

## Tilburg University

### Diversity, status, and performance

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*Publication date:*  
2013

[Link to publication in Tilburg University Research Portal](#)

*Citation for published version (APA):*  
van Dijk, H. (2013). *Diversity, status, and performance*. Ipskamp Drukkers.

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# DIVERSITY, STATUS, AND PERFORMANCE

Hans van Dijk

**Diversity, Status, and Performance**

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Cover design and lay-out: Marieke Klaasse, [www.millerdesign.nl](http://www.millerdesign.nl)

Printed by Ipskamp Drukkers

# DIVERSITY, STATUS, AND PERFORMANCE

## PROEFSCHRIFT

ter verkrijging van de graad van doctor  
aan Tilburg University  
op gezag van de rector magnificus,

prof. dr. Ph. Eijlander,

in het openbaar te verdedigen  
ten overstaan van een door het college  
voor promoties aangewezen commissie  
in de aula van de Universiteit

op vrijdag 8 februari 2013 om 10.15 uur

door

**Johannes van Dijk**

geboren op 15 juli 1984 te Zwolle.

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## DANKBETUIGING

'Dankbetuiging' is een ouderwets woord, maar het dekt de lading van het begin van dit proefschrift beter dan 'dankwoord'. Het woord 'betuiging' impliceert namelijk dat ik echt stil sta bij en de tijd neem voor het bedanken van een ieder: Ik erken dat hun steun en hulp in mijn hart gegrift staan.

Het is niet de bedoeling dat deze dankbetuiging langer wordt dan mijn dissertatie. Die is al dik genoeg. Dus ik heb ervoor gekozen om het kernachtig te houden. Hopelijk wisten alle familieleden, vrienden, kamergenootjes, HRS departementsleden, (ex-)collega's, mede-hobbyisten (de mensen van het Veritas Forum, de aio-raad, Serve the City, WePraise, BeingReal, GodAvond, IFES, pHResh, de (s)experts) en uiteraard mijn lieve en te grappige vriendin Evie (10) ook al voordat ze deze dankbetuigingen lezen dat ik mijn werk niet zonder hen zou hebben gekund. Niet zozeer doordat jullie voorzagen in de broodnodige afleiding (welke voor mij een noodzakelijke voorwaarde is om me te kunnen focussen), maar vooral omdat jullie stuk voor stuk in mij geloven, mij stimuleren en mij liefhebben. Jullie maken mij een betere wetenschapper doordat jullie mij een beter mens maken.

Mochten jullie dat echter nog niet weten, dan weten jullie het nu!

Marloes, toen ik nog zei dat ik "alles wil, behalve promoveren en naar België verhuizen", gaf jij al aan dat ik toch maar eens over promoveren na moest denken. Dat ik vervolgens naar België verhuisde had ik al als voortekenen kunnen zien, maar jij was vervolgens degene die me naar Tilburg haalde. Op dat moment was ik gewend aan in België wonen en had ik me erbij neergelegd dat ik dan toch maar zou promoveren. Ik had echter nog niet helemaal mijn lesje geleerd, want juist daarvoor had ik nog gezegd open te staan "voor alles. Behalve Tilburg". Terugkijkend op de fantastische vier jaar kan ik echter niet anders dan concluderen dat jij me jaren geleden al beter door had dan ik mijzelf. Ik heb genoten van het traject en heel veel geleerd van je. Ik kan zodoende wel stellen dat ik me geen betere begeleider kon wensen! Tevens grappig om vast te stellen dat onze complementariteit een bewijs is dat diversiteit zeker wel tot synergie kan leiden...

In het verlengde daarvan: Jaap, jij nam een ongebruikelijke beslissing door mij aan te nemen terwijl mijn onderzoeksinteresse niet echt in jouw straatje paste. Vervolgens heb je mij aan- en bijgestuurd precies op die punten waar ik dat nodig had, maar ook verant-



woordelijkheden en ruimte gegeven waar ik dat graag wou. Met name het vertrouwen dat je bleek te hebben in mijn aanpak van het Shell-onderzoek bewonder ik. Een dergelijke onbaatzuchtige en aan de persoon aanpassende leiderschapsstijl is zeldzaam, maar in elk geval voor mij perfect.

Overigens waren er twee personen die, naast Marloes, ook al jaren geleden suggereerden dat promoveren misschien wel iets voor me zou zijn. Dirk, dat jij als Belg mij als Hollander onder je hoede nam verdient al een compliment op zichzelf. Dus bij dezen. Maar met name de uitdagingen als het lesgeven aan MBA studenten en de verantwoordelijkheid over het EHRM programma haalden het beste in mij naar boven. Dat je - samen met Koen! - me daarnaast ook hebt gepusht om onderzoek te doen hebben voor een stevig fundament gezorgd waar ik de rest van mijn (wetenschappelijke) carrière op voort kan bouwen.

Bram, je weet het misschien zelf niet meer, maar ook jij vroeg jaren geleden of promoveren niet iets voor mij zou zijn. Ma zei toen meteen dat je dat niet moest vragen "want Hans zit heel anders in elkaar dan jij" (iets wat niet te ontkennen valt), maar het is me toch altijd bijgebleven – zoals je ziet. Blijkbaar waren je woorden profetisch...

Maar jouw hulp aan de eerste versie van de meta-analyse en het voorbeeld dat je zelf hebt gesteld door heel relaxed door je promotie te wandelen en daarnaast nog lekker te hobbyen, maakt jou tot een perfect voorbeeld en dat ik zodoende dolblij ben dat je me flankeert tijdens de verdediging.

Wat betreft de meta-analyse: Daan, dank voor al je inspanningen daarvoor. Wat me echter vooral bijstaat zijn de momenten op de conferenties (oa. EAWOP 2009 en EAWOP 2011) dat je de tijd voor me nam om me carriéeadvies te geven. Hopelijk vind je het niet al te erg dat ik met de SCPM tracht je CEM te verbeteren – voor mij ben je een gigant die me helpt om op zijn schouders te staan.

Bertolt, meeting you has literally been the answer to my prayer for "some favour in the PhD process". Well, some favour you are! Not only work wise have you been a blessing, but also on a personal level have you enriched my PhD experience in a way that only God could arrange. Stockholm (what a birthday!) and our Western-USA road trip in 2012 will stick with me for the rest of my life. I look forward to many more of such experiences whilst an ever continuing fruitful collaboration for the sake of improving science! Together with Bram,

you're the obvious choice for asking to be my paranimf (next time we meet I should ask you to try to pronounce that).

Marieke, je bent niet alleen een fantastische vriendin, maar ook een geweldige vormgever! Bedankt voor het ervoor zorgen dat ik niet (weer) met WordArt zou gaan klooien...

Finally, I would like to thank the members of my committee: Alice, Rolf, Maddy, Beate and Claartje. It's great that you've been willing to take the time to read my dissertation and to come to Tilburg. Hopefully we'll meet again!

THANK YOU ALL!

Hans.





# CHAPTER 1



## DIVERSITY, STATUS, AND PERFORMANCE: AN INTRODUCTION

## CHAPTER

## 1

During my undergraduate studies, I had the pleasure of working at two office departments of a homecare company. My colleagues consisted of about 40 women and one man (the manager...), which meant that every time that it was someone's birthday, there would be plenty of pie. Now, I think that next to "congratulations" and "that pie looks lovely!" the most-uttered phrase was "Oh no, I shouldn't...but you can give my piece to Hans!". So you can imagine that for me, working together with all those women was a pleasure. And, believe it or not, there were also moments when my colleagues liked to have me around. Not only was it nice for them that at least someone ate their pie, but they also knew very well to find me whenever there was a technical problem. That wasn't so much because I was an expert in working with the specific computer software that we used, or in fixing the more-often-than-not malfunctioning printer (which, in fact, I definitely wasn't), but simply because I was a man. And they reasoned that because of my maleness, I should be able to help them fix their technical problems. The bottom-line of this story is that both my female colleagues and I perceived there to be advantages in being part of a (gender-)diverse department. But these were advantages on a personal, subjective level. Is there any reason to assume that diversity can also be beneficial on a more objective and general level?

This question has become rather important due to the fact that the labour force is becoming increasingly diverse (Williams & O'Reilly, 1998): Globalization has led to an increase in ethnic diversity, the emancipation and labour participation of women to an increase in gender diversity, and increasing job specialization, rapid technological changes, project work and multidisciplinary work groups have led to an increase in functional diversity in organizations. A tremendous amount of research has been conducted in the past two decades to the question what the consequences are of workforce diversity (Harrison & Klein, 2007; van Knippenberg & Schippers, 2007). These studies can basically be divided into two research domains.

The first domain of research is primarily concerned with the position of minority group members. Researchers in this field emphasize that societal tendencies to discriminate against minority group members exist in organizations too (Noon, 2007; Plaut, 2010; Zanoni, Janssens, Benschop, and Nkomo, 2010). Consequently, a major theme of diversity research that is conducted by 'equality scholars' involves how (the negative effects of) prejudice and stereotyping against minority group members in organizations can be understood and, if possible, eradicated.

The second domain of research is primarily concerned with the question whether or not diversity has a positive impact on business results. Because a diverse group of people may generally be expected to harbour a richer and more diverse set of knowledge,

insights and perspectives than a more homogeneous group of people, there is – at least theoretically – a case to be made for the argument that diversity enhances performance (van Knippenberg, De Dreu, & Homan, 2004). Indeed, in the 1990's this rationale for the positive consequences of diversity became well-known as the so-called 'business case for diversity' (Kochan, Bezrukova, Ely, Jackson, Joshi, Jehn, Leonard, Levine, & Thomas, 2003). Because work groups are the smallest and therefore easiest unit of analysis to study the impact of diversity on performance, business case scholars generally study the extent to which there is value in diversity by examining the relationship between work group diversity and group performance.

Whereas equality scholars thus tend to focus on the position of (individual) minority members, business case scholars explore the extent to which diversity can be valuable for group- and organizational-level outcomes. Their different interests are reflected in the main processes and outcomes that are focused upon: Equality scholars typically study work place discrimination (Davison & Burke, 2000), prejudice (Eagly & Karau, 2002), bias (Hekman, Aquino, Owens, Mitchell, Schilpzand, & Leavitt, 2010; Stauffer & Buckley, 2005), stereotyping (Fiske, 2012), and (power) exclusion and inequality (Plaut, 2010; Zanoni et al., 2010). In contrast, business case scholars generally focus on conflict (Jehn, Northcraft, & Neale, 1999; Pelled, Eisenhardt, Xin, 1999), diversity beliefs (e.g., Homan, van Knippenberg, Van Kleef, De Dreu, 2007; van Knippenberg, Haslam, & Platow, 2007), information elaboration (the sharing, discussion and integration of knowledge, ideas and perspectives; van Knippenberg et al., 2004) and – of course - group performance (Bell, Villado, Lukasik, Belau, & Briggs, 2011).

At first blush, this dissertation appears to be mainly involved and aligned with the business case perspective. In fact, its general research question is one that is most typical of the business case perspective:

*To what extent and how does work group diversity impact group performance?*

This research question, which will be broken down into more specific research questions in the following sections, is the starting point of this dissertation and assumes centre stage in the major part of it. In answering this research question, I define workgroup diversity as differences on any attribute or characteristic that may lead to the perception that another person is different from the self between individuals who interdependently work together on a task (Williams & O'Reilly, 1998; van Knippenberg & Schippers, 2007).

One of the core propositions of this dissertation is that the conventional theoretical approach (to be explained below) to understanding the diversity-performance relationship falls short, and that one needs to integrate insights from research conducted by equa-

lity scholars in order to gain a comprehensive understanding of how diversity affects performance. Accordingly, in this dissertation I advance a perspective on understanding the diversity-performance relationship that integrates insights from business case research with insights from equality research.

### **Research to the Business Case for Diversity**

Since the seminal article of Williams and O'Reilly (1998), diversity research has been dominated by a bi-theoretical perspective: The information/decision-making perspective accounts for diversity's positive consequences, and the social categorization perspective for diversity's negative effects (van Knippenberg et al., 2004; van Knippenberg & Schippers, 2007). Representative of the rationale underlying the business case for diversity, the information/decision-making perspective posits that a group can make better decisions when the group has more (task-relevant) information at its disposal. Because a diverse group is expected to harbour a richer and more diverse amount of information than more homogeneous groups, the information/decision-making perspective predicts that diverse groups tend to make better decisions and, hence, outperform homogeneous groups (van Knippenberg et al., 2004).

According to the social categorization perspective (Tajfel & Turner, 1986; Turner, Hogg, Oakes, Reicher, & Wetherell, 1987), people are biased in the sense that they tend to favour ingroup members (i.e. people who are similar to oneself) above outgroup members (i.e. people who are different than oneself) (cf. the similarity/attraction paradigm; Byrne, 1971). This bias expresses itself, among others, in the fact that group processes tend to be smoother (i.e. more cooperation, less conflict) in homogeneous than in more diverse groups (Chatman & Flynn, 2001; Harrison, Price, Gavin, & Florey, 2002). Because smoother group processes are expected to enhance group performance (De Dreu & Weingart, 2003), the social categorization perspective predicts that homogeneous groups will outperform diverse groups.

In their influential Categorization-Elaboration Model, van Knippenberg et al. (2004) provided an account how information/decision-making and social categorization processes interact with each other. By engaging in a process that van Knippenberg et al. (2004) called "group information elaboration" (the exchange, discussion, and integration of task-relevant information), diverse groups can mobilize their informational resources to achieve good outcomes (cf. De Dreu, Nijstad, & van Knippenberg, 2008; Hinsz, Tindale, & Vollrath, 1997). Social categorization processes can however prevent information elaboration from happening, thereby causing diverse groups not to perform up to their potential (Homan et al., 2007). With such a model that can account for the positive as well as the negative consequences of diversity, there appears to be a reasonable theoretical consensus about



why and when diversity has a positive or negative impact on performance.

Interestingly, however, this bi-theoretical perspective to the consequences of work group diversity has had limited predictive value. That is, despite the apparent consensus on the processes underlying the diversity-performance relationship, diversity research continues to be confronted with unexpected outcomes. Arguably, this is most evident when it comes to the moderating role of demographic versus job-related diversity (i.e. diversity cluster).

In the 1990's, diversity researchers took a direct approach to studying the diversity-performance relationship. When the first reviews (e.g., Milliken & Martins, 1996; Williams & O'Reilly, 1998) and meta-analyses (Bowers, Pharmed, & Salas, 2000) showed that there was no clear direct effect from work group diversity on group performance, researchers started to propose and study the effects of various moderators on the diversity-performance relationship (cf. van Knippenberg & Schippers, 2007). The longest standing moderator is diversity cluster: Demographic dimensions of diversity (e.g., age, gender, ethnicity) are believed to inhibit group performance, whereas job-related dimensions of diversity (e.g., tenure, functional background) are expected to enhance performance (e.g., Harrison et al., 2002; Mohammed & Angell, 2004; Pelled et al., 1999). At first sight, this proposition seems to be compatible with the conventional theoretical approaches to understanding the diversity-performance relationship. The proposition of diversity cluster as a moderator of the diversity-performance relationship is established on the widespread idea that demographic dimensions of diversity (as opposed to job-related dimensions of diversity) are particularly liable to social categorization processes, whereas job-related dimensions of diversity (as opposed to demographic dimensions of diversity) are thought to be more indicative of the quality and quantity of the task-relevant informational resources within a group. Mannix and Neale (2005) even contended that the moderating effect of diversity cluster is one of the few things that we do know about the relationship between diversity and performance.

However, several meta-analyses (e.g., Horwitz & Horwitz, 2007; Webber & Donahue, 2001) provided mixed support for the moderating role of diversity cluster. Moreover, van Knippenberg and Schippers (2007) argued against this conventional belief by arguing that job-related dimensions of diversity can give rise to social categorization processes, and that demographic diversity can be an indicator of the amount of task-relevant information. Then again, more recent meta-analyses (Hülshager, Anderson, & Salgado, 2009; Joshi & Roh, 2009) supported the idea that diversity cluster moderates the diversity-performance relationship.

Diversity research thus currently appears to be in a state where, based on the same bi-theoretical perspective, some researchers believe in the moderating role of diversity

cluster, whereas other researchers do not. Given this lingering confusion, the first research question of this dissertation is:

*RQ1. To what extent do demographic diversity and job-related diversity in work groups differentially impact group performance?*

### **The Role of Status in (Diverse) Work Groups**

It is one thing to know what the effect is of work group diversity on performance, but it is another – and arguably more interesting – thing to know how and why diversity impacts performance. What the seemingly never-ending debate about the role of diversity cluster suggests is that the bi-theoretical perspective on diversity's consequences does not complete the puzzle: there is at least one piece missing. Several researchers (e.g., DiTomaso, Post, & Parks-Yancy, 2007; Magee & Galinsky, 2008; Ravlin & Thomas, 2005) have suggested that a piece may be found in the status literature. And indeed, there is a wealth of research that speaks about the role of status in (diverse) work groups.

Most of this research has its origin in the work of Bales (1950), who conducted experiments with groups of male university students. Bales observed that more or less from the outset of the experiments, group members started to differ in their level of influence on the decision-making process and that these differences persisted over time. In their attempt to explain these emerging inequalities, Berger and colleagues (e.g., Berger, Conner, & Fisek, 1974; Berger, Wagner, & Zelditch, 1985) posited in their expectation states theory that group members use cues to create expectations about fellow group members' levels of competence.

Status characteristics theory (Berger, Fisek, Norman, & Zelditch, 1977) is a subset of expectation states theory that aims to explain what the cues are that lead group members to attribute lower or higher levels of competence to fellow group members. Status characteristics are “attributes on which people differ (e.g., gender, computer expertise) and for which there are widely held beliefs in the culture associating greater social worthiness and competence with one category (e.g., men, computer expert) of the attribute than another (e.g., women, computer novice)” (Correll & Ridgeway, 2003: 32). Status characteristics thus represent those attributes of a person that are (stereotypically) thought to predict task competence (cf. Fiske, 2012; Fiske, Cuddy, Glick, & Xu, 2002), and what status characteristics theory suggests is that whenever there is a (stereotypical) association between group members' characteristics and competence on a task at hand, that differences between group members' on that specific characteristic will evoke status differences (cf. role congruity theory; Eagly & Karau, 2002).

The implications for diversity research are crystal clear: Because differences between

group members are more pronounced in diverse than in more homogeneous groups, status differences between group members are particularly likely to emerge in diverse groups. Empirical validation for this assertion can be found in numerous studies showing that group members' characteristics automatically tend to impact fellow group members' expectations about each other's task competence. Classic examples where people derive status from member's characteristics involve demographic characteristics such as gender (e.g., Eagly & Karau, 2002) and age (Freese & Cohen, 1973). Interestingly, competence attributions can however also be based on job-related characteristics such as tenure (e.g., Bunderson, 2003) or functional background (e.g., Chattopadhyay, Finn, & Ashkanasy, 2010) and on deep-level characteristics such as personality (e.g., Anderson & Kilduff, 2009). Within-group status differences thus do not only emerge from those characteristics that have a history of inequality (e.g., gender, ethnicity; cf. Plaut, 2010), but can be based on any within-group difference in member characteristics (Correll & Ridgeway, 2003).

Within-group status differences are not without consequences: Congruent with Bales' (1950) finding that high-status group members are more influential, expectation states theory asserts that high-status group members will be more frequently deferred to than low-status group members (Correll & Ridgeway, 2003). According to status hierarchies theory, status even tends to reinforce itself: the higher the status of an individual, the influence a person will have, which increases his or her status, and so forth (Gould, 2002). This suggests that within-group status differences impact the decision-making process: The more pronounced the differences between high- and low-status group members are, the more disparity there will be in the influence of high-status group members on the decision-making process compared to low-status group members.

Compelling evidence for this assertion comes from a review on information exchange in mixed-status groups by Wittenbaum and Bowman (2005). Based on the empirical studies that they reviewed, Wittenbaum and Bowman concluded that high-status group members (a) share more information, (b) share more unique information, (c) are more interested in unique information, and (d) are more often deferred to than low-status group members. What this suggests is that within-group status differences shape behavior in a self-fulfilling fashion: High-status group members become more dominant, whereas low-status group members become more submissive. The conclusions from this research thus indicate that status differences impact the information elaboration process in such a way that the information elaboration processes is likely to be dominated by high-status group members.

Given that work group diversity is likely to evoke and enhance within group status differences and that these status differences are likely to impact the group decision-making process, what impact do these status differences then have on group performance?

Interestingly, the status literature stays mute to this question. Status is a topic that was typically studied by sociologists (e.g., Berger, Ridgeway) or by social psychologists (e.g., Bettencourt, Tajfel, Turner, Wittenbaum), who were more interested in topics like (in)equality, bias, and stereotyping. As a consequence, the extent to which status impacts group performance has hardly been studied until recently (e.g., Bendersky & Hays, 2012; Chattopadhyay, Finn, & Ashkanasy, 2010; Groysberg, Polzer, & Elfenbein, 2011), and the role of status in the diversity-performance relationship still has to be examined. The second research question of this dissertation therefore is:

*RQ2. How and to what extent do status-related processes affect the relationship between work group diversity and group performance?*

Sub-questions that relate to this second research question are: To what extent do status differences inevitably arise within diverse work groups? To what extent can these effects of within-group status differences on the decision-making process be attenuated? And, of course, to what extent do status processes impact the performance of diverse work groups?

