relatively more egalitarian) the relationship between inter-team conflict and intra-team power struggles is alleviated, and our laboratory study shows - in line with previous experimental research (e.g., Benard, 2012; Bornstein, 2003; De Dreu et al., 2010; Halevy et al., 2011), that when teams have a completely egalitarian structure, inter-team conflict even reduces intra-team power struggles.

Theoretical Implications

The first and primary goal of our research was to reconcile two seemingly opposing views on the impact of inter-team conflict on intra-team dynamics (i.e., whether resource-threatening inter-team conflicts unite or divide teams internally). We theorized and found that the internal power structure of teams can determine when each of these two lines of research is more likely to apply, thereby integrating past divergent theories on the impact of inter-team conflict on intra-team dynamics. Our research has several implications for the intergroup conflict literature in general (e.g., Benard, 2012; Bornstein,

2003; Campbell, 1965, 1972; Coser, 1977; Sherif, 1966), and organizational research on inter-team conflict more specifically (e.g., Baldrige, 1971; Blake et al., 1964; Kramer, 1989). Most importantly, our theory postulates that inter-team conflict can induce power struggles in teams with a hierarchical power structure. In hierarchical teams, members are qualitatively differently impacted by the imposed resource threat, creating different individual concerns and individualistic coping-behavior in response to inter-team conflict. This implies that in other situations in which team members would not be equally affected by a resource-threatening inter-team conflict, such inter-team conflict could also result in power struggles. One can think of functionally diverse teams, where different resources may be important for different expertise, and where some expertise is more valued than others resulting in unequal access to team resources. When these sorts of teams are confronted with an inter-team conflict, the same processes and dynamics may come into play as in hierarchical teams. As such, our findings offer important implications for the study of inter-team conflict, including recognizing that teams prone to conflicts (e.g., hierarchical or diverse teams) are likely to experience internal conflict in the face of inter-team conflict, and thereby providing a strong counter-point to the prevailing wisdom that inter-team conflicts unites teams internally.

By demonstrating that inter-team conflict may cause intra-team power struggles, and as such that conflict may spill-over from the inter-team to the intra-team domain, we expand theory and research on conflict spill-over (Jehn et al., 2013; Keenan & Carnevale, 1989; Sassenberg et al., 2007; Smith, 1989). Hitherto most research on conflict spill-over (also coined conflict carry-over or conflict contagion) has examined how conflict may spill-over from member-dyads to the whole team (Jehn et al., 2013), from the team to the inter-team context (Keenan & Carnevale, 1989; Sassenberg et al., 2007), and has largely

argued an adopted competitive mind-set to be the cause of such a spill-over effect (Deutsch, 1969; Keenan & Carnevale, 1989; Pruitt & Rubin, 1986; Sassenberg et al., 2007). Our study extends this work by showing that the reverse may also hold, conflict between teams may also “spill over” to conflicts within teams, i.e., between members of the same team. We theorize that the underlying mechanism of this effect is the resource threat that is imposed by the inter-team conflict, which may be fended off either collectively and individually. Further, in line with past theories on conflict spill-over, we argue that the latter becomes more likely due to the competitive mind-set that is engendered by a conflictual situation. In short, our research shows that conflicts may not only spread from lower levels to higher levels, but also vice versa. This implies that for instance conflicts at the inter-organizational level may lead to conflicts at the intra-organizational level, and that conflicts at the departmental-level may lead to inter-team conflicts and/or intra-team conflicts. As such, conflicts may spread in multi-directions and are difficult to contain, which may in part explain the intractability of most conflicts.

By showing that intra-team power structure is a key moderating factor of the effect of resource-threatening inter-team conflict on intra-team power struggles, we also contribute to the growing literature on power hierarchies in teams (e.g., Halevy et al., 2012; Ronay et al., 2012; Tarakci et al., 2015; Van der Vegt et al., 2010). While researchers have advocated for the benefits of power hierarchies in teams (Anderson & Brown, 2010; Halevy et al., 2011; Magee & Galinsky, 2008), we add nuance to this line of work by identifying a situation in which the functionality of having an internal power hierarchy may be limited. Although we by no means deny that power hierarchies can at times be advantageous for team functioning, our research suggests that a power hierarchy may also harm team functioning in teams facing a resource-threatening inter-team conflict.

Hierarchical structures introduce inequity in resource control between members, which seems to backfire (i.e., ignite competitive power striving behaviors) in situations where resources are under pressure – in competitive, power-hungry high-power teams (Greer & Van Kleef, 2010), or as we show here, in inter-team conflict. That is, our results show that the power inequity in hierarchical teams becomes challenged when inter-team conflicts threaten the internal resources of teams. Other situations which also put a strain on a team's resources, like economic downturns or declines, budget cuts or intense competition from rival teams and companies (Hills & Mahoney, 1978; Salancik & Pfeffer, 1974), may also limit the benefits of hierarchy and may instead lead members to challenge the internal inequities regarding resource control inherent to hierarchical teams. However, future research needs to determine whether hierarchy is for teams indeed detrimental in situations of resource scarcity. Together, our research offers important implications for current thought on power hierarchies, including the importance of realizing that a power hierarchy may be a double-edged sword. Power hierarchies are not a universally functional solution, and it is therefore critical to understand the context of the team (such as the scarcity or abundance of resources) before advocating for the benefits of such hierarchical team power structures.

Finally, by looking at the conditional precursors of power struggles in teams, we contribute to the growing literature on power dynamics in teams (e.g., Aime et al., 2013; Greer & Van Kleef, 2010; Hays & Bendersky, 2015), which has hitherto predominantly focused on cooperative intra-team power dynamics (Aime et al., 2014; DeRue & Ashford, 2010; Humphrey & Aime, 2014). We provide an important investigation of competitive power dynamics, including identifying their source in the interaction of the inter-team setting and the internal team power structure. Our findings on the spill-over of inter-team

conflict to internal team power struggles are in line with conflict spill-over theory (e.g., Jehn et al., 2013; Keenan & Carnevale, 1989; Sassenberg et al., 2007), and we extend this literature by showing that the competitiveness of the external environment is more likely to spill-over to the internal environment when the latter is characterized by an inequitable power structure (Georgesens & Harris, 2006; Pettit et al., 2009; Solomon, 1960; Tjosvold, 1981). When members of teams in which power is unequally distributed (i.e., the power structure of the team is hierarchical) are confronted with a resource-threatening inter-team conflict, they are differently impacted, and therefore inclined to fend this threat off individually by securing their own individual resources (i.e., engaging in power struggles). As such, our research has implications for the study of power dynamics in teams, including the importance of understanding what contextual (external resource threats, such as caused by inter-team conflicts, but which may also be caused by for instance economic declines or overall weak performance of the organization) and internal factors (the internal power structure) can lead individuals to compete for power. One would assume that when teams have other external or internal factors that would increase an individual-focus towards self-protection, such as when teams with low interdependence operate in an uncertain environment, power struggles may also ensue. Shedding a greater light on the emergence of this relatively understudied but ubiquitous phenomenon of power struggles has important implications for both research and practice.

Limitations and Future Directions

We have based our conclusion on the largely converging findings that our laboratory and field study provide, as the primary basis for conclusions are findings that

replicate over studies¹⁵. However, as already discussed in-depth in the discussion section of Study 2, we do note two differences between the results of our laboratory study and our field study. The first concerns the related issues of the difference in direct interactive effects of inter-team conflict and intra-team power structure on team performance, and the relative strength of explained variance at the model level, which may well be explained by the known difference between lab and field studies (i.e., effects tend to be weaker in the lab than in the field; LePine et al., 2008; van Dijk et al., 2012). The second concerns the difference in the level of attenuation of the relationship between inter-team conflict and intra-team power struggles in teams with an egalitarian power structure. We believe the explanation for this is straightforward and fully in line with our conceptual analysis: only in Study 1 with short-lived student teams, a true egalitarian power structure could exist. Power structure is not a dichotomy but a continuum (i.e., teams are not hierarchical or egalitarian, but they are relatively more hierarchical or relatively more egalitarian; cf. Bunderson, van der Vegt, Cantimur, & Rink, 2016), and in the field we were not dealing with truly egalitarian teams but with more and less hierarchical teams. The conclusion that is in line with our theory would then be that inter-team conflict only reduces intra-team power struggles in very egalitarian teams, is unrelated to power struggles in teams that are not egalitarian but low on hierarchy, and promotes power struggles in more hierarchical teams. However, it must be noted that this is a post hoc interpretation and future research

¹⁵ First, there is the value of replication per se; findings that replicate are less likely to be chance findings. Second, findings that replicate over studies relying on different methods cannot be attributed to the specifics of any particular study, arguing against methodological artifacts. Third, the conservative nature of hypothesis testing implies that significance is more informative than nonsignificance given that there is a far greater likelihood that the latter is attributable to chance than that the former is attributable to chance. Fourth, we cannot test differences between studies. Findings that replicate lead to the same conclusion and at least at the level of the conclusion do not require testing across studies; for reliable conclusions, however, findings that appear to differ between studies would require further testing to determine whether they do significantly differ (i.e., significant in the one study and nonsignificant in the other does not automatically mean the relationships differ significantly). For all these reasons, differences between studies can be a valuable basis for speculation, but core conclusions should be based on replication across studies.

that would map these different outcomes in one study rather than across studies would be valuable.

With our laboratory experiment we provide causal evidence for the hypothesis that intra-team power structure is the key mechanism that causes inter-team conflict over resources to spill-over into intra-team power struggles. We have argued that hierarchical power structures cause this effect, because power differentiation causes members to be differently impacted by a resource-threatening inter-team conflict. This makes members of hierarchical teams primarily focus on the individual-level implications of the resource threat, and therefore focused on protecting or improving their own (power) position in the light of an inter-team conflict. One may wonder whether the combination of inter-team conflict and intra-team power structure also affects other team processes, for instance processes related to team cohesiveness, and whether such processes are the more proximal cause of power struggles (i.e., less cohesive teams engage in more power struggles). There is no strong theory, however, to expect that less cohesiveness would result in power struggles, and we are in the position to rely on experimental evidence for the interaction effect of inter-team conflict and intra-team power structure to base conclusions regarding causality. Whereas the current conclusions thus stand as they are, we do recognize the value of future research exploring the effects of inter-team conflict and intra-team power structure on other team processes.

We find across two studies converging evidence for our theory that inter-team conflict may stimulate internal power struggles in teams with hierarchical power structures. There may be moderators that amplify or mitigate these effects. For instance, the relative power balance between the two teams may influence the relationship between inter-team conflict and intra-team power struggles in hierarchical teams. In both our

laboratory and our field study we did not explicitly consider the power balance *between* teams. However, in both cases it may be assumed that the inter-team conflicts were symmetrical, meaning that there was no difference in power *between* the teams, as in our experimental setting there was no reason to believe the conflict was asymmetrical, and in organizational settings teams are arguably more prone to get into conflict with other equally powerful teams. Even so, based on our theory, we would predict that when there is an asymmetrical conflict, and a hierarchical team is in the low power position, intra-team power struggles are aggravated, as the resource threat becomes more severe. If a hierarchical team is in the high power position, and has confidence in the victory, the resource threat is smaller, which may mitigate the relationship between inter-team conflict and intra-team power struggles in hierarchical teams. However, now that the intra-team resource pool is likely to get expanded, members may also try to improve their position in order to improve their chances of getting a larger piece of the pie. We would not expect there to be a difference between the underdog or top dog-position in egalitarian teams, as the mechanism we describe for these teams (i.e., a common fate stimulates a team focus and thus unification) still applies. Future research would benefit from taking the power-balance of the teams involved in the inter-team conflict into account.

Considering team-level moderators, such as intra-team power structure stability and legitimacy would also be interesting. When the power structure is less stable (more mutable), power struggles have been found to be more likely (Hays & Bendersky, 2015; Mead & Maner, 2012). We expect that inter-team conflict may further intensify power dynamics in teams with an unstable power structure (both hierarchical and egalitarian), as it further pressures the situation. Similarly, when the power structure is considered illegitimate by team members, actions aimed at changing the existing power hierarchy are

more common (Martorana, Galinsky & Rao, 2005). We predict inter-team conflict to exacerbate power struggles in teams with an illegitimate power structure, as it highlights the intra-team power structure, and as such the illegitimacy of the power structure. Also, in addition to nonlinearity at the lower end of the hierarchical power structure spectrum, it is also possible that when there is a very clear and strong hierarchical power structure - a prototypical example would be the military - there are also less power struggles. Such strong hierarchical power structures are presumably less common in the organizational context, but it is good to realize that the relationship between hierarchy and power struggles may be nonlinear when considered across the full range of hierarchical power structure even when many organizational contexts may only show a (mid-range) linear relationship. Future research would benefit from examining these types of boundary conditions.

Other potentially interesting moderators would be the source and intractability of the inter-team conflict. Our theory refers explicitly to inter-team conflicts based on scarce resources, which are indeed very prevalent in organizations (Kramer, 1991). However, our theory may also apply to other types of inter-team conflict (e.g., ideological, strategic), as all conflicts put a press on internal team resources. That is, when a team gets into a conflict with another team, internal team resources, such as money, time, and energy need to be expended towards the conflict. We thus expect other types of inter-team conflicts to lead to similar intra-team dynamics as inter-team conflicts about scarce resources, albeit to a lesser extent. This is because in inter-team conflicts about resources the threat to internal team resources is more explicit and poignant, and therefore likely more powerful in its effects. The intractability of the inter-team conflict may also affect the way in which inter-team conflict relates to intra-team dynamics. One can imagine that when inter-team conflicts are

intractable, and chances of conflict resolution slim, internal turmoil increases – regardless of the intra-team power structure. This is because members will get frustrated with the inter-team conflict and likely take it out on one another. Taking these types of characteristics of inter-team conflict into account are promising avenues for future research.

Related to this, in our study we focused on inter-team conflicts rather than inter-team competition. There is much overlap between competition and conflict at a theoretical level in the literature (in particular resource conflicts), and in many instances these terms have been used interchangeably (Bornstein, 2003; Halevy, Bornstein, & Sagiv, 2008; Maner & Mead, 2010). For instance, Realistic Group Conflict Theory defines inter-team conflict as competition between teams over scarce resources due to incompatible needs (Sherif et al., 1953, 1961, 1966). Deutsch (1973) has defined competition as people or teams believing that their goals are negatively related, so that one's successful goal attainment makes others less likely to reach their goals – which is very similar to the definition of resource conflict. However, attempts have been made to tease the two apart (for an overview, see Fink, 1968; Schmidt & Kochan, 1972). For instance, conflict has been argued to be a subset of competition (Boulding, 1963; Laswell, 1931), and to have less clear rules and regulated behaviour than competition (Fink, 1958; Mack, 1965). In terms of behaviour, competition has been argued to involve parallel striving, whereas conflict involves mutual interference (Fink, 1958; Ross, 1930). Therefore, an example of pure competition (without conflict) would be an intra-organizational contest that rewards the team that has the most creative idea for a new company slogan. What is essential though in terms of our theory is that such competitions tend to evoke less of an explicit resource threat to the team and its members, and therefore our theory may be less

applicable in such situations. However, it would be interesting for future research to examine the extent to which inter-team competition and inter-team conflict elicit similar intra-team dynamics.

In our paper we focus on power struggles rather than status conflicts. Although power and status are closely related constructs, which tend to feed into each other, there are some notable differences (Magee and Galinsky, 2008). The same holds for power struggles and status conflicts (e.g., Hays & Bendersky, 2015). Whereas power struggles are competitions over resource control (Greer & Van Kleef, 2010), status conflicts are disputes over people's relative status (i.e., respect) positions in their group's social hierarchy (Bendersky & Hays, 2012). While these two types of conflict certainly co-vary, we focus here on power struggles, as power struggles are more proximate to both our independent variable (inter-team resource conflict) as our moderating variable (intra-team power structure). That is, we expect that members of teams where resource control is unequally distributed find themselves in a situation in which their team's resources are threatened (by an inter-team resource conflict) to be more likely to start to compete for resource control, than to start to fight for respect. It could well be that status conflicts occur as a secondary process, for instance as a result of shifting power within the team, but to examine this was outside of the scope of the current paper. Further research would however benefit from looking at the interplay between power struggles and status conflicts.

