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The bright side of hierarchies

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CHAPTER 5

GENERAL DISCUSSION

Although status and influence have been recognized as primary motives that guide most human social behavior (Barkow, 1975; Barrick, Stewart, & Piotrowski, 2002; Frank, 1985), our understanding of the antecedents and consequences of hierarchies in groups is limited, particularly within the management context (Pearce, 2001; Ravlin & Thomas, 2005). After reviewing previous research in this area, I identified three specific gaps in the literature that inspired the research presented in the individual empirical chapters of this dissertation. First, although scholars have paid a great deal of attention to the antecedents of influence differences in task-oriented groups (e.g., Berger, Cohen, & Zelditch, 1972; Bunderson, 2003a; Driskell, Olmstead, & Salas, 1993; Ridgeway, 1987), past literature largely excluded the possibility that there might be multiple *behavioral* routes to social influence. Second, relatively little organizational research existed on the implications of certain structural characteristics of status and influence hierarchies (i.e., like hierarchical steepness) for effective team outcomes (see Christie & Barling, 2010; DiTomaso, Post, & Parks-Yancy, 2007). And finally, previous research has also been relatively ambiguous about what exactly is meant with influence hierarchies in groups, overlooking the fact that such hierarchies can have quite distinct structural features. Yet it has remained unknown whether these different hierarchical shapes may have unique effects on team processes and outcomes. Each chapter in this dissertation attempts to address one of these gaps in order to provide deeper insights into the ways status and influence hierarchies originate, function, and affect work teams in organizational life.

In the current discussion, I will briefly summarize the findings of the empirical chapters that I reported in this dissertation and will highlight the theoretical implications that can be drawn from them. I will also discuss the strengths and limitations of the research findings and will suggest some potentially useful directions for future inquiry. Finally, I will conclude with

practical implications and some recapitulating remarks.

Summary of the Main Findings

The main objective of Chapter 2 was to investigate the antecedents of individual-level social influence in work teams. In this chapter, I argued that team members not only effectively gain influence over others by raising perceptions of expertise (i.e., by demonstrating task-relevant knowledge and skills), but also by raising perceptions of behavioral dominance (i.e., by demonstrating coercive, aggressive, and intimidating behavior). I proposed, however, that the effectiveness of each route to influence depends on the extent to which teams operate in a competitive environment. I expected that the expertise-route to influence would be particularly effective in a team climate characterized by low levels of intra-team competition because team norms will allow for mutual cooperation and assistance that will make the contribution of expertise valuable and more desirable. In a more competitive team climate, however, I expected the dominance-route to influence to have more impact as team norms will allow for forceful and assertive acts that help one to secure one's control over valuable resources. With the use of a multi-method approach, I demonstrated that both expertise and dominance are indeed causal antecedents of social influence and that these two routes are independent from one another; individuals in the work place will be perceived as influential either when displaying signs of expertise or when signaling dominance. At the same time, I found support for my moderation hypotheses predicting that the relationship between each route and social influence would be moderated by intra-team competition. The results confirmed that a team member gains more influence by exhibiting expertise when intra-team competition is less pronounced than more pronounced, whereas the influence privileges that accrue to dominant individuals are more salient when intra-team competition is more pronounced than less pronounced.

Chapter 3 was developed to obviate the mixed effects that have been found in the literature on the influence of status hierarchies on team functioning (for a review, see Anderson & Brown, 2010). In this chapter, I examined under what task conditions steeper status hierarchies (i.e., hierarchies with larger status differentials among their members) promote work team performance, and why. More specifically, I expected that steeper status hierarchies in which only a few team members have disproportionate control over the team's tasks and activities would be more beneficial when teams work on tasks that are low on complexity because such tasks involve relatively standard and straightforward solutions (Gladstein, 1984; McDonough & Leifer, 1983). Yet I proposed that steepness of the status hierarchy would not have an impact on performance when teams perform relatively complex tasks because steeper hierarchies' positive effects through the avoidance of potential complications under such task circumstances and negative effects through the neglect of diverse viewpoints that such tasks may indeed require would be counterbalanced. In a field study, I found support for these expectations and showed that the degree of hierarchy steepness had no effect on team performance when teams performed more complex tasks. Importantly, however, steeper status hierarchies did relate positively to team performance as team tasks became *less* complex, and intra-team conflict (in particular, process and task conflicts) appeared to be the key mediating mechanism that transmitted this effect.