### **The Role of Stereotypes in (Diverse) Work Groups**

In finding an answer to these questions, in this dissertation I will draw heavily upon research to stereotyping (e.g., Fiske, 2012; Fiske et al., 2002) and stereotype threat (Steele & Aronson, 1995; Schmader, Johns, & Forbes, 2008). The larger share of research on stereotyping has been conducted on the individual level; therefore the translation of their implications for the group level has to be done with caution. What stereotyping research clearly shows is that stereotypes tend to shape behaviour and performance in a self-fulfilling fashion: People confronted with negative stereotypes tend to become less self-confident and perform less well (Schmader et al., 2008), whereas people who are confronted with positive stereotypes tend to gain self-confidence and perform better (Walton & Cohen, 2003).

Moreover, status research suggests that a person's status within the group is largely dependent on stereotypical attributions between a person's characteristics and task competence: When stereotypical beliefs suggest that one group member will be less competent at a task at hand than another group member because of their characteristics, it is likely that status will be distributed accordingly (Correll & Ridgeway, 2003). And this is exactly the point that equality scholars make: Stereotypes against minority employees tend to put them in a disadvantaged, low-status position from which it is harder to prove their worth (Plaut, 2010). The third research question that I try to answer in this dissertation is therefore:

*RQ3. How and to what extent do stereotypes affect the relationship between work group diversity and group performance?*

### **Managing Diversity**

Research Questions 1-3 primarily focus on the effect of diversity on performance at the group level. By studying the role of status- (RQ2) and stereotyping-related processes (RQ3) on the work group diversity-performance relationship, I aim to show that inequality (i.e. the topic that is commonly studied by equality scholars) has an impact on work group performance (i.e. the topic that is commonly studied by business case scholars). As such, the next step is to revisit the debate between business case and equality scholars. Does the equality or the business case approach provide the best insights for managing a diverse workforce? Is it possible to combine insights from both approaches and thereby create an integrated approach? Or is there perhaps room for an alternative approach to managing diversity?

A fundamental difference between the equality and the business case approach to managing diversity is that they focus on different outcomes: Equality scholars tend to focus on inequality, whereas business case scholars tend to focus on business outcomes (e.g., performance). Moral philosophers have contemplated on the benevolence of these outcomes (but then regarding the society at large) by dissecting the fundamental arguments underlying each position. It therefore may be expected that moral philosophy (i.e. ethics) offers a number of interesting insights into the equality versus business case debate, but diversity researchers have generally omitted ethical theories in their work. Therefore I aim to explore if ethical theories can enhance our understanding of the debate between equality and business case scholars and, more prominently, if ethical theories can help us find an answer to the question what the best approach to managing diversity is. The final research question of this dissertation is therefore:

*RQ4. From a moral perspective, what is the best approach to managing diversity?*

### **Structure of this Dissertation**

In coming to grips with these four research questions, my dissertation is structured as follows (see also Table 1) (note that in the following I use “we” instead of “I” in recognition of my co-authors):

**Chapter two** presents a meta-analytical examination (N = 146 studies, 612 effect sizes) of the allegedly differential relationships of demographic and job-related diversity with group performance. A central question of this chapter is to what extent stereotypical expectations about the performance of demographically diverse groups and groups that are diverse on job-related characteristics qualify previous findings with regard to the mo-

derating role of diversity cluster on the diversity-performance relationship.

In **Chapter three** we explore to what extent status affects the diversity-performance relationship. In this conceptual chapter, we advance our status perspective on the consequences of work group diversity: We argue that work group diversity more or less automatically leads to within-group status differences. These status differences distinguish group members who are perceived to be more competent at the task at hand from group members who are perceived to be less competent. Subsequently, we posit that these status differences impact group behavior and group performance. This chapter sets the stage for the empirical studies that are aimed at validating – or falsifying – our status perspective.

**Chapter four** involves a multilevel examination of the group processes underlying the individual performance of high- and low-status group members in diverse work groups. We propose that gender stereotypes affect team members' interpersonal dominance through perceptions of status: Group members who are perceived as having high status will behave more dominantly, and this dominance influences their individual performance in the team. We further propose that this perception – behavior – performance relationship can be attenuated by diversity beliefs. To test these relationships, 97 gender-heterogeneous groups worked on male-typed or on female-typed problems in the laboratory. This analysis of the behaviour and performance of individuals in diverse work groups sets the stage for a more direct test of our status perspective on the relationship between work group diversity and group performance.

In **Chapter five** we use the same observational data of the 97 groups for an examination to what extent within-group status differences account for between-group differences in group performance. Following chapter two, we assert that group performance depends on the extent to which within-group status differences accurately reflect group members' levels of expertise. We propose that the effects of information elaboration on group performance depend on the accuracy of the status configuration and that – contrary to the propositions of the information/decision-making perspective – information elaboration can be harmful in groups with an inaccurate status configuration.

Our status perspective challenges the conventional understanding of the consequences of work group diversity and calls for a new process model of the diversity-performance relationship. In **Chapter six**, we present such a process model and show how status processes relate to social categorization and information/decision-making processes. More specifically, we propose in this chapter that social categorization processes evoke within-group status differences, and that these and other status-related processes affect the information/decision-making process. As such, the status configuration process model of the diversity-performance relationship that is advanced in this chapter offers a number of propositions and suggestions for future research that can hopefully push the field forward.

In **Chapter seven**, we bring the discussion back to the topic of managing diversity and the debate between equality and business case scholars. Instead of using our findings to shed new light on this debate, we evaluate the relative worth of the equality and the business case approach to managing diversity based on ethical theory. We assert that the equality and the business case approach are based on two contrasting ethical theories (deontology and utilitarianism, respectively) that are difficult to reconcile with each other and that each has its own flaws. Based on virtue ethics, we propose an alternative approach to managing diversity. Our core proposition is that diversity research and management should focus on people's virtues (i.e. excellence in character) rather than their characteristics. We argue that a focus on virtues may enhance outcomes aspired by equality as well as by business case scholars.

Finally, in **Chapter eight** I integrate the findings and implications of the different chapters and discuss the implications for diversity theory and practice. Among others, I point out that our status perspective is well aligned with the (moral) implications of our alternative approach to managing diversity. Accordingly, I posit that the current dissertation provides a coherent study of the diversity-performance relationship that challenges current wisdom in the field about the processes underlying the diversity-performance relationship, provides a compelling integration of research to stereotyping and status with the diversity literature, offers an appealing alternative approach in the debate between equality and business case scholars, and presents a variety of suggestions for future research.

**TABLE 1**

*Overview of the chapters in which research questions are (partially) addressed.*

RESEARCH QUESTION	CHAPTER(S)
<b>General Research Question:</b> To what extent and how does work group diversity impact group performance?	<b>2, 3, 4, 5, 6</b>
<b>Research Question 1.</b> To what extent do demographic diversity and job-related diversity in work groups differentially impact group performance?	<b>2</b>
<b>Research Question 2.</b> How and to what extent do status-related processes affect the relationship between work group diversity and group performance?	<b>3, 4, 5, 6</b>
<b>Research Question 3.</b> How and to what extent do stereotypes affect the relationship between work group diversity and group performance?	<b>2, 4, 5, 6</b>
<b>Research Question 4.</b> From a moral perspective, what is the best approach to managing diversity?	<b>7</b>

*Note:* Chapters in **bold** indicate the chapters that most clearly answer the respective research question. The other chapters are mentioned because they provide partial answers to the respective research question.



## CHAPTER 2

Based on: van Dijk, H., van Engen, M. L., & van Knippenberg, D. (2012). Defying conventional wisdom: A meta-analytical examination of the differences between demographic and job-related diversity relationships with performance. *Organizational Behavior and Human Decision Processes*, 119, 38-53



## **ABSTRACT**

Conventional wisdom in the diversity literature holds that job-related dimensions of diversity are the domain of positive performance, whereas demographic dimensions of diversity are the domain of negative performance effects. In a meta-analysis (N = 146 studies, 612 effect sizes), we show that this conclusion may be based on rater biases; it does not apply to studies involving more objective assessments of performance, assessments that cannot be influenced by knowledge of a team's composition. We also show that the influence of job-related diversity is moderated by task complexity and that job-related diversity is more positively related to innovative performance than to in-role performance. We discuss how these results invite a reconsideration of the role of the job-related/demographic diversity distinction and provide suggestions on how to further advance our understanding of diversity's effects.

*Keywords:* Work group diversity, Performance, Innovation, Bias, Meta-analysis.

## DEFYING CONVENTIONAL WISDOM: A META-ANALYTICAL EXAMINATION OF THE DIFFERENCES BETWEEN DEMOGRAPHIC AND JOB-RELATED DIVERSITY RELATIONSHIPS WITH PERFORMANCE

As societies become increasingly diverse and organizations increasingly rely on cross-functional teams to address complex and challenging issues, the question of how work group diversity affects work group performance is of greater relevance to research and practice than ever before (Plaut, 2010). With the growth of research on the diversity-performance relationship, it has become more and more clear that there is no straightforward answer to this question. Indeed, it has become a truism that diversity is a double-edged sword (Milliken & Martins, 1996). Nearly all dimensions of diversity that have received research attention have yielded positive, negative, and nonsignificant relationships with performance (Jackson, Joshi, & Erhardt, 2003; van Knippenberg & Schippers, 2007; Williams & O'Reilly, 1998). The state of the science thus suggests that in order to advance our understanding of the relationship between diversity and performance, we should look for moderators of the diversity-performance relationship (van Knippenberg, De Dreu, & Homan, 2004).

Meta-analysis of research findings is particularly suited to address this issue, because meta-analysis allows for cross-study comparisons that can identify moderator variables not captured by primary research. Although we are not the first researchers to conduct a meta-analysis of the diversity-performance relationship, our analysis includes more than two (Bell, Villado, Lukasik, Belau, & Briggs, 2011) to five (e.g., Joshi & Roh, 2009) times as many effect sizes as earlier analyses, which is an important advantage in the search for moderators. Indeed, our more elaborate moderator analysis overturns several of the conclusions from those earlier analyses, as well as conventional wisdom in the field.

In attempts to make sense of the disparate findings involving diversity and performance, the longest-standing proposition is that diversity's effects are somehow contingent on the dimension of diversity that is assessed (e.g., Jehn, Northcraft, & Neale, 1999). According to this viewpoint, demographic dimensions of diversity (e.g., age, gender, ethnicity) are primarily linked to the negative performance effects of diversity, whereas job-related dimensions of diversity (e.g., functional background, tenure) are primarily linked to its positive performance effects. Recent analyses seem to support this notion (Horwitz & Horwitz, 2007; Joshi & Roh, 2009). As a result, the moderating role of diversity "cluster" (demographic versus job-related) has come to seem like one of the few things that we know about diversity (Mannix & Neale, 2005).

We argue against this conventional wisdom. We propose that it reflects diversity-related biases in the subjective (e.g., team member, team leader) ratings of performance used by many researchers, and that it would be untrue if group performance were measured in

more objective ways (e.g., financial performance or number of ideas generated). As part of our focus on demographic versus job-related diversity, we have also conducted a more comprehensive analysis of the moderating role of task complexity in the diversity-performance relationship. In their meta-analysis, Bowers, Pharmer, and Salas (2000) showed that diversity was more helpful for performance on more complex tasks, but this finding was not supported in a more recent meta-analytical test (Horwitz & Horwitz, 2007). We propose that this discrepancy arose because earlier work did not consider the possibility that task complexity only moderates the relationship between performance and job-related diversity (diversity in attributes that are related to the knowledge and expertise that are required to solve highly complex problems). Moreover, we extend and qualify earlier analyses (e.g., Bell et al., 2011; Hülshager, Anderson, & Salgado, 2009) of the distinction between in-role and innovative performance by arguing that diversity overall (not just job-related diversity) is more positively related to innovativeness and creativity than it is to performance that is part of the team members' regular work.

### **THE DOUBLE-EDGED SWORD OF DIVERSITY**

Diversity is a group characteristic that reflects the degree to which there are objective or subjective differences among members (van Knippenberg & Schippers, 2007). Diversity may concern differences in demographic characteristics, such as age, gender, or ethnicity; job-related characteristics, such as functional background or organizational tenure; deeper psychological characteristics, such as personality, attitudes, and values; or other attributes. Although diversity can (in principle) involve many different member characteristics, most researchers have focused on diversity in age, gender, ethnicity, tenure, functional background, and educational background (Bell et al., 2011; Jackson et al., 2003; Williams & O'Reilly, 1998). Over 50 years of research in diversity and performance have shown that diversity can be consequential – greater diversity has been associated with altered levels of group performance.

Narrative reviews of the field suggest that there is little consistency in these findings (Jackson et al., 2003; Milliken & Martins, 1996; Williams & O'Reilly, 1998). It is not too much of an exaggeration to conclude that any dimension of diversity that has been investigated in more than a few studies has been associated with inconsistent results (van Knippenberg & Schippers, 2007). This state of affairs suggests that it may be necessary to focus on possible moderators of diversity's effects on performance. To identify such moderators, it is helpful to consider the psychological processes that might underlie the positive and negative effects of diversity on performance. Fortunately, there is some consensus about these processes (van Knippenberg & Schippers, 2007; Williams & O'Reilly, 1998).

Analyses that emphasize the potential benefits of diversity for performance implicitly

or explicitly often conceptualize diversity as an informational resource. Differences among people, whether demographic, job-related, or otherwise, may be associated with differences in task-relevant knowledge and experiences (Tsui & O'Reilly, 1989). As a consequence, more diverse groups can draw from a larger pool of task-relevant information. By engaging in a process that van Knippenberg et al. (2004) called "group information elaboration" (the exchange, discussion, and integration of task-relevant information), diverse groups can mobilize their informational resources to achieve good outcomes (cf. De Dreu, Nijstad, & van Knippenberg, 2008; Hinsz, Tindale, & Vollrath, 1997; Larson & Christensen, 1993). Thus, building from a broader knowledge base, more diverse groups should be able to outperform groups that are less diverse.

At the same time, however, social categorization theories (e.g., social identity theory, self-categorization theory; Tajfel & Turner, 1986; Turner, Hogg, Oakes, Reicher, & Wetherell, 1987) and the similarity/attraction hypothesis (Byrne, 1971) suggest that less diverse groups may enjoy an advantage over groups that are more diverse. Based on perceived similarities and differences, group members may distinguish between others similar to themselves (the ingroup, or 'us') and others who are different from themselves (the outgroup, or 'them'). A wealth of research on intergroup relations shows that such distinctions can engender intergroup biases, such as more favorable attitudes towards ingroup members, more trust in ingroup members, and a greater willingness to cooperate with ingroup members (Tajfel, 1982; van Knippenberg, 2003). Greater attraction to similar (ingroup) others should also produce more harmonious, smoother group processes. As a result, less diverse groups should perform better than groups that are more diverse.

Inspired by this state of affairs, a major theme in diversity research is to identify moderators of the positive and the negative effects of diversity on performance. A guiding principle in this search is the notion that these moderators will be found in factors related to information elaboration and social categorization processes (van Knippenberg & Schippers, 2007). Many researchers have focused on the kinds of diversity found in a group. Their rationale is that demographic diversity should lead to the social categorization processes that affect group performance negatively. In contrast, job-related diversity should lead to the information elaboration processes that affect group performance positively. Together, these propositions have led to the claim that diversity cluster (demographic vs. job-related) moderates the relationship between diversity and performance.

### **DIVERSITY CLUSTERS REVISITED**

Several recent meta-analyses provide support for this proposition (Horwitz & Horwitz, 2007; Joshi & Roh, 2009; cf. Hülshager et al., 2009). At first blush, this seems to prove that the conventional wisdom about diversity is correct. But a closer consideration of the issue

suggests to us that this conclusion is unjustified. First, several authors have noted that demographic diversity is sometimes associated with valuable difference in task-related information (Cox, 1993; Ely & Thomas, 2001; Tsui & O'Reilly, 1989). If so, then demographic diversity also has the potential to improve group performance through information elaboration processes (e.g., Kearney, Gebert, & Voelpel, 2009). And job-related differences among group members may also be associated with subgroup formation, and thus are not exempt from the negative effects of social categorization processes (van Knippenberg et al., 2004). Second, and more importantly, there is reason to believe that earlier conclusions about the effects of diversity on performance are based in part on biases in the subjective ratings of performance that dominate the field (cf. LePine, Piccolo, Jackson, Mathieu, & Saul, 2008). More specifically, rater biases that favor job-related diversity more than demographic diversity may influence performance ratings of diverse teams.

### **Rater Biases in Performance Ratings**

Demographic groups that are typically subject to negative stereotypes in the work context (i.e., women, ethnic minorities) are usually underrepresented. Ample research in stereotyping, prejudice, and discrimination shows that these minorities suffer from negative performance rating biases (Kraiger & Ford, 1985; Martell, 1991; cf. Hekman, Aquino, Owens, Mitchell, Schilpzand, & Leavitt, 2010; Stauffer & Buckley, 2005). This raises the question if rating biases against minorities also express themselves in groups of which such minorities are part of. So, is there reason to expect that subjective performance ratings of diverse teams may be biased?

We argue that this indeed can be expected. Greater diversity typically means a greater representation of minorities on the team (e.g., greater ethnic diversity mostly means less white Caucasians, not more; cf. Harrison & Klein, 2007). When raters hold negative biases against minorities, it is likely that such biases extend to the groups to which these minorities belong. Moreover, research in relational demography suggests that people assess groups to which they are demographically similar more favorably (cf. Chattopadhyay, Tluchowska, & George, 2004). Because demographic similarity is more present in demographically homogeneous than in demographically diverse groups, it may be expected that demographically homogeneous groups are assessed more favorably. We therefore predict that biases against demographically different others also negatively affect subjective team performance ratings.

The picture is different for job-related diversity. Organizations are increasingly embracing cross-functional teamwork, leading to the creation of teams that are more diverse for such job-related attributes as functional and educational backgrounds (Keller, 2001). This suggests that managers in such organizations are probably biased in favor of job-related

diversity (Edelman, Fuller, & Mara-Drita, 2001). Clearly, not everybody believes in the value of such diversity, and many workers may also believe in the value of demographic diversity (Ely & Thomas, 2001; van Knippenberg & Haslam, 2003). Even so, beliefs in the value of demographic diversity are probably weaker than beliefs in the value of job-related diversity (Edelman et al., 2001).

All of this suggests that biases against demographic diversity, and/or biases for job-related diversity may cause subjective performance ratings to underestimate the performance of demographically diverse groups, and/or to overestimate the performance of groups that are diverse for job-related dimensions. One way to test this claim, in a meta-analysis, is to compare subjective performance ratings of groups representing different diversity clusters with objective performance measures (e.g., production figures) for such groups. The latter measures are less likely to be biased because they seldom involve anyone's knowledge of a team's composition. We are not arguing that objective measures of group performance are flawless – they are often limited to what is measurable with relative ease (Bommer, Johnson, Rich, Podsakoff, & MacKenzie, 1995). Rather, our point is that such measures are relatively free from diversity-related biases.

Taken together, we expect that when subjective ratings of performance are made, the proposed biases result in a more positive diversity-performance relationship for job-related diversity than for demographic diversity. For more objective performance measures, we expect the difference in the diversity-performance relationship between demographic and job-related diversity clusters to be smaller, if present at all.

*Hypothesis 1a: Subjective ratings of team performance yield biased indications of the diversity-performance relationship, such that there are less positive relationships for demographic diversity than for job-related diversity. Differences between demographic and job-related diversity are smaller or absent for more objective measures of performance.*

A potentially important issue in this respect is who generates the subjective performance ratings used to assess the diversity-performance relationships. To prevent single-source biases that may inflate relationships (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003), diversity researchers prefer to rely on external raters, such as team supervisors or managers, when subjective ratings of a group are needed. When external raters are not available, however, researchers may rely on ratings provided by team members (or internal team leaders) instead. We propose that this distinction between raters inside the team and raters outside the team is potentially important for analyzing the diversity-performance relationship. This is not because of single-source biases. Rather, it involves the extent to which internal and external raters have contact with the team.

Research on the “contact hypothesis” in intergroup relations (Gaertner & Dovidio, 2000; Pettigrew & Tropp, 2006), as well as research on the influence of time spent together in diverse groups (Harrison, Price, & Bell, 1998) and of member familiarity (Gruenfeld, Mannix, Williams, & Neale, 1996) on group processes, suggests that collaborating with dissimilar others may attenuate stereotype-based biases over time. In the course of ongoing collaboration, team members may learn to “look beyond” demographic attributes and recognize other individuating characteristics of their fellow team members (Harrison, Price, Gavin, & Florey, 2002). Internal raters can be assumed to interact with team members on a regular basis, whereas external raters can be assumed to have fewer and shorter interactions of this kind. This suggests that internal raters are less likely than external raters to evaluate a team’s performance on the basis of biases associated with the team’s composition. Accordingly, we propose:

*Hypothesis 1b: When a group’s performance is being evaluated, biases that favor job-related diversity and disfavor demographic diversity will be stronger among raters outside the team than they are among raters inside the team.*

Hypothesis 1a and 1b should not be taken to imply that all differences between the effects of demographic and job-related diversity can be explained by rating biases. Even when both demographic and job-related diversity are associated with task-relevant information, the nature of that information may differ between the two diversity clusters. In the following sections, two moderators will be discussed that speak to this issue. These moderators are task complexity and the distinction between in-role and innovative performance.