Last, our research focused on how inter-team conflict affects intra-team power dynamics contingent on the intra-team power structure. We have shown that a hierarchical power structure may be less functional when inter-team relations are tensed, as it can prompt intra-team power struggles. However, we have not examined how this may feed

back into the inter-team context. In other words, we do not know whether the intra-team power structure affects inter-team behavior. Hierarchical teams might perform worse in an inter-team conflict because members are less willing to cooperate and join forces against the other team. However, members of hierarchical teams may also get even more competitive towards the other team, due to the competitive power dynamics within the team. Further exploring these cross-level effects will help gain insights into how and when conflicts spill-over back and forth across levels.

Practical Implications

Teams are increasingly important for organizations. In order to capitalize on teams, intra-team dynamics need to be cooperative and members focused more on the team than on their own individual gain. However, as organizations increasingly rely on teams, this means that teams often operate in a multi-team environment, in which they may come into conflict with other teams over scarce organizational resources. Our findings suggest that when teams operate in competitive inter-team environments, equipping them with a hierarchical power structure may have detrimental effects for team functioning. Therefore, when teams are required to function in competitive inter-team settings, structuring teams in a more egalitarian manner can help prevent negative intra-team dynamics that stand in the way of effective team performance. Similarly, given that inter-team conflict is one instantiation of resource scarcity, our research suggests that in other situations that threaten teams' resources, such as economic downturns, budget cuts, or degenerating organizational performance, teams would also be better off having a more egalitarian power structure. The recent advent of holacracy (i.e., removing power from a management hierarchy and distributing it across clear roles, Robertson, 2015) provides one example of how organizations can structure teams internally when teams have to regularly interface with

other teams in the organization. When flattening the hierarchy is not feasible, organizations should consider to strongly discourage inter-team conflicts, so that internal power competitions are reduced.

Conclusion

Inter-team conflicts have been argued to both encourage members to internally share resources, as well as to fight over resources. Our findings contribute to theory and practice by synthesizing these two contending views through the introduction of the internal power structure of teams as a key moderator. We show that inter-team conflicts can bring together members of teams with an egalitarian power structure, but tear apart teams with a hierarchical power structure by promoting performance-detracting intra-team power struggles.

Appendix. A Review of Papers that Examine the Impact of Inter-team Conflict on Intra-team Dynamics.

Study	Setting	Power Structure	Findings
Benard (2012)	Team game: Intergroup Prisoner's Dilemma (IPD) game (N=120-144)	Equality.	Increase in norm enforcement (punishment of non-contributors) and contribution (cooperation) (bot marginal). Increase in leadership-support only when the other team contributes at a high level).
Bornstein (1992)	Team game: Intergroup Public Goods (IPG) and Intergroup Prisoner's Dilemma (IPD) (N=180; in teams of 3)	Equality	More intra-team cooperation in IPG than in IPD-games; within-team discussion is also more effective in IPG than in IPD.
Bornstein & Ben-Yossef (1994)	Team game: Prisoner's Dilemma Game (PD) contrasted with Intergroup Prisoner's Dilemma Game (IPD) (N=90)	Equality	Increase in intra-team contribution (cooperation).
Bornstein, Budescu, & Zamir (1997)	Team game: Various (inter-team, n-person, and two-person) chicken games in teams of 2 and 4 (N=100, team of 2 and 4)	Equality	Increase in intra-team competition.
Bornstein & Erev (1994).	Social Dilemma (intra-team and inter-team) and field (dyads in orange grove) experiment (N=90)	Equality.	Increase in intra-team contribution (cooperation) & team performance.
Bornstein, Gneezy, & Nagel (2002)	Minimal-effort game (Van Huyck et al., 1990) (N=210, teams of 7)	Equality	Increase in intra-team coordination
Bornstein & Rapoport (1988)	Team-game: Intergroup Public Goods (IPG) (N=96, in teams of 3)	Equality	Within-team pre-play discussion increases intra-team contribution (cooperation).
Bornstein, Rapoport, Kerpel & Katz (1989)	Team game: Intergroup Public Goods (N=240, teams of 3)	Equality.	Within-team pre-play discussion maximizes intra-team contribution.
De Dreu et al. (2010)	Team game: IPD-MD game (N=49-75)	Equality	Increase in intra-team trust and cooperation due to oxytocin.
Erev, Bornstein & Galili (1993)	Field experiment: Orange picking (N=48, teams of 4)	Equality	Reduction in free-riding.
Goldman, Stockbauer, & McAuliffe (1977)	Anagram tasks (N=128 participants; in teams of 2)	Equality	Decrease in team performance
Gunnthorsdottir & Rapoport (2006)	Team game: Prisoner's Dilemma Game (PD) contrasted with Intergroup Prisoner's Dilemma Game (IPD) (N=112)	Equality	Increase in intra-team contribution (cooperation).
Halevy, Weisel, & Bornstein (2011)	Team game: Intergroup Prisoner's Dilemma (IPD) contrasted with Intergroup Prisoner's Dilemma Maximizing Difference (IPD-MD-game) (N=240)	Equality	Increase in intra-team contribution, especially when pre-play communication was allowed.

Julian & Perry (1967)	2 essay questions individually answered (N=157, teams of 4)	Equality	Increase in motivation, quantity and quality of overall team performance.
Maner & Mead (2010)	77-160 participants got assigned the leadership role in an ostensibly team task.	Leader	Increase in high dominant leaders' perceptions of intra-team affiliation and decrease in perception of intra-team threat. More likely to place threatening member in director role.
Mead & Maner (2012)	87-124 participants got assigned the leadership role in an ostensibly team task.	Leader	Decrease in perceived intra-team threat and increase in seeking proximity to threatening member of highly dominant leaders.
Mulvey & Ribbins (1999)	LEGO-task (N=351, in teams of 3)	Equality	Increase in team efficacy, goals, and productivity and decrease in inefficiency.
Rabbie & Wilkens (1971)	Building a tower (N=72, teams of 3)	Equality	Increase in differentiated leadership structure and consensus over the distribution of influence in the team. No greater intra-team solidarity or over-evaluation product.
Rabbie, Benoist, Oosterbaan & Visser (1974)	Labor-management negotiation simulation (N=123, teams of 3)	Equality	Increases in cohesiveness, collaboration and performance (for powerful teams); more focus on task instead of socioemotional relations.
Rapoport & Bornstein (1989)	Team-game: Intergroup Public Goods (IPG) (N=208, in teams of 3 and 5)	Equality	Within-team pre-play discussion does not necessarily increase intra-team contribution and team performance.
Rapoport, Bornstein, & Erev (1989)	Team-game: Intergroup Public Goods (IPG) (N=72, in teams of 3)	Hierarchy	Intra-team endowment differences decreases the likelihood of contribution.
Rempel & Fisher (1997)	Intergroup conflict simulation (ICS, Fisher et al., 1990) (N=128, in teams of 4)	Equality	Decrease in problem-solving effectiveness when perceived threat and/or intra-team cohesion increased
Sherif et al. (1953, 1961, 1966)	Simulated camp environment (quasi field-experiment) (N=24 participants, in 2 teams)	Equality	Increase in intra-team solidarity, attraction, cohesion, pride and emergent leadership.
Van Oostrum & Rabbie (1995)	Laboratory organization: reach agreement on a product (N=96, teams of 6)	Autocratic vs Democratic leadership.	Increase in task satisfaction (marginal) and self-reported performance. No interaction between leadership structure (democratic vs autocratic) and inter-team setting reported.
Van Vugt and Spisak (2008)	Step-level public-goods game (investment task) (N=50)	Leadership	Preference for male over female leaders.
Van Vugt, De Cremer, & Janssen (2007)	Step-level public-goods game (N=90-120)	Equality.	Increase in male contribution, not in female contribution.

CHAPTER 3

WHY AND WHEN UNCERTAINTY TEARS TEAMS APART: UNCERTAINTY IGNITES PERFORMANCE-DETRACTING POWER STRUGGLES IN TEAMS WITH LOW OUTCOME INTERDEPENDENCE

Abstract

Organizational teams operate in increasingly uncertain environments. Although much is known about how individuals cope with uncertainty, research has yet to understand how individuals within organizational teams collectively react to uncertainty, and what this means for team dynamics and outcomes. We integrate and extend individual-level theories of uncertainty, which posit that uncertainty invokes an aversive feeling of a lack of control, and theories of power, which argue that power is a primary way to (re-)gain (a sense of) control in a social situation, to theorize that when teams face uncertainty, performance-detracting power struggles are likely to emerge, especially when teams have low outcome interdependence. We find support for our model in a field study of 149 teams in a health insurance organization.

Introduction

Uncertainty is an uncomfortable position. But certainty is an absurd one.

Voltaire - 1767

Organizational teams increasingly operate in uncertain landscapes. To keep pace with today's dynamic world, full of rapid technological changes, shifting markets, and impending competitors, organizations have to constantly evolve and adapt (Petrout, Demerouti, & Schaufeli, 2016). This may include frequently changing their strategic goals and priorities, ways of operating, and internal structures (Smither, Houston & McIntire, 2016). Although the implementation of such changes may be crucial for an organization's survival, teams within the organization are subjected to uncertainty (Bordia, Hobman, Jones, Gallois, & Callan, 2004), as they are unable to predict what their tasks, environment, composition and position will look like in the future (Allen et al., 2007; DiFonzo & Bordia, 1998; Greenwood & Hinings, 1996). In the most extreme situation, teams may not even know whether they will still exist in the near future (Dunlap, 1994).

We know from individual-level research on uncertainty that uncertainty tends to be aversive (Schuler, 1980). Uncertainty evokes a feeling that one lacks control in a situation (Ashford, 1988; Bordia, Hunt, Paulsen, Tourish, & DiFonzo, 2004), which is an uncomfortable and even frightening experience for individuals (Ashford, 1988; Bordia et al., 2001; Heckhausen & Schulz, 1995; Hui & Lee, 2000; Skinner, 1996). Therefore, uncertainty has been argued to motivate cognitions, beliefs, and behaviors that will enable individuals to re-gain a sense of control (e.g., Berger & Calabrese, 1975; Hogg, 2000, 2007; Lind & Van den Bos, 2002). However, what this means for members that experience uncertainty in the context of their team, and thus how team dynamics are affected accordingly, remains unknown. While initial research on the team-level effects of

uncertainty suggests that uncertainty tends to harm team outcomes (e.g., Argote, Turner, & Fichman, 1989; Cordery, Morrison, Wright & Wall, 2010; de Jong, de Ruyter, Streukens, & Ouwersloot, 2001), *why* and *when* uncertainty detracts from team outcomes has yet to be explored.

To understand why and when uncertainty hurts teams, we extend social psychological and management research that has examined how individuals cope with uncertainty (e.g., Berger & Calabrese, 1975; Hogg, 2000, 2007; Lind & Van den Bos, 2002) to the team-context, theorizing that uncertainty-coping strategies that can help individuals may hurt teams. We postulate that when uncertainty is experienced in the context of a team, members will seek out power, as power is the primary way to quench the thirst for (a sense of) control in an uncertain social context (e.g., Fast, Gruenfeld, Sivanathan, & Galinsky, 2009; Fiske & Dépret, 1996; Inesi, Botti, Dubois, Rucker, & Galinsky, 2011). Given that power within teams is often viewed as finite and zero-sum i.e., one member's power gain is another member's power loss (Emerson, 1962; Magee & Galinsky, 2008), we expect individual members' power-quests in response to uncertainty to incite intra-team power struggles¹⁶, or competitions over power and (resource) control between members, which in turn impair team outcomes (Greer & Van Kleef, 2010; van Bunderen, Greer, & van Knippenberg, 2017).

While we propose that uncertainty elicits power struggles, we posit that this relationship is contingent upon the degree to which members are dependent on each other for their future resource outcomes (i.e., whether teams are evaluated and rewarded as

¹⁶ Power struggles can be viewed as a type of intra-team conflict (i.e., conflict over the distribution of power and control within the team) - different than task, relationship (i.e., interpersonal personality conflicts), and process (i.e., logistics, such as meeting time) conflict (Greer & Van Kleef, 2010; Schouten, 2016). Although task conflict can in certain situations be good – or at least not bad – for teams, other types of conflict tend to be more harmful (De Wit, Greer & Jehn, 2012; Jehn, 1995).

individuals or collectively as a team; e.g., Campion, Medsker, & Higgs, 1993; Guzzo & Shea, 1992; Van der Vegt, Emans, & Van de Vliert, 2000). When teams have low outcome interdependence, members may be eager to cope with uncertainty in the predicted individualistic manner (seek power for themselves), as competitive actions towards other members are not necessarily harmful (and may be even beneficial) for their own future resource outcomes (Beersma, Hollenbeck, Humphrey, Moon, Conlon, & Ilgen, 2003, 2013; Beersma, Homan, Van Kleef, & De Dreu, 2013; De Dreu, 2007). When teams have high outcome interdependence however, members may refrain from using this individualistic uncertainty-coping strategy that potentially harms other members, as in these teams, harming other members negatively affects one's own ultimate resource control - via collective team evaluations and rewards (Campion, Medsker, & Higgs, 1993; Kelley & Thibaut, 1959; Wageman & Baker, 1997). Instead, members may try to cope with uncertainty in less other-deprecating manners, such as trying to establish a collective sense of control – rather than a personal sense of control (Yamaguchi, 2001) by for instance cohesing with other members (cf., Hogg, 2000; 2007). To summarize, we develop a theoretical model (see Figure 1) in which we propose that uncertainty in teams detracts from team outcomes via intra-team power struggles, especially when teams have low outcome interdependence.

Together, our study offers three primary contributions. First, we extend the uncertainty literature to the team-level of analysis (e.g., Argote et al., 1989; Bordia et al., 2004; Cordery et al., 2010; De Jong et al., 2001; Hogg, 2000, 2007; Lind & Van den Bos, 2002) and qualify past findings in this area by showing that the coping strategies helpful to individuals may be harmful for teams. We offer a theoretical model - and test thereof, of the underlying processes which explain why and when uncertainty may impair team

outcomes. Second, we synthesize two hitherto separate bodies of literature on uncertainty (e.g., Berger & Calabrese, 1985; Hogg, 2000, 2007; Lind & Van den Bos, 2002) and power (e.g., Fast et al., 2009; Fiske & Dépret, 1996; Inesi et al., 2010; Pfeffer, 1981, 1992), and contribute to both literatures by showing that theories of uncertainty and power are inherently intertwined via the underlying motivational aspect of control. Third, we contribute to the literature on competitive power dynamics in teams (e.g., Eisenhardt & Bourgeois, 1988; Greer & Van Kleef, 2010; Hays & Bendersky, 2015; van Bunderen et al., 2017) by providing needed insight into the situations most likely to give rise to performance-detracting power struggles in teams.

Theoretical Background and Hypotheses

Uncertainty can be defined as the perceived inability to predict the future accurately (Milliken, 1987). Uncertainty is known to induce individuals with psychological discomfort (Schuler, 1980), such as anxiety (Miller & Monge, 1985) and stress (Ashford, 1988; Schweiger & Denisi, 1991). This is because when individuals experience uncertainty, they by definition lack or have ambiguous or contradictory information about the situation (Putnam & Sorenson, 1982), making them feel ill-equipped to understand, predict, and/or affect their environment (e.g., Bordia et al., 2004; Edwards & Weary, 1998; Greenberger & Strasser, 1986). As such, uncertainty threatens one of the most basic human motivators: the need for control (Ashford, 1988; Bordia et al., 2001; Heckhausen & Schulz, 1995; Hui & Lee, 2000; Skinner, 1996), or the belief that one, at a given point in time, has the ability to effect a change, in a desired direction, on the environment (Greenberger & Strasser, 1986: 165). Therefore, when faced with uncertainty, individuals are inclined to seek ways to cope with this aversive situation (e.g., Ashford, 1988; Ashford & Black, 1996; Ashford & Cumming, 1985; Berger & Calabrese, 1975; Hui & Lee, 2000).