Chapter 4 strived to show that the effects of influence hierarchies on team functioning also depend on their specific shape within a team. In this chapter, I therefore compared the impact of hierarchization (i.e., hierarchical ordering of dyadic influence relations) with the impact of steepness and centralization (i.e., the concentration of influence in one member or in a small subset of members) on team performance and overall team member satisfaction. Based on research in the ethological (see Chase, 1980; Chase, Tovey, Spangler-Martin, & Manfredonia,

2002) and social network traditions (see Krackhardt, 1994; Everett & Krackhardt, 2012), I anticipated that conceptualizing hierarchy as cascading relations of dyadic influence (i.e., hierarchization) would exhibit more favorable performance- and attitude-related work outcomes than centralization and steepness, which represent the conventional, difference-based approaches to conceptualizing hierarchy. The results of a field study confirmed this prediction and indicated that hierarchization contributed positively to team performance and member satisfaction, regardless of the team's task context. Yet the effects of steepness and centralization were again dependent on the degree to which teams executed complex tasks. This time, steepness and centralization even clearly had detrimental effects on team performance and member satisfaction when teams performed relatively complex tasks. As in Chapter 3, these effects were again explained through reduced (or alleviated) levels of process conflict.

Theoretical Contributions and Implications

The overarching objective of this dissertation was to contribute to organizational research by specifying how members gain influence in work teams and by signifying the relevance of status and influence hierarchies for the functioning of these teams as a whole. In this regard, the findings described in this dissertation have several theoretical contributions and implications that I will address below.

As for the findings reported in Chapter 2, previous research has mainly positioned perceived expertise as the fundamental predictor of influence attainment in task-focused groups (e.g., Littlepage, Schmidt, Whisler, & Frost, 1995; Ridgeway & Diekema, 1989), largely neglecting, and sometimes even refuting, the dominance option in organizational settings. However, building on sociobiological (e.g., Mazur, 1985) and evolutionary models of influence attainment (e.g., Henrich & Gil-White, 2001), my findings imply that also those who assert

dominance over others will be granted deference in organizational work teams, at least in those teams that have to operate in a competitive climate. Accordingly, by demonstrating that the viability of each route to social influence hinges on the degree of intra-team competition within organizational work teams, the findings presented in this chapter provide the first empirical evidence for the critical role of contextual factors in explaining when one route may be more potent than the other in eliciting deference from others. Taken together, these findings contribute to the social influence literature in two crucial ways. First, by underscoring the importance of perceived dominance for effectively promoting social influence, they significantly add to the ongoing scholarly effort to unveil the independent antecedents of social influence in work teams. Second, by identifying an important boundary condition, they shed light on an unexplored area of inquiry that previous researchers have particularly emphasized (see Anderson & Kennedy, 2012; Cheng, Tracy, & Henrich, 2010). On top of these contributions, the current investigation demonstrates the merit in taking into account different intellectual traditions (e.g., sociobiological and evolutionary research) and thereby also hopes to stimulate future research to apply insights from similar literatures to better understand influence allocation processes within human groups.

The findings in Chapters 3 and 4 have important implications for the ongoing debate about the benefits and challenges of hierarchies in organizational work teams, suggesting that the relationship between intra-team stratification and team performance is much more complicated than has been shown by previous studies. Because extant empirical research has yielded equivocal findings regarding the effects of hierarchies on team success (for a review, see Anderson & Brown, 2010), past theory has proposed that the relationship between hierarchy and team performance may be moderated by a group's task characteristics (for contingency theories of hierarchy, see Anderson & Brown, 2010; Halevy, Chou, & Galinsky, 2011). Although this

notion is consistent with past research on communication networks providing only preliminary evidence that the impact of hierarchies on group effectiveness depends on the complexity of group tasks (e.g., Leavitt, 1951; Shaw, 1964), the field's comprehension of the task-related moderators has remained far from complete, especially within the organizational team context. Across the two chapters of this dissertation, it was found that task complexity is indeed a critically important moderator of this relationship. This overarching result therefore confirms and corroborates contingency theories of hierarchy, outlining the role of task complexity in explicating the performance effects of (different shapes of) hierarchy in organizational work teams. Moreover, the present dissertation implies that it is vital to increase the knowledge of the factors that explain when hierarchies can conduce to better team functioning and thereby encourages future researchers to further examine the "right" conditions under which the functional benefits of hierarchies can be realized in organizational work teams.