### **Task Complexity**

An important implication of the informational resource perspective is that diversity is more positively related to performance the more performance depends on the in-depth processing and integration of task-relevant information (van Knippenberg et al., 2004). This is more often the case for complex, knowledge-intensive tasks that require the generation of novel solutions to complex problems than it is for simple, routine tasks with lower information-processing requirements (cf. Jehn et al., 1999). A meta-analysis of 13 studies by Bowers et al. (2000) confirmed this prediction – the results showed that diversity was positively related to group performance for complex tasks, but negatively related to performance for simple tasks. However, a similar hypothesis could not be confirmed by Horwitz and Horwitz (2007) in their meta-analysis of 35 studies, suggesting that the issue

is more complicated than it seems.

This is where the distinction between demographic diversity and job-related diversity may be important. Demographic and job-related diversity can both be associated with differences in task-relevant knowledge, yet they may differ in the kinds of knowledge they reflect. Demographic diversity is often associated with differences in knowledge and perspectives tied to group-specific experiences and cultural differences (cf. Ely & Thomas, 2001; Janssens & Zanoni, 2005). In contrast, job-related diversity tends to be associated with differences in knowledge and perspectives gained through formal education, training, or functional role-related experience. More complex, knowledge-intensive tasks generally require more advanced levels of knowledge that derive from education, training, and on-the-job experience. For example, in high-tech research and development teams, it is more likely that a combination of engineers, technicians, and designers will be valuable than a combination of people from different countries. So, for more complex tasks, job-related attributes (as compared with demographic attributes) are more likely to involve task-relevant knowledge. Accordingly, we predict that task complexity moderates the relationship between diversity and performance for job-related diversity, but not for demographic diversity.

*Hypothesis 2: Job-related diversity is more positively related to performance for more complex tasks than for more simple tasks, whereas task complexity does not moderate the relationship between demographic diversity and performance.*

### **In-Role Versus Innovative Performance**

Another task characteristic that may have an important moderating effect on the diversity-performance relationship concerns the distinction between in-role and innovative performance. On the one hand, teams can be better or worse at doing the job they are required to do – their in-role performance. On the other hand, teams can be more or less innovative in their performance (West & Anderson, 1996). Creativity and innovation are of great importance to organizations and many organizations rely on teams in this respect (West, Tjosvold, & Smith, 2003). The distinction between in-role and innovative performance is (to a certain extent) independent of task complexity (cf. Paulus & Nijstad, 2003) – the keys to creativity are novelty and usefulness, not complexity (Zhou & Shalley, 2008).

Diversity has been identified as a catalyst for creativity and innovation in groups (Ancona & Caldwell, 1992; Bantel & Jackson, 1989; Hülsheger et al., 2009; Shin & Zhou, 2007). Innovation, more than in-role performance, is an aspect of task performance that requires a creative spark and out-of-the-box thinking (Zhou & Shalley, 2008). Diversity may be particularly conducive to such thinking, because the consideration of diverse perspectives can



stimulate new ways of looking at a task. Moreover, the need to integrate such perspectives may give rise to more creative solutions to problems (Paulus & Nijstad, 2003; Shin & Zhou, 2007; van Knippenberg et al., 2004). Accordingly, team innovation may have more to gain from diversity than does team in-role performance.

*Hypothesis 3a: Diversity is more positively related to innovative performance than to in-role performance.*

Job-related diversity may be more positively related to innovative performance than is demographic diversity. Although both demographic and job-related diversity can stimulate innovation, and both may be more positively related to innovative than to in-role performance, job-related diversity has an extra benefit in this respect. In her componential theory of creativity, Amabile (1988, 1996) described how domain-relevant skills (i.e., job abilities, skills, and knowledge) are important precursors to creativity because they give people the tools to be creative. In a straightforward extension of this proposition to the group level, we propose that groups with a larger pool of domain-relevant skills will also be more creative. Accordingly, we propose that job-related diversity is more strongly related to innovative performance than is demographic diversity.

*Hypothesis 3b: Job-related diversity is more positively related to innovative performance than is demographic diversity.*

## **METHOD**

### **Sample of Studies**

Several sources were used to identify relevant studies. First, ISI Web of Knowledge, PsychInfo, ABI/INFORM, Educational Resources Information Center (ERIC), and ProQuest Digital Dissertations were used in a computerized search. Specific keywords used to search for relevant studies in these electronic databases were team or group heterogeneity or composition or diversity (and faultline/faultlines) in combination with performance, innovation, or creativity (as potential indicators of innovative performance). Subsequently, we identified all studies that were previously reported by Bell (2007), Bell et al. (2011), Bowers et al. (2000), Devine and Philips (2001), Horwitz and Horwitz (2007), Joshi and Roh (2009), Stewart (2006), van Knippenberg and Schippers (2007), and Webber and Donahue (2001). Furthermore, a call for published and unpublished papers on diversity and performance in groups was sent to members of the Society for Industrial and Organizational Psychology, the Organizational Behavior and Gender and Diversity in Organizations divisions of the

Academy of Management, the European Association of Work and Organizational Psychology, the European Association of Social Psychology, and to diversity researchers in our professional networks.

We used several criteria for including studies in the meta-analysis. Studies were included if they reported an outcome statistic that allowed the computation of a correlation coefficient regarding the relationship between work group diversity and group performance. We only included effect sizes concerning performance outcomes at the group level; we excluded effect sizes that were based on aggregated individual scores or that concerned other outcomes, such as well-being, cohesion, organizational citizenship behavior, or satisfaction. Studies of perceived rather than actual diversity were also excluded (e.g., Colquitt, Noe, & Jackson, 2002; Olson, Parayitam, & Bao, 2007). We excluded studies of business units and departments that were too large for all group members to interact on a regular basis (e.g., Dwyer, Richard, & Chadwick, 2001; Richard, Barnett, Dwyer, & Chadwick, 2004; Sacco & Schmitt, 2005). For this reason, we also excluded studies of groups containing 25 or more members (e.g., Leonard, Levine, & Joshi, 2004). For related reasons, we excluded studies in which the sample included dyads (e.g., Chowdhury, 2005; Foo, Wong, & Ong, 2005), because dyads constitute an interpersonal rather than a group context (Moreland, 2010). The exceptions were three studies where the number of dyads was very small and all other work groups in the sample had at least three members (Bayazit & Mannix, 2003; Harrison et al., 2002; Lovelace, Shapiro, & Weingart, 2001). Finally, we checked for overlap in the samples of different studies conducted by the same author(s). Our final sample consisted of 146 studies (as of January, 2011).

### **Coding**

A common difficulty for meta-analyses is that necessary information is missing from some of the studies that must be reviewed. Some of this information can be retrieved through careful coding of research reports. We followed four steps in an effort to reduce the subjectivity of this coding and increase the ability of future researchers to replicate it. First, we created a formal coding scheme that served as a formal reference point for coders. Second, two coders (Hans van Dijk and a research assistant), both familiar with the diversity-performance literature and with coding articles for meta-analyses, independently coded these variables. Third, after coding several studies, the coders discussed any disagreements to ensure a shared understanding of the coding scheme. Finally, when disagreements could not be resolved through discussion, they were arbitrated by Marloes van Engen, who is also experienced in the coding process.

We coded the following aspects of diversity: (a) diversity cluster (demographic diversity, job-related diversity, deep-level diversity), (b) diversity dimension (for demographic

diversity: age, ethnicity, gender, and educational level<sup>1</sup>; for job-related diversity: functional background, educational background, and tenure (team tenure, organization tenure); for deep-level diversity: personality (extraversion, agreeableness, conscientiousness, neuroticism, openness, other), values, cognitive, attitude, and ability). We also coded for so-called “faultlines” (Lau & Murnighan, 1998), which capture the extent to which positions on different diversity dimensions converge (e.g., the male members of the team also tend to be the older members of the team).

We coded two aspects of performance measurement. First, we coded whether performance was based on objective measures (e.g., financial performance, number of correct answers), or was measured subjectively through ratings by individuals (Hypothesis 1a). Second, when performance was measured subjectively, we coded whether performance ratings were made by team members, by an internal team leader, or by an external leader who was not part of the team (Hypothesis 1b). To test the moderating impact of task complexity on the diversity-performance relationship (Hypothesis 2), we distinguished between tasks that were low, medium, or high on complexity. Tasks with low levels of complexity were those that did not require much mental labor, were low-risk, and required people to work on just one thing (e.g., assembly line and maintenance teams; Barrick, Stewart, Neubert, & Mount, 1998). In contrast, tasks with high complexity were those that required people to work on different things simultaneously (e.g., new product teams in high-tech companies responsible for developing a prototype product and transferring it to manufacturing and marketing groups; Ancona & Caldwell, 1992). The latter tasks generally involved people with more vocational education or a university degree. For type of performance (Hypothesis 3), we distinguished in-role performance from innovative performance. When a performance indicator was described by researchers as a measure of creativity and/or it was clear that a task involved divergent thought processes (e.g., number of ideas generated to solve a problem; Daily, Whatley, Ash, & Steiner, 1996), we coded it as innovative performance. Otherwise, in-role performance was the code that we used.

The inter-rater reliability for all these variables<sup>2</sup> ranged from .76 to 1.00 (Cohen’s K), which seemed acceptable and justified further analyses.

### **Data Preparation**

The relationship between diversity and performance was calculated by Pearson’s *r*. Positive numbers indicated a positive relationship between work group diversity and performance and negative numbers indicated a negative relationship between those variables. To avoid violation of the assumption of effect size independence, effect sizes from the same study were averaged unless they differed on variables relevant to the analysis in question.

## Analyses

Earlier meta-analyses of the diversity-performance relationship focused on the size and direction of that relationship, as reflected in the effect sizes reported by researchers. However, our special interest in moderators led us to focus also on the heterogeneity of the effect sizes, as reflected in the homogeneity statistic  $Q$  (Hedges & Olkin, 1985). The between-classes homogeneity index  $Q_B$  has an approximate Chi-square distribution with  $m-1$  degrees of freedom, where  $m$  is the number of classes. The size of  $Q_B$  depends on the choice for a fixed-effect or random-effects model. In our analyses, we examined the results of fixed or random models, depending on whether general or specific relationships among the variables were of interest (cf. Hart, Albarracín, Eagly, Lindberg, Merrill, & Brechan, 2009). We focused on the random-effects results for the more general analyses (e.g., the effects of diversity clusters, diversity dimensions, and control variables). We focused on the fixed-effect results for more specific analyses that tested contextual moderators (e.g., the effects of measurement of performance, rater type, task complexity, and performance type). This approach had the additional advantage of offering more statistical power for the moderator analyses. The within-class homogeneity index  $Q_w$  has an approximate Chi-square distribution with  $k-1$  degrees of freedom, where  $k$  is the number of effect sizes within the class.

To see whether the impact of a moderator on the diversity-performance relationship could be explained by covariation with another moderator, we calculated the degree of association between nominal moderator variables. We used the phi coefficient ( $\Phi$ ) when both variables had just two categories, and Cramer's  $V$  when one of the variables had more than two categories. For both measures of association, a value of 0 indicates no association and a value of 1 indicates a perfect association (Hinkle, Wiersma, & Jurs, 1998).

## RESULTS

### Characteristics of the Studies

Table 1 presents a summary of the characteristics of the studies included. The 146 studies produced a total of 612 effect sizes. There were 1 to 28 (Giambatista, 1999) effect sizes per study. The number of groups within the studies per study ranged from 12 (Daily et al., 1996) to 4,845 (Richard & Shelor, 2002), with a median of 59 work groups. Average group size ranged from 3 to 22.8 (Wegge, Roth, Neubach, Helmut-Schmidt, & Kanfer, 2008) per study, with a median of 5.4 members.

**TABLE 1***Summary of Study Characteristics*

VARIABLE AND CATEGORY		VARIABLE AND CATEGORY	
<b>GENERAL INFORMATION</b>		<b>DIVERSITY CLUSTER AND – DIMENSION</b>	
<b>Number of studies</b>	<b>146</b>	<b>Demographic</b>	<b>99</b>
<b>Number of effect sizes</b>	<b>612</b>	Age	43
<i>Range within studies</i>	<i>1 / 28</i>	Ethnic	35
<b>Median publication year</b>	<b>2004</b>	Nationality	12
<i>Range between studies</i>	<i>1989 / 2010</i>	Gender	56
<b>Median number of teams</b>	<b>59</b>	Educational level	19
<i>Range between studies</i>	<i>12 / 4,845</i>	<b>Job-related</b>	<b>64</b>
<b>Median team size</b>	<b>5.4</b>	Functional background	39
<i>Range between studies</i>	<i>3 / 22.8</i>	Educational background	10
<b>Median percentage male participants</b>	<b>65</b>	Tenure	39
<i>Range between studies</i>	<i>0 / 100</i>	Team	21
<b>Median age participants</b>	<b>33 years</b>	Organizational	21
<i>Range between studies</i>	<i>18 / 52 years</i>	<b>Deep-level</b>	<b>45</b>
<b>CONTROL VARIABLES</b>		Personality	18
<b>Publication type</b>		Values	12
Published	113	Cognitive	11
Dissertation	28	Attitude	6
Unpublished working paper	5	Ability	5
<b>Study setting</b>		Other	16
Field	90	<b>PERFORMANCE MEASUREMENT</b>	
Laboratory	11	<b>Type of measurement</b>	
Student/MBA	45	Objective	59
<b>Continent</b>		Subjective	99
Northern America	93	Member	31
Europe	36	Internal team leader	10
Asia	11	External team leader	63
<b>Industry setting</b>		<b>TASK TYPE</b>	
Service	26	<b>Task complexity</b>	
Manufacturing	14		

VARIABLE AND CATEGORY		VARIABLE AND CATEGORY	
High-technology	22	Low	15
<b>Organizational status</b>		Medium	64
Profit	73	High	52
Non-profit	15	<b>Team type</b>	
<b>Team status</b>		Production	17
Continuous	78	Project	62
Temporary	65	<i>Student</i>	40
		<i>MBA</i>	9
		<i>Organizational</i>	13
		Research and development	10
		Top management	31
		<b>Performance type</b>	
		In-role performance	129
		Innovation	29

### Outliers

Eleven effect sizes were identified as outliers (Drach-Zahavy & Somech, 2002; Hoch, Pearce, & Welzel, 2010; Jehn & Mannix, 2001; Kirkman, Tesluk, & Rosen, 2004; Liang, Liu, Lin, & Lin, 2007; McLeod, Lobel, & Cox, 1996; two effect sizes from Olson, Parayitam, & Twigg, 2006; Puck, Rygl, & Kittler, 2006; Rentsch & Klimoski, 2001; Rico, Molleman, Sanchez-Manzanares, & van der Vegt, 2007). A closer examination of the studies from which the outliers came revealed no other reasons for their exclusion, so we kept them in our sample. A comparison among the effect sizes of published studies, dissertations, and unpublished working papers yielded no significant differences ( $Q_B = 1.73, ns.$ ), suggesting there was no publication bias (Borenstein, Hedges, Higgins, & Rothstein, 2009).

### Relationships Among Diversity Clusters, Diversity Dimensions, and Performance

Before proceeding with our hypothesis tests, we examined the diversity-performance relationship for the different diversity clusters and diversity dimensions.

Table 2 shows the diversity-performance correlations as a function of diversity cluster and diversity type. As would be expected, these correlations are in line with earlier findings that job-related diversity shows a significantly more positive relationship with performance than does demographic diversity ( $Q_B = 7.52, p < .01$ ). However, the observed heterogeneity of effect sizes ( $Q_W = 134.15, p < .001$ , and  $Q_W = 142.56, p < .01$ , respectively) suggests that there are moderators that qualify these findings.

**TABLE 2***Specified Effect Sizes for Each Cluster and Dimension of Diversity*

<b>VARIABLE AND CLASS</b>	$Q_B$ <i>random</i> <sup>a</sup>	<b>k</b>	<b>N</b>	$r$ <i>random</i>	<b>Min-Max</b>	<b>95% C I</b> <i>random</i>	$Q_W$ <sup>a</sup>
<b>DIVERSITY CLUSTER</b>	<b>8.15*</b>						
<b>Demographic diversity</b>	<b>1.41</b>	<b>99</b>	<b>11,505</b>	<b>-.02</b>	<b>-.35, .44</b>	<b>-.04, .01</b>	<b>142.56**</b>
Age		43	7,362	-.03	-.38, .44	-.07, .03	129.60***
Ethnic		35	5,015	-.05	-.43, .42	-.11, .02	111.35***
Gender		56	7,141	-.01	-.34, .27	-.05, .03	106.14**
Nationality		12	797	-.01	-.21, .27	-.08, .07	9.13
Educational level		19	4,110	.00	-.32, .19	-.06, .07	52.79***
<b>Job-related diversity</b>	<b>7.46*</b>	<b>64</b>	<b>8,275</b>	<b>.05*</b>	<b>-.29, .55</b>	<b>.01, .08</b>	<b>134.15***</b>
Functional background		39	5,013	.07**	-.29, .44	.03, .12	77.50***
Educational background		10	1,768	-.00	-.05, .13	-.05, .05	3.38
Tenure	0.10	39	6,481	-.01	-.32, .36	-.05, .04	87.49***
Organizational tenure		21	4,108	-.00	-.32, .36	-.07, .06	54.24***
Team tenure		21	2,566	-.02	-.29, .18	-.07, .04	32.84*
<b>Deep-level diversity</b>	<b>6.02</b>	<b>45</b>	<b>2,900</b>	<b>-.01</b>	<b>-.44, .29</b>	<b>-.06, .03</b>	<b>61.37*</b>
Personality	8.54	18	1,246	.04	-.18, .29	-.02, .10	16.87
Extraversion		7	365	.05	-.09, .26	-.05, .16	5.15
Agreeableness		7	370	-.03	-.15, .19	-.14, .07	5.59
Conscientiousness		7	457	-.09	-.33, .06	-.19, .01	6.34
Neuroticism		6	320	.04	-.19, .23	-.09, .17	6.37
Openness		6	318	.15	-.10, .30	-.00, .30	8.82
Value		12	746	-.07	-.44, .22	-.18, .04	21.10*
Cognitive		11	726	-.06	-.39, .29	-.16, .03	15.46
Attitude		6	428	-.04	-.19, .13	-.14, .06	3.77
Ability		5	402	-.09	-.39, .22	-.29, .13	18.14**
Faultlines		12	702	-.06	-.48, .17	-.17, .05	21.96*

**TABLE 3A**

*Specified Effect Sizes per Diversity Cluster and Diversity Dimension for Performance Measurement*

VARIABLE AND CLASS	PERFORMANCE MEASUREMENT	$Q_B$ fixed <sup>a</sup>	$k$	$N$	$r$ fixed	MIN-MAX	95% CI fixed	$Q_W$
OVERALL	Objective	2.33	59	7,516	.01	-.31, .34	-.02, .03	57.42
	Subjective		99	8,692	-.02	-.44, .44	-.04, .00	112.48
Diversity cluster	Objective	2.37						
	Subjective	24.38***						
Demographic diversity	Objective	6.64*	35	5,742	-.01	-.35, .34	-.03, .02	45.09
	Subjective		74	6,996	-.05***	-.34, .44	-.08, -.03	119.65**
Age	Objective	17.98***	17	3,866	-.01	-.38, .21	-.04, .02	28.27*
	Subjective		29	4,206	-.10***	-.30, .44	-.13, -.07	86.04***
Ethnic	Objective	20.03***	6	1,780	-.01	-.04, .26	-.06, .03	4.40
	Subjective		31	3,771	-.14***	-.43, .42	-.17, -.11	94.24***
Nationality	Objective	0.53	2	95	-.08	-.21, .16	-.28, .13	2.80
	Subjective		10	702	.00	-.17, .27	-.07, .08	5.80
Gender	Objective	2.19	15	2,778	-.02	-.23, .34	-.06, .02	31.83**
	Subjective		46	5,136	-.06***	-.34, .27	-.08, -.03	91.17***
Educational level	Objective	4.52*	7	1,500	.02	-.32, .05	-.03, .07	2.80
	Subjective		13	2,784	-.05*	-.24, .29	-.08, -.01	45.97***
Job-related diversity	Objective	0.46	28	3,994	.02	-.27, .44	-.01, .06	59.25***
	Subjective		41	5,166	.04**	-.29, .42	.01, .07	87.43***

**Note.** Positive effect sizes indicate that there is a positive correlation between the group diversity cluster or group diversity dimension and group task performance, whereas negative effect sizes indicate a negative correlation.  $Q_B$  = homogeneity of effect sizes between classes;  $k$  = number of effect sizes;  $N$  = number of teams;  $r$  = mean weighted effect size; Min-Max = minimum and maximum correlation; 95%CI = 95% Confidence Interval;  $Q_W$  = homogeneity of effect sizes within each class.

<sup>a</sup> Significance indicates rejection of the hypothesis of homogeneity.

\* $p < 0.05$ . \*\* $p < 0.01$ . \*\*\* $p < 0.001$ .



VARIABLE AND CLASS	PERFORMANCE MEASUREMENT	$Q_B$ fixed <sup>a</sup>	$k$	$N$	$r$ fixed	MIN-MAX	95% CI fixed	$Q_W$
Functional background	Objective	5.65*	20	2,046	.06*	-.29, .44	.01, .10	39.00**
	Subjective		22	3,274	.12***	-.22, .35	.09, .16	47.23**
Educational background	Objective	0.00	5	1,406	-.00	-.04, .04	-.06, .05	1.65
	Subjective		6	536	-.00	-.08, .13	-.09, .08	3.07
Tenure	Objective	1.05	16	2,881	-.01	-.24, .18	-.05, .03	26.31*
	Subjective		24	4,086	.01	-.32, .36	-.02, .04	83.54***
Deep-level diversity	Objective	0.07	17	1,085	-.01	-.39, .29	-.07, .05	23.95
	Subjective		31	2,044	.00	-.44, .29	-.04, .05	42.73

### Hypothesis 1: Objective Versus Subjective Performance

Tables 3a and 3b present the results of models comparing the diversity-performance relationship for objective versus subjective measurement of performance, and for different sources of subjective performance ratings (team members, internal team leaders, external team leaders).