Several theories have been put forward on the coping-strategies that individuals may employ when confronted with uncertainty. Although these individual-level theories mainly focus on *self-uncertainty* (who am I? what should I do?) rather than *work-focused uncertainty* (i.e., being uncertain about *something* work-related), limiting their applicability to the organizational team-context, they all hint at the same phenomenon: to cope with the unpleasant feeling of uncertainty, individuals try to regain a sense of control. For instance, uncertainty-identity theory (UIT; Hogg, 2000, 2007; Hogg & Abrams, 1993; Hogg & Mullin, 1999; Hogg & Terry, 2000) argues that uncertainty motivates individuals to socially categorize themselves and others into an in- and an out-group because social categorization provides clarity about who one is, how one should behave, and how one will be treated by others. Social categorization thus simplifies one's social world, which is known to promote a sense of control (cf., Fiske, 1993). Similarly, uncertainty management theory (UMM; Lind & Van den Bos, 2002; Van den Bos & Lind, 2002) posits that individuals try to manage uncertainty by cognitively manipulating social justice perceptions. Fairness beliefs increase feelings of control, as they make individuals trust that they will ultimately receive good outcomes (Colquitt, LePine, Piccolo, Zapata, & Rich, 2012; Lind & Van den Bos, 2002). Last, uncertainty reduction theory (URT; Berger & Calabrese, 1975) postulates that uncertainty motivates individuals to seek information and increase their communication (Deci, 1975). Information improves individuals' ability to make causal attributions, and as such promotes a sense of control (Heider, 1958; Jones & Davis, 1965; Kelley, 1972). Together, across all three lines of work mentioned here, uncertainty encourages cognitions, beliefs, and behaviors that will enable individuals to regain a sense of control.

Understanding the Effects of Uncertainty at the Team-level

However, uncertainty impacts not only individuals working in isolation, but also teams of individuals working together. This team-level uncertainty can be classified as an emergent state. Emergent states describe cognitive, motivational, and affective states of teams that are typically dynamic in nature and vary as a function of team context, inputs, processes, and outcomes (Marks, Mathieu & Zaccaro, 2001). Team uncertainty can be said to reflect a dynamic cognitive state (with motivational and affective consequences) in which members perceive high levels of uncertainty in response to events in the team context. Indeed, teams may often be confronted with situations in which the entire team is unable to predict what the future may bring. To illustrate, teams may face changes in their external environment of which they do not know the implications (Duncan, 1972; Lawrence & Lorsch, 1967; Miliken, 1987), teams may be presented with unforeseeable changes in their tasks and roles (Rizzo, House, & Lirtzman, 1970; Pearce, 1981; Van de Ven, Delbecq, & Koenig, 1976), or teams may be subjected to unpredictable organizational changes, reorganizations, and restructurings (Ashford, 1988; Bordia et al., 2004; Rafferty & Griffin, 2006). Given that uncertainty may come from a wide variety of sources, it may be a common state for many organizational teams.

Despite the frequency with which teams experience uncertainty, scant research has examined the effects of uncertainty on team dynamics and outcomes. A handful of studies has shown that uncertainty negatively affects team outcomes, including a study of wastewater treatment plants, in which teams facing uncertainty were found to have lower levels of performance, assessed by the quality of treated effluent produced by the teams, than teams operating under more certain conditions (Cordery et al., 2010). Similarly, a study about self-managed service teams working for a major office equipment company has indicated that uncertainty is associated with lower levels of job satisfaction and higher

levels of intention to leave¹⁷ (de Jong et al., 2001). Last, a laboratory study that manipulated team work input uncertainty via stimulus ambiguity found that uncertainty decreases team performance (Argote et al., 1989)¹⁸. However, while these studies provide important first suggestive evidence that uncertainty may harm teams, they neglect to explain *why* and *when* uncertainty harms team outcomes, or in other words, which performance-impairing team dynamics are set into play by uncertainty in teams.

Team Uncertainty Ignites Team Performance-detracting Power Struggles

To develop an understanding of why and when uncertainty negatively affects team dynamics and outcomes, we draw on and extend social psychological and management research that has examined how individuals respond to uncertainty and integrate this with research that has demonstrated the negative effects of uncertainty on team outcomes. As mentioned, uncertainty has been shown to evoke the feeling that one lacks control, and as such motivates uncertain individuals to regain a sense of control (e.g., Bordia et al., 2004; Edwards & Weary, 1998; Greenberger & Strasser, 1986). We propose that when uncertainty is experienced within the team-context, members are prone to try to regain a sense of control by seeking power, or control over valued resources (cf., Pfeffer, 1981, 1992; Magee & Galinsky, 2008), within their team. Power, also referred to as social control (Fiske & Depret, 1996), affords members the ability to control one's own and other members' behaviors and outcomes (Depret & Fiske, 1993; Emerson, 1962; Fiske, 2010; Keltner et al., 2003; Thibaut & Kelley, 1959).

¹⁷ We note that these responses have not been aggregated to the team-level.

¹⁸ We note that another couple of studies have focused on uncertainty as a contextual moderator of team inputs and outcomes, rather than uncertainty as an input in and of itself (e.g., Carpenter & Frederickson, 2001; Finkelstein & Hambrick, 1996; Haleblan & Finkelstein, 1993). For instance, uncertainty has been shown to influence the relationship between TMT's functional background diversity and firm performance (Cannella, Park, & Lee, 2008), and between TMT's functional background diversity and cognitive conflict (Qian, Cao, & Takeuchi, 2013).

The reason why members may seek power in response to their team facing uncertainty is twofold. First, the psychological experience of power is known to make members feel agentic, action-oriented and in control (Galinsky et al., 2003; Keltner et al., 2003; Tost, 2015), and as such, to feel like they can deal with whatever outcome happens (Briñol, Petty, Valle, C., Rucker, & Becerra, 2007; Fast et al., 2009; Wojciszke, Struzynska, & Kujalowicz, 2007). Consequently, feelings of stress (Akinola & Mendes 2013, Schmid & Schmid Mast, 2013), and psychological threat (cf., Anderson & Galinsky, 2006), which tend to accompany uncertainty, are eased by gaining power (e.g., Bombari, Schmid Mast, & Bachmann, 2017; Inesi, 2010; Kang, Galinsky, Kray, & Shirako, 2015; Scheepers, de Wit, Ellemers, & Sassenberg, 2012). Second, by being able to control one's own and other members' behaviors and outcomes (Depret & Fiske, 1993; Emerson, 1962; Fiske, 2010; Keltner et al., 2003; Thibaut & Kelley, 1959), power grants members the option to protect themselves in the light of uncertainty and/or to influence the uncertain situation (in their favor) (Magee & Galinsky 2008; Tost, 2015). Hence, when teams face uncertainty, seeking power may be an efficacious way for members to cope with the adversity of uncertainty.

However, on the team-level, this uncertainty coping-strategy can be harmful, as individual members' power-seeking behaviors may ignite power struggles, or competitions over power and control between members (Greer & van Kleef, 2010), which are known to compromise team performance (Greer & Van Kleef, 2010; Greer et al., 2011; van Bunderen et al., 2017). Power within teams is oftentimes by members seen as finite and zero-sum; i.e., one member's power gain is another member's power loss (Emerson, 1962; Magee & Galinsky, 2008). Therefore, when members seek power to remedy their individual experience of uncertainty, other members may feel threatened, as they would

perceive one member's power striving as creating a potential power loss for themselves (Fast & Chen, 2009; Georgesen & Harris, 2006; Greer et al., 2011; Greer & Van Kleef, 2010; Morrison, Fast, & Ybarra, 2009). Since other members are also experiencing the same team uncertainty, they will be especially sensitive to losing power, keeping in mind their own increased hunger for control in uncertain situations. Therefore, members will be motivated to seek out power in teams, and given the fixed-sum view of power in teams, this will often lead to pre-emptive strikes, hostile behaviors, and escalatory spirals when members lash out against other members trying to claim the same valued power sources in the team (Fast & Chen, 2009; Georgesen & Harris, 2006; Halevy, 2016; Maner & Mead, 2010; Pettit et al., 2009). Therefore, team uncertainty is likely to spark intra-team power struggles.

As an example, consider a team experiencing uncertainty about its future in the face of organizational layoffs. Members may try to deal with this uncertainty by pursuing power for themselves, for instance by dominating team discussions and outcomes, seeking and stockpiling information and other resources, or building relationships with influential others in- and outside of the team. Via such strategies, members can increase their power position within the team and ensure their individual survival within the company, giving them a feeling of control and reducing their experienced uncertainty. However, other members will likely feel threatened in their power position by such power-striving behaviors from other members in the team, leading them to engage in power-protecting behaviors, such as coalition formation, withholding information or perhaps more blatant dominant behaviors. This dynamic of power-striving and power-protecting behaviors will escalate into intra-team power struggles.

Accordingly, we propose that:

Hypothesis 1: Team uncertainty is positively related to intra-team power struggles.

We expect intra-team power struggles to have negative consequences for team performance. This is because power struggles encompass a variety of behaviors that tend to undermine intra-team cooperation and information sharing (Greer & Van Kleef, 2010; Keller, 1999), and sour interpersonal relationships between members (Mannix & Sauer, 2006). For instance, power struggles may include overtly dominating behaviors, such as raising voice, interrupting or ignoring others (Greer & van Kleef, 2010; Keller, 2009). Such power asserting behaviors make it less likely for other members to speak up, thereby compromising team performance (Tost, Gino, & Larrick, 2013). Power struggle behaviors may also include more covert political behaviors, such as behind-the-scenes coalition formation, offline lobbying, and attempts to control the agenda (Eisenhardt & Bourgeois, 1988; Pettigrew, 1973; Pfeffer, 1981). Such power striving behaviors may generate mistrust between members, which undermines intra-team collaboration (Farrel & Peterson, 1982). In the worst case, power struggles may lead members to sabotage one another, which will detract from overall team performance (Dunlop & Lee, 2004). For instance, members may deliberately withhold or give false information to each other (Eisenhardt & Bourgeois, 1988); they may also gossip about or even slander each other (Beersma & Van Kleef, 2012). All this together, combined with the distraction that power struggles bear, i.e., power struggles draw members' attention and energy to power and control issues and conflict, instead of the task at hand (cf. Jehn, 1995; De Dreu & Weingart, 2003), leads us to propose that:

Hypothesis 2: Intra-team power struggles are negatively related to team performance.

Hypothesis 3: Intra-team power struggles mediate the relationship between team uncertainty and team performance.

The Mitigating Effects of Team Outcome Interdependence

While uncertainty is expected to relate to performance-impairing power struggles in teams, we argue that this relationship may be intensified or ameliorated by the degree of outcome interdependence in the team. The internal outcome interdependence structures of teams can be higher or lower, meaning that members are more or less reliant on each other for their own future resource outcomes (Campion et al., 1993; Guzzo & Shea, 1992; Van der Vegt et al., 2000). Team outcome interdependence has been operationalized in past research by presenting teams with team versus individual goals (e.g., Deutsch 1973; Kelley & Thibaut, 1978; Thomas 1957; Tjosvold, 1998) or providing teams with team versus individual feedback (e.g., Campion et al., 1993; Saavedra, Earley, & Van Dyne, 1993; Wageman, 1995).

In teams with low outcome interdependence (i.e., where there is an individual reward structure), members are relatively independent of one another for successful goal attainment and rewards, and thus for their future resources (Guzzo & Shea, 1992; Van der Vegt et al., 2000). We predict this internal dependence structure to encourage members to cope with uncertainty in individualistic, and even competitive, manners, as hurting other members does not negatively affect (and could even positively affect) one's own resource outcomes (Beersma et al., 2003, 2013; De Dreu, 2007). Take for instance a sales team where the member with the highest sales of the week receives a bonus. When such teams experience uncertainty, members may be keen to act competitively, and seek power, as acting in competitive manners promotes rather than jeopardizes the future resources of individual members. Therefore, when teams with lower levels of outcome interdependence

experience uncertainty, members are expected to be especially motivated to pursue individual-based, competitive solutions to cope with uncertainty, and vie for power as a way to reduce feelings of uncertainty.

In contrast, when outcome interdependence is high in teams (i.e., when there is a collaborative or team reward structure), members are relatively dependent upon each other for their goal attainment and rewards, and thus their future resources (e.g., Deutsch 1973; Guzzo & Shea, 1992; Kelley & Thibaut, 1978; Van der Vegt et al., 2000). This internal dependence structure discourages members experiencing team uncertainty from acting in selfish and competitive manners, as harming other members or disrupting intra-team cooperation risks harming one's own future resources (Beersma et al., 2003; Beersma et al., 2013; De Dreu, 2007). That is, in these teams, members' own individual resources are contingent upon the team's performance. Therefore if the overall team performance gets compromised (due to lowered performance of other members as result of power strikes or hampered intra-team collaboration), members lose out on future resources. In support of this reasoning, research has shown that teams with high outcome interdependence are less likely to hurt each other (Tjosvold, 1998) and less likely to approach uncertainty in an individualistic manner (cf., Hogg, 2000, 2007; Yamaguchi, 2001; Yamaguchi, Gelfand, Ohashi, & Zemba, 2005). As such, we expect high outcome interdependence in teams to alleviate the relationship between team uncertainty and intra-team power struggles. To summarize, we propose that:

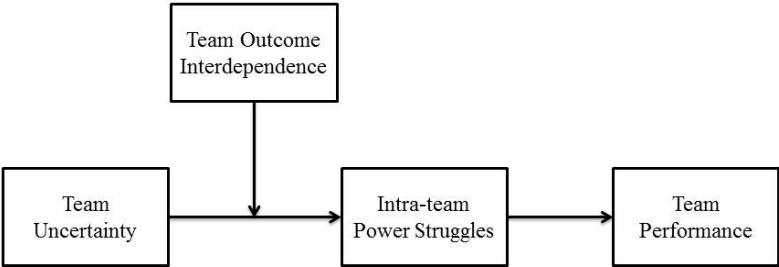
Hypothesis 4: The relationship between team uncertainty and intra-team power struggles is moderated by team outcome interdependence, such that team uncertainty is positively related to intra-team power struggles when teams have

low outcome interdependence, but not when teams have high outcome interdependence.

To tie together the above hypotheses, we propose:

Hypothesis 5: There is a moderated mediation effect of team uncertainty and team outcome interdependence on team performance through intra-team power struggles.

Figure 1. Theoretical model



Methods

Sample

In this study, we test the team-level consequences of uncertainty on intra-team power struggles and team performance in a field study. For our sample, we included 149 pre-existing teams (2304 employees) of a health insurance corporation¹⁹. The average team contained 15.46 (SD = 8.46) members. The average age of the participants was 42.93 years, and 41.0% of participants were male. The participating teams come from all

¹⁹ Inclusion criteria were: an intra-team response rate above .50 and (manager-rated) performance data. This left us with 149 of the originally surveyed 171 teams.

departments in a health insurance company (e.g., marketing, commerce, care-purchase, staff, information technology, human relations, customer service). Different teams are responsible for a wide variety of tasks, including signing contracts with caregivers (e.g., hospitals, clinics and general practitioners), customer acquisition (private and companies), solving customer-related problems, and handling reimbursements. These teams face different types and levels of uncertainty. For example, teams responsible for customer acquisition are completely dependent on the contracts that other teams sign with care givers. As these contracts get renewed annually, every year the offers which they can reassemble are uncertain, as is their position in the health insurance market. As another example, health insurance policies are regulated by the government. Therefore, changes in the government can change the health insurance system completely. Some teams (e.g., management teams, policy makers) are much more affected by this uncertainty than others (e.g., customer services, in-house accountant teams). Finally, as a last example, the health insurance organization was in the middle of a reorganization when the questionnaire was distributed. The reorganization impacted the teams in the organization differently. Some teams had already been impacted by the reorganization and had gotten smaller or larger, or had merged with other teams. Some teams knew that they were going to be impacted. Some teams knew that they would not be impacted and others did know whether or when they were going to be impacted by the reorganization. As such, this organization provided a suitable context to study the impact of differing levels of uncertainty on internal team power dynamics and performance.