The findings in Chapters 3 and 4 also consistently indicated that process conflict is the central mediating mechanism associated with the hierarchy-team performance linkage. Prior theory on group stratification has argued that hierarchies can facilitate group performance through their potential to reduce intra-group conflict because they promote clear lines of direction and activate voluntary deference mechanisms that help group members to work smoothly together (e.g., Halevy et al., 2011; Magee & Galinsky, 2008). Lending empirical support to this theoretical view, the results presented in this dissertation imply that status and influence hierarchies have an immediate positive effect on the logistical aspects of task accomplishment, delineating a clear division of labor in terms of who does what, when, and how in organizational work teams, thereby reducing debilitating process disagreements and hence, improving team performance. These findings stress the important mediating role of process conflict and refine

extant theory by specifying precisely what type of intra-team conflict gets most affected by hierarchies. These results also substantiate the conviction that, under the right conditions, hierarchies can be a key inhibitor of process conflict and hence, lead to better performance outcomes in organizational work teams. The fact that this mediating mechanism has been validated across two field studies thereby increases confidence in the generalizability and robustness of this overarching finding of the dissertation.

Finally, supplementary to previous scholarly work underscoring that moderators are needed to explicate the direction of the relationship between hierarchies and team functioning (e.g., Anderson & Brown, 2010; Halevy et al., 2011), the findings presented in Chapters 3 and 4 suggest that taking into account the shape of an influence hierarchy (i.e., whether it is hierarchization, centralization, or steepness) can also be instrumental in clarifying these effects. The current investigation therefore suggests that it may be possible to obtain more uniform results when hierarchies are conceptualized in similar ways. Furthermore, it provides compelling evidence that pooling together empirical findings derived from different hierarchical shapes to reach a general conclusion about the benefits and detriments of hierarchies may be very misleading and that the specific hierarchical structure is critically decisive for interpreting these effects more accurately in organizational work teams. Lastly, the current dissertation asserts that synthesizing perspectives from disparate literature (e.g., evolutionary research, research on dominance hierarchies in animal species) may help to inform the debate about the role of hierarchies in organizational work teams and therefore suggests that scholars may largely benefit from applying insights from diverse disciplines to elucidate the functioning of hierarchies in human groups.

Strengths, Limitations, and Future Research Directions

The present dissertation has a number of strengths that are worth noting. For example, the use of a multi-method approach (i.e., field studies in all empirical chapters and some additional scenario studies), and the use of different samples (i.e., employees and supervisors in different organizations and sectors, students, MTurk users) increased the generalizability and the external validity of the reported findings. Moreover, the use of at least two sources in all field studies (e.g., self-reports, peer ratings, and supervisor ratings) largely circumvented same-source bias (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003), and the relatively high response rates in all studies minimized selection bias in the inclusion of the study participants.

However, as with all research, this dissertation also has certain methodological limitations. For instance, as team performance was assessed by means of perceptual supervisor ratings, I cannot state with full certainty that similar results would be obtained with objective predictors of team performance (see Van der Vegt & Bunderson, 2005). Moreover, my reliance on a correlational approach in Chapters 3 and 4 did not allow me to draw firm conclusions on causality between the study variables. Future research may hence consider running longitudinal studies with objective outcome measures to re-test the observed effects.

Finally, despite there being similarities in the patterns of results in Chapters 3 and 4, we also observed some differences across these chapters. Although steeper hierarchies did not have any effect on conflict and performance when teams performed highly complex tasks in Chapter 3, such hierarchies clearly did have negative effects under these task circumstances in Chapter 4. I suspect that this discrepancy is caused by the fact that there are some methodological differences across the studies. Progressive insight caused me to use different measures for status and influence (round-robin vs. social network approach) and different scales for task complexity in

these studies. The first scale that I used focused on task complicatedness (Morgeson & Humphrey, 2006) whereas the second scale emphasized the non-routineness of tasks more directly (Withey, Daft & Cooper, 1983). Evidently, a clear division of influence among team members can be more detrimental when teams need to perform non-routine tasks than when they need to perform complicated tasks. Although this discrepancy does not endanger the interpretation of the overarching pattern of results that was observed across both chapters, it may still be useful for future research to investigate how steeper hierarchies exactly impact on teams under these complex task conditions.