Table 3a shows that the diversity-performance relationship differed across diversity clusters when performance was measured subjectively ( $Q_B = 24.38, p < .001$ ). Demographic diversity showed a small but statistically significant negative relationship with subjectively measured performance ( $r = -.05, p < .001$ ), whereas job-related diversity showed a small positive relationship with subjectively measured performance ( $r = .04, p < .01$ ). No such differences in the diversity-performance relationship across diversity clusters were observed when performance was measured objectively ( $Q_B = 2.37, ns$ ).

**Note.** Positive effect sizes indicate that there is a positive correlation between the group diversity cluster or group diversity dimension and group task performance, whereas negative effect sizes indicate a negative correlation.  $Q_B$  = homogeneity of effect sizes between classes;  $k$  = number of effect sizes;  $N$  = number of teams;  $r$  = mean weighted effect size; Min-Max = minimum and maximum correlation; 95%CI = 95% Confidence Interval;  $Q_W$  = homogeneity of effect sizes within each class.

<sup>a</sup> Significance indicates rejection of the hypothesis of homogeneity.

\* $p < 0.05$ . \*\* $p < 0.01$ . \*\*\* $p < 0.001$ .

**TABLE 3B***Specified Effect Sizes per Diversity Cluster and Diversity Dimension for Rater Type*

<b>VARIABLE AND CLASS</b>	<b>RATER TYPE</b>	$Q_B$ <i>fixed</i> <sup>a</sup>	<i>k</i>	<i>N</i>	$r$ <i>fixed</i>	<b>MIN-MAX</b>	<b>95% CI</b> <i>fixed</i>	$Q_W$
<b>OVERALL</b>	Member	3.65	31	1,804	-0.00	-.34, .27	-.05, .05	21.59
	Internal leader		10	990	.05	-.19, .20	-.01, .12	13.20
	External leader		63	5,610	-.02	-.44, .53	-.04, .01	73.75
<b>Diversity cluster</b>	Member	2.22						
	Internal leader	0.26						
	External leader	41.73***						
<b>Demographic diversity</b>	Member	8.46*	23	1,452	-0.00	-.34, .30	-.05, .05	24.41
	Internal leader		8	669	.05	-.14, .24	-.03, .12	13.99
	External leader		44	4,474	-.06***	-.28, .44	-.09, -.03	71.62**
Age	Member	28.34***	8	426	-.01	-.28, .10	-.11, .08	3.91
	Internal leader		4	412	.13*	-.03, .19	.03, .22	2.86
	External leader		20	2,889	-.14***	-.30, .44	-.18, -.10	59.81***
Ethnic	Member	3.03	10	575	-.08	-.53, .30	-.16, .01	41.23***
	Internal leader		1					
	External leader		21	2,790	-.16***	-.36, .42	-.20, -.12	65.16***
Nationality	Member	2.03	5	419	-.03	-.13, .11	-.13, .07	1.46
	Internal leader		2	152	-.07	-.19, .09	-.22, .10	2.89
	External leader		8	651	.04	-.17, .27	-.04, .12	4.95
Gender	Member	6.73*	16	978	.04	-.34, .33	-.03, .10	24.83
	Internal leader		5	354	-.06	-.24, .13	-.16, .05	5.88

<b>VARIABLE AND CLASS</b>	<b>RATER TYPE</b>	$Q_{B \text{ fixed}}^a$	$k$	$N$	$r_{\text{fixed}}$	<b>MIN-MAX</b>	<b>95% CI</b> <i>fixed</i>	$Q_W$
	External leader		28	3,476	-.06**	-.34, .24	-.09, -.02	61.53***
Educational level	Member	19.45***	4	231	.02	-.01, .10	-.11, .15	0.38
	Internal leader		2	272	.21***	-.02, .29	.09, .32	5.24*
	External leader		5	1,869	-.07**	-.24, .20	-.12, -.02	17.65**
<b>Job-related diversity</b>	Member	4.85	13	773	.02	-.25, .27	-.06, .09	10.99
	Internal leader		7	777	.03	-.29, .17	-.04, .10	13.97*
	External leader		25	3,202	.09***	-.12, .30	.06, .13	24.06
Functional background	Member	0.11	6	308	.13*	-.06, .30	.02, .24	6.13
	Internal leader		3	341	.15**	-.22, .31	.04, .25	16.42***
	External leader		15	2,419	.13***	-.17, .47	.09, .17	28.74*
Educational background	Member	0.15	2	125	.02	-.02, .07	-.16, .19	0.23
	Internal leader		1					
	External leader		4	286	.06	-.05, .15	-.06, .17	1.53
Tenure	Member	9.14*	7	426	-.06	-.29, .11	-.15, .04	7.32
	Internal leader		6	716	-.00	-.29, .15	-.08, .07	9.37
	External leader		14	2,531	.08***	-.35, .36	.04, .12	29.74**
<b>Deep-level diversity</b>	Member	2.10	11	573	-.07	-.18, .29	-.15, .02	7.89
	Internal leader		3	234	.01	-.22, .18	-.12, .14	6.89*
	External leader		23	1,629	.01	-.44, .53	-.04, .06	36.27*

In addition, no significant relationship was found between objectively measured performance and demographic diversity ( $r = -.01$ , ns.) or job-related diversity ( $r = .02$ , ns.). However, there were significant differences between objectively and subjectively measured performance when it came to relationships with age, ethnic, and educational level diversity ( $Q_B = 17.98, p < .001$ ,  $Q_B = 20.03, p < .001$ , and  $Q_B = 4.52, p < .05$ , respectively). Subjective performance measurements were negatively related with age diversity ( $r = -.10, p < .001$ ), ethnic diversity ( $r = -.14, p < .001$ ), gender diversity ( $r = -.06, p < .01$ ), and diversity in educational level ( $r = -.05, p < .05$ ). Objective performance measurements were not significantly related to any of these diversity dimensions. There was no difference between objective and subjective measured performance for job-related diversity ( $Q_B = 0.46$ , ns.). However, for one type of job-related diversity, functional background diversity, we found differences between objectively ( $r = .06, p < .05$ ) and subjectively measured performance ( $r = .12, p < .001$ ) ( $Q_B = 5.65, p < .05$ ). All in all, these findings support Hypothesis 1a. Demographic diversity seems to be subject to negative rater biases. The part of Hypothesis 1a that involves biased subjective ratings in favor of job-related diversity was supported for functional background diversity, but not for job-related diversity in general.

Because nearly all of the relationships between diversity and subjectively measured performance showed within-class heterogeneity, we further divided subjective performance by distinguishing among team members, internal team leaders, and external team leaders as rating sources. This allowed us to test Hypothesis 1b (see Table 3b). In support of that hypothesis, we found that the diversity-performance relationship varied across diversity clusters when external team leaders rated group performance ( $Q_B = 41.73, p < .001$ ), but not when ratings were provided by team members ( $Q_B = 2.22$ , ns.) or by leaders that were part of the team ( $Q_B = 0.26$ , ns.). Demographic diversity showed a negative relationship with performance when performance was rated by external team leaders ( $r = -.06, p < .001$ ), but not when it was rated by internal team leaders ( $r = .05$ , ns.) or by team members ( $r = -.00$ , ns.). This was further reflected in heterogeneous between-classes indices and/or

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**Note.** Positive effect sizes indicate that there is a positive correlation between the group diversity cluster or group diversity dimension and group task performance, whereas negative effect sizes indicate a negative correlation.  $Q_B$  = homogeneity of effect sizes between classes;  $k$  = number of effect sizes;  $N$  = number of teams;  $r$  = mean weighted effect size; Min-Max = minimum and maximum correlation; 95%CI = 95% Confidence Interval;  $Q_W$  = homogeneity of effect sizes within each class.

<sup>a</sup> Significance indicates rejection of the hypothesis of homogeneity.

\* $p < 0.05$ . \*\* $p < 0.01$ . \*\*\* $p < 0.001$ .

significantly negative relationships with external team leader performance ratings for age diversity ( $Q_B = 28.34, p < .001; r = -.14, p < .001$ ), ethnic diversity ( $Q_B = 3.03, ns.; r = -.16, p < .001$ ), gender diversity ( $Q_B = 6.73, p < .05; r = -.06, p < .01$ ), and diversity in educational level ( $Q_B = 19.45, p < .001; r = -.07, p < .01$ ), although the findings with regard to educational level should be interpreted with caution, because they were based on a limited number of effect sizes ( $k = 11$  for three different subcategories).

In line with Hypothesis 1b, job-related diversity tended to differ in its relationship with performance depending on who rated performance ( $Q_B = 4.85, p = .09$ ). The relationship between job-related diversity and performance was significant and positive when performance was rated by external team leaders ( $r = .09, p < .001$ ), but nonsignificant when performance was assessed by team members or by internal team leaders ( $r = .02, ns.$  and  $r = .03, ns.$ , respectively).

In sum, the relationship between demographic diversity and performance was negative when performance was rated by external team leaders, but demographic diversity was unrelated to objectively measured performance or to ratings of performance by either team members or internal team leaders. In contrast, job-related diversity was positively related to performance when performance was rated by external team leaders, but it was unrelated to objectively measured performance or to performance that was rated by team members or internal team leaders. The diversity-performance relationship was thus more positive for job-related than for demographic diversity only when performance was measured through ratings obtained from external team leaders.

### **Hypothesis 2: Task Complexity**

The results of the model comparing the diversity-performance relationship for different levels of task complexity are shown in Table 4. In support of Hypothesis 2, the diversity-performance relationship differed across diversity clusters on highly complex tasks ( $Q_B = 20.10, p < .001$ ), but not on tasks with low ( $Q_B = 1.66, ns.$ ) or medium ( $Q_B = 2.13, ns.$ ) complexity. There was no significant relationship between demographic diversity and performance on highly complex tasks ( $r = .01, ns.$ ), but job-related diversity showed a positive relationship with performance on those tasks ( $r = .06, p < .01$ ). This relationship differed substantially from the job-related diversity-performance relationship for tasks that were low in complexity ( $Q_B = 7.69, p < .01$ ). The advantages of job-related diversity over demographic diversity were thus supported for highly complex tasks, but not for tasks of lower complexity.

**TABLE 4***Specified Effect Sizes per Diversity Cluster and Diversity Dimension for Task Complexity*

<b>Variable and class</b>	<b>Task complexity</b>	$Q_B$ fixed <sup>a</sup>	$k$	$N$	$r$ fixed	<b>MIN-MAX</b>	<b>95% CI</b> <i>fixed</i>	$Q_W$
<b>OVERALL</b>	Low	2.43	15	1,871	-.02	-.28, .11	-.06, .03	4.21
	Medium		64	4,425	-.00	-.35, .42	-.03, .03	64.25
	High		52	6,115	.02	-.44, .44	-.01, .05	56.39
<b>Diversity cluster</b>	Low	1.66						
	Medium	2.13						
	High	20.10***						
<b>Demographic diversity</b>	Low	1.69	8	1,427	-.03	-.28, .11	-.08, .03	2.64
	Medium		43	3,161	-.01	-.31, .42	-.04, .03	34.63
	High		34	4,516	.01	-.35, .44	-.02, .04	54.89*
Age	Low	0.22	3	820	-.02	-.15, -.01	-.09, .05	0.91
	Medium		14	1,416	-.01	-.30, .21	-.07, .04	17.61
	High		19	3,236	-.00	-.38, .44	-.04, .03	34.19*
Ethnic	Low	3.57	4	1,208	-.03	-.36, .11	-.09, .03	2.53
	Medium		22	1,746	-.01	-.31, .42	-.06, .04	28.47
	High		2	107	.17	-.15, .28	-.03, .35	3.90*
Nationality	Low	0.39	0					
	Medium		6	344	-.01	-.21, .27	-.12, .10	5.63
	High		4	320	.04	.02, .12	-.07, .15	0.51
Gender	Low	2.78	5	1,311	-.04	-.34, .21	-.10, .01	4.83
	Medium		26	2,211	.01	-.22, .27	-.03, .05	40.53*
	High		17	1,588	-.04	-.34, .23	-.09, .02	30.21*
Educational level	Low	3.03	1	767				
	Medium		2	117	-.14	-.24, .02	-.31, .05	1.88
	High		12	1,538	.03	-.32, .29	-.02, .08	32.87**
<b>Job-related diversity</b>	Low	7.69*	4	1,231	-.04	-.10, .11	-.09, .02	0.85
	Medium		14	1,392	.03	-.14, .55	-.02, .09	45.79***
	High		37	3,603	.06**	-.27, .44	.02, .09	52.04*
Functional background	Low	0.75	0					

Variable and class	Task complexity	$Q_B$ fixed <sup>a</sup>	$k$	$N$	$r$ fixed	MIN-MAX	95% CI fixed	$Q_W$
	Medium		10	618	.04	-.17, .35	-.04, .12	12.60
	High		26	2,785	.08***	-.29, .44	.04, .12	56.01***
Educational background	Low	0.13	1					
	Medium		2	128	-.01	-.05, .04	-.18, .16	0.21
	High		6	790	.02	-.02, .07	-.05, .09	0.45
Tenure	Low	2.35	3	1,196	-.04	-.06, -.03	-.10, .02	0.08
	Medium		5	814	-.05	-.32, .36	-.12, .02	13.09*
	High		25	2,596	.01	-.24, .18	-.03, .05	37.81*
Deep-level diversity	Low	14.16**	7	460	.03	-.12, .11	-.06, .13	1.58
	Medium		26	1,808	.03	-.35, .29	-.02, .08	31.28
	High		8	383	-.18***	-.44, .22	-.28, -.08	9.16

It is important to note that a significant association was found between diversity cluster and task complexity ( $V = .25, p < .001$ ). Most studies of the relationship between job-related diversity and performance predominantly involve settings with highly complex tasks (37 studies), rather than tasks of low to medium complexity (18 studies). In contrast, most studies of demographic diversity (34 highly complex vs. 51 low and medium complex task settings) or deep-level diversity (8 highly complex vs. 33 low and medium complex task settings) involve tasks of low to medium complexity. This suggests that earlier claims of more positive diversity-performance relationships for job-related diversity than for demographic diversity (Horwitz & Horwitz, 2007; Joshi & Roh, 2009) may have been biased by the fact that job-related diversity was studied more often in settings that favored a positive relationship with performance.

We found no association between task complexity and objective versus subjective performance assessments ( $V = .05, ns.$ ), which indicates that task complexity does not ac-

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**Note.** Positive effect sizes indicate that there is a positive correlation between the group diversity cluster or group diversity dimension and group task performance, whereas negative effect sizes indicate a negative correlation.  $Q_B$  = homogeneity of effect sizes between classes;  $k$  = number of effect sizes;  $N$  = number of teams;  $r$  = mean weighted effect size; Min-Max = minimum and maximum correlation; 95%CI = 95% Confidence Interval;  $Q_W$  = homogeneity of effect sizes within each class.

<sup>a</sup> Significance indicates rejection of the hypothesis of homogeneity.

\* $p < 0.05$ . \*\* $p < 0.01$ . \*\*\* $p < 0.001$ .

count for the moderating influence of performance measurement or vice versa. Moreover, there was a positive relationship between job-related diversity and objective assessments of performance on highly complex tasks ( $k = 19, r = .07, p < .01$ ; but  $Q_W = 37.33, p < .01$ ). This strengthens our belief that job-related diversity benefits performance on highly complex tasks.

### Hypothesis 3: In-Role Versus Innovative Performance

As shown in Table 5, the relationship of diversity with in-role performance differs from its relationship with innovative performance ( $Q_B = 5.32, p < .05$ ). In support of Hypothesis 3a, studies assessing the relationship between diversity and innovative performance showed a significant positive relationship ( $r = .04, p < .05$ , but  $Q_W = 41.96, p < .05$ ). However, there was no diversity-performance relationship for studies involving in-role performance ( $r = -.00, ns.$ ). Across diversity clusters and diversity dimensions, the relationships of diversity with performance tended to be more positive for innovative than for in-role performance. However, the results involving the relationship between educational level diversity and innovative performance ( $r = .20, p < .001$ ) involved just three effect sizes, and thus should be interpreted with caution.

In support of Hypothesis 3b, there was a significantly more positive relationship between job-related dimensions of diversity and innovative performance than between demographic diversity and innovative performance ( $Q_B = 4.54, p < .05$ ;  $r = .09, p < .01$  and  $r = .02, ns.$ , respectively). However, the relationship between job-related diversity and innovative performance was heterogeneous ( $Q_W = 31.92, p < .05$ ), pointing to the need to identify moderators of this relationship. We examined if other moderator variables affected the relationship between diversity and innovative or in-role performance. However, we found no significant relationship with diversity cluster ( $V = .13, ns.$ ), task complexity ( $V = .17, ns.$ ), or type of measurement ( $\Phi = .13, ns.$ ). This suggests that the differential effects on innovative performance of demographic and job-related diversity (Hypothesis 3b) cannot be attributed to any of the previous findings (e.g., to a bias against demographic diversity and/or a bias in favor of job-related diversity). Moreover, the relationships of demographic and job-related diversity with innovative performance differed significantly when performance was measured objectively ( $Q_B = 4.79, p < .05$ ), but not when it was measured subjectively ( $Q_B = 0.52, ns.$ ). A positive relationship between job-related diversity and objective assessments of innovation was found ( $k = 5, r = .14, p < .05$ ), but no such relationship was found between demographic diversity and objective measures of innovation ( $k = 5, r = -.01, ns.$ ). The limited number of studies that we examined warrants caution in interpreting these results, but the results do suggest that the additional benefit of job-related diversity (versus demographic diversity) is not caused by biases in subjective assessments of (innovative) performance.



**TABLE 5***Specified Effect Sizes per Diversity Cluster and Diversity Dimension for Performance Type*

<b>VARIABLE AND CLASS</b>	<b>PERFORMANCE TYPE</b>	$Q_{W\ fixed}^a$	$k$	$N$	$r_{\ fixed}$	<b>MIN-MAX</b>	<b>95% CI</b> <i>fixed</i>	$Q_W$
<b>OVERALL</b>	In-role	5.32*	129	16,990	-.00	-.44, .44	-.02, .01	120.97
	Innovation		29	3,635	.04*	-.15, .42	.01, .07	41.96*
<b>Diversity cluster</b>	In-role	19.75***						
	Innovation	5.49						
<b>Demographic diversity</b>	In-role	3.60	84	13,914	-.02*	-.35, .44	-.04, -.01	128.78**
	Innovation		19	2,712	.02	-.17, .42	-.02, .06	26.70
Age	In-role	2.48	34	10,091	-.04**	-.38, .44	-.05, -.02	139.65***
	Innovation		13	2,425	.00	-.30, .19	-.04, .04	24.68*
Ethnic	In-role	0.68	28	4,692	-.11***	-.43, .30	-.14, -.08	97.76***
	Innovation		8	484	-.07	-.22, .42	-.16, .02	15.32*
Nationality	In-role	0.01	10	690	.00	-.21, .27	-.07, .08	8.30
	Innovation		3	176	-.01	-.17, .09	-.16, .14	1.94
Gender	In-role	1.09	47	6,662	-.05***	-.34, .35	-.07, -.02	91.71***
	Innovation		12	903	-.01	-.19, .24	-.07, .06	26.39**
Educational level	In-role	21.33***	17	3,844	-.04*	-.32, .18	-.07, -.01	30.17*
	Innovation		3	402	.20***	-.10, .29	.11, .30	7.69*
<b>Job-related diversity</b>	In-role	2.61	55	7,661	.04***	-.29, .45	.02, .06	99.54***
	Innovation		18	1,532	.09**	-.14, .43	.04, .14	31.92*
Functional background	In-role	0.71	34	4,753	.10***	-.48, .45	.07, .13	64.85**
	Innovation		13	1,014	.13***	-.13, .43	.06, .19	43.62***
Educational background	In-role	0.00	8	1,519	-.00	-.04, .13	-.05, .05	2.89
	Innovation		2	154	-.00	-.07, .07	-.16, .16	0.73
Tenure	In-role	0.43	32	5,779	.01	-.32, .18	-.02, .03	81.98***
	Innovation		10	1,002	.03	-.36, .15	-.03, .09	7.22
<b>Deep-level diversity</b>	In-role	3.60*	42	2,714	-.01	-.44, .29	-.05, .03	59.18*
	Innovation		5	362	.10	-.05, .19	-.01, .20	2.65

Without negating the benefits of demographic diversity for innovative performance (versus in-role performance), the current evidence thus supports Hypothesis 3b, in that job-related diversity enhanced innovation more than did demographic diversity.

## DISCUSSION

At first blush, diversity is a field of research with highly inconsistent findings. It is thus the kind of field where meta-analysis is an important tool for determining what we can, and cannot, conclude on the basis of the available evidence. One of the key issues in diversity research is whether the kind of diversity – demographic versus job-related – moderates its performance effects. Recent meta-analyses appeared to support a conclusion that has long been endorsed by many researchers, namely that job-related diversity is associated with positive performance effects, whereas demographic diversity is associated with negative performance effects (Horwitz & Horwitz, 2007; Joshi & Roh, 2009; cf. Hülshager et al., 2009). Our analysis calls this conclusion into question, and suggests important qualifications regarding the relationships of demographic diversity and job-related diversity with performance. We have argued and shown that rater biases may account for differences in the relationships of demographic and job-related diversity with performance.