Procedure

To assess the variables in our study, we had access to multi-source data, including surveys distributed to managers and employees (uncertainty and power struggles were

rated by team members, and team outcome interdependence and team performance by managers).

Measures

Our survey items utilized a 1-5 Likert scale, with 5 indicating high agreement.

Team uncertainty. To assess team uncertainty, we changed the four individual-level items of the general uncertainty scale of Colquitt et al. (2012) to the team-level (e.g., and “My team cannot predict how things will go at work” and “There is a lot of uncertainty at work for the members of my team right now”). The scale exhibited good reliability ($\alpha = .90$).

Intra-team power struggles. Intra-team power struggles was measured with a five item scale (e.g., “Members of my team have disagreements about who has control in the team” and “In my team there are disagreements about how valued resources [e.g., time, money, materials] need to be distributed) based on Greer and Van Kleef (2010). The scale exhibited sufficient internal reliability ($\alpha = .89$).

Team performance. To assess team performance, we had each manager rate his or her team’s performance on the basis of four items (e.g., “I believe this group performs well at work,” and “This group is effective in getting things done in time”), using the scale of Greer, Caruso, and Jehn (2011). This scale had sufficient internal reliability ($\alpha = .84$).

Team outcome interdependence. Team outcome interdependence was measured with two items (“Team members receive feedback based on the performance of the team” and “Team members are informed about the goals they need to achieve as a team”), which had sufficient reliability ($r = .47, p < .001$).

Control variables. To rule out possible alternative explanations for our results, we controlled for team size and age, as past research has shown that these variables may

influence team processes and outcomes in general (e.g., Harrison & Klein, 2007; Lau & Murnighan, 2005), and power dynamics specifically (Greer & van Kleef, 2010). We also controlled for the percentage of employees with permanent (as opposed to temporary) contracts, as differences in job security can create differences in the impact of uncertainty for different employees within the same team (Mantler, Matejcek, Matheson, & Anisman, 2005).

Analysis

To test the appropriateness of conducting our analyses at the team level of analysis (Klein & Kozlowski, 2000), we calculated intra-class correlations (ICCs) and inter-rater agreement (rwgs) (LeBreton & Senter, 2008). In our sample, all F-tests were significant, and all ICCs and rwgs were sufficient to aggregate our data to the team level of analysis (team uncertainty: ICC[1] = .32; ICC[2] = .88.; rwg = .71.; and intra-team power struggles: ICC[1] = .21; ICC[2] = .80, rwg = .75) (LeBreton & Senter, 2008).

Results

Means, standard deviations, and correlations are presented in Table 1. To test our hypotheses, we used hierarchical regression analysis. Independent variables were centered before creating interaction terms (Aiken & West, 1991).

In Hypothesis 1, we proposed that team uncertainty would be positively related to intra-team power struggles. This hypothesis was supported ($\beta = .30, t = 3.58, p < .001$, Adj. $R^2 = .15$). Team uncertainty was positively related to intra-team power struggles.

In Hypothesis 2, we proposed that intra-team power struggles would be negatively related to team performance. This hypothesis was supported ($\beta = -.28, t = -3.92, p < .001$, Adj. $R^2 = .32$). Intra-team power struggles were negatively related to manager-evaluated team performance.

Table 1. Means, Standard Deviations, and Correlations

Variables	M	SD	1.	2.	3.	4.	5.	6.
1. Team size	15.46	8.46	-					
2. Untenured employees ^a	.13	.24	.55**	-				
3. Age	43.02	4.89	-.01	-.15	-			
4. Uncertainty	3.00	0.60	.36**	.32**	.03	-		
5. Interdependence	4.10	0.50	.12	.04	-.03	-.03	-	
6. Power struggles	2.35	0.45	.23**	.21*	-.21*	.34**	-.17*	-
7. Team performance	3.95	0.59	-.39**	-.40**	-.36**	-.36**	.29**	-.31**

N=149

^a Calculated as the fraction of untenured vs tenured employees in a team.

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

In Hypothesis 3, we proposed that intra-team power struggles mediate the relationship between team uncertainty and team performance. We used the PROCESS macro (Model 4) by Hayes (2010) with 5000 repetitions, and found an indirect effect of uncertainty to team performance via intra-team power struggles ($b = -.07$; Bias and accelerated 95% CI: -0.15, -0.02), which reduced the direct effect of team uncertainty to team performance ($b = -.14$; Bias and accelerated 95% CI: -0.29, 0.01).

In Hypothesis 4, we proposed that there would be an interactive effect between team uncertainty and team outcome interdependence on intra-team power struggles, such that team uncertainty would positively relate to intra-team power struggles when teams have low outcome interdependence, but not when teams have high outcome interdependence. We indeed found outcome interdependence to moderate the relationship between uncertainty and intra-team power struggles, as there was an overall interaction effect of team uncertainty and outcome interdependence on intra-team power struggles ($\beta = -.15$, $t = -2.00$, $p = .047$, Adj. $R^2 = .20$; see Table 2). Following the procedure of Aiken and West (1991), we examined the simple slopes of this interaction at values one standard deviation above and below the moderator values. Team uncertainty was positively related to intra-team power struggles when the team had low outcome interdependence ($\beta = .13$, t

= 3.63, $p < .001$), and team uncertainty was not related to intra-team power struggles when the team had high outcome interdependence ($\beta = .06$, $t = 1.09$, $p = .28$, see Figure 2).

Table 2. Results of Regression Analysis

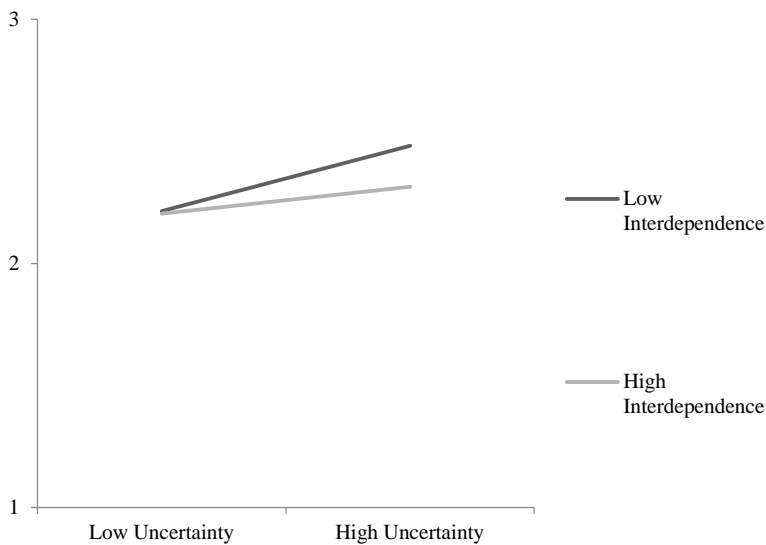
Variable	Power Struggles			Performance			
	Step 1	Step 2	Step 3	Step 1	Step 2	Step 3	Step 4
Controls							
Team size	.17	.12	.11	-.25**	-.23**	-.23**	-.21*
Untenured employees	.10	.05	.06	-.27**	-.25**	-.26**	-.29**
Age	-.19*	-.22**	-.20*	-.27**	-.25**	-.25**	-.24**
Uncertainty		.28**	.30**		-.18*	-.19*	-.13
Interdependence		-.19*	-.19*		.30**	.30**	.27**
Uncertainty x Interdependence			-.15*			.03	.00
Power Struggles							-.18*
R ²	.10	.21	.23	.27	.40	.40	.42
Adjusted R ²	.08	.18	.20	.25	.38	.37	.39
Change in R ²	.10**	.11**	.02*	.27**	.13**	.00	.03*
Overall F	5.38	7.55	7.10	17.61	18.61	15.47	14.06
df	3, 144	5, 142	6, 141	3, 144	5, 142	6, 141	7, 140

N=149
 Note. Standardized beta coefficients are presented. * $p < .05$, ** $p < .01$

In Hypothesis 5, we proposed a moderated mediation model, such that team uncertainty is negatively related to team performance through intra-team power struggles when team outcome interdependence is low, but not when team outcome interdependence is high. We used the PROCESS macro (Model 7) by Preacher and Hayes (2004) with 5000 repetitions, and found indeed a negative relationship between team uncertainty and team performance via team intra-team power struggles when team outcome interdependence was low (b = -.10; Bias and accelerated 95% CI: -0.24, -0.03) and moderate (b = -.07; Bias and accelerated 95% CI: - 0.15, -0.02), but not when team outcome interdependence was

high ($b = -.03$; Bias and accelerated 95% CI: $-.11, 0.02$).

Figure 2. Interactive Effects of Team Uncertainty and Team Outcome Interdependence on Intra-team Power Struggles



Discussion

Organizational teams often experience uncertainty. While previous research has suggested that uncertainty may harm team outcomes (Argote et al., 1989; Cordery et al., 2010; de Jong et al., 2001), why and when uncertainty has a negative effect on teams remained unknown. We built on individual-level research on uncertainty (e.g., Berger & Calabrese, 1975; Bordia et al., 2000; Hogg, 2000, 2007; Lind & Van den Bos, 2002), integrated this with theories of power (Fast et al., 2009; Fiske & Dépret, 1996; Galinsky et al., 2012; Inesi, et al., 2011; Pfeffer, 1981, 1992), and extended this work to the team-level, theorizing that the uncertainty-coping strategies that are beneficial for individual

members are deleterious for teams. Namely, we proposed and found that individuals' drives to increase their sense of control in the face of uncertainty promotes performance-detracting power struggles within teams facing uncertainty, especially when teams have low outcome interdependence. These findings allow us to make several contributions to organizational theory and research.

Theoretical Implications

First, we contribute to the literature on uncertainty in organizations (Allen et al., 2007; Berger & Calabrese, 1975; Bordia et al., 2000, 2004; DiFonzo & Bordia, 1998; Greenwood & Hinings, 1996; Hogg, 2000, 2007; Lind & Van den Bos, 2002) by extending individual-level research on uncertainty to the team-level, and qualifying this past work by showing that the strategies that may help individuals cope with uncertainty can damage teams. While previous research has brought forward different uncertainty-coping strategies (e.g., categorizing, increasing fairness beliefs, seeking information; Berger & Calabrese, 1975; Bordia et al., 2000; Hogg, 2000, 2007; Lind & Van den Bos, 2002), we identified that these strategies are different ways to achieve the same goal: restoring one's by-uncertainty-thwarted sense of control. In the team setting, we expected and found that individual members are likely to mitigate their thwarted sense of control by seeking power, as power is known to be a very salient and effective way to quench control-thirst in social situations (e.g., Fast et al. 2009; Fiske & Dépret, 1996; Inesi et al., 2011). While this may help individuals reduce the downsides of experiencing uncertainty on an individual-level, this may lead to problems at the team-level, as when all members strive for power, this can incite team performance-deteriorating power struggles. As such, we demonstrate that individual-level research on uncertainty has a paradoxical translation to the team-level,

such that the uncertainty-coping strategies that are effective for individual outcomes may backfire for team outcomes.

Second, we contribute to the literature on team uncertainty by offering a first theoretical account of exactly why and when uncertainty hurts performance. Theory and research on team uncertainty is surprisingly scant. There are a handful of studies that show uncertainty to negatively impact team outcomes; however, the underlying mechanism and its contingencies were hitherto unknown (Argote et al., 1989; Cordery et al., 2010). By showing that uncertainty harm teams because members are motivated to go on a power-quest when they experience uncertainty – leading to team performance-impairing power struggles, and that this is especially likely when teams have an individualistic team structure, such as when there is low outcome interdependence, we open the door for more nuanced studies on the micro-mediating mechanisms of the negative effects of uncertainty in teams, as well as for the design of interventions. For instance, one can imagine that other team structures that promote a collectivistic approach towards the uncertain situation, such as egalitarian power structures or high team identification, can also mitigate the negative effects of uncertainty for teams.

Third, we contribute to the power literature by showing how organizational context can spur power dynamics. While the power literature has identified power as a satisfier for control-needs (e.g., Fast et al., 2009; Fiske & Dépret, 1996; Inesi et al., 2010; Pfeffer, 1981, 1992), and the uncertainty-literature has shown that uncertainty thwarts control-needs (e.g., Berger & Calabrese, 1985; Bordia et al., 2004; Hogg, 2000, 2007; Lind & Van den Bos, 2002), scholars have yet to fully flesh out the close inter-relationship between power and uncertainty. By showing that uncertainty promotes intra-team power struggles, and arguing that this is due to members' feeling of a lack of control, we identify

an important contextual source of power seeking behaviors. That is, power seeking may be stimulated in all kinds of situations where people, but also groups or organizations, experience uncertainty or are control-deprived. Identifying other kinds of situations which evoke power seeking behavior will help to develop an understanding of the far-reaching effects and usages of power in organizations. This also allows us to augment to the burgeoning literature on power dynamics in teams (e.g., Aime et al., 2014; Eisenhardt & Bourgeois, 1988; Greer & Van Kleef, 2010; Hays & Bendersky, 2015) by showing when specifically team-level power struggles are likely to occur. One would assume that in other situations in which team members feel that they lack control (e.g., when in conflict with another team, or in situations of change) intra-team power struggles will be produced, and that this is especially likely when the internal team-structure promotes individualistic behaviors (e.g., hierarchical power structures; Bloom, 1999; Tarlci, Greer, & Groenen, 2015). Gaining a greater understanding of when power dynamics in teams become competitive rather than cooperative has important implications for both research and practice.

Limitations and Future Directions

While our study offers several strengths, including unpacking the relationship between uncertainty and team performance, our paper also has several limitations. First, we examined the effects of uncertainty on team power struggles by using a general measure of uncertainty at work, rather than looking at specific types of uncertainty (e.g., environmental uncertainty, positional uncertainty, resource uncertainty) or specific sources of uncertainty (e.g., dynamic markets, unpredictable leadership). We did this because our theory of uncertainty and power in teams is broad and overarching, and should apply to all the different types and sources of uncertainty. However, it would be interesting for future

research to examine whether different types or sources of uncertainty are more or less prone to ignite power struggles in teams.

Second, we conducted our study at a health insurance company. We chose this setting as the nature of health insurance companies ensures variance in uncertainty experiences across teams within the same organizations. Also, field studies allow for generalizability and ecological validity. However, they do not allow us to draw causal attributions, nor can they exclude third variable issues. One could argue that power struggles cause uncertainty and not uncertainty that causes power struggles. Although intra-team power struggles are likely to induce members with uncertainty (as intra-team power struggles make the future power structure of the team uncertain), we believe that we made a strong (theoretical) case as of why uncertainty is likely to elicit intra-team power struggles. Nevertheless, it would be very interesting to further examine whether intra-team power struggles increase team uncertainty, and as such perpetuate this uncertainty-power struggle-cycle. Therefore, future research would benefit from both experimental and longitudinal studies on uncertainty and power struggles in teams.

Third, we hypothesized and found the relationship between uncertainty and intra-team power struggles to be mitigated by high outcome interdependence in teams. We argued that this is because members of teams with high outcome interdependence harm themselves when they harm other members, and are therefore likely to refrain from engaging in power struggles with other members. We suggested that they may seek other (less other member harming) ways to cope with their uncertainty. For instance, they may try to establish a collective sense of control (rather than increasing their own control) (Yamaguchi, 2001) by for instance coalescing with one another (Hogg 2000, 2007). Although our research was focused on establishing a link between team uncertainty and

intra-team power struggles, and we show when this is especially likely to occur (in teams with lower levels of outcome interdependence), it would be interesting if future research would further explore what happens in teams with high outcome interdependence.