Beyond addressing these methodological limitations, the current dissertation offers other intriguing conceptual avenues for future research. First, in my research, I focused on perceptions of expertise and dominance as two possible viable routes to influence in work teams because work teams are known to greatly value task-relevant knowledge when affording influence to their members (Lord, Phillips, & Rush, 1980) and because individuals tend to adhere to the demands of dominant others to gain or maintain access to valued resources (Henrich & Gil-White, 2001). However, previous research has shown that *social competence*, exhibited as displaying selfless behavior, a collective-orientation, and generosity (Flynn, Reagans, Amanatullah, & Ames, 2006; Hardy & Van Vugt, 2006; Willer, 2009; for a review, see Anderson & Kilduff, 2009b), may also be one way to gain influence in a group. This notion is based on organizational studies that have found a link between perceptions of expertise and perceptions of social competence (Curtis, Krasner, & Iscoe, 1988; Sonnentag, 1995 cf. Sonnentag & Volmer, 2009). That is, those members who are seen as experts by their fellow team members are generally also believed to be socially skilled. Future researchers could therefore extend the social influence model developed in this dissertation by examining whether perceptions of social competence independently, or

through perceptions of expertise, enhance influence attainment in organizational work teams. Furthermore, as recent research suggests that hierarchical patterns based on social affinity may also have implications for team functioning (Joshi & Knight, 2014), future research may also wish to investigate how hierarchies based on member differences in social competence may affect team processes and outcomes in organizational work teams.

Second, consistent with both existing theory (e.g., Magee & Galinsky, 2008) and research (e.g., Fisek & Ofshe, 1970; Fiske & Cox, 1960; Nelson & Berry, 1965) suggesting that hierarchies tend to be relatively stable and self-reinforcing over time, I treated hierarchy as a static structure in this dissertation. However, empirical evidence also asserts that hierarchies are fairly dynamic systems that can change over time (e.g., Chizhik, Alexander, Chizhik, & Goodman, 2003; Mast, 2002). One way in which the established status or influence hierarchy can change is through the inclusion of a new or replacement member to an existing team, which is rather common practice in today's contemporary organizations (Bunderson, Van der Vegt, & Sparrowe, 2014). Previous literature proposes that the shape of a team's hierarchy is a crucial team-level characteristic that can influence team receptivity to newcomers, which, in turn, is likely to have consequences for sustained team performance (see Rink, Kane, Ellemers, & Van der Vegt, 2013). Inspired by this literature, I suggest that different forms of intra-team stratification (i.e., hierarchization, centralization, and steepness) may have differential effects on team functioning when hierarchies become instable through such team membership changes. For example, teams in which all influence relations are cascading may be less affected by membership change because such structures bear no circularity in questions of deference. The newcomer(s) may hence smoothly fit in the corresponding position within the dyadic ordering of influence relations, leaving less room for disputes over the existing members' influence positions.

However, in perfectly centralized or steep hierarchies, newcomers may impose greater threat on the influence positions of the existing members (see Rink et al., 2013) and team members may engage in debilitating conflict and harsh competition that may decrease the team's overall effectiveness. I therefore strongly encourage future research to inquire the process and performance benefits and detriments of different hierarchical structures when they are instable due to team membership change.