### Demographic and Job-Related Diversity Reconsidered

Subjective ratings of group performance are typically assumed to be a proxy for objective performance. From that perspective, our finding that subjective ratings of performance, but not objective performance measures, show a moderating role of diversity cluster (Hypothesis 1a) is of major importance. This finding negates a key conclusion from earlier meta-analyses by Horwitz and Horwitz (2007) and by Joshi and Roh (2009). When objective measures of group performance are studied, there is little evidence that demographic diversity has negative performance effects, whereas job-related diversity has positive performance effects. A better conclusion would be that subjective performance ratings of diverse teams are problematic, and that the findings of earlier meta-analyses reflect these

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**Note.** Positive effect sizes indicate that there is a positive correlation between the group diversity cluster or group diversity dimension and group task performance, whereas negative effect sizes indicate a negative correlation.  $Q_B$  = homogeneity of effect sizes between classes;  $k$  = number of effect sizes;  $N$  = number of teams;  $r$  = mean weighted effect size; Min-Max = minimum and maximum correlation; 95%CI = 95% Confidence Interval;  $Q_W$  = homogeneity of effect sizes within each class.

<sup>a</sup> Significance indicates rejection of the hypothesis of homogeneity.

\* $p < 0.05$ . \*\* $p < 0.01$ . \*\*\* $p < 0.001$ .

problems. In a field where studies relying on subjective ratings of performance easily outnumber studies using objective performance measures, this is a worrisome conclusion. Experimental research is needed to examine the extent to which biases in the subjective assessment of the performance of demographically diverse groups are due to biases against the kinds of people who belong to those groups (Eagly, Karau, & Makhijani, 1995; Kraiger & Ford, 1985; Stauffer & Buckley, 2005), or to negative beliefs about demographic diversity itself (van Knippenberg & Haslam, 2003; van Knippenberg, Haslam, & Platow, 2007). Testing of the source of subjective performance ratings showed that these biases are primarily attributable to external team leaders (Hypothesis 1b). In fact, our results suggest that team members of demographically different groups are less biased towards the performance of their own group than are external raters of the team. Ironically, external team leaders are one of the external sources of information that are often favored by researchers (e.g., team members; Podsakoff et al., 2003). Note that the issue is not that team members' ratings are more positive than ratings by external team leaders, or more positive than objective indicators. Our findings indicate that team members' and internal team leaders' ratings align well with objective indicators. This is an important qualification, because the disparity in findings between objective and subjective performance measures could also be attributed to other potential differences between them (cf. Bommer et al., 1995). Note that these biases do not support the recently advanced hypothesis that diverse and non-diverse groups rate their own performance differently (Phillips, Liljenquist, & Neale, 2009). Instead, we believe our findings can best be understood in terms of the extent of collaborative contact with the team. Harrison et al. (1998) argued that the influence of stereotype-based perceptions and biases wanes the more team members get to know each other better over time – a perspective that is consistent with the more general “contact hypothesis” in intergroup relations research (e.g., Pettigrew & Tropp, 2006). Because internal raters have more extensive experience in collaborating with team members than do external team leaders, it follows that external raters are more subject to biases than are internal raters. To explore this explanation, it would be useful for future researchers to assess team contact variables (e.g., frequency, duration) for external raters, to determine whether and how their ratings are affected by the amount of contact with a team. It should not be difficult to convince researchers that more objective measures of group performance are needed. But obtaining such measures is often easier said than done. In our opinion, the use of subjective performance ratings is only justified under two conditions. The first condition is when ratings can be obtained from raters who are ‘blind’ to a team (e.g., ratings of team performance by content domain experts when the teams are anonymous; see West & Anderson, 1996). The second condition is when hypotheses revolve around moderator effects that cannot be attributed to external raters' contact with

the team, such as moderation by team personality composition, which is not visible to external raters (e.g., Kearney et al., 2009). In this latter condition, external ratings may still underestimate the positive influence of demographic diversity (and overestimate the positive influence of job-related diversity), so any conclusions should revolve around the role of the moderator variable, rather than the effect size for comparisons between demographic and job-related diversity.

### **The Moderating Effect of Task Complexity Reconsidered**

We identified task complexity as a moderator of the extent to which demographic and job-related diversity differ in their relationship with performance (Hypothesis 2). With greater task complexity, job-related diversity (but not demographic diversity) becomes more helpful. In comparison, the meta-analysis by Horwitz and Horwitz (2007) did not find moderation for task complexity – an outcome we now can attribute to the fact that they focused only on demographic diversity. In this respect, we also note that the overrepresentation of studies on job-related diversity, and the underrepresentation of studies on demographic diversity in complex task settings may contribute to the more positive performance effects observed for job-related diversity.

Consequently, we found that the often-expected advantage of job-related diversity is moderated by task complexity. Indeed, the only positive relationship with performance obtained in this particular analysis was for job-related diversity in complex tasks (versus simple or moderately complex tasks). We argued that the performance advantages of job-related diversity on complex tasks are attributable to the nature of the informational differences with which job-related diversity (versus demographic diversity) is associated. We have no direct evidence for this claim, nor does anyone else, so far as we know. Indeed, although the informational resource perspective is often discussed in diversity research, attempts to assess its validity are hard to find. We think it would be worthwhile to change this state of affairs. Experimental research involving manipulations of the knowledge and perspectives that members with different backgrounds bring to group interaction could help further unravel the diversity puzzle and help us to predict when and how positive performance outcomes may flow from team diversity.

### **Diversity and Innovative Performance**

Overall, diversity was more positively related to innovative than to in-role performance. This finding supports the notion that the synergistic potential of diversity is particularly relevant for team creativity (Ancona & Caldwell, 1992; van Knippenberg et al., 2004). The informational resources associated with all dimensions of diversity (including demographic diversity) may thus be helpful for stimulating out-of-the box thinking.

Our findings also provide an important qualification of a recent meta-analysis by Hülsheger et al. (2009). That analysis suggests that only job-related diversity improves innovative performance, which may in fact be inhibited by demographic diversity. We are not arguing that the distinction between demographic and job-related diversity is irrelevant here. Indeed, in partial alignment with Hülsheger et al.'s analysis, we found that job-related diversity was more positively related than demographic diversity to innovative performance. At the same time, we found that the relationship of diversity with innovation was heterogeneous for both demographic and job-related diversity. So, innovation as a function of diversity cannot be taken for granted.

### **Small Effect Sizes?**

Our findings generally supported our conceptual analysis. Setting aside the support for our hypotheses, however, the observed effect sizes that we reported were admittedly small. So, a fair question is whether diversity really matters all that much for group performance. Such a conclusion might seem justified, based on our findings. Even so, we hesitate to draw that conclusion when we consider both the current data and the theory underlying our analysis.

A first thing to note is that small average effect sizes do not imply that the impact of diversity on group performance is always small. As researchers focus more on moderators of the diversity-performance relationship (van Knippenberg & Schippers, 2007), the field should discover areas in which larger effect sizes can be found. Our meta-analysis has helped to identify some of those areas by examining the moderating effects of different performances and of differences in tasks. But our understanding of the moderators of diversity effects is still developing. Recent studies, for instance, have identified other moderators of the diversity-performance relationship, moderators that have not yet received enough research attention to be included in a meta-analysis (e.g., team leadership; Kearney & Gebert, 2009). So, we feel secure in predicting that future research, by focusing on moderators of the relationship between diversity and performance, will reveal stronger and stronger effects.

### **Practical Implications**

Because a meta-analysis reflects the results from many studies, it offers a strong basis for developing new practices. In this respect, we have some advice to offer managers. First, diversity (even functional background diversity) should not be viewed as a silver bullet for improving performance. At the same time, diversity need not produce problems for a group either. Rather, the influence of both demographic and job-related diversity on groups depends on moderator variables. We have identified three of these variables that may have important practical implications.

First, for any organization that wants to evaluate the performance of its teams, it is important to realize that subjective ratings (at least when provided by people outside of the team) may be biased against demographically diverse teams and/or biased in favor of teams that are diverse on job-related characteristics. More objective performance measures are thus of particular importance for evaluating the performance of diverse teams, and organizations are well-advised to design their performance management and appraisal systems accordingly. Where objective measures of performance are hard to come by, and subjective ratings seem to be the obvious alternative, it would be better if such ratings were obtained from judges blind to the team's composition. If that is not possible, then an organization could try to train raters to be aware of and overcome possible biases. It might also be helpful to include team self-ratings as a reference point, so that diversity-related rater biases in performance evaluations can be detected.

Second, for more complex tasks with greater information processing, problem-solving, and decision-making requirements, job-related diversity is especially likely to be beneficial. For such tasks, it may thus be advisable to raise awareness about the potential informational benefits that diversity offers (cf. van Knippenberg et al., 2007). And finally, diversity may be a particularly important factor in team innovation, which implies that diversity (particularly job-related diversity) is especially advantageous when creative thinking is required.

### **Limitations**

An obvious limitation of any meta-analysis is that it can only include variables for which a sufficient number of effect sizes are available. Our analysis is no exception. A second limitation is the fact that we cannot substantiate the relationships uncovered without data about mediating group processes. The absence of process data (until relatively recently) is a notorious problem in diversity research. This is particularly troublesome, given that group researchers seem to have become less and less committed to collecting data on group processes (Moreland, Fetterman, Flagg, & Swanenburg, 2010). It would be valuable if new research, inspired by our findings, examines the mediating processes proposed to cause the effects that we identified.

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**Footnotes**

<sup>1</sup> Educational level arguably falls between the demographic and deep-level categories of diversity, capturing social group membership as well as levels of ability/knowledge. Our classification of educational level diversity as demographic diversity is thus a judgment call.

<sup>2</sup> We also coded several other variables that might help in exploring the heterogeneity in effect sizes. These included (a) publication form (published, dissertation, unpublished working paper); (b) average team size; (c) proportion of male participants, average age of participants, mean team tenure, and mean organizational tenure; (d) study setting (field, laboratory, undergraduate student teams, MBA teams); (e) industry setting (service, manufacturing, high-technology); (f) operationalization of diversity (separation, variety, disparity; Harrison & Klein, 2007); and (g) team type (production, project [student, MBA, organizational], R&D, TMT). As it turned out, none of these variables significantly moderated the diversity-performance relationship. Further details on these analyses are available from the authors.



# CHAPTER 3

Based on: van Dijk, H., & van Engen, M. L. (under review). A status perspective on the consequences of work group diversity.



**ABSTRACT**

In accounting for the positive and negative consequences of work group diversity, researchers have generally relied on the information/decision-making and the social categorization perspective, respectively. In this conceptual paper we fill the void on how status processes relate to the work group diversity literature by advancing a status perspective of the relationship between work group diversity and group performance. Based on expectation states theory, we argue that status differences between group members more or less automatically emerge when group members differ in their characteristics and/or associated (informational) resources. These within-group status differences lead to the formation of a status configuration, which can be understood as the informal social order of a group. We propose that the effect of a status configuration on group performance depends on the interplay between the veridicality, the legitimacy and the stability of a status configuration. Based on these three aspects of a status configuration, we develop a team typology that consists of four different status configuration states that each yield different group dynamics and performance outcomes. We close with a discussion on how our status perspective relates to the information/decision-making and the social categorization perspective.

*Keywords:* work group diversity, status, group processes, group performance

**A STATUS PERSPECTIVE ON THE CONSEQUENCES OF WORK GROUP DIVERSITY**

*Consider a top management team (TMT) that has to make a decision on whether or not to merge with another pharmaceutical company. The TMT consists of three members with different backgrounds: The first has a background in economy, the second in law, and the third in medicine. In comparison to a TMT with members who all share the same background, to what extent and how does the configuration of the diverse TMT impact the decision-making process and outcome?*

The case presented above represents an exemplary situation that is typically studied by diversity researchers. For the past years there has been a proliferation of academic studies examining the consequences of work group diversity for member characteristics like age, gender, and personality (e.g., van Dijk, van Engen, & van Knippenberg, 2012). One reason for the overwhelming attention to work group diversity in research in Organizational Psychology is that with the increased use of work groups in organizations it has become more important how team member characteristics such as age, gender, race (i.e., demographic characteristics), tenure, and functional background (i.e., job-related characteristics) affect team functioning and why (cf. Harrison & Klein, 2007). Another reason for the increased amount of diversity research is that the relationship between team diversity, group processes and team task performance appear to be ambiguous and, hence, not easy to disentangle (cf. Bell, Villado, Lukasik, Belau, & Briggs, 2011; Jackson & Joshi, 2011).

In this conceptual paper, we assert that our problems with understanding the consequences of work group diversity may be overcome by a new look into the processes that guide these consequences. To date, diversity research has been dominated by two theoretical perspectives, i.e. the information/decision-making and the social categorization perspective (van Knippenberg, De Dreu, & Homan, 2004). Because these perspectives respectively account for positive and negative consequences, they can easily be used for explaining whatever outcomes are found in diversity research. However, these perspectives fail to take status-related processes into account, despite the fact that ample research shows that peoples' characteristics (e.g., gender, ethnicity, education) relate to status (e.g., Eagly & Karau, 2002; Ridgeway & Berger, 1986) and that status relates to various sorts of group processes and behaviour (Wittenbaum & Bowman, 2005). We argue that the omission of status-related processes has created a flawed – or at least limited – understanding of the processes underlying the consequences of work group diversity. Our purpose therefore is to advance a status perspective on work group diversity that delineates how group members in diverse groups are liable to various status-related processes that shape and direct group-level outcomes. Core to our status perspective is the assertion that differences between group members tend to yield within-group status differences that have an impact on group processes and group performance.

In the following, we point at the limited explanatory power of the information/decision-making and the social categorization perspectives in accounting for the diversity-performance relationship. After providing a definition of status and introducing several status theories, we assert that work group diversity inevitably leads to a work group *status configuration* that delineates a within-group informal social order or hierarchy. We propose that whether such a diversity-inferred status configuration enhances or inhibits group functioning depends on the extent to which the status differences between the group members (a) veridically represent different levels of expertise or competence present in the team that are relevant to the task(s) at hand, (b) are perceived by the team members as legitimate, and (c) are perceived by the team members as stable. As such, we propose that status processes for a large part account for the relationship between work group diversity and group performance.

### **STATUS CONFIGURATION AS A MEDIATOR OF DIVERSITY'S CONSEQUENCES**

In the work group diversity literature, a wide variety of characteristics (e.g., age, functional background, personality) on which team members can differ have been subject to examination. Each of these dimensions of diversity have been associated with positive as well as negative outcomes (e.g., Bell et al., 2011), which has led researchers to conclude that all dimensions of diversity can elicit positive as well as negative outcomes (van Dijk et al., 2012; van Knippenberg & Schippers, 2007).

In accounting for the positive performance outcomes of diversity, the information/decision-making perspective posits that teams with high levels of diversity are expected to have more informational resources available than homogeneous teams, rendering diverse teams able to outperform more homogeneous teams when they are able to integrate and elaborate on those informational resources (Hinsz, Tindale, & Vollerath, 1997; Tsui & O'Reilly, 1989; van Knippenberg et al., 2004). The negative performance outcomes of diversity have been attributed to social categorization (Turner, Hogg, Oakes, Reicher, & Wetherell, 1987) and similarity/attraction (Byrne, 1971) processes, which outline how people respond more favourably toward ingroup (i.e., people similar to themselves) members than toward outgroup (i.e., people different than themselves) members. Due to these affective reactions to diversity, it can be expected that the group processes in more homogeneous groups are more cooperative and hence productive than the group processes in more diverse groups (for a theoretical overview and integration of these processes, see van Knippenberg et al., 2004).

We argue that these two perspectives fall short in providing a comprehensive account of how a work group's processes and performance are impacted by diversity. As an illus-

tration of why the other two perspectives fall short, consider the case at the start of this article. Based on the social categorization perspective, it may be expected that the group processes will be smoother in a homogeneous TMT than in the diverse TMT. But will the decision quality of a homogeneous TMT also be better than that of the heterogeneous TMT? From a social categorization perspective the smoother group processes in a homogeneous TMT suggests that it will, but from an information/decision-making perspective it can be expected that the more heterogeneous pool of resources available to the diverse team will lead to higher-quality decisions (cf. Ely & Thomas, 2001). In order to find out which perspective provides a more accurate prediction of whether the homogeneous or diverse TMT will make a better decision, it is necessary to probe some more questions at a more detailed level. For example, how do the different members know how to value information that is shared by the different TMT members? And how do the group members make a decision when there is no consensus about what the best decision is? Both the social categorization and the information/decision-making perspective stay mute to these questions that involve essential elements of the group processes leading up to group outcomes.

### **The Role of Status in Diversity's Consequences**

In our assertion that status plays a crucial role in these processes, we define status as an individual's prominence, respect, and influence in the eyes of others (Anderson & Kilduff, 2009a). Within work groups, status tends to be attributed based on judgments of expertise and competence: The more that group members perceive a fellow group member to be competent at the task at hand, the higher the status of that person (Anderson, John, Keltner, & Kring, 2001; Magee & Galinsky, 2008). According to status characteristics theory (Berger, Cohen, & Zelditch, 1972), such judgments are often inferred based on people's characteristics: When people differ both on a characteristic and in the quantity and/or quality of resources, this effects the belief that inequalities in resources are due to the different characteristics. In turn, this belief leads to higher status being ascribed to the people with characteristics that are associated with higher resources (DiTomaso, Post, & Parks-Yancy, 2007; Ridgeway, Boyle, Kuipers, & Robinson, 1998). In work groups, status thus for a large part is influenced by the extent to which group member's characteristics are perceived to resemble the characteristics that are considered to be important for the task at hand by fellow group members.

There are four important properties of status that delineate its nature. First, status is something that is attributed by other group members. A person thus cannot take status (Anderson et al., 2001). Second, because a person's status is determined by his or her group members, it is confined to a specific group context. This does not only entail that a person's

status can differ per group, but also that a person's status can differ per task. For example, whereas men tend to be attributed a higher status than women when working together on a math task, women tend to be attributed a higher status than men when working together on a language task (e.g., Chatman, Boisnier, Spataro, Anderson, & Berdahl, 2008). Third, although the distribution of status is based on subjective assessments, group members tend to reach high levels of agreement in their status attributions (Magee & Galinsky, 2008). Fourth, group members tend to distribute status unevenly among group members, thereby creating a rank order that distinguishes high- from low-status group members. In the remainder of this paper, we refer to this rank order as a *status configuration*, which can be understood as the informal social order or hierarchy that distinguishes higher-status from lower-status group members. Fifth, because a status configuration consists of a rank order, status operates according to zero-sum dynamics: One person's status gain implies another person's status loss.

Because status is frequently attributed based on people's characteristics (Berger et al., 1972), it may be expected that status configurations are predominantly prevalent in diverse work groups. This is not to say that status configurations do not emerge in homogeneous groups. Much research to status differences between group members is grounded in the work of Bales (1950) among homogeneous decision-making groups. Although there was no designated leader, inequalities arose quickly and persisted over time in the sense that some group members were more influential than other group members (Correll & Ridgeway, 2003). However, more often than not status is attributed based on people's characteristics, which suggests that status differences are more likely to emerge in more diverse groups. Among others, group members' gender (Chatman et al., 2008; Eagly & Karau, 2002), ethnicity (Moore, 1968), age (Freese & Cohen, 1973), tenure (Bunderson, 2003), functional background (Chattopadhyay, Finn, & Ashkanasy, 2010) and personality (Anderson & Kilduff, 2009b; Brunell, Gentry, Campbell, Hoffman, Kuhnert, & DeMarree, 2008) have been used by groups as proxies to assess a member's competence. Compared to homogeneous groups, the greater variety in member characteristics thus renders it more likely that status differences emerge between group members in diverse groups. We therefore propose that status configurations are more likely to emerge and/or will be more pronounced in more diverse groups:

*Proposition 1: Status configurations are more likely to occur and tend to be more pronounced in diverse groups than in more homogeneous groups.*

An important qualification of Proposition 1 is that a person's status is contingent on the task type. Whereas people's characteristics may be used as proxies for expertise on one

task, on another task this precise characteristic may be irrelevant. For example, whereas extraversion is often associated with good leadership skills within a team (Anderson et al., 2001), extraversion is likely to be irrelevant in the execution of writing a report for the team. The extent to which work group diversity leads to the formation of a status configuration is therefore likely to depend on the extent to which there are (stereotypical) beliefs about the extent to which group members' characteristics are believed to predict task performance (cf. Fiske, Cuddy, Glick, & Xu, 2002). Accordingly, we hypothesize that:

*Proposition 2: Work group diversity will only result in a status configuration when different characteristics of group members are (stereotypically) believed to predict task performance.*

Status configurations are not without consequences. According to expectation states theory (Berger, Conner, & Fisek, 1974; Ridgeway & Correll, 2003), group members adjust their behaviour based on their status rank. People defer more to high-status than to low-status group members, and high-status group members behave more dominantly than low-status group members (Wittenbaum & Bowman, 2005). As a consequence, high-status group members have more impact on decision-making processes and group performance than low-status group members (e.g., Chatman et al., 2008). These dynamics of how a group's status configuration influences group behavior are well-described by Correll and Ridgeway (2003: 31):

*Once developed, performance expectations (...) shape behavior in a self-fulfilling fashion. The greater the performance expectation of one actor compared to another, the more likely the first actor will be given chances to perform in the group, the more likely she or he will be to speak up and offer task suggestions, the more likely her or his suggestions will be positively evaluated and the less likely she or he will be to be influenced when there are disagreements. (...) In this way, relative performance expectations create and maintain a hierarchy of participation, evaluation, and influence among the actors that constitutes the group's status hierarchy.*

A status configuration thus leads to disparate group dynamics where high-status group members are more influential than low-status group members. The immanent question that follows is to what extent such disparity impacts *group* performance. It is this question that we will turn to in the next section.