Managerial Implications

Most organizational teams will have to cope with uncertainty, albeit in varying degrees. Being exposed to uncertainty may have detrimental consequences for teams, as it is likely to result in competitive power struggles between team members, which harm team performance. Therefore, helping teams to avoid the experience of uncertainty, or at least as much as possible, would benefit teams. For example, when there are organizational changes planned, managers can help preserve the quality of team functioning by giving out timely and extensive information about the nature of the changes and their probable impact for the team, thereby reducing uncertainty before members are lured into intra-team power struggles to re-establish their senses of control. Additionally, when the market is changing and adaptations need to be made, managers would benefit from involving the team in the decision-making process. Although the uncertainty of the market may remain, involving the team in decisions gives them a sense of control, which will reduce their experienced uncertainty, and prevent the need for members to fight with one another over power. This way teams can keep performing at their peak capacity.

Last, if teams do need to endure a period of uncertainty, our findings show that it is imperative to increase the outcome interdependence of team members to keep the team working together. Or in other words, set team rather than individual goals, and provide rewards based on team performance rather than individual performance. For example, teams and its members may receive bonuses based on their collective performance. When members feel dependent upon one another for their outcomes, members are less likely to

cope with uncertainty in individualistic manners, preventing team performance-impairing power struggles.

Conclusion

Our research shows that uncertainty is likely to tear teams apart and derail teams from task performance. Namely, uncertainty may make teams fall prey to performance-impairing power struggles, as members' attempt to alleviate uncertainty through seeking out power and control. While such power-seeking strategies may reduce the negative experience of uncertainty for individuals, on the team-level it can backfire, as members will end up competing with one another for power, thereby impairing team performance. Fortunately, there is a solution to alleviate these competitive power dynamics in the face of team uncertainty. When teams have high levels of outcome interdependence, the negative effects of uncertainty on team power dynamics and performance are mitigated. Together, our findings provide important insight into why and when uncertainty impacts teams, and how managers can best lead teams through times of uncertainty.

CHAPTER 4

DOES ORGANIZATIONAL CHANGE DIVIDE OR UNITE TEAMS? THE CRITICAL ROLE OF INTERNAL TEAM POWER STRUCTURES

Abstract

While the effects of organizational change have been studied extensively on the organizational and the individual-level of analyses, its effects on teams, the building blocks of many organizations, has hitherto been neglected. Based on individual-level research that shows organizational change to be an unsettling experience during which individuals seek self-protection, we argue that organizational change has the potential to both bind teams together as well as tear teams apart, depending on the internal power structure of the team. In more hierarchical teams, we predict that organizational change elicits competitive intra-team power dynamics, as the different power ranks in these teams promote social comparisons and a competitive, team performance-detracting approach to self-protection in times of change. However, in more egalitarian teams, we expect organizational change to reduce competitive power dynamics, as this power structure emphasizes unity and a cooperative approach towards self-protection during unsettling times of change. We find support for our model in a field study of 142 teams. Results show that in more hierarchical teams, organizational change was negatively related to team performance, via increased intra-team social comparisons and power struggles, and in more egalitarian teams, organizational change was positively related to team performance, via decreased social comparisons and power struggles. Organizational changes can thus push teams to achieve higher success, or can make teams go under, depending on their internal power structure.

Introduction

Organizational changes frequently affect organizational teams. To stay competitive, organizations must respond to technological, economical, and demographic trends, which oftentimes means that organizations need to change the way in which they operate and are organized (Petrou, Demerouti, & Schaufeli, 2016; Van den Heuvel, Demerouti, Bakker, & Schaufeli, 2010). For example, in response to the oil crisis in 2004, which hammered Shell's share price, Shell had to change its structure and processes, impacting more than 80 of its operating units. More recently, in 2016, Microsoft reorganized its Office unit by integrating everything into one application instead of selling individual products. This innovation also impacted Microsoft's employees, as instead of being divided into product teams (e.g., a team for PowerPoint, a team for Excel), they would now be divided according to consumers' tasks (e.g., a team focusing on presentations and content creation, a team focusing on analytics and reporting tools).

While much is known about the organizational-level (Greenwood & Hinings, 1996; Gilmore, Shea, & Useem, 1997) and individual-level (e.g., Begley & Czajka, 1993; Rafferty & Griffin, 2006) effects of organizational change, research on the team-level effects of organizational change is scant. This is remarkable, given that most contemporary organizations are built out of teams (e.g., Bell & Outland, 2017; Devine, Clayton, Philips, Dunford, & Melner, 1999; Mohrman, Cohen, & Morhman, 1995), and organizational change can be expected to often be executed at the team-level. For instance, organizational change may translate into changes in the size or budget of certain teams in the organization. Therefore, understanding how organizational change impacts internal team dynamics and performance is important for organizations to effectively implement organizational changes.

To understand how organizational change impacts teams, insight must first be gained into how organizational change is perceived by team members. Based on individual-level research, we can infer that members experience the process of organizational change as unsettling. Organizational change causes identities, resources, and positions to shift and take new forms (e.g., Ashford, 1988; DiFonzo & Bordia, 1998; Lau & Woodman, 1995; Rafferty & Griffin, 2006; Rafferty & Restubog, 2010; Stanley, Meyer, & Topolntsky, 2005). Given that changes in identities, resources, and ranks may be threatening and unsettling experiences (Greer, De Jong, Schouten, & Dannals, 2017a; Haslam, Jetten, Postmes, & Haslam, 2009; Hays & Bendersky, 2015; Pettit, Yong, & Spataro, 2010), members may become concerned with self-protection when their team faces organizational change (cf., Choi, 2011; Kiefer, 2002).

However, self-protection can be sought by members in relatively more competitive or relatively more cooperative manners (cf., competition theory; Deutsch, 1949), which can have implications for downstream team functioning and performance. We theorize that whether members respond to organizational team change in more performance-detracting competitive manners or more performance-enhancing cooperative manners depends on the intra-team power structure. Team power structures can be more hierarchical or more egalitarian depending on the power differentiation between members (cf., Blau & Scott, 1962; Harrison & Klein, 2007; Magee & Galinsky, 2008). While hierarchical power structures are often assumed to be a functional solution for teams in unsettling situations - and therefore arguably also in times of organizational change (see functionalist accounts of hierarchy; e.g., Friesen, Kay, Eibach, & Galinsky, 2014; Gruenfeld & Tiedens, 2010; Halevy, Chou, Galinsky, 2011; Kakker & Sivanathan, 2017; Magee & Galinsky, 2008), more recent work on the effects of hierarchical power structures

on teams, including a meta-analysis, suggests the opposite, namely that hierarchy may backfire in perturbing times (see conflict accounts of hierarchy; e.g., Greer et al., 2017a; Greer et al., 2017b; van Bunderen et al., 2017).

We build on this work by arguing that power differentiation, or hierarchy, promotes competition in teams facing changes, as members of different ranks have different and sometimes even conflicting perspectives, needs, and concerns about the changes (van Bunderen et al., 2017), leading them to adopt a competitive self-protection approach (Greer et al., 2017b; van Bunderen et al., 2017). As such, members of hierarchical teams are expected to socially compare their own (power) position with that of other members (i.e., Festinger, 1954; Gibbons & Buunk, 1999; Rijsman, 1983), and engage in competitions over position and resource control on the basis of these comparisons (e.g., Garcia, Tor, & Gonzalez, 2006; Garcia, Tor, & Schiff, 2013), when they face organizational change. Such power struggles can, in turn, harm team performance (Greer & Van Kleef, 2010; van Bunderen et al., 2017).

When members of teams with more egalitarian power structures face organizational change on the other hand, we expect them to seek protection in more cooperative manners. This is because members of egalitarian teams all hold similar ranks (Harrison & Klein, 2007; Magee & Galinsky, 2008), which may, especially in difficult times, provide a feeling of similarity and solidarity (e.g., Aquino, Steisel, & Kay, 1992; Deutsch, 1975; Kabanoff, 1991; van Bunderen et al., 2017). Then, when egalitarian teams are confronted with organizational change, members are more likely to take a collective stance (van Bunderen et al., 2017), and focus on getting through the change together as a team (cf., Hogg, 2000, 2007; Stein, 1976; van Bunderen et al., 2017). Hence, we expect that in egalitarian teams facing organizational change, internal social comparisons (cf.,

Dietz, van Knippenberg, Hirst, & Restubog, 2015) and thereby team performance-detracting power struggles will decrease. To summarize, we develop a theoretical model (see Figure 1) in which we postulate that the internal power structure of the team (more hierarchical or more egalitarian) determines whether organizational change will increase or reduce intra-team social comparisons and consequently team performance-detracting power struggles.

We seek to make several theoretical contributions with this research. First, by examining whether organizational change helps or hurts team processes and performance, we contribute to the literature on organizational change (e.g., Begley & Czajka, 1993; Gilmore et al., 1997; Greenwood & Hinings, 1996; Petrou et al., 2016; Rafferty & Griffin, 2006; Van den Heuvel et al., 2010). Whereas research on organizational change has shown that the change process is strenuous for individuals, it has yet to be explained what this means for member-interactions and as such team dynamics and outcomes. Additionally, the possibility is unexplored that organizational changes can actually be useful tools to spur teams to step-up, regardless of the content of the change. We theorize that organizational change can, dependent on the team structure, either detract from team performance or lead teams to achieve even higher levels of success. Second, by showing that organizational changes differentially impact teams, dependent on their intra-team power structure, we also add to the literature on power structures in teams (e.g., Anderson & Brown, 2010; Bunderson, van der Vegt, Cantimur, & Rink, 2016; Halevy, Chou, Galinsky, & Murnighan, 2012; Tarakci et al., 2015). Researchers in this area have recently called for the identification of the contingencies of the effects of hierarchy on teams (Greer et al., 2017a), and we show here that organizational change is a key boundary condition to the benefits of hierarchy, qualifying past functionalist accounts of hierarchy (e.g., Halevy

et al., 2011; Halevy, Chou, Galinsky, & Murnighan, 2012; Keltner, Van Kleef, Chen, & Kraus; Magee & Galinsky, 2008) and extending conflict accounts (e.g., Bunderson et al., 2016; Edmondson, 2002; Greer et al., 2017b; Torrance, 1955). Last, we extend the literature on power dynamics in teams (e.g., Greer & Van Kleef, 2010; Hays & Bendersky, 2015; van Bunderen et al., 2017) by establishing organizational change as a precursor of intra-team power struggles, and revealing social comparison as the micro-mediating mechanism between organizational change and power struggles.

Theoretical Background and Hypotheses

The ability of organizations to adapt to dramatically changing commercial landscapes has become crucial for competitive advantage and even organizational survival, making organizational change a common phenomenon in most modern organizations (D'Aveni, 1989; Petrou et al., 2016; Van den Heuvel et al., 2010). Organizational changes include reorganizations (e.g., implementing cross-functional teams, merging departments), reprioritizations (i.e., changing strategic course, redistributing resources), and downsizings or expansions (i.e., changing members and/or leaders) (cf., Huber, Sutcliffe, Miller, & Glick, 1993; Weick & Quinn, 1999). Ample research shows that organizational changes have effects that go beyond the change itself on the organizational-level (e.g., Greenwood & Hinings, 1996; Gilmore et al., 1997) as well as the individual-level (e.g., Begley & Czapka, 1993; Rafferty & Griffin, 2006). Most prominently, organizational change tends to induce anxiety and stress in employees affected by the change, due to shifting identities, resources, and positions (e.g., Allen, Jimmieson, Bordia, & Irmer, 2007; Ashford, 1988; DiFonzo & Bordia, 1998; Haslam et al., 2009; Lau & Woodman, 1995; Pettit et al., 2010; Rafferty & Griffin, 2006). This leads to numerous negative outcomes, such as lower commitment and satisfaction, and higher turnover intentions (e.g., Begley & Czapka, 1993;

Turner Parish, Cadwallader, & Busch, 2008; Vakola & Nikolaou, 2005).

Although this work has provided important insights about how organizational changes, regardless of the change itself, may impact employees within the organization, this work has overlooked how organizational changes may affect the dynamics within, and performance of, organizational teams. This is surprising given that teams, defined as small groups of interdependent individuals whom share responsibility for collective outcomes (Hollenbeck, Beersma, & Schouten, 2012; Ilgen, 1999), form the backbone of most organizations (e.g., Bell & Outland, 2017), leading organizational changes to often be executed at the team-level. We can infer from individual-level research on organizational change that team members will experience the process of organizational change as unsettling (e.g., Ashford, 1988; DiFonzo & Bordia, 1998; Lau & Woodman, 1995; Rafferty & Griffin, 2006; Rafferty & Restubog, 2010; Stanley et al., 2005). For instance, members may become worried about how the change will affect their team's position, their own advancement opportunities, or even whether they and their team mates still have a job after the change (Allen, Jimmieson, Bordia, & Irmer, 2007). However, what this means for how members will interact with one another, and thus how team dynamics and outcomes are impacted when teams face organizational change, is still not clear. On the one hand, these concerns could lead members to turn on another, causing teams to cave under the pressure, on the other, they could lead members to rally together and thrive under the challenge of a common threat. Developing insights into how teams respond internally when they are confronted with organizational change is important, as it can help organizations to effectively roll-out organizational changes.

The Crucial Role of Internal Team Power Structures

We theorize that whether teams will cave or thrive during the unsettling event of

organizational change depends on whether team members seek protection (e.g., Choi, 2011; Kiefer, 2002) in more competitive or more cooperative manners (cf., competition theory; Deutsch, 1949). That is, members may seek protection by focusing on themselves and their own individual survival – thereby tearing the team apart, or they may seek protection by focusing on the team and getting through this together – thereby uniting the team. We postulate that whether members will utilize the former versus the latter strategy depends on the internal team power structure. Team power structures can be more hierarchical (i.e., there are clear power rank differences between members) or more egalitarian (i.e., all members hold similar power ranks) (Harrison & Klein, 2007; Magee & Galinsky, 2008). While hierarchical power structures have been argued to help teams in unsettling times (see functionalist accounts of hierarchy; e.g., Gruenfeld & Tiedens, 2010; Halevy et al., 2011; Kakker & Sivanathan, 2017; Magee & Galinsky, 2008), there is little empirical research directly examining whether power differentiation indeed helps teams to perform better in such times. Theoretical derivations about this notion stem from research showing benefits of hierarchy for individual emotions and perceptions, but this research has not actually examined team performance outcomes. For example, research has shown that hierarchical power relationships are more fluently processed and liked than less hierarchical power relationships (Dryer & Horowitz, 1997; Tiedens & Fragale, 2003; Tiedens, Unzueta, & Young, 2007; Zitek & Tiedens, 2012); hierarchical structures are perceived as more structured than egalitarian structures (Friesen et al., 2014); and structural needs and hierarchy-enhancing ideologies are related (Jost, Glaser, Kruglanski, & Sulloway, 2003; Van Hiel, Pandelaere, & Duriez, 2004). Whereas this research suggests that the thought of hierarchy bears some psychological comfort (e.g., reassurance) in unsettling times, and some initial research has shown that individuals may seek out

hierarchy in such times (e.g., Kakker & Sivanathan, 2017), extrapolating that hierarchy may help the performance of teams that fall prey to organizational change may be unwarranted.

Based on burgeoning support for conflict accounts of hierarchy (for a recent analysis, see Greer et al., 2017a; see also Greer & Van Kleef, 2010; Taracki et al., 2016; van Bunderen et al., 2017), we propose that hierarchical power structures may be harmful for teams that are confronted with organizational change. Having different power ranks within a team fosters different (i.e., rank-specific) and sometimes even incompatible perspectives, needs, and concerns among members at different ranks (van Bunderen et al., 2017). These differences between members become especially salient when teams feel pressed around resources (cf., Greer et al., 2017b; van Bunderen et al., 2017), such as when teams will undergo organizational change. We argue that these power-based differences between members promote a rather individualistic or even competitive approach with regard to the organizational change (Greer et al., 2017b; van Bunderen et al., 2017). That is, we expect members of hierarchical teams to be mainly concerned with their own individual fate when their team is confronted with organizational change, as they do not expect other members to share the same concerns and fears, given their different levels of power. As such, we expect members of hierarchical teams to start socially compare their position in the team with that of other members (Festinger, 1954; Gibbons & Buunk, 1999; Rijsman, 1983). Social comparison allows members to evaluate their current standing in the team, which in turn provides them with information about how to ensure their individual survival (Festinger, 1954; Gibbons & Buunk, 1999; Molleman, Pruyn, & van Knippenberg, 1986).