Finally, this dissertation is, in part, the result of calls in the literature to scrutinize the effects of status and influence hierarchies on team functioning (e.g., Anderson & Brown, 2010; Halevy et al., 2011). While I have been able to unravel some of the circumstances under which hierarchies may be beneficial for team performance, it remains questionable how sustainable these performance effects are in time. In Chapter 4, I therefore already added team member satisfaction to my research since this variable tends to have longer-term implications for the effective functioning of team members (for a meta-analysis, see Harter, Schmidt, & Hayes, 2002). Yet future research may wish to also include wellbeing-related outcomes of status and influence hierarchies that closely follow from member satisfaction (e.g., absenteeism, stress, burnout, etc.). Previous research has shown that one's individual status in society, which is often based on demographic characteristics such as gender or ethnic background or socioeconomic indicators such as education or income, is related to wellbeing; the higher one's societal status, the less stress one experiences (e.g., Adler, Epel, Castellazzo, & Ickovics, 2000; for a review, see Marmot, 2004). Similarly, ethological literature has revealed that social-living animal species' positions within the dominance hierarchy may have implications for their physiology and health and the same applies to human beings; low status can severely decrease quality of life among humans, vastly affecting their stress-related diseases and mortality (see Sapolsky, 2004; 2005).

Yet research on the individual- and team-level consequences of inequality in status or influence on work team members' physical and psychological wellbeing is still relatively scarce (for a cross-level investigation in NBA teams, see Christie & Barling, 2010). I therefore strongly encourage future organizational team research to fill this void, given that wellbeing has often been associated with individual performance (e.g., MacDonald, 2005; Staw, Sutton, & Pelled, 1994; Wright & Cropanzano, 2000; Wright & Staw, 1999) and may ultimately also affect team processes and outcomes (e.g., Taris & Schreurs, 2009) as these individual-level effects are generally caused by the members' specific work context (see Bakker, Demerouti, De Boer, & Schaufeli, 2003; Bakker, Demerouti, & Verbeke, 2004) and are likely to cross over to other members (see Bakker, Westman, & Van Emmerik, 2009; Westman & Etzion, 1999).

Practical Implications

People are generally conditioned to think that hierarchies are universally bad. Contemporary organizations therefore often attempt to play down hierarchical differentiation in work teams. They, for example, strive to establish egalitarian structures in teams and/or motivate feelings of empowerment among employees (Gruenfeld & Tiedens, 2010; Leavitt, 2005). However, evidence is growing that status and influence hierarchies are a pervasive reality of organizational work teams even though they may differ in their degrees in different teams. In this dissertation, I show that under the right conditions, these hierarchies still serve as safe and reliable premises that reduce interpersonal frictions among team members and enhance effectiveness in organizational work teams. This dissertation can therefore offer some helpful recommendations for practitioners trying to manage hierarchies in organizational work teams.

Generally speaking, this dissertation vindicates that hierarchies can be functionally beneficial in organizational work teams and instead of abolishing them, their merits should be

capitalized on under the right conditions. I found that status and influence hierarchies can reduce logistical controversies among the team members (i.e., process conflict; see Greer & Jehn, 2007) and improve team performance either when teams execute tasks with relatively low levels of complexity or when the influence hierarchy is characterized by cascading relations of dyadic influence. The results from this dissertation could therefore help to change the mindset of managers by showing that the pervasive aversion toward hierarchies is actually in vain. The findings reported in this dissertation also put into question why management practices and organizational initiatives to empower employees and teams should be advantageous in all cases. These findings therefore seem to support the contention that people indeed have an inherent need for structure and that trying to engage in egalitarian arrangements in every instance is just an illusion. All in all, the conclusions that can be drawn from this dissertation are in line with other research demonstrating the functional aspects of hierarchy (e.g., Halevy et al., 2012; Ronay et al., 2012) and serve to ascertain that hierarchies can profoundly promote success in organizational work teams when specific circumstances are in place.

Concluding Remarks

This dissertation started with a quote suggesting that, although we might have various different ideas as to who we are, our worthiness in social groups is strongly determined by the perceptions of others. These perceptions not only affect how influential we may get in our social surroundings, but they also constitute the basis of the hierarchies in which we live today. In three empirical chapters, I examined the development and consequences of hierarchical differences in organizational work teams. By doing so, I hope that I have sufficiently addressed the need to develop a vision beyond the simple hierarchy-performance link and to bring more precision into *what* is meant with hierarchy as well as *when* and *why* hierarchies facilitate team functioning.

Because hierarchies are universally omnipresent, they are a never-ending area of research that will produce fruitful implications both for theorists and practitioners. Having acknowledged that others' perceptions are vital to the evaluation of the self, I hope that organizational scholars, in particular those devoted to studying hierarchies, will find the content of this dissertation a worthwhile endeavor and get inspired to pursue further research in this area.