### **Status Configuration Veridicality, Legitimacy, and Stability**

We propose that a status configuration serves a (tacit) coordination function that facilitates decision-making processes and supports the division of labour (de Kwaadsteniet, Homan, van Dijk, & van Beest, 2012; Halevy, Chou, & Galinsky, 2011): When group members

have different opinions, their status can serve as a cue about who is most likely to be right. In addition, when a person needs to know something, status serves as a cue to know what group member is most likely to know the answer. Consequently, a status configuration can enhance team performance for a large part by making teamwork more efficient.

However, we propose that whether or not a status configuration truly enhances group performance is contingent on three aspects of a status configuration that together shape the character of a status configuration. These three aspects are the veridicality of a status configuration, the legitimacy of a status configuration, and the stability of a status configuration. In the following, we will further elaborate on each aspect and how they impact the relationship between work group diversity, a group's status configuration, and group performance.

### **Status configuration veridicality**

We propose that the veridicality of a status configuration is positively related with the extent to which a status configuration affects group performance, in which status configuration veridicality is defined as the extent to which group members' status rank is congruent with their respective levels of expertise or competence for the task at hand (cf. the notion of 'mental model accuracy'; e.g., Lim & Klein, 2006). It thus concerns the question whether, for example, the economist in the vignette at the start of this paper truly possesses more knowledge and expertise in the area of economics than the other TMT members.

Several problems may emerge when beliefs and associations with member characteristics result in a nonveridical status configuration. First, work groups may suffer from relying on less-competent group members when non-expert group members are regarded as high-status group members on a certain task (i.e., there are too high expectations regarding non-expert group members). For example, van Dijk, Meyer and van Engen (2012) found in an experiment that information elaboration increased the influence of high-status group members, and that group performance benefited from this when the highest-status group member was the most competent group member, but that group performance suffered when the highest ranking group member was a less-competent group member. Second, work groups may suffer from structural underperformance because expert group members are nonveridically regarded as low-status group members on a certain task and hence are not as influential as they ought to be (i.e., there are too low expectations regarding expert group members). For example, Woolley et al. (2008) found in an experimental study that teams with experts on certain aspects of the task performed worse than teams without experts when the expertise of the experts was not recognized, but outperformed teams without experts when the expertise was identified. Having the

wrong person for the job is thus characteristic for work groups that suffer from having a nonveridical status configuration.

*Proposition 3: The relationship between work group diversity and group performance is contingent on the veridicality of a team's status configuration, with a veridical status configuration accounting for more positive and a nonveridical status configuration accounting for more negative consequences.*

### **Status configuration legitimacy**

Status configuration *legitimacy* refers to the extent to which group members agree on and accept the status configuration (Bettencourt, Dorr, Charlton, & Hume, 2001). Whereas status veridicality is concerned with the question whether the status configuration in work groups actually is veridical, status legitimacy thus is concerned with the question whether the status configuration is *perceived* as veridical. In terms of the vignette, it concerns whether the work group members consider the distinction between high- and low-status group members based on differences in their backgrounds to be legitimate.

A vast amount of research has been conducted to the impact of status legitimacy versus status illegitimacy on intergroup relations (for a meta-analysis, see Bettencourt et al., 2001). In general, high-status group members show a tendency to ingroup favouritism in order to maintain their positive social identity, whereas low-status group members have been found to favour the outgroup and hence acknowledge the task-superiority of the higher status group as well as to challenge the status configuration by contesting the more privileged position of the high-status group (Bettencourt & Bartholow, 1998; Tajfel & Turner, 1986). The meta-analysis of Bettencourt et al. (2001) revealed that the outgroup or ingroup preference of low-status groups is contingent on whether the status configuration is perceived as legitimate or illegitimate, respectively. Under conditions of a legitimate status configuration, low-status group members agree with high-status group members that the latter are more competent at a certain task, whereas under conditions of an illegitimate status configuration high and low-status group members hold conflicting beliefs on who are the right persons for the job. As a consequence, situations in which the status configuration is perceived as illegitimate evoke perceptions of unfairness and injustice. This can lead to various forms of resigning behaviour among low-status group members that ranges from lower levels of commitment to apathy. At the same time high-status group members may engage in overt discrimination to "show who's boss" (cf. literature on petty tyranny, Ashforth, 1994), all of which is not productive behaviour. Accordingly, we propose that:



*Proposition 4: The relationship between work group diversity and group performance is contingent on the legitimacy of a team's status configuration, with a legitimate status configuration accounting for more positive and an illegitimate status configuration accounting for more negative consequences.*

### **Status configuration stability**

Status configuration *stability* refers to the perceived likelihood that the status configuration is changeable and that at least some group members want it to change. In the vignette example, status configuration stability thus refers to the extent to which the TMT group members consider their relative statuses to be apt to change (Bettencourt et al., 2001). Importantly, status stability is confined to the contestability of a status configuration *within* a task. Between tasks, it is perfectly conceivable that status configurations differ: For example, most projects consist of several (sub-)tasks that require experts from different domains working together. It can therefore be that the status ranks differ in their configuration between the sub-tasks. However, if the status configuration differs within a task, this entails that group members contest each other's position in a status configuration (Bendersky & Hays, 2012).

Bendersky and Hays (2012) showed that such status conflict is highly disruptive. Work groups with an unstable status configuration can be characterized by insecure relations between group members in which they tend to be more focussed on challenging each other's authority and status than on the task. This can be expressed in a myriad of ways, including sabotage, strikes and slowdowns by low-status group members, whereas high-status group members may engage in more hidden discriminatory behaviour toward low-status group members and may show defensive and/or dominant behaviour aimed at securing their high-status position (Bendersky & Hays, 2012; Groysberg, Polzer, & Elfenbein, 2011). We therefore propose that:

*Proposition 5: The relationship between work group diversity and group performance is contingent on the stability of a team's status configuration, with a stable status configuration accounting for more positive and an unstable status configuration accounting for more negative consequences.*

Whereas status configuration veridicality, legitimacy and stability are distinct concepts, we propose that they are sequential. When a status configuration is perceived as illegitimate, group members may be (come) aware of potential alternatives to the ruling status hierarchy and advocate a new social order (Bettencourt & Bartholow, 1998; Ellemers, Wilke, & van Knippenberg, 1993). It is therefore hardly surprising that status illegitimacy has been iden-

tified as the major determinant of status instability (Bettencourt et al., 2001; Tajfel & Turner, 1979). In fact, researchers frequently discuss status legitimacy and status stability together because the combination of status illegitimacy and instability “provides the most powerful impetus for the rejection of the status hierarchy” (Bettencourt et al., 2001:523). Similarly, we expect that a status configuration is more likely to be perceived as legitimate when it is veridical because it may be expected that the *perception* of status configuration veridicality (i.e. status configuration legitimacy) is predominantly influenced by the extent to which the status configuration *actually* is veridical. Accordingly, we propose that:

*Proposition 6:*

*A status configuration is more likely to become unstable when it is perceived as illegitimate.*

*Proposition 7:*

*A status configuration is more likely to become illegitimate when it is nonveridical.*

### **A CONFIGURATIONAL MODEL OF DIVERSITY, STATUS, AND PERFORMANCE**

The causal relationships between the aspects of a status configuration suggest that there are only a limited amount of predominant combinations of status configuration veridicality, legitimacy, and stability. It is, for example, not likely that both high- and low-status group members accept the status configuration (i.e., perceive it as legitimate), but that the status configuration still is contested (i.e. that it is unstable). Consequently, status configurations are unlikely to be unstable when they are legitimate, and to be illegitimate when they are veridical. We propose a team typology that consists of the four most predominant combinations of status configuration veridicality, legitimacy, and stability. Each team typology represents a status configuration state with different group dynamics and outcomes (see Table 1). In the following, we discuss the characteristics and consequences of each status configuration state.

#### **Synergy**

Synergy represents the state where the status configuration of diverse groups is veridical, legitimate, and stable. In these work groups, status is distributed according to task-relevant associations of expertise, competence and/or experience with member characteristics. Team members complement each other and for each task there is a right person for the job. The veridicality of the status configuration provides group members with information on the informal order in groups that delineates who is the right person for each task (Oakes, 1996; Tiedens & Fragale, 2003; Weick, 1993).

**TABLE 1**

*Meanings and properties of different states of the status configuration in diverse groups*

STATE OF STATUS CONFIGURATION	ASPECTS OF THE STATUS CONFIGURATION			PROCESS	OUTCOMES
	STATUS VERIDICALITY	STATUS LEGITIMACY	STATUS STABILITY		
<b>Synergy</b>	High	High	High	Highly task-oriented work groups with a task-contingent status configuration. Respect is based on expertise and responsibilities are distributed accordingly. Best possible fit between task requirements and personal competences. Members complement each other.	Outperform homogeneous teams due to optimal use of the diverse set of knowledge, skills and abilities within the team.
<b>Ignorance</b>	Low	High	High	More relationship- than task-oriented work groups where the status configuration tends to be steady across tasks. Occasional mismatch between task requirements and person for the job, but not perceived as such. Tendency to groupthink.	Suboptimal performance due to denial of or ignorance about the (value of) diversity within the team.
<b>Suppression</b>	Low	Low	High	Division of responsibilities according to favoritism. Low-status group members show reduced commitment and may even become apathetic. High-status group members structurally deny low-status group members access to (informational) resources.	Low performance due to (a) mismatch between task requirements and persons for the jobs and (b) underperformance of low-status group members.
<b>Conflict</b>	Low	Low	Low	Highly competitive and sometimes even counterproductive behavior aimed at earning status. Lack of trust between team members may result in gossiping, coalition formation, quarrels, slowdowns, sabotage, and strikes.	Low - or even negative performance due to focus on attaining status instead of on the task.

Because different tasks may require a different skill set, group members may be perceived as low-status on one task but as high-status on another task. Although the status configuration in a synergetic team is stable, it thus is also dynamic: Within the domain of a specific task the status configuration is stable and clear, but between tasks the status configuration may differ given that a different task may require a different skill set. Diversity within these work groups thus serves as a cue to inform group members on the expertise of fellow group members (cf. de Kwaadsteniet et al., 2012; de Kwaadsteniet & van Dijk, 2010). Indeed, Rink and Ellemers (2007; 2011) pointed out that differences between group members raise expectancies about unique contributions, thereby rendering diverse groups more open for divergent and dissenting input and information (for a similar example related to gender, see Chatman et al., 2008), which are - ultimately - essential for group performance (Jetten & Hornsey, 2011).

Applied to the case at the start of this article, under the assumption that TMT member background veridically reflects who is most competent to solve issues, the state of synergy thus entails that the backgrounds of the group members serve as status cues that inform the TMT members on who is the best person for each job. Because the level of comparative fit is highest between questions pertaining to the financial liability of a potential merger and the TMT member with a background in economics, on such financial questions (s)he will be the highest ranking TMT member in the status configuration. As such, diversity in groups with a status configuration state of synergy is regarded as an informational resource that is optimally used and valued, thereby creating synergy effects that render diverse groups able to outperform homogeneous groups.

### **Ignorance**

Ignorance represents the state in which the status configuration of diverse groups is non-veridical yet legitimate and stable. Although group members believe the status configuration to veridically reflect different levels of competence between team members, in reality it is contaminated by a distribution of status based on other aspects than actual task expertise and competence. An example of this can be found in the “women are wonderful” effect, where stereotypical beliefs about women as being kind and nurturing yet lacking agency and competence - attributes stereotypically ascribed to men - overshadow the actual task-related expertise that a female group member may bring. In turn, these descriptive stereotypical beliefs place women in a low-status position that reduces the extent to which their input is taken serious (e.g., Rudman, 1998; Vinkenbunrg, van Engen, Eagly, & Johannesen-Schmidt, 2011; cf. Wittenbaum & Bowman, 2005).

Compared to the state of synergy, in the status configuration state of ignorance the different expertises of the diverse members are not fully recognized, there may be a less-

optimal fit between expectations and actual competences, and the status configuration will be less likely to differ between tasks. Although such mismatches have a detrimental effect on performance, there are no perceptions of unfairness or injustice since all group members perceive the status configuration to be veridical and fair (i.e., legitimate). A diverse group with a status configuration state of ignorance is thus likely to perform suboptimally, but because the intergroup relations are likely to be harmonious it may still not lag too far behind homogeneous groups. In fact, groups with a status configuration state of ignorance may run the highest risk of being too harmonious (cf. tendencies to groupthink, Janis, 1972). In groups where not competence and expertise but, for example, warmth (cf. Fiske et al., 2002) is valued most, group processes may be very harmonious and all group members may feel great in the team.

In the example of the TMT of the pharmaceutical company, a status configuration state of ignorance thus may entail that there is one TMT member who generally is considered to be more expert than the other TMT members. Regardless of whether financial, legal or product compatibility issues are discussed, it is this member who has the highest status and hence the most impact on what decision is made, even though his/her expertise on some matters is limited. Diversity in a status configuration state of ignorance may still be regarded as an informational resource, but in such a way that the associations with member characteristics are nonveridical perceptions of group members' actual expertise.

### **Suppression**

Suppression represents the state in which there is a nonveridical and illegitimate yet stable status configuration. Whereas such work groups also suffer from having the wrong person for some of the jobs, an additional problem is that at least some of the group members are aware of the nonveridicality of the status configuration. Given that the status configuration in a state of suppression is stable, these group members refrain from challenging the nonveridical status configuration.

For low-status group members it may be impossible to change the status configuration, or they consider the cost of fighting the status configuration too high. Either way, whereas the stability of the status configuration secures the intergroup processes to remain relatively productive because everyone knows their position, the status illegitimacy causes illegitimacy-cognizant low-status group members to engage in the disruptive attitudes and behaviours we have mentioned before (i.e. reduced commitment, withdrawal, follower-behaviour, and apathy) (cf. Levine & Choi, 2011). Their attitudes and behaviours are however not likely to become counter-productive because the (perceived) status configuration is stable and thus unlikely to change. Low-status group members are therefore likely to comply with high-status group members and engage in social creativity be-

haviour in order to maintain a positive social identity. They may, for example, recategorize themselves at a higher level so that they see themselves more as part of the whole work group or organization than as a marginalized outgroup, or they may gain positive self-esteem by emphasizing the importance of other attributes as important (e.g., 'we may be a low-status subgroup, but at least we're fun') (Haslam, 2004; Mummendey, Kessler, Klink, & Mielke, 1999)<sup>1</sup>.

High-status group members who are aware of the status illegitimacy may choose to conceal the status configuration nonveridicality by restricting low-status group members' access to (informational) resources. In addition, high-status group members may suppress low-status group members by various forms of dominating behaviour (e.g., belittling low-status group members, discouraging initiative, ignoring the input of low-status group members) that causes, among others, stress, helplessness and reduced performance among low-status group members (Ashforth, 1994). Consequently, in addition to the negative effects of the state of ignorance, work groups in the state of suppression also suffer from various processes aimed at maintaining one's privileged position (for high-status group members) or at maintaining a positive (social) identity (for low-status group members). The performance of such diverse groups is therefore likely to be lower than that of homogeneous groups and even lower than that of groups with a status configuration state of ignorance.

A status configuration status of suppression in the vignette entails, for example, that the two low-status TMT members are less committed because they disagree with their low-status rank but feel unable to change their position. Under extreme circumstances, it may be that they even refrain from providing input because they have the impression that the high-status TMT member makes the decisions irrespective of what they think or say. In addition, the high-status TMT member may withhold information and resources to maintain his or her high-status position. In groups with a status configuration state of suppression, diversity thus is regarded more as an instrument to make distinctions or even discriminate between group members than that it is considered to be an informational resource.

### **Conflict**

Finally, the state of conflict represents situations where the status configuration of diverse groups is nonveridical, illegitimate, and unstable. In an internal competition for respect and admiration high-status group members will tend to discriminate against low-status group members and may engage in similar behaviour as in the state of suppression. The fundamental difference with a status configuration of suppression is that in the state of conflict low-status group members actively pursue equality - or even supremacy - be-

cause they believe that the status configuration can be changed. In the state of conflict, low-status group members may therefore engage in counterproductive behaviour including spreading rumours about high-status group members, coalition formation, causing slowdowns, sabotaging the work of high-status group members, and striking.

An important means in the competition for status is withholding information (Toma & Butera, 2009). Given that information elaboration according to the informational resource perspective is essential for performance - in particular for diverse groups (van Knippenberg et al., 2004), the state of conflict is likely to characterize highly dysfunctional work groups. An illegitimate and unstable status configuration triggers group members to focus more on competing against each other in order to improve (for low-status group members) or maintain (for high-status group members) their subgroup's relative standing rather than on cooperating and working on the tasks at hand (cf. Bendersky & Hays, 2012; Groysberg et al., 2011).

Translated to our TMT example, a status configuration state of conflict entails that low-status TMT members engage in behaviours that challenge position of the high-status TMT member. Such behaviours can include making important decisions independently, changing decisions that were made by the high-status TMT member without informing him or her, and refusing to agree or give in during meetings when the other person is right. In a status configuration state of conflict, diversity represents a source and catalyst for disagreement.

## TOWARDS AN INTEGRATED PERSPECTIVE

Thus far, we have advanced a status perspective as a viable third perspective (next to the social categorization and the information/decision-making perspective) on the relationship between work group diversity and group performance. In the remainder of this article we discuss how our status perspective relates to the conventional perspectives in diversity research.

### **Social Categorization, Information Elaboration and Status Processes**

An important theoretical question that is raised by our status perspective is how it relates to the information/decision-making and the social categorization perspective: To what extent and how do status processes blend with information elaboration and social categorization processes?

There are convincing arguments for the assertion that social categorization processes precede status-related processes and that, in turn, status-related processes influence information elaboration processes. First of all, because diversity-inferred status configurati-

ons are established on the differences between group member's characteristics (Berger et al., 1972), social categorization processes are likely to shape the status configuration and hence precede status-related processes. Important to note here is that social categorization is a relational construct, but that status is both a relational and a contextual construct (Christie & Barling, 2010). Social categorization in itself thus is not sufficient to function as a catalyst for the emergence of a status configuration. For that, a task setting is needed that makes (stereotypical) assumptions and beliefs about the relationship between group member's characteristics and task competence salient. In the context of such a task environment, social categorization processes are likely to translate into the emergence of a status configuration as long as there is a (presumed) relationship between member's characteristics and task competence (cf. de Kwaadsteniet et al., 2012). For example, age differences between group members are not likely to result in status differences between group members when they are working on a math task, but gender differences are because men stereotypically are thought to be better at math than women (cf. Chatman et al., 2008). Social categorization thus is likely to be a primary determinant of whether group members obtain a high- or low-status position in a status configuration (Hornsey & Hogg, 2002; Tajfel & Turner, 1986).

Second, there is strong evidence that high- and low-status group members engage differently in information elaboration and decision-making processes (Thomas-Hunt, Ogden, & Neale, 2003; Wittenbaum, 2000). Wittenbaum and Bowman (2005) conclude in their review on information sharing within groups that high-status group members disclose more unshared information to others and have a more critical approach towards commonly accepted information than low-status group members. Moreover, in information elaboration processes, high-status group members are more often deferred to and have more influence and impact on the decision-making process than low-status group members (Halevy et al., 2011). Our proposition about diverse groups having higher levels of within-group status differences than more homogeneous groups thus suggests that a status configuration qualifies information elaboration processes.

### **Conclusion**

Following the calls of several researchers (e.g., DiTomaso et al., 2007; Ravlin & Thomas, 2005), we have integrated research on status processes and dynamics in groups with the diversity literature. We advanced a status perspective on the relationship between work group diversity and group performance that delineates why, when and how diversity-inferred status differences enhance or inhibit group performance. Our status perspective challenges our current understanding of the diversity-performance relationship and calls for research to conceptually integrate our status perspective with the social categorization



on and the information/decision-making perspective and to empirically study the extent to which status processes account for the proposed effects of work group diversity on group performance.

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**Footnotes**

<sup>1</sup>. Note that low-status group members cannot engage in individual mobility behaviour to enhance their self-esteem as people cannot change their characteristics and group boundaries thus are impermeable (i.e., it is impossible for low-status group members to become high-status group members and vice versa). In particular research to relational demography has shown that how low- and high-status group members relate to each other is moderated by the extent to which status structures are perceived to be permeable (Chattopadhyay et al., 2004; George, Chattopadhyay, & Zhang, 2012; Haslam, 2004). A critical reader may argue that despite the characteristics being fixed, the status that is ascribed to those characteristics is changeable and that there is thus a certain extent to which the status structures are permeable. However, we regard that less of an issue of permeability (as permeability involves the extent to which people can change their group membership, which applied to the diversity literature would entail changing, for example, one's ethnic background or tenure) but more an issue of the extent to which people's associations with and esteem of certain characteristics are subject to change (i.e., status stability).



## CHAPTER 4

Based on: Meyer, B., van Dijk, H., & van Engen, M. L. (under review). Gender stereotypes affect performance in teams through status and dominance – under pro-similarity beliefs.