In contrast, we expect egalitarian power structures, in which all members hold

similar power ranks (Harrison & Klein, 2007; Magee & Galinsky, 2008), to be helpful when teams anticipate organizational change. Indeed, organizational changes emphasize the similarity of members of egalitarian team, as all members are likely similarly affected by the change – i.e., “they are in the same boat” (cf., Aquino et al., 1992; Deutsch, 1975; Kabanoff, 1991; van Bunderen et al., 2017). This similarity increases perceived solidarity between members, and as such a collective and cooperative approach towards survival in this unsettling situation (van Bunderen et al., 2017). While members of egalitarian teams may at times also socially compare their position to that of other members, we argue that this is most likely when they are complacent, and not when the team is threatened. Hence, we expect that when members of teams with egalitarian power structures face organizational change, they will focus more on the team as a whole rather than their own individual position, leading to a reduction of social comparison between members (Dietz et al., 2015; Festinger, 1954; Gibbons & Buunk, 1999). Accordingly, we propose that:

Hypothesis 1: There is an interactive effect of organizational change and the internal power structure of the team, such that organizational change is positively related to intra-team social comparisons when teams have more hierarchical power structures and negatively related to intra-team social comparisons when teams have more egalitarian power structures.

We know from both social comparison theory (Festinger, 1954; Gibbons & Buunk, 1999; Rijsman, 1983), and its derivative, competition theory (Garcia et al., 2006, 2013) that social comparisons (both upward and downward) on a specific dimension are a precursor for competitions on that same dimension. That is, members with a less favorable position are keen to improve their position as they do not want to be the underdog, and members with a more favorable position will try to reinforce their favorable position, as

they want to stay top dog – both leading to competitions between members (Garcia et al., 2006, 2013). In the case of organizational change in teams, where members of hierarchical teams start to compare their (power) position with that of other members, competitions over position and resource control between members, i.e., intra-team power struggles, are a likely result (e.g., Garcia et al., 2006, 2013; Greer & Van Kleef, 2010). Higher power members will be eager to maintain their powerful position when they engage in social comparison, leading them to for instance pre-emptively strike and push other members down (Fast & Chen, 2009; Georgesen & Harris, 2006; Halevey, 2016; Maner & Mead, 2010; Morrison, Fast, & Ybarra, 2009; Pettit, Yong, & Spataro, 2010). Lower ranked members will desire to move up the ranks to achieve a powerful position themselves, leading them to for example team-up with other members (i.e., form coalitions) to overthrow a higher-ranked member (Eisenhardt & Bourgeois, 1988). Such power moves will spark power struggles between members, as other members will feel threatened in their position, leading them to respond in competitive and hostile manners (e.g., Greer et al., 2017b; Lawler, 1992). Accordingly, we expect that:

Hypothesis 2A: Intra-team social comparisons and power struggles are positively related.

Hypothesis 2B: There is a moderated mediation effect between organizational change and the internal power structure of the team on intra-team power struggles via social comparison.

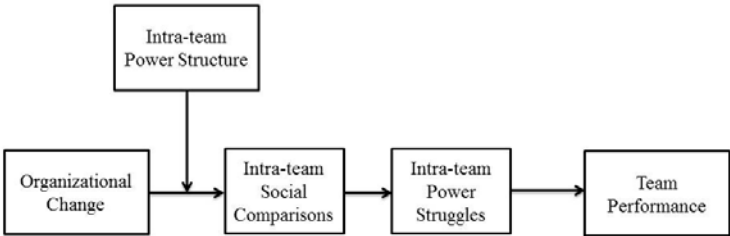
Intra-team power struggles are expected to detract from team performance for several reasons. First, power struggle behaviors may in and of themselves harm team performance, as they tend to involve competitive other-deprecating behaviors such as sabotaging, gossiping, and purposely withholding information, which reduce other

members' performance (Berger, Ridgeway, & Fisek, 1998; Gould, 2003; Homans, 1961; Pettigrew, 1973; Pfeffer, 1981). Second, power struggles tend to sour member-relations (Mannix & Sauer, 2006), thereby complicating the sharing of information and cooperating, which are crucial to team performance (Mesmer-Magnus & DeChurch, 2009). Third, power struggles shift members' attention from the task at hand to their own individual concerns regarding power and position, which is likely to compromise team performance (cf., De Dreu & Weingart, 2003; Jehn, 1995). Last, power struggles tend to be contagious, meaning that quickly all members of the team tend to get involved (e.g., Jehn, Jonsen, Rispens, & Greer, 2013; Kapferer, 1969; Morrill, 1991; Ridgeway & Walker 1995). This is because all members are affected when the power structure of the team is challenged, making power struggles a hurdle to effective teamwork that impedes team performance. Therefore, we propose that:

Hypothesis 3a: Intra-team power struggles are negatively related to team performance.

Hypothesis 3b: There is a moderated sequential mediation effect of organizational change and the internal power structure on team performance via intra-team social comparisons and power struggles, such that organizational change is negatively related to team performance via heightened social comparison and power struggles in more hierarchical teams, and positively related to team performance via lowered social comparisons and power struggles in more egalitarian teams.

Figure 1. Theoretical Model



Methods

Sample

In this study, we test the team-level consequences of organizational change on intra-team social comparisons, power struggles and team performance in a field study. For our sample, we included 142 pre-existing teams (employees) of a Dutch health insurance corporation based on the inclusion criteria of a minimum of three members, a minimum response rate above .50, and the availability of performance data. The average team contained 10.48 (SD = 5.72) members. The average age of the participants was 44.05 years, and 41.8% of participants were male. The participating teams came from all departments of the health insurance company (e.g., marketing, commerce, care-purchase, staff, information technology, human relations, customer service). The organization was in the middle of a reorganization when the questionnaire was distributed. The reorganization implied elimination of teams, teams reducing in size, teams merging, teams changing members, and teams changing budget. Certain teams were more strongly affected by the organizational change than other teams. As such, this organization provided a suitable context to study the impact of differing levels of organizational change on team dynamics

and performance.

Procedure

To assess the variables in our study, we had access to multi-source data: team member ratings of intra-team social comparison and power struggles, manager ratings of the degree of change and team performance, and power structure data obtained from company records.

Measures

Our survey items utilized a 1-5 Likert scale, with 5 indicating high agreement.

Organizational change. Organizational change in teams was measured with a 4-item scale constructed by the researchers. Managers were asked how likely it is that their team will undergo the following organizational team changes: “a reorganization through which the team gets eliminated or reduced in size”, “a reorganization through which the team needs to merge with another team”, “a change of team members”, and “a change in the budget of the team”. The scale exhibited sufficient internal reliability ($\alpha = .81$).

Intra-team power structure. Team power structure was operationalized as the standard deviation of members power ranks within the team (see Chan, 1998). Power ranks were based on members’ formal position, and were obtained from company records. Past research has shown that the standard deviation is a way to measure power structures (cf. Greer et al., 2017a).

Intra-team social comparisons. We measured social comparison focused on intra-team position using a self-written 4-item scale in which we drew on theory on social comparison (e.g., Festinger, 1954; Gibbons & Buunk, 1999; Rijsman, 1983) and the text of past manipulations of social comparison (Edelman & Larkin, 2015) (e.g., “I compare myself with other group members in terms of the amount of influence I have in this

group”, and “I evaluate how much I am respected and valued compared to other group members”). The scale exhibited sufficient internal reliability ($\alpha = .83$).

Intra-team power struggles. We measured power struggles using a 4-item scale from Greer and Van Kleef (2010). Example items include “I have disagreements with other team members about who has control in the team” and “I have tensions with other team members over who has the most influence on important team decisions”. The scale exhibited sufficient internal reliability ($\alpha = .94$).

Team performance. To assess team performance, we had each team leader rate his or her team’s performance on the basis of 4 items (e.g., “I believe this group performs well at work,” and “This group is effective in getting things done in time”), using the scale of Greer, Caruso, and Jehn (2011). This scale had sufficient internal reliability ($\alpha = .82$).

Control variables. To rule out possible alternative explanations for our results, we controlled for team size and tenure, as past research has shown that these variables may influence team processes and outcomes in general (e.g., Harrison & Klein, 2007; Lau & Murnighan, 2005), and power structures and power dynamics specifically (Greer & van Kleef, 2010).

Analysis

To test the appropriateness of conducting our analyses at the team level of analysis (Klein & Kozlowski, 2000), we calculated inter-rater agreement scores (*rwgs*) (LeBreton & Senter, 2008). In our sample, the *rwgs* were sufficient to aggregate our data to the team level of analysis (social comparison: *rwg* = .73, and intra-team power struggles: *rwg* = .78) (LeBreton & Senter, 2008).

Results

Means, standard deviations, and correlations are presented in Table 1. For our

analyses, we used standardized versions of the independent variables.

In Hypothesis 1, we proposed that there would be an interactive effect between organizational change and intra-team power structure on intra-team social comparisons, such that change would positively relate to intra-team social comparisons when teams have a more hierarchical power structure and negatively when teams have a more egalitarian power structure. To test this hypothesis, we created interaction terms of the standardized independent variables (see Aiken & West, 1991) and used hierarchical regression analysis. We indeed found intra-team power structure to moderate the relationship between organizational change and intra-team social comparisons, as there was an overall interaction effect of organizational change and team power structure on intra-team social comparisons ($\beta = .30, t = 3.39, p < .001, \text{Adj. } R^2 = .09$; see Table 2)²⁰. We examined the simple slopes of this interaction (+1 and -1), and found that organizational change was positively related to intra-team social comparisons when teams had a more hierarchical power structure ($\beta = .08, t = 2.21, p = .03$), and negatively related to intra-team social comparisons when teams had a more egalitarian power structure ($\beta = -.10, t = -2.55, p = .01$, see Figure 2).

Table 1. Means, Standard Deviations, and Correlations

Variables	M	SD	1.	2.	3.	4.	5.	6.
1. Team size	10.48	5.72	-					
2. Team tenure	10.64	5.61	.13	-				
8. Organizational change	3.46	.99	-.08	.26**	-			
9. Team power structure	0.41	.40	-.12	-.19*	-.13	-		
10. Positional comparison	3.21	.33	.11	-.18*	-.07	.02	-	
11. Power struggles	1.97	.41	.23**	-.06	-.05	.00	.35**	-
12. Team performance	3.90	.53	-.06	-.04	.04	-.04	-.07	-.20*

N = 142
* $p < .05$, ** $p < .01$

²⁰ We obtained similar results when analyzing the items of anticipated organizational change separately.

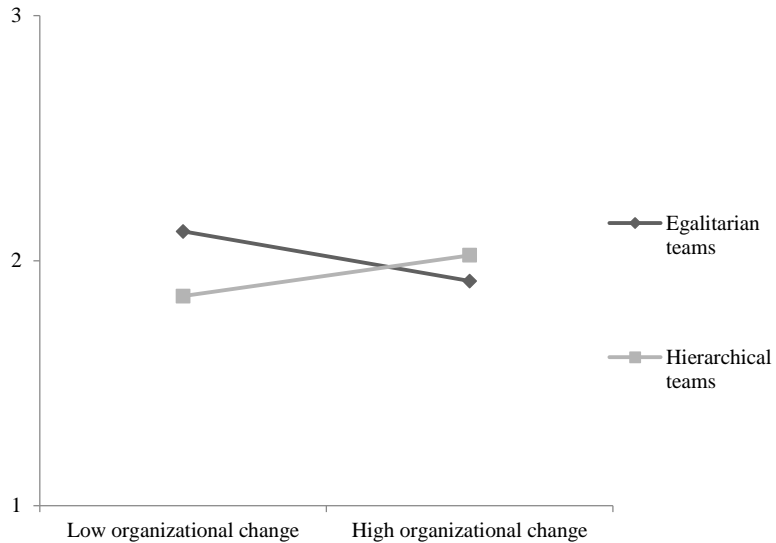
Table 2. Results of Regression Analysis

	Social Comparison		Power Struggles		Performance	
Variable	Step 1	Step 2	Step 1	Step 2	Step 1	Step 2
Controls						
Team Size	.13	.15	.25**	.20*	-.05	-.01
Team tenure	-.20*	-.20*	-.08	-.02	-.07	-.07
Organizational change	-.01	-.03	-.02	-.01	.04	.04
Power structure	-.00	-.12	-.04	-.01	-.07	-.07
Change x Power structure		.30**	.16†	.07	.03	.05
Social comparison				.31**	-.08	-.02
Power struggles						-.19*
R ²	.05	.13	.08	.17	.02	.05
Adjusted R ²	.03	.09	.05	.13	-.03	-.00
Change in R ²	.05	.07	.08	.08	.02	.03
Overall F	1.89	3.93	2.41	4.43	.35	.94
df	4, 137	5, 136	5, 136	6, 135	6, 135	7, 134

N = 142

Note. Standardized beta coefficients are presented. † < .10, * $p < .05$, ** $p < .01$

Figure 2. Interactive Effects of Organizational Change and Intra-team Power Structure on Intra-team Social Comparisons



In Hypothesis 2A, we proposed that intra-team social comparisons would positively relate to intra-team power struggles. We found support for this hypothesis, as teams that reported more internal social comparisons also reported more intra-team power struggles ($\beta = .33, t = 4.09, p < .001, \text{Adj. } R^2 = .14$),

In Hypothesis 2B, we proposed a moderated mediation of organizational change and intra-team power structure on intra-team power struggles via social comparison. We used the PROCESS macro (model 7) of Hayes (2015) with 5000 repetitions to test this hypothesis, and found that organizational change was positively related to intra-team power struggles via social comparison in more hierarchical teams ($b = .03$; Bias and accelerated 95% CI: 0.006, 0.08), and organizational change was negatively related to intra-team power struggles via social comparison in more egalitarian teams ($b = -.04$; Bias and accelerated 95% CI: -0.09, -0.009).

In Hypothesis 3A, we proposed that intra-team power struggles would negatively relate to intra-team power struggles. We found support for this hypothesis; teams that reported more intra-team power struggles had lower performance ($\beta = -.20, t = -2.30, p = .02, \text{Adj. } R^2 = .02$).

In Hypothesis 3B, we proposed a moderated sequential mediation between organizational change and team power structure via intra-team social comparison and power struggles on team performance. For this, we built on the procedures recommended by Edwards and Lambert (2007) by adjusting their first-stage moderation mediation model to a first-stage moderated mediation model with two sequential mediators (with $M_1 = \text{Social comparison}$ and $M_2 = \text{Power struggles}$). We tested the indirect effects at different levels of the moderator (-1 and +1), which contain products of the coefficients, with bias-

corrected confidence intervals (Stine, 1989) with 1000 repetitions (Shrout & Bolger, 2002) of the constitutional coefficients. To obtain these coefficients, we first tested with OLS regression the moderated $X \rightarrow M_1$ path, then the $M_1 \rightarrow M_2$ path while controlling for the moderated $X \rightarrow M_1$ path, and last the $M_2 \rightarrow Y$ path while controlling for the moderated $X \rightarrow M_1$ path and the $M_1 \rightarrow M_2$ path. We found, as predicted, a negative indirect effect of organizational change on team performance via social comparison and power struggles in more hierarchical teams ($.08 \times .13 \times -.10 = -.001$; Bias and accelerated 95% CI: -0.0035, -0.0003), and a positive indirect effect of organizational change via social comparison and power struggles in more egalitarian teams ($-.10 \times .13 \times -.10 = .0013$; Bias and accelerated 95% CI: 0.0001, 0.0029).

Discussion

While organizational change is likely to often have team-level consequences, research has neglected to examine organizational change from a team's perspective. Based on the assumption that organizational change is an unsettling event for team members (e.g., Ashford, 1988; DiFonzo & Bordia, 1998; Lau & Woodman, 1995; Rafferty & Griffin, 2006; Rafferty & Restubog, 2010), we expected members to become focused on self-protection when their team faces organizational change (e.g., Choi, 2011; Kiefer, 2002). We postulated that whether they would do so in more team performance-detracting competitive or more team performance-enhancing cooperative manners (Deutsch, 1949), depends on the internal power structure of the team. Building on the conflict-account of hierarchy (e.g., Greer et al., 2017b; Greer & Van Kleef, 2010; Taracki et al., 2016; van Bunderen et al., 2017), we theorized, and found, that members of teams with a more hierarchical power structure react competitively, focusing on social comparisons and team performance-impairing power struggles when their teams faces organizational change.

Members of teams with a more egalitarian power structure on the other hand, respond in more cooperative manners when their team faces organizational change, thereby reducing competitive intra-team processes, which helps team performance.

Theoretical Implications

Our primary aim was to provide an insight into how organizational change impacts team dynamics and performance (i.e., whether organizational change will divide or unite teams). We theorized and found that whether organizational change elicits competitive or cooperative intra-team dynamic depends on the internal power structure (i.e., more hierarchical or more egalitarian) of the team. Our research has implications for the literature on organizational change (e.g., Begley & Czapka, 1993; Gilmore et al., 1997; Greenwood & Hinings, 1996; Petrou et al., 2016; Rafferty & Griffin, 2006; Van den Heuvel et al., 2010), which has until now neglected to examine the team-level effects of organizational change (cf., the organizational-level and individual-level effects of organizational change; e.g., Begley & Czapka, 1993; Gilmore et al., 1997; Greenwood & Hinings, 1996; Rafferty & Griffin, 2006). This neglect is striking, given that most organizations are comprised of teams (e.g., Bell & Outland, 2017; Devine et al., 1999), which implies that organizational change is often executed at the team-level. Our research shows that utilizing a team-level perspective to organizational change is important, as there is not a clear-cut translation from individual-level to team-level reactions to organizational change. While individual-level research shows that individual employees tend to be negatively impacted by organizational change (e.g., Ashford, 1988; DiFonzo & Bordia, 1998; Lau & Woodman, 1995; Rafferty & Griffin, 2006; Rafferty & Restubog, 2010; Stanley, Meyer, & Topolntsky, 2005), making them eager to seek self-protection (e.g., Choi, 2011; Kiefer, 2002), our findings qualify past work on organizational change by

suggesting that organizational change may not exert negative effects on the team level – provided teams have a flat internal power structure. If not, and teams are hierarchically structured, our findings extend past work on organizational change by showing that in such situations, organizational changes may impact team functioning as adversely as they impact individual well-being. Other internal team factors (than power structures) may also promote competitive versus cooperative team mind-sets in the face of change, and as such could also guide intra-team responses to organizational change. One can think of multidisciplinary or cross-functional teams, where members of different functions may also feel categorically different from another, and as such are motivated to protect themselves in competitive manners. As such, our findings offer important implications for the study of organizational change, including identifying that internal team reactions to organizational change are highly contingent upon the intra-team (power) structure, and that change can have negative psychological implications for teams that need to be managed or can, in the right conditions, actually be a tool to drive higher-performing teams.

Second, by showing that impending organizational change differently affects team dynamics and performance, depending on the intra-team power structure, we also add to the literature of power structures in teams (for reviews see, Anderson & Brown, 2010; Greer et al., 2017a; Halevy et al., 2011). While the literature of power structures in teams is increasingly recognizing the contingent nature of its effects (see Greer et al., 2017 for a meta-analysis on the contingent effects of power structures on teams), the general assumption has been that in unsettling times, hierarchical power structures may function as an antidote to uncertainty and thus be beneficial for teams (e.g., Kakker & Sivanathan, 2017; Magee & Galinsky, 2008). Our analysis challenges this assumption of the functionalist account of hierarchy (Gruenfeld & Tiedens, 2010; Halevy et al., 2012; Magee

& Galinsky, 2008), which is largely based on individual-level research that has examined people's preferences for hierarchical power structures in times of distress rather than looking at its functionality for teams (e.g., Dryer & Horowitz, 1997; Friesen et al., 2014; Tiedens & Fragale, 2003). We show that when teams get confronted with an unsettling situation, such as organizational change, hierarchy is detrimental. In addition, by showing that hierarchy spurs internal social comparison and subsequently power struggles in teams that face organizational change, we also extend conflict accounts of hierarchy (e.g., Greer et al., 2017, 2017; van Bunderen et al., 2017), which have argued for the negatives of hierarchy, but have yet to determine when and which underlying social psychological processes explain the relationship between hierarchy and team functioning.

Last, by identifying that organizational change can be a precursor of intra-team power struggles (via the micro-mediating mechanism of social comparison), we extend the literature on competitive power dynamics in teams (Greer & Van Kleef, 2010; Hays & Bendersky, 2015; van Bunderen et al., 2017). While competitive power dynamics are arguably as endemic to organizational life as breathing is to humans (Hawley, 1963), and the implications of such dynamics are as - if not more - problematic as those of other types of conflicts (Bendersky & Hays, 2012, Greer & Van Kleef, 2010), the origins of such toxic dynamics are still largely under-researched. Our results show that organizational change may provoke power struggles via social comparison in teams that are more hierarchical. We have argued that this is because organizational change is experienced as an unsettling situation to which members want to protect themselves, and that hierarchical power structures encourage members to do so in more competitive manners, i.e., by procuring power for themselves. Our theory implies that in other situations in which members feel that they need to protect themselves and are motivated to do so in competitive manners,

power struggles are likely ignited. For instance, when teams experience conflicts with other teams, when team resources are stressed, or when a team's status within the organization is jeopardized, and there is a hierarchical power structure, low interdependence or cross-functionality, teams may get embroiled in power struggles.

Limitations and Future Directions

While our study has several strengths, including revealing the contingent effects of organizational change on teams, our paper also has a few limitations. First, we tested our moderated sequential mediation model with a multisource field study in an organization that was undergoing change. We chose this field setting rather than an experimental setting, as organizational change is a phenomenon that is difficult to capture in a laboratory setting – i.e., a laboratory setting would harm the ecological validity of the study. Also, changes experienced in a laboratory study may not generalize to real-world organizations. However, the trade-off here is that a field-study does not allow causal conclusions. While the literature clearly suggests our chosen order of variables (i.e., organizational change affects social comparison which influences power struggles which impacts team performance), we cannot know for certain whether the proposed effects are indeed ordered in this way. For instance, one could argue that power struggles between members increase social comparisons instead of vice versa. However, according to social comparison theory (Festinger, 1954; Gibbons & Buunk, 1999), the cognitive process of social comparison precedes the behavioral action of power struggles. Also, social comparison was not directly related to team performance, whereas power struggles were. This together suggests that our proposed model is directionally correct, however, future research would benefit from either an experimental or longitudinal study to address this limitation.

Another limitation is that while organizational change in teams may make members focus on power differentials, organizational change may at the same time be focused on changing power differentials. For instance, a planned organizational change may entail removing power differentiation in hierarchical teams. While flattening hierarchical teams may be a good idea, as our study shows that equality may provide teams with benefits, at the time of the organizational change, hierarchical teams are still expected to get embroiled in power struggles. This is because power struggles are not (just) about the formal distribution of power, but also about informal control (Greer et al., 2017b; Greer & Van Kleef, 2010; van Bunderen et al., 2017). Therefore, also in this situation, members of hierarchical teams are inclined to want to protect themselves in competitive manner, and engage in social comparison and consequently powers struggles. However, in the unlikely event of egalitarian teams becoming more hierarchical – indeed the trend is to flatten organizations rather than to steepen them (Ellis, 2003), our theory may not hold, as in this situation, members may start to compete for the newly-formed higher ranks. Future research may want to examine such boundary effects.

Managerial Implications

Organizational change is intended to improve organizational functioning. However, the process of implementing organizational change may often be faced with fear and resentment. We show here that organizational changes may not only breed resistance from individual employees, they may also set into play negative processes in teams. However, our research shows this is only the case in teams that have a more hierarchical power structure. When teams have a more egalitarian power structures, anticipated organizational change may have a uniting effect. This suggests for teams facing continuous change, having flat power structures is critical. Additionally, our findings suggest that if

organizations want to spur the performance of flat teams, introducing any type of change may help ramp the team's performance up to a higher level.

Important to realize however is that while an egalitarian power structure is thus preferred in times of organizational change, formally flattening the hierarchy is an unsettling organizational change on its own, and as such will also stir competitive power dynamics in the team. Therefore, the way to guide (hierarchical) teams through organizational change may be by creating an egalitarian culture in which members can see beyond their different hierarchical ranks and create a culture of similarity and solidarity. This way, hierarchical teams may also be able to experience the “we are all in the same boat” feeling, which our findings suggest should help teams better navigate organizational change. To create a more egalitarian culture, managers may try to empower members and stimulate a psychological safe environment in which all members are able to let their voice be heard.

Conclusion

Our research shows that organizational change is not just an organization-level or individual-level phenomenon, but may also leave its marks on organizational teams. Our findings contribute to theory and practice by showing that organizational change may divide or unite teams depending on the internal team power structure. We show that organizational change spirals competitive team performance-impairing dynamics in more hierarchical teams, but may actually improve the performance of more egalitarian teams.

CHAPTER 5

GENERAL DISCUSSION

As the Apple-example in the introduction illustrated, organizational teams may be tormented by power struggles. In this dissertation, I aimed to untangle why and when such power struggles emerge within organizational teams. I drew on individual-level research on power (e.g., Dahl, 1959; Thibaut & Kelley, 1959; Weber, 1947), and integrated this with the diverse literatures on group threats (Bornstein, 2003; Brewer, 2001; Hogg, 2000, 2007; Stein, 1976) and team (power) structures (Greer et al., 2017, 2018; Tarakci et al., 2016; Greer & Van Kleef, 2010) to theorize that power may be sought after as a protection-tool when members feel threatened and are motivated by the team structure to cope with this threat in individualistic manners (see also van Bunderen et al., 2017). Accordingly, I developed an overarching framework in which I propose that the combination of a threatening team environment with an individualistic team structure encourages intra-team power struggles. I tested this overarching framework with three studies that examined the combined effects of team threats (i.e., inter-team conflict in chapter 2, team uncertainty in chapter 3, and organizational change in teams in chapter 4) and internal team structures (i.e., intra-team power structures in chapter 2 and 4 and intra-team outcome interdependence in chapter 3). I outline below the immediate theoretical implications of my overarching framework. Then I address new and important topics that my dissertation helps to open up as viable and important channels for future research. Last, I discuss the practical implications of the research in this dissertation.

The first and utmost aim of my dissertation was to discover the roots of intra-team power struggles – an area in which surprisingly little was known. To this end, I developed and tested theory with the aim to understand why and when members start to vie over power with one another. By arguing that power may be sought by members as a means to protect themselves, and by showing that members are most likely to do so in situations

where they feel threatened (i.e., when teams face adversities) and are motivated to cope with this threat in individualistic manners (i.e., when teams have individualistic team structures), I contribute to the literature on teams more generally (e.g., Bell & Outland, 2017; Devine, Clayton, Philips, Dunford, & Melner, 1999; Ilgen, Hollenbeck, Johnson, & Jundt, 2005; Mohrman, Cohen, & Morhman, 1995), and more specifically on (power) structures in teams (e.g., Beersma et al., 2003; Deutsch, 1949, 1969; Greer et al., 2011; Greer et al., 2017; Harrison & Klein, 2007; Kelley & Thibaut, 1969; Magee & Galinsky, 2008), and power dynamics in teams (Bendersky & Hays, 2012; Bendersky & Pai, 2018; Eisenhardt & Bourgeois, 1988; Greer & Dannals, 2017; Greer & Van Kleef, 2010; Greer et al., 2018; Owens, Sutton, & Turner, 2001; Sonenshein, Nault, & Obodaru, 2017; Sutton & Hargadon, 1996; van Bunderen et al., 2017). While my dissertation focuses on three specific types of team threats (inter-team conflict, uncertainty, and organizational change) and two specific types of team structures (power structures and outcome interdependence structures), my theoretical framework suggests that the combination of any type of team threat with any types of individualistic team structure can cause the eruption of intra-team power struggles. For instance, when functionally diverse teams (Cronin & Weingart, 2007; Dougherty, 1992), high power teams (Greer & Van Kleef, 2010; Greer et al., 2011; Groysberg et al., 2012), or low process interdependent teams (e.g., Kiggundu, 1983; Van der Vegt et al., 1998) where members are also known to think and act more individualistically, face threats, such as inter-team conflict or organizational change, power struggles can be expected to ensue. Similarly, when these teams, or teams with a hierarchical power structure or low outcome interdependence structure face other types of threat, such as resource scarcity or a crisis, internal power struggles are also likely to result. As such, my dissertation offers important implications for the literature on teams by

identifying when competitive intra-team power dynamics become most likely.

In addition, with my explanation about *why* power struggles may arise, I also contribute to the broader power literature (e.g., McClelland, 1975, 1987; Pfeffer, 1981; Salancik & Pfeffer, 1974; Sturm & Antonakis, 2015; Tost, 2015). Scholars have argued that individuals tend to be eager to obtain power, as having power provides many benefits (e.g., Berger et al., 1980; Davis & Moore, 1945; Kipnis 1972; van Dijke & Poppe, 2006), and exercising power is (in and of itself) satisfactory (e.g., Adler, 1966; McClelland, 1975, 1987; Mulder, 1977; Ng, 1977). However, in the team context, individual members may often choose to refrain from seeking power, as power-quests may come with costs for the team (i.e., compromising team harmony) (e.g., Bendersky & Hays, 2012; Greer & Van Kleef, 2010; van Bunderen et al., 2015). In this dissertation, however, I argue that members become willing to instigate disruptive intra-team power struggles when their team is confronted with an adversity and they are encouraged (by the team structure) to deal with this in individualistic manners. I theorized that this is because power allows members to protect themselves and safeguard their own individual survival in threatening situations (van Bunderen et al., 2017). While the protecting quality of power may have been alluded to in previous power research (cf., power dependence theory; Emerson, 1962; resource- dependence theory; Pfeffer & Salancik, 2003), this “power-as-protection” motivation has not been explicitly verbalized in past research, nor has its implications been explicated. Understanding that protection is an underlying motive for individuals - but also for teams, organizations, and even societies - to seek power, helps to analyze, predict and solve situations in which power becomes a much sought-after good and therefore a bone of contention.

Further, by showing *when* power struggles in teams emerge (i.e., when teams with

an individualistic team structure get confronted with threats), I debunk two commonly held assumptions in two different literatures. First, in the broad literature on threats to groups, it is often assumed that team threats (such as inter-team conflict) operate as a uniting force for teams (e.g., Bornstein, 2003; Brewer, 2001; Hogg, 2000, 2007; Stein, 1976). My dissertation qualifies this assumption, by showing that threats may only unite teams when members are encouraged by their internal team structure to take a collective approach towards the threatening situation. When members are encouraged to take an individualistic approach however, threat highlights divisions in teams. My dissertation shows that especially in these situations, intra-team power struggles are ignited. While the research in my dissertation examined three specific types of team threats (inter-team conflict, uncertainty, and organizational change), the results I find can be expected to generalize to other types of threats. For instance, resource scarcity, crises situations, and physically threatening situations may also divide rather than unite teams that have an individualistic team structure. Understanding that the effects of threats to teams are contingent upon the team's internal structure is needed to help the literature on group threats move forward.

Last, in the literature on intra-team power structures, hierarchical power structures have often been concluded to offer a functional solution for teams (see functionalist accounts of hierarchy; e.g., Friesen et al., 2014; Gruenfeld & Tiedens, 2010; Halevy et al., 2011; Magee & Galinsky, 2008). My dissertation qualifies these conclusions by showing that when there is threat, the effectiveness of hierarchy is impaired, as hierarchy then promotes intra-team power struggles. Further, by explicating that this is because power rank differentiation fosters members to have different and sometimes even incompatible perspectives, needs, and concerns, which become especially salient when teams face adversities, I extend work on the conflict account of hierarchy (Bloom, 1999; Edmondson,

2002; Torrance, 1955; Tarakci et al., 2016; Tost, Gino, & Larrick, 2013; Van der Vegt, De Jong, Bunderson, & Molleman, 2010). Whereas the conflict account of hierarchy has suggested hierarchical power structures to foster conflicts in teams (e.g., Bunderson, Van der Vegt, Cantimur, & Rink, 2016; Greer & Van Kleef, 2010; Van Bunderen et al., 2017), the underlying mechanism had yet to be explained. The insights of my dissertation help to further develop the literature on power structures in teams, as they suggest that also in other situations which highlight the inequitable power structure of hierarchical teams, members will be likely to take the perspective of their individual rank's rather than that of their broader team, thereby increasing the likelihood that hierarchy hurts rather than helps teams.