## **ABSTRACT**

Combining theory from research on stereotypes, status, and team diversity, we posit that work groups' gender composition and task type impact stereotypic status attributions within the group, and that these affect individual performance through interpersonal dominance. We further propose that this perception – behavior – performance relationship is malleable through team members' diversity beliefs. These relationships were tested with 97 gender-heterogeneous groups who worked on male-typed or on female-typed problems in the laboratory. Group members assessed each others' status prior to collaboration, and their diversity beliefs were manipulated to be either pro-diversity or pro-similarity. Multilevel path modeling shows that status attributions were based on a stereotypical gender-task fit and that high-status group members behaved more dominantly if they thought that gender diversity was detrimental for the task. Dominance, measured with behavioral coding, predicted individual task performance beyond individual ability. Diversity beliefs thus moderated the perception – behavior – performance relationship.

*Keywords:* Gender, Stereotypes, Status, Team Diversity, Team Performance

## GENDER STEREOTYPES AFFECT PERFORMANCE IN TEAMS THROUGH STATUS AND DOMINANCE – UNDER PRO-SIMILARITY BELIEFS

In our teaching, we use a riddle to point out the omnipresence of stereotypes (see also Pendry, 2008, p. 69): *“A man and his son drive down the freeway and have a terrible incident. The father is killed and the boy is rushed to the hospital. Upon arrival at the ER, the doctor looks at the boy and says: ‘I cannot treat this boy, because he is my son’. How can this be?”*

It usually takes a number of incorrect answers (e.g., it’s the stepdad, he is a clergy, the father is reincarnated) before someone realizes that the surgeon is the boy’s mother. The riddle illustrates that most – if not all – jobs are stereotypically associated with certain characteristics (e.g., gender, age, ethnicity). Evidently, these stereotypical associations between jobs and member characteristics create several problems: Decades of research has pointed out that stereotypes frequently are at the origin of (unintended) discrimination and inequality in the workplace. For example, incongruencies between the female gender stereotype and the stereotypes we have of the ‘typical’, and particularly the ‘ideal’ worker (Burgess & Borgida, 1999; Eagly & Karau, 2002; Heilman, 2001) have been shown to bias performance evaluations (Eagly, Makhijani, & Klonsky, 1992; Heilman, Wallen, Fuchs, & Tamkins, 2004; Thomas-Hunt & Phillips, 2004), hiring and promotion decisions (Heilman, et al., 2004; Rudman, 1998; Rudman & Glick, 2001; Vinkenburg, van Engen, Eagly, & Johannes-Schmidt, 2011; Vinkenburg, van Engen, Coffeng, & Dijkers, in press) and salary negotiations (Babcock & Laschever, 2003; Bowles, Babcock, & Lai, 2005).

A pivotal question for researchers studying stereotyping has therefore been to what extent and how the effects of stereotypes can be eliminated. In this respect, among others, the identification of cognitive dual-process models (Gilbert & Malone, 1995; cf. Lieberman, Gaunt, Gilbert, & Trope, 2002), stereotype maintenance processes (Rudman & Fairchild, 2004; Sherman, Stroessner, Conrey, & Azam, 2005) and of stereotype threat effects (Schmader, Johns, & Forbes, 2008; Steele & Aronson, 1995) have greatly advanced our insights in how stereotypes are activated and in how they affect the performance of the target individual. However, the focus of most of this research has been limited to the cognitive, intrapersonal level, whereas the negative effects of stereotyping emerge particularly in social settings.

Today’s most common form of organizational cooperation is teamwork (Salas, Cooke, & Rosen, 2008) and teams affect the activation and consequences of stereotypes in ways specific to the team context. For example, the team’s composition can influence the effect of stereotypes on team members’ performance (Sekaquaptewa & Thomson, 2003), and interaction between team members can affirm member roles that are based on (gender) stereotypes (Chatman, Boisnier, Spataro, Anderson, & Berdahl, 2008). Team composition and interactions thus can trigger stereotype effects affecting individual member perfor-

mance: Due to the ongoing presence of and interaction with other team members, cues for stereotype activation are potentially more persistent than in the individual case.

Interestingly, as we outline below, we know very little with regard to how the consequences of stereotypes in the team context can be avoided. With the present research, we hope to contribute to combating the consequences of (gender) stereotypes in work teams by perusing two goals:

First, we advance a new process model explaining how a team's context in terms of its task and its composition shapes individual performance in the team beyond individual ability. In this model, we propose that individual performance in the team for a large part is determined by stereotype-based attributions of status and inter-individual behavior between team members. Second, we propose that instilling a pro-diversity mindset among team members can influence this process in such a way that task performance in gender-diverse teams is no longer based on stereotypic evaluations of others. Thus, by combining research from the areas of stereotype threat, status, and team diversity, we propose that individual task performance in a group setting is partly determined by stereotypic status attributions and resulting interactions, and that this psychological process is malleable through diversity beliefs.

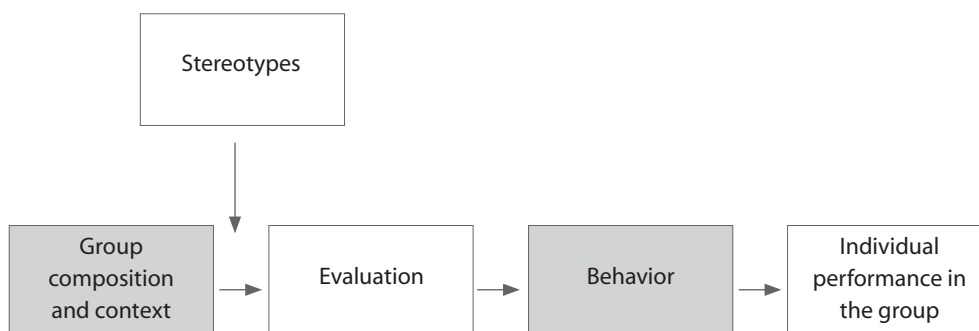
More specifically, we argue that group members assess each other's relative competence when the group composition (e.g., gender diversity), the social context (e.g., task type) and that corresponding stereotypes enable them to do so accordingly. Based on status research (e.g., Ridgeway, 1991; Wittenbaum & Bowman, 2005), we subsequently argue that this evaluation translates into feelings of either inferiority (by group members who are negatively stereotyped and/or who attribute more competence to the ones they stereotype) or superiority (by group members who are positively stereotyped and/or who attribute less competence to the ones they stereotype), which will affect interpersonal behavior in terms of dominance, and individual performance. This cognitive-behavioral process of individual performance in a stereotype-prone group context is schematically depicted in Figure 1. Thus having pointed out how stereotyping in stereotype-viable contexts tends to impact performance, we subsequently discuss how diversity beliefs can alter this process.

## **STEREOTYPING AND PERFORMANCE**

Stereotypes are cognitive structures containing knowledge, beliefs, and assumptions regarding a social group (Fiske & Taylor, 2008). The activation of stereotypes induces characterizations in the way the stereotype predicts. For example, when an individual feels vulnerable to conform to or to be judged by a negative stereotype, this experience (called stereotype threat, Smith, 2004) tends to induce outcomes that confirm the stereotype, because the perceived threat consumes cognitive resources (Schmader et al., 2008).

**FIGURE 1**

*A cognitive-behavioral process model of individual performance in a stereotype-prone group context*



Stereotype threat is activated by situational cues (Aronson et al., 1999). These can be very subtle - for example, by asking individuals who are about to take a test in a stereotyped domain (e.g., a math test with the associated stereotype that men are better at math than women) about their gender prior to a test. The activation of stereotype threat through such subtle manipulations (for a review, see Nguyen & Ryan, 2008) has been found to negatively influence math test scores of female students in comparison with male students (Huguet & Regner, 2007; Inzlicht & Ben-Zeev, 2000; Spencer, Steele, & Quinn, 1999), IQ test scores of African Americans in comparison with White Americans (Steele & Aronson, 1995), and athletic performance of White American males in comparison with African American males (Stone, Lynch, Sjomeling, & Darley, 1999)

These examples show that an essential aspect of the situational cues that lead to the activation of stereotype threat is the comparison with – and often even the physical presence of – a referent group that is deemed more competent at the task at hand. In our current understanding of how stereotype threat processes inhibit individual performance, the involvement of such referent groups is considered important only for the activation of stereotype threat. Indeed, after stereotype threat has been induced, the current theories and models on the relationship between stereotype threat and individual performance generally are limited to the cognitive, intrapersonal level (e.g., Correll, 2004; Foschi, 2000, 2009; Heilman, 1983; Heilman et al., 2004; Schmader et al., 2008; Thomas-Hunt & Phillips, 2004). But if the subsequent task is carried out in a group setting and the stimulus that induced the stereotype – e.g., the group composition by being the sole representative of one's own gender in the group – continues to be present during task execution, is it then

not more likely that this stimulus continues to influence the interactions and behaviors of the group members? And is it not more likely that team members can continue to affirm such stereotypes through their interaction behavior?

We propose it is. In the following, we will argue that stereotypes that are attributed to one or more group members not only have a cognitive impact on the stereotypee, but that stereotyping also leads to behavioral changes of the stereotypee as well as to behavioral changes of the stereotyper(s) that maintain and reinforce the stereotypes.

### **Stereotypes in Groups**

Several studies have investigated how contextual factors in social settings activate stereotypes, but these have predominantly investigated cognitive and intrapersonal outcomes. For example, under-representation in a group can impact minorities' motivation to achieve (Murphy, Steele, & Gross, 2007) and their situational trust and comfort in colorblind organizations (Purdie-Vaughns, Steele, Davies, Dittmann, & Crosby, 2008). However, only few studies have dealt with the connection between group contexts and interpersonal and behavioral outcomes such as performance within the group. In one notable exception, Chatman and colleagues (2008) showed that two contextual factors of the group setting - the stereotypicality of the task and the team gender composition - affect individual performance in the group *above and beyond individual ability*. With regard to the stereotypicality of the task, Chatman and colleagues argued that expectancy processes govern task effort and performance: Gender serves as a cue for competence judgments (Eagly & Wood, 1991), and group members who are perceived as experts – regardless of their actual expertise – engage more in the task (Karakowsky & McBey, 2001). In replication of Chatman and colleagues' findings, we thus propose:

*Hypothesis 1a: Controlling for individual ability, team members' individual performance in a team working on a stereotypical task will depend on the members' stereotypic gender-task fit in such a way that typical members perform better than atypical group members.*

Furthermore, numeric representation of one's own social group in a small group can influence the salience of that social group's identity and associated stereotypes (Fiske & Taylor, 2008; Sekaquaptewa & Thompson, 2002): Being outnumbered by non-stereotyped individuals in a performance situation for which a stereotype for one's own social group exists can increase stereotype salience. The salience of one's own (stereotyped) group increases the susceptibility for stereotype threat (Schmader et al., 2008). As an example of this effect, women's performance on stereotypically male math tests was significantly lower when they took the test in a setting in which they were the only woman among men compared

to taking the test in a setting in which all of the test takers were women (e.g., Inzlicht & Ben-Zeev, 2000; Sekaquaptewa & Thompson, 2002, 2003). Similarly, group members who are the only representative of their gender - which is assumed to increase the solo's gender salience and therefore to increase the prevalence of stereotype threat (Kanter, 1977; Sekaquaptewa & Thomson, 2003) - show decreased performance while controlling for individual ability if the task is atypical for their gender (e.g., math for females). If the task is gender typical (e.g., math for males), solo group members' performance increases (Chatman et al., 2008). Thus, in replication of prior findings, we assume:

*Hypothesis 1b: The effect of task stereotypicality on task performance is moderated by team members' numeric representation in such a way that the effect will be stronger for solo group members than for balanced or majority group members.*

Chatman and colleagues (2008) assumed that a certain interaction process was partly responsible for these findings: Group members who were the sole representative of their gender and whose gender matched the task stereotype received more positive deferrals than others in different group gender configurations. Chatman et al. concluded that "solo members' performance was influenced above and beyond their actual expertise, suggesting that sex-based stereotypes, rather than a person's actual skills, contribute significantly to their behavior in groups" (2008, p. 155). However, the authors did not find that solo members whose sex was incongruent with the task received fewer positive deferrals than other group members. Therefore, Chatman et al. suggested that group processes and behaviors do not play a role in the negative effects of stereotypes on individual group members.

We disagree by forwarding the notion that group processes and behaviors do facilitate the effect of stereotypes on individual performance, including the negative ones. Other aspects of interaction and communication than positive deferrals - the only overt behavior coded and studied by Chatman et al. - can indicate supposed inferiority to group members who are confronted with a stereotype. For example, in a series of experiments in which participants worked on an engineering task, Logel, Walton, Spencer, Iserman, von Hippel and Bell (2009) showed that male engineering students behaved more dominantly towards female engineering students if the male students held sexist attitudes. In turn, behavior influenced performance: Women who interacted with sexist men performed worse than women who interacted with men who did not hold sexist attitudes. Stereotypes thus influenced the behavior of the stereotypers (cf. von Hippel, Wiryakusuma, Bowden, & Shochet, 2011), which subsequently impacted the performance of the stereotypees.



## A PROCESS MODEL OF STEREOTYPE PROPAGATION IN GROUPS

We assert that status perceptions and communication behavior mediate the effects of stereotyping on individual performance within groups. The starting point of this assertion is the proposition that group members tend to evaluate each other and themselves according to the stereotypes related to the situation they are in. In line with this proposition, status hierarchy theory posits that when different people work together, they immediately tend to create a status hierarchy that delineates who in the group is higher status and who in the group is lower status (Gould, 2002; Ridgeway & Correll, 2004; Wittenbaum, 1998). This evaluation of the relative statuses of the different group members tends to be based on (stereotypical) beliefs and associations between the characteristics of people and their assumed (cognitive) resources (Berger, Wagner, & Zelditch, 1985; DiTomaso et al., 2007; Ridgeway, 1991). For example, given that men stereotypically are expected to perform better on math tasks than women (e.g., Ma, 1999; Stipek & Gralinski, 1991), in a context where men and women have to perform together on a math task, male group members are expected to have a higher relative status than female group members.

Importantly, in line with research on self-stereotyping (e.g., Guimond, Chatard, Martinot, Crisp, & Redersdorff, 2006; Sinclair, Hardin, & Lowery, 2006) we argue that all group members contribute to this evaluation process. Consequently, we may expect that not only higher status (or majority) group members stereotype lower status (or minority) group members, but that lower status group members too assign a higher status to the other group members and, hence, assign a lower status to themselves. Indeed, social categorization theory (Turner, Hogg, Oakes, & Wetherell, 1987) posits that individuals categorize themselves through social comparison with others. These comparisons are based on the salience of social categories, and the principle of comparative fit holds that salience increases when there is a referent category (or group) present (Oakes, Turner, & Haslam, 1991). In diverse groups where different characteristics (e.g., male, female) are associated with different (cognitive) resources or skills that are relevant to the task at hand, the mere presence of a referent group member thus renders stereotypes more salient and, as a consequence, leads to evaluations about each other's (and one's own) relative statuses based on those stereotypical associations. We thus propose:

*Hypothesis 2a: Team members whose gender matches the gender-typicality of the task are perceived as having higher status than atypical group members.*

Since being the sole representative of a certain category (e.g., male, female) increases category salience (Chatman et al., 2008; Huguet & Regner, 2007; Sekaquaptewa & Thompson, 2003; cf. Kanter, 1977), this effect is expected to be stronger in contexts with a solo repre-

sentative of his or her gender, i.e. when there is only one male or one female in a gender diverse work group. Consequently, we assume:

*Hypothesis 2b: The perceptions of status as proposed in Hypothesis 2a are heightened for solo group members, i.e., typical solo members receive higher status attributions than typical non-solo members and atypical solo members receive lower status attributions than atypical non-solo members.*

### **Stereotypes, Status, and Interpersonal Dominance**

Stereotype content research has shown that a major dimension on which stereotypes are captured is competence (Fiske, Cuddy, Glick, & Xu, 2002). Congruent with this line of thinking, Hypothesis 2 essentially asserts that in evaluating each others' relative status, group members use stereotypes to estimate the extent to which they expect other group members to be competent at the task at hand (cf. Ridgeway, 1987). In arguing that group communication behavior mediates the effects of stereotyping on individual performance within groups, we posit that group members convey the stereotypical expectations regarding each others' competence by behaving in a way that is congruent with their own relative status. In other words, we assert that categorizations into low status (i.e., less competent) and high status (i.e., more competent) induce status-affirming behavior from both high-status and low-status group members.

As mentioned above, stereotype threat theory asserts that in situations where negative stereotypes are salient, low-status group members fear being judged and experience more negative thoughts and emotions (Schmader et al., 2008). Likewise, self-stereotyping theory asserts that in the presence of a more highly esteemed referent group, low-status group members will downgrade their own skills and abilities (Guimond et al., 2006; Sinclair et al., 2006). We believe that such feelings of inferiority and incompetence result in corresponding interpersonal communication behavior on the dominant-submissive dimension, which is one of the two main dimensions of the interpersonal circumplex (Costa, Terracciano, & McCrae, 2001; Wiggins, 1979): Low-status group members become more submissive and inhibited to speak their minds, whereas high-status group members behave more dominant<sup>1</sup> because they are perceived as (more) competent by fellow group members and by themselves. Supporting this assumption, Bosson, Haymovitz and Pinel (2004) showed that a stereotype threat prime that made sexual orientation and the potential stereotypes about homosexuals' negative influence on children salient, led to a more anxious and submissive interpersonal behavior among gay college students interacting with small children. These findings demonstrate that stereotypes can affect interpersonal nonverbal communication behaviors on the dominance-submissiveness continuum in a stereotype-

confirming fashion: Low-status group members become more submissive, whereas high-status group members become more dominant.

Accordingly, we propose that similar stereotype-confirming behaviors result from stereotype-based status attributions. Support for this assertion is found in research on information sharing. In their review, Wittenbaum and Bowman (2005) argue that being high- or low-status moderates the extent to which group members discuss information with each other and how they communicate with each other: Whereas low-status group members tend to be more compliant and discuss more shared information, high-status group members tend to be more critical towards information that is shared by others and more frequently challenge assumptions that are held by fellow group members (cf. Driskell & Mullen, 2006; Jetten, Hornsey, & Adarves-Yorno, 2006; Ridgeway, 2003). Moreover, when high-status group members provide unique information it is remembered better and valued more than when unique information is shared by low-status group members (cf. Stewart & Stasser, 1995; Wittenbaum, 2000; cf. Chatman et al., 2008). We thus propose:

*Hypothesis 3: The more status attributions a team member receives, the more dominant he or she will behave towards the other team members.*

The immanent question that follows is to what extent the stereotype-confirming behavior is valid. Simply put, are high-status persons more competent than low-status group members?

That high-status group members tend to show more dominant behavior can yield either one of two mutually exclusive implications: Either high-status group members incorrectly feel more competent and falsely aim to convey the message that they actually are competent, or – in case they indeed are more competent – they feel enabled to show and assert their competence more. It is hard to predict which implication is more likely to be accurate. However, the principle of stereotype lift (performance increases in the presence of a supposedly inferior outgroup, see Walton & Cohen, 2003) suggests that the mere fact that high-status group members are considered both by themselves and by their fellow group members as more competent may actually boost their performance and, hence, render them more competent. In addition, high-status group members may engage less in social loafing and work harder because of their exemplary position (Chatman et al., 2008). For low-status group members, their reservation towards speaking up renders it likely that when they voice their opinion and show dominant behavior, they must really feel competent to perform well at the task at hand (cf. Hornsey, Majkut, Terry, & McKimmie, 2003; Matthes, Morrison, & Schemer, 2010).

We therefore argue that the privileged position of high-status group members sti-

mulates their confidence, which leads to more dominant behavior, less social loafing, and to better task performance. In contrast, the negative stereotypes cause low-status group members to feel less self-assured and competent in comparison to the referent group, which renders them to show dominant behavior only if they expect to perform well. Both for high- and low-status group members dominant communication behavior thus is expected to indicate improved performance, and because high-status group members are expected to exert more dominant behavior, performance will be higher for high-status group members. We thus predict, controlling for individual ability:

*Hypothesis 4: The more dominant a team member behaves, the higher his or her individual performance in the team.*

At this point, we have proposed a psychological-behavioral process through which task typicality and numeric status affect individual performance in a team setting, namely by a distal mediation through stereotypic competence attributions and interpersonal dominance. The benefit of this process lies in its potential malleability: In the following section, we propose that instilling pro-diversity beliefs among team members can block this pathway of stereotype propagation within teams.

### **Diversity Beliefs**

Because stereotypes constitute beliefs and assumptions regarding particular groups in a given context (Fiske & Taylor, 2008), we posit that a key resolution to eliminating the effects of stereotyping in groups is to motivate people not to act on their stereotypes. This can be done by providing individuals with information that the presence of individuals from the stereotyped group can bring about positive outcomes. For example, research on diversity, which can be defined as “differences between individuals on any attribute that may lead to the perception that another person is different from self” (van Knippenberg, De Dreu, & Homan, 2004, p. 1008), has shown that diversity often is perceived and evaluated as something negative (e.g., Harrison, Price, & Bell, 1998; Harrison, Price, Gavin, & Florey, 2002). However, the actual impact of diversity on group performance is contingent on the group’s diversity beliefs (Homan et al., 2007): Diverse groups whose members believe in the value of diversity perform significantly better than diverse groups whose members believe in the value of similarity. Diversity beliefs here refer to “beliefs about the value of diversity to work group functioning” (van Knippenberg, Haslam, & Platow, 2007, p. 209) and can be seen as the cognitive component of reactions and attitudes towards diversity (Hostager & De Meuse, 2002).