Future Research Directions

The primary goal of this dissertation was to explore why and when power struggles arise in teams. For this purpose, I developed a theoretical model that proposes that the combination of a threatening team context with an individualistic intra-team structure will ignite intra-team power struggles. In a first test of this theoretical model, I examined three different instances of this model (inter-team conflict with a hierarchical power structure, team uncertainty with low outcome interdependence, and organizational change with a hierarchical power structure). However, there may be many more combinations of threatening team environments and individualistic team structures that foster team performance-detracting power struggles, and future research would benefit from exploring these different team situations. For instance, future research may examine intra-team power struggles in the light of other team threats, such as when teams are threatened by resource scarcity, crises, or physically threatening situations. Future research may also examine intra-team power struggles while considering other team structures, such

as team power level, (functional) diversity or process interdependence. Last, future research may go even a step further, and examine intra-team power struggles while looking at a combination of different team structures, for example a hierarchical power structure with high outcome interdependence. Collecting more empirical evidence on settings that cause intra-team power struggles is needed to create a solid base for theory and research on power in teams.

This dissertation provides valuable insights into the origins of intra-team power struggles by identifying two categories of factors, both external (team threats) and internal (team structures) to the team, that together ignite intra-team power struggles. However, there may be factors that further encourage or discourage teams with an individualistic team structure to get embroiled in power struggles when a threat presents itself. One important factor may be whether teams view power as zero-sum. When members view power as zero-sum, i.e., one member's power gain is another member's power loss (e.g., Lawler, 1992; Meegan, 2010), one member's power quest is threatening to other members' power position, which implies that power struggles are ignited when one member seeks power in response to a threat. However, when members do not have this belief, i.e., they see power as non-fixed and expandable (Tannenbaum, 1962), one (or more) member's power hunt does not have to result in intra-team power struggles. Another moderating factor may be the team's culture (cf., Kim, Park, & Suzuki, 1990; Tornblom, Jonssons, & Foa, 1985). When teams with an individualistic team structure manage to have a very collectivistic culture regardless, or when teams with a collective team structure have a very individualistic culture, the relationship between team adversities and intra-team power struggles may be mitigated in the former, and even reversed in the latter. Future research would benefit from exploring such contingency factors for power struggles in teams.

While this dissertation focuses on the why and when of power struggles, future research would profit from exploring the *how* of power struggles. In this regard, there are several fruitful avenues. First, one potential avenue for future research involves the classification of power struggle behaviors. Although I have made a first attempt to classify power struggle behaviors in the introduction of this dissertation, more work is needed to pinpoint which categories of power struggle behaviors exist, as well as to determine when which members are likely to show what specific power struggle behaviors. In this respect, questions that arise may be whether there are certain situations where high power members are more likely to show overt versus covert power struggle behaviors. Or when members are more likely to use other-deprecating versus self-enhancing power struggle moves. Second, it would be interesting to examine whether different power struggle behaviors affect team performance differently. For instance, do covert power struggle behaviors impact performance in different manners than overt power struggle behaviors, and which of the two is more detrimental? Third, and related to this, future research may want to examine whether power struggles are in any situation negative for team performance and other team outcomes, or whether there are situations or specific team outcomes that are helped by intra-team power struggles.

Another interesting future research direction would be to adopt a more fine-grained and perhaps a temporal lens on competitive power dynamics in teams. While the research in this dissertation examined why and when power struggles get ignited, it did not examine who started a power struggle towards who - and whether this matters (an exception is the experimental study in Chapter 2). Nor did it look at how the power struggle once started, developed over time. While all members may start a power struggle when the team is confronted with a threat, it might matter for the form, duration, and

consequences of the power struggle which member initiates a power struggle towards which other member. Similarly, the form and duration of power struggles may be determined by how many members get involved in the power struggle, and this may in turn affect the consequences of the power struggle. Therefore, future research may consider examining which members start or get involved in a power struggles, what factors influence this, and how this influences the form, duration, and eventual consequences of the power struggle.

A last key future research direction is how to best solve intra-team power struggles. As prevention is better than curing, my dissertation focused on why and when power struggles get started, thereby providing the opportunity to prevent power struggles from being ignited. However, in the event that a power struggles does emerge, it would be interesting and important to identify strategies that members can take to manage and resolve power struggles effectively. As power struggles may take different forms, and because they are such a sensitive topic (causing them to be camouflaged and downplayed), their resolution may often be a challenging task. To not resort to the “easy” solution: firing someone or forcing someone to resign – as in the Apple-example, as that is oftentimes not the most optimal solution for all parties involved, future research would benefit from examining different ways in which power struggles can be more integratively resolved.

Practical implications

Teams are a key factor in many contemporary organizations. In order to capitalize on teams, it is important that members cooperate effectively with one another and focus more on the team than on their own individual gain. Therefore, ensuring that teams do not get embroiled in team performance-detracting power struggles is imperative. Research in this dissertation shows that intra-team power struggles become most likely when teams

with an individualistic team structure get confronted with threat. While threats can unfortunately oftentimes not be prevented, the team structure is something organizations can easily change. Based on the results of the research in this dissertation, organizations whom are likely to face threats would be recommended to implement more collectivistic team structures, such as flatter power structures or high outcome interdependence structures, to ensure that team members will try to cope with threats in more collectivistic manners, and refrain from engaging in power struggles with one another.

Conclusion

Power struggles are a common phenomenon in organizational teams that detract from team performance. Understanding why and when intra-team power struggles arise is essential for both researchers and practitioners that seek to improve team effectiveness. In this dissertation, I developed and tested a theoretical framework that postulates that a combination of a threatening team environment with an individualistic team structure encourages teams to get embroiled in intra-team power struggles. With this dissertation, I contribute to research on power and teams, and hope to spur more research in this important area of work.

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Summary

Intra-team power struggles, or competitions over the relative levels of valuable resources controlled by members within the team, are pervasive in organizations. While research has shown that intra-team power struggles tend to impair team outcomes, why and when intra-team power struggles arise has hitherto remain unknown. In this dissertation, I unravel which factors elicit competitive power dynamics in teams, allowing important insight into their prevention.

I draw on individual-level social psychological research on power and integrate this with the literatures on group threats and team (power) structures to postulate that power may be sought as a protection-tool when members feel threatened and are motivated by the team structure to cope with this threat in individualistic manners. Accordingly, I develop an overarching framework in which I posit that the combination of a threatening team environment with an individualistic team structure encourages performance-detracting intra-team power struggles. I tested this framework with three studies that examined the combined effects of team threats (i.e., inter-team conflict in chapter 2, team uncertainty in chapter 3, and organizational change in teams in chapter 4) and internal team structures (i.e., intra-team power structures in chapter 2 and 4 and intra-team outcome interdependence in chapter 3).

With my dissertation, I contribute to several literatures. First, by proposing that members may utilize power as a protection-tool, and identifying the situations that motivate members to do so, I extend the power literature at large, and the literature on

power dynamics more specifically. Second, by showing that team threats foster intra-team power struggles when teams have an individualistic team structure, I qualify previous research that has argued threatening team situations to unite teams internally. Last, by pointing out that hierarchy promotes power struggles when teams face threats, I qualify previous research that has advocated for the benefits of hierarchy in such situations.

Samenvatting

Machtsstrijd binnen teams, of competitie tussen leden van een team over de relatieve controle van waardevolle middelen, is een veel voorkomend fenomeen in organisaties. Hoewel onderzoek heeft aangetoond dat machtsstrijd een negatieve invloed heeft op de uitkomsten van teams, is het nog steeds niet duidelijk waarom en wanneer machtsstrijd ontstaat in teams. In dit proefschrift, ontrafel ik welke factoren competitieve machtsdynamieken in teams uitlokken, daarmee belangrijke inzichten omtrent hun preventie verschaffend.

Ik integreer sociaal psychologisch onderzoek dat is gedaan naar macht op individueel niveau met onderzoek naar groepsdreigingen en onderzoek naar (machts-) structuren in teams om te postuleren dat teamleden macht zoeken als beschermingsmiddel wanneer zij zich bedreigd voelen en door de teamstructuur gemotiveerd zijn om de dreiging op een individuele manier te benaderen. Derhalve ontwikkel ik een overkoepelend model waarin ik poneer dat de combinatie van een bedreigende teamomgeving en een individualistische teamstructuur prestatie verminderende machtsstrijd binnen teams aanmoedigt. Ik test dit model met drie studies die zich richten op de gecombineerde effecten van teamdreigingen (d.w.z., conflicten tussen teams in hoofdstuk 2, onzekerheid in teams in hoofdstuk 3 en organisatorische verandering in hoofdstuk 4) en interne teamstructuren (d.w.z., interne machtsstructuren in hoofdstuk 2 en 4 en uitkomstinterdependentie tussen leden in hoofdstuk 3).

Met mijn proefschrift draag ik bij aan verschillende literaturen. Ten eerste, door te beargumenteren dat leden macht kunnen gebruiken als beschermingsmiddel en situaties te identificeren die leden motiveren om dit te doen, breid ik de literatuur over macht in het

algemeen en de literatuur over machtsdynamieken in het bijzonder uit. Ten tweede, door te laten zien dat teamdreigingen machtsstrijd veroorzaken in teams met een individualistische teamstructuur, kwalificeer ik eerder onderzoek dat heeft beargumenteerd dat bedreigende teamsituaties teams intern verenigen. Tot slot, door te laten zien dat hiërarchie machtsstrijd bevordert in teams die worden bedreigd, kwalificeer ik voorgaand onderzoek dat heeft beargumenteerd dat hiërarchie in zulke situaties voordelig is.

About the author

Lisanne van Bunderen obtained her Bachelor's and Research Master's degree in Social Psychology (both cum laude) from the University of Amsterdam. In 2013, she started her PhD project at the Erasmus Research Institute of Management, Erasmus University Rotterdam with dr. Lindred Greer and Professor Daan van Knippenberg.



In her dissertation, she examines why and when power struggles arise in organizational teams. For this, she draws on a variety of both social psychological as management literatures, and develops an overarching framework with which she theorizes that the combination of a threatening team environment and an individualistic internal team structure makes teams fall prey to team performance-detracting power struggles.

Lisanne presented her research at several international conferences, including the Academy of Management Annual Meetings, the annual meetings of the International Association of Conflict Management, the annual INGroup-meeting, and the meeting of the European Association of Social Psychology. Her work has been published in the Academy of Management Journal and the journal of Research in Organizational Behavior.

Portfolio

Publications

- Greer, L. L., van Bunderen, L & Yu, S. 2017. The dysfunctions of power in teams: a review and emergent conflict perspective. *Research in Organizational Behavior*, in press.
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Research projects in progress

- van Bunderen, L & Greer, L.L. *When and why uncertainty tears teams apart: Uncertainty ignites power struggles in teams with low outcome interdependence.*
- Van Bunderen, L., van Knippenberg, D., Greer, L.L. *Does organizational change divide or unite teams? The critical role of internal team power structures.*
- van Bunderen, L, Greer, L.L., & Kearney, E. *Minimizing performance-detracting power struggles in cross-functional teams: The importance of flatter power structures.*
- van Bunderen, L., & Greer, L.L. *The interactive effects of hierarchy steepness and hierarchy layers on intra-team competition.*
- van Bunderen, L., & Khattab, J. *A Temporary approach to team navigation: The interplay between social and personal identities.*

- van Knippenberg, D., van Bunderen, L., & De Haas, M. *Values-based leadership and strategic consensus.*
- van Dick, R., Kerschreiter, R., Steffens, N., Akfirat, S.A., Avanzi, L., Dumont, K., Epitropaki, O., Fransen, K., Gießner, S., Gonzales, R., Kark, R., Lemoine, J., Lipponen, J., Markovits, Y., Monzani, L., Orosz, G., Pandey, D., Roland-Lévy, C., Schuh, S., Sekiguchi, T., Song, L.J., Stouten, J., Tatachari, S., Valdenegro, D., van Bunderen, L., Vörös, V., Wong, S.I., Zhang, X., & Haslam, S.A. *Identity leadership going global: Results from an international validation study of the identity leadership inventory.*

Conference presentations

- van Bunderen, L & Greer, L.L. 2017. *When and why uncertainty tears teams apart: Uncertainty ignites power struggles in power dispersed teams.* European Association of Social Psychology (EASP), Granada, Spain.
- van Bunderen, L., Greer, L.L., & van van Knippenberg, D. 2017. *From inter-team conflict to intra-team power struggles: The pivotal role of team power structure.* APS Industrial and Organizational Psychology Conference, Sydney Australia.
- van Bunderen, L, Greer, L.L., & Kearney, E. 2016. *Minimizing performance-detracting power struggles in cross-functional teams: The importance of flatter power structures.* Academy of Management, Anaheim, CA, USA.
- van Bunderen, L & Greer, L.L. 2016. *When and why uncertainty tears teams apart: Uncertainty ignites power struggles in power dispersed teams.* International Association of Conflict Management (IACM), New York, NY, USA.
- van Bunderen, L, Greer, L.L., & Kearney, E. 2016. *Minimizing performance-detracting power struggles in cross-functional teams: The importance of flatter power structures.* Potsdam Leadership Symposium, Potsdam, Germany.
- van Bunderen, L., Greer, L.L., & van Knippenberg, D. 2015. *Power struggles in teams: A resource competition account of power in teams.* Academy of Management, Vancouver, Canada.
- van Bunderen, L., Greer, L.L., & Tarakci, M. 2015. *The interactive effects of hierarchy steepness and hierarchy layers on intra-team competition.* INGRoup, Pittsburg,

PA, USA.

van Bunderen, L., Greer, L.L., & van Knippenberg, D. 2015. *Power struggles in teams: A resource competition account of power in teams*. Amsterdam Business School, University of Amsterdam, Amsterdam, the Netherlands.

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van Bunderen, L. & van der Pligt, J. 2012. *Intergroup conflict: The role of threat and othercondemning moral emotions*. Association of Social-Psychological Research (ASPO) conference, Utrecht, the Netherlands.

van Bunderen, L. & van der Pligt, J. 2012. *Intergroup conflict: The role of threat and othercondemning moral emotions*. Society of Australasian Social Psychologists (SASP) conference, Adelaide, Australia.

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Valorization prize (5000 euros) for our work with S-ray Diagnostics, granted by the Erasmus School of Economics (ESE), 2016.

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Intra-team power struggles, or competitions over resource control between members, are pervasive in organizations. Research has shown that power struggles impair team outcomes, yet why and when they arise remains unknown. In this dissertation, I unravel which factors elicit competitive power dynamics in teams, allowing important insight into their prevention.

I draw on social psychological research on power and integrated this with the literatures on group threats and team (power) structures to theorize that power may be sought as a protection-tool when members feel threatened and are motivated by the team structure to cope with this threat individually. Accordingly, I develop an overarching framework where I posit that the combination of a threatening team environment with an individualistic team structure encourages intra-team power struggles. This framework finds support in three studies that examined the combined effects of team threats (i.e., inter-team conflict, team uncertainty, and organizational change) and internal team structures (i.e., power structures and outcome interdependence).

My dissertation research contributes to several literatures. First, by arguing that power can be utilized as a protection tool, and identifying situations that motivate this, I extend the literature on power (dynamics). Second, by showing that team threats foster intra-team power struggles when teams have an individualistic team structure, I qualify previous research in which threatening team situations have been found to unite teams internally. Last, by pointing out that hierarchy promotes power struggles when teams face threats, I qualify previous research that has advocated for the benefits of hierarchy in such situations.

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