Likewise, we assert that instilling pro-diversity beliefs may eradicate stereotype threat

effects in diverse groups where stereotypes are salient: The Categorization-Elaboration Model (van Knippenberg et al., 2004) posits that perceptions of differences only lead to evaluative reactions if they have a negative connotation. Pro-diversity beliefs remove the negative connotation of perceived differences and prevent negative cognitive reactions to diversity (van Dick et al., 2008). Consequently, we believe that pro-diversity beliefs can buffer against the behavioral consequences of perceiving differences and the according status attributions: By making group members believe that diversity – and hence the combination of low- and high-status group members – enhances positive group process and group outcomes, group members may be more open to the ideas and suggestions of group members irrespective of their status and, consequently, of their gender. We thus propose that individuals with pro-diversity beliefs are less likely to *act* on these perceptions, thereby proposing a new psychological process that can explain beneficial outcomes of pro-diversity beliefs for interpersonal behavior and individual performance. This reasoning is backed by findings from the relational demography literature showing that the effects of group composition are contingent on the legitimacy of the status that is ascribed to group members (Chattopadyhay, Tluchowska, & George, 2004). We propose that pro-diversity beliefs will be associated with attributing less legitimacy to status perceptions that are based on gender stereotypes. In other words, we assert that in making group members believe that group members who may be perceived as being of low-status too can provide valuable input for the group task, because it is not legitimate to *treat* them as being low-status.

In addition, the pro-diversity beliefs may also cause low-status group members to feel less anxious and hence more self-confident and empowered to voice their opinion. We base this argument on findings demonstrating that members of ethnic minorities in workplace contexts experience distrust if they perceive that the organization does not value diversity (Purdie-Vaughns et al., 2008). We therefore argue that the extent of interactional validation of stereotypes is moderated by the attitudes that group members hold towards each other. This leads to the following hypothesis:

*Hypothesis 5: The relationship between group members' status and their dominance is moderated by diversity beliefs in such a way that high-status group members behave more dominantly and low-status group members behave less dominantly in pro-similarity groups but not in pro-diversity groups.*

As a logical consequence, Hypothesis 5 qualifies the interaction of task typicality and numeric status on team performance that we proposed in Hypothesis 1b, because Hypothesis 5 affects the proposed underlying process. Hence, diversity beliefs must qualify the proposed effect on performance.

We believe that this assumption is further justified by a potential direct effect of diversity beliefs on individual performance in teams: Because pro-diversity beliefs stimulate group members to look beyond categorical attributions and to have more consideration for individuating information, it may be that group processes (e.g., stereotyping) have a reduced impact on individual performance. Indeed, the increased attention for individuating information may make gender less salient, which in turn can attenuate the effects of gender diversity in teams (Chattopadhyay, George, & Shulman, 2008). On the positive side, this entails that stereotype threat processes that cause reduced performance may be eliminated: Schmader et al. (2008) argue in their model of stereotype threat that salient, negative stereotypes have a detrimental effect on performance due to an increased cognitive load that involves ideas and feelings of insecurity and incompetence. Pro-diversity beliefs may reduce this cognitive load by making atypical group members believe that their opinion and involvement matters, thus making them feel more secure, competent, and able to perform well. On the other hand, the increased attention for individuating information may also reduce stereotype-lift effects because the individuals engaged in a gender-typical task may have a reduced sense of being the expert. We therefore hypothesize:

*Hypothesis 6: Diversity beliefs moderate the relationship between task typicality and numeric representation on one side and individual group member performance on the other in such a way that performance differences between typical and atypical group members will be larger under a pro-similarity condition as compared to a pro-diversity condition and that this effect will be more pronounced for solo group members.*

The full research model integrating all hypotheses is shown in Figure 3 (see page 94). We tested it employing a fully factorial multilevel laboratory experiment with behavioral coding as we outline in the following section.

## METHOD

### Sample

388 (186 men, 202 women) participants were randomly assigned to 97 groups of four in a 2 (gender stereotypicality of the task: typical vs. atypical)  $\times$  3 (group members  $\times$  numeric representation: solo, balanced, majority)  $\times$  2 (pro-diversity beliefs vs. pro-similarity beliefs) factorial design. Participants represented a random sample from a database of 5500 individuals who had indicated their willingness to participate in psychological experiments at the local (German-speaking) university for payment. Mean age of the participants, who were mostly students from different fields of study and from different universities, was 26.88 years,  $SD = 7.94$ .

There were 28 groups with one woman and three men, 33 groups with two women and two men, and 36 groups with one man and three women. Forty-nine groups were assigned to the pro-diversity condition and 48 to the pro similarity condition. Forty-nine groups worked on Emotional Intelligence (EI) problems, and 48 worked on math problems.

The manipulation of task stereotypicality and numeric representation occurred on the individual level, while the manipulation of diversity beliefs occurred on the group level. On the individual level, women who worked on EI problems and men who worked on math problems were classified as working on gender-typical tasks, the other participants were classified as working on gender-atypical tasks (see below for a pretest supporting this classification). We employed math problems from the Graduate Management Aptitude Test (GMAT, e.g., Hecht & Schaefer, 1986) that we translated into German as stereotypically male problems, because these are usually perceived as male tasks (e.g., Huguet & Regner, 2007; Inzlicht & Ben-Zeev, 2000). For stereotypically female problems, we employed items from tests of Emotional Intelligence (EI), because there is a stereotype pertaining to the higher emotional competence of women (Plant, Hyde, Keltner, & Devine, 2000). German EI items were created based on items from self-scoring EI tests (Daniel, 2000) and the MSCEIT (Mayer, Salovey, Caruso, & Sitarenios, 2003).<sup>2</sup>

Thus, groups always contained typical and atypical group members. From the individual participant's point of view, his or her numeric representation was classified as a solo member if he or she was the sole representative of the respective gender in the group. The other three members of the opposite gender were classified as belonging to the majority. If there were two representatives of each gender in a team, their numeric representation was classified as balanced. The design on the individual level is represented in Table 1.

Diversity beliefs, as outlined below in further detail, were manipulated on the team level by informing all members of a given experimental group about the supposed benefits of either team homogeneity or team heterogeneity.

**TABLE 1**

*Experimental design on the individual level (N = 388). Participants were nested in 97 four-person teams.*

	Pro-Diversity Beliefs		Pro-Similarity Beliefs	
	Task-Gender Typicality		Task-Gender Typicality	
	Typical	Atypical	Typical	Atypical
<b>Numeric Representation</b>				
Solo	17	16	16	15
Balanced	39	39	41	41
Majority	41	44	38	41

### Pretest

To establish the validity of the task-gender stereotype, we conducted a pre-test with a different sample: We contacted students and junior faculty members of the university where the study took place via e-mail and mailing lists and asked them to participate in a brief online study. Participants were randomly assigned to work on either ten math items or on ten EI items. Of the 107 participants who completed the study, 73 were female. The average age of participants was 27.70 years,  $SD = 9.46$ . Forty-four participants completed the math items and 63 completed the EI items. Afterwards, participants assessed how well men in general would perform in this particular type of task and how well women in general would perform on this particular type of task. The scale for these performance appraisals ranged from 1 (very poorly) to 5 (very well).

To test whether participants perceived the tasks as gender-typical, we submitted the performance appraisal for men in general and the performance appraisal for women in general to a mixed within-and-between ANOVA that included task type and participant gender as between-participant factors. It revealed the expected performance appraisal x task type interaction,  $F(1,102) = 42.92, p < .001, h^2 = 0.29$ : On average, men in general received a performance appraisal of 3.67 ( $SD = 0.61$ ) for the math task and an average appraisal of 3.00 ( $SD = 0.70$ ) for the emotional intelligence task. Women in general received an average performance appraisal of 3.05 ( $SD = 0.65$ ) for the math task and an average performance appraisal of 3.68 ( $SD = 0.59$ ) for the EI task. In summary, regardless of their own gender, participants expected a higher performance from women in emotional tasks than in math tasks, while for men this pattern was reversed. This pattern was reflected in the participants' performance: A 2 (gender: male, female) x 2 (task type: math, EI) ANOVA with the Z-transformed performance<sup>3</sup> as dependent variable revealed a significant interaction,  $F(1,102) = 7.16, p < .01, h^2 = 0.06$ , and no significant main effects (both  $F_s < 1.1$ ): In math tasks, men scored higher ( $M = 0.21, SD = 1.04$ ) than women ( $M = -0.12, SD = 0.97$ ). In EI tasks, this pattern was reversed with women scoring higher ( $M = 0.22, SD = 0.74$ ) than men ( $M = -0.54, SD = 1.33$ ).

Taken together, we classified men in groups working on the math items and women working on the EI items as working on a gender-typical task, whereas men working on EI items and women working on the math items were classified as working on a gender-atypical task<sup>3</sup>.

### Procedure

Upon arrival at the lab, group members first individually worked on items of the same type as in the upcoming group task, which enabled us to control for individual ability in the analyses. Subsequently, the participants were seated together and asked to estimate



each others' task competence. Afterwards, the group worked together on a single booklet containing further items of the same task type for 30 minutes. The group's interaction was recorded on video with three cameras from different angles that enabled us to hear and see on video verbal and non-verbal communication and to whom the communication was directed.

Prior to the group task but after the competence attributions, participants received a leaflet with information about the purpose of the study. This material was employed to manipulate participants' diversity beliefs (see Homan et al., 2007, for a similar manipulation). In the pro-similarity condition, the text informed participants that prior research had shown that gender-homogeneous groups tend to perform better on the task at hand, and that members of gender-homogeneous groups find working with each other on such tasks more enjoyable than members of gender-homogeneous teams. In the pro-diversity condition, participants were told the same with reference to gender-heterogeneous groups. The texts for both conditions referenced studies that supposedly reported the described findings.

Participants subsequently worked on a booklet containing the items for the group task. All participants also received a booklet with the items for ease of reading, but only the central booklet contained answer choices that had to be filled out by the team. Team members were instructed to work together as a group and discuss the potential answers for all items.

After the group finished working on the task together, participants individually filled out a questionnaire containing demographic questions and the manipulation check, were debriefed, thanked, paid, and dismissed. The entire experiment lasted approximately 1.5 hours.

## **MEASURES**

### **Individual Ability**

Prior to working on the group task, participants had ten minutes to work individually on a booklet that contained items that were of the same type as the items in the upcoming group task. In the math task condition, this booklet contained 22 math task items of varying difficulty. In the emotional intelligence condition, the booklet contained 22 EI items. Math items were scored according to the respective instructions and EI items were scored with the consensus method<sup>4</sup>. Participants' summed scores were subsequently Z-transformed.

### **Attributed Status**

After participants had worked on the individual pre-test, they rated the competence of

each of their fellow group members with reference to the task at hand on a visual analogue scale ranging from 0 to 100. For each participant, we averaged the three votes that she or he received from the other group members into one score of attributed competence. This aggregation was justified as indicated by the two-way ICC(1) of .40,  $F(380, 760) = 3.03$ ,  $p < .001$ , 95% CI: .34; .47, and by the two-way ICC(3) of .67 (95% CI: .61; .72) with, in this case, the latter being equivalent to a Cronbach's alpha across the three raters.

### **Dominance**

Group members' dominance in their verbal and non-verbal communication behavior was coded by four independent coders with the Discussion Coding System (DCS) (Schermyly & Scholl, 2011; 2012). For each speech act, the DCS captures its accompanying interpersonal affect in terms of affiliation and dominance, its function, and its responses. It is adapted to the sequential, vertical, and reciprocal nature of interaction and is thus suitable for capturing group processes. The DCS unitizes the group interaction into individual speech acts. Speech acts can be classified as belonging to certain categories (Bales, 1950). In the case of the DCS, a speech act refers to a sentence-like unit that can be attributed to one of the following three main categories: social-emotional statement (differentiated as positive or negative), statement with regard to the content of the task, or regulatory statement. For each of these three main categories, the two minor categories proposal and question can be coded.

The unitization of the speech acts is based on a set of hierarchic rules (Schermyly & Scholl, 2011; 2012). Coders code a new act if (a) the speaker changes, (b) the speaker starts to address a different person, (c) the speaker changes from one main category to another (e.g., speaker starts with a regulation and then switches to a socio-emotional statement), (d) the speaker states a new minor category, (e) the speaker speaks for more than 30 seconds, or if (f) the speaker stays in the same functional domain but the main argument explicitly changes. Two independent coders were trained on these rules and subsequently coded two randomly chosen discussions each. Across these, 509 speech acts were identified by at least one of the two coders. 95.08 % of these speech acts were identified by both coders in the same manner. Hence, we judged the unitization to be reliable. The remaining discussions were subsequently sequenced into speech acts by these two coders. The sequenced discussions were then supplied to a second coding procedure, during which the functions of the speech acts were categorized into major and minor categories as described above by a different group of two coders who were blind to experimental conditions and who had considerable experience with the DCS from another study. In this way, the same speech act could receive two different ratings from two different coders in the second procedure, but coders could not disagree on the unitization of speech acts.

To obtain a measure for the dominance of verbal and non-verbal communication, the

coders coded the dominance expressed by the speaker of each speech act on a scale from 1 (very submissive) to 3 (neutral) to 5 (very dominant) as described by the DCS manual that contains a set of behavioral markers of submissiveness and dominance that coders use for their decision. Behavioral markers span several domains: Facial expression and glance (e.g., avoiding others' gaze as a sign of submissiveness), body posture and gestures (e.g., postural expansion as a marker for dominance), paralanguage (e.g., speaking quietly as a sign of submissiveness), and specific behaviors (e.g., interrupting someone as a marker for dominance). Five videos comprising 714 speech acts in total were chosen randomly and coded twice by the two coders. Inter-rater reliability turned out to be acceptable,  $ICC(1) = .65$ . Note that high levels of the  $ICC(1)$  require both inter-rater agreement and variance of the codes (LeBreton & Senter, 2008). The coders agreed perfectly in 88.8% of the 714 speech acts that were coded several times. In 10.5% of the cases, the coders differed by only one scale point. Thus, in 99% of the cases, coders had complete or close agreement. However, 80% of the acts were coded as neutral, which reduced the variance and hence the  $ICC(1)$ . For each participant, the dominance ratings associated with all of her or his speech acts were averaged into one measure of behavioral dominance. Due to technical issues with the video recording, videos could not be coded for two male participants who were omitted in the analyses. The dominance measure ranged from 2.00 to 3.66 ( $M = 2.93, SD = 0.27$ ).

### **Individual Performance in the Group**

Individual performance in the group in the math task was assessed through observational coding in the same way as done by Chatman et al. (2008): Two independent coders (different from the ones doing the DCS coding) scored (a) the correct answer to the question and (b) the answer the group reported on their answering form. Regardless of the number of times a participant mentioned the correct or reported answer, each participant received a maximum of one point per response type per problem completed by the group. Coders were instructed "to count an answer only if the participants actually stated an answer choice (A, B, C, D, or E) of their own accord" (p. 149). These observed answer choices were subsequently scored, and the individual score was Z-transformed. In a similar fashion, coders noted the stated answer choice of participants who worked on the EI items, assigned the respective score to these choices, and Z-transformed them. Coders had a high agreement (Cohen's  $k$  for the math task = 0.96, Cohen's  $k$  for the EI task = 0.87). The Z-transformed scores from participants that worked on the math tasks and the scores from the participants that worked on the EI task were subsequently combined into one variable representing individual performance. It ranged from -2.31 to 2.92. Due to the above-mentioned technical problem with the videos, this measure was not available for two participants, who were omitted from the analyses.

### Manipulation Checks

To check the success of the manipulation of diversity beliefs, we included four items in the post-task questionnaire: “Groups with members who are different from each other achieve higher performance than groups with members that are similar to each other”; “Groups with members who are different from each other experience more pleasant cooperation than gender-homogeneous groups”; “Groups with members from different genders achieve higher performance than gender-homogeneous groups”; and “Groups with members from different genders experience more pleasant cooperation than gender-homogeneous groups”. These items were presented with scales ranging from 1 (I strongly disagree) to 7 (I strongly agree).

## RESULTS

### Level Issues and Analytical Strategy

Participants were nested in groups and diversity beliefs were manipulated on the group level, while task typicality and numeric representation were manipulated on the individual level. To account for the resulting differences in degrees of freedom between manipulations on the individual and team level, we employed multilevel analyses where appropriate in hypothesis testing (Gelman & Hill, 2006). We also investigated whether dependent and moderating variables were nonindependent, i.e., whether group membership explained significant levels of their variance (Bliese, 2000). Measures of individual performance in the groups were independent of each other,  $ICC(1) < .05$ ,  $F(96, 291) < 1$ . Attributed status was nonindependent,  $ICC(1) = .24$ ,  $F(96, 291) = 2.26$ ,  $p < .001$ ,  $ICC(2) = .56$ , as was behavioral dominance,  $ICC(1) = .24$ ,  $F(96, 291) = 2.28$ ,  $p < .001$ ,  $ICC(2) = .56$ .

Further examinations of the distributions of the dependent and mediating variables identified two extreme outliers who deviated more than three standard deviations from the mean in the individual performance variable. Due to their extreme influence on the analyses, these two participants (two men, one a typical solo in the pro-diversity condition and the other one a typical balanced member in the pro-similarity condition) were removed from the analyses.

### Manipulation Checks

In the pro-diversity condition, participants evaluated general team diversity as better for team performance ( $M = 5.34$ ,  $SD = 1.24$ ) and as more pleasant ( $M = 4.77$ ,  $SD = 1.39$ ) than in the pro similarity condition ( $M = 3.55$ ,  $SD = 1.62$ , and  $M = 2.91$ ,  $SD = 1.26$ , respectively,  $t(386) = 12.23$ ,  $p < .001$ ,  $d = 1.24$ , and  $t(386) = 13.84$ ,  $p < .001$ ,  $d = 1.41$ ). Likewise, participants in the pro-diversity condition evaluated gender diversity as better for performance ( $M = 5.62$ ,  $SD$

= 1.24) and as more pleasant ( $M = 5.35, SD = 1.38$ ) than in the pro-similarity condition ( $M = 3.52, SD = 1.66$ , and  $M = 3.67, SD = 1.59, t(386) = 14.10, p < .001, d = 1.43$ , and  $t(386) = 11.10, p < .001, d = 1.13$ ). We thus deemed the manipulation a success.

### **The Effect of Task Typicality and Group Gender Composition on Individual Performance**

Hypothesis 1a predicted that the gender-typicality of a task predicts individual performance in the team setting above and beyond individual task ability. Due to the fact that all independent and dependent variables pertaining to this hypothesis were independently distributed individual-level variables, we tested it with an according ANCOVA. Apart from a large and significant influence of individual ability,  $F(1, 383) = 30.42, p < .001, \zeta = 0.27$ , the task's gender typicality did indeed predict individual team performance to a small but significant extent,  $F(1,383) = 3.93, p < .05, \zeta = .10$ . Hypothesis 1a was thus supported by the data, and the model accounted for 8.2% of the total variance of individual performance.

To test whether this effect was qualified by the composition of the group in such a way that the differences between typical and atypical group members are especially pronounced for solo representatives of their gender (Hypothesis 1b), we added participants' numeric representation and its interaction with task typicality to the ANCOVA. Apart from the main effect of individual ability,  $F(1,379) = 31.60, p < .001, \zeta = .27$ , it revealed a significant interaction of task typicality  $\times$  numeric representation on individual performance,  $F(2,379) = 5.75, p < .01, \zeta = .16$ . The model including the interaction explained 12.6% of the total variance of individual performance, and the increase in variance explanation was significant,  $p < .001$ . The plot of the interaction (see Figure 2) and according post-hoc tests with covariate averaging and Bonferroni correction revealed a significant difference between typical and atypical group members in the solo condition, mean difference = 0.78,  $SE = 0.19, t = 4.05, p < .001$ , and in the balanced condition, mean difference = 0.49,  $SE = 0.15, t = 3.38, p < .05$ , but not in the majority condition. Hypothesis 1b was thus supported by the data.

Now that we have shown that the context - in terms of the task's gender typicality and of the team's gender composition - affects individual performance in the group above and beyond individual ability, we proceed with testing the proposed underlying psychological process: That the context gives rise to stereotypical status attributions which, under the condition of pro-similarity beliefs, leads to interpersonal dominance, and that the latter affect individual performance.

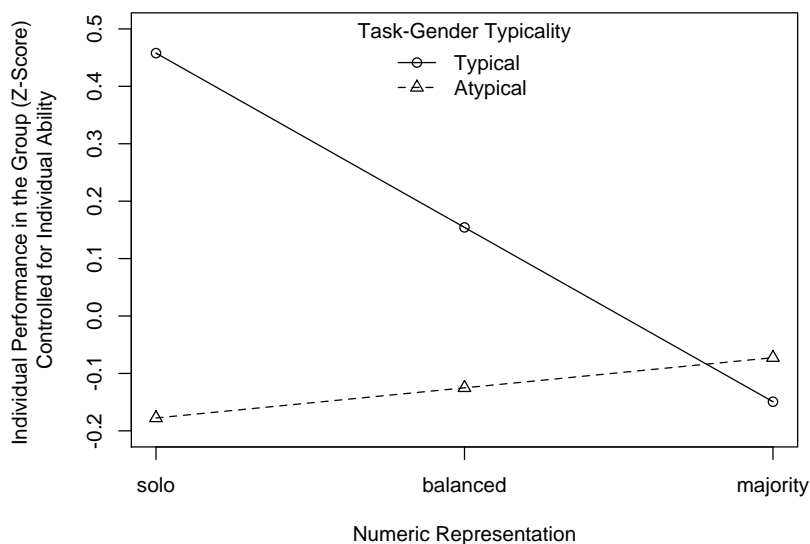
### **The Mediation of Task Typicality and Group Gender Composition on Individual Performance through Status Attributions and Dominance**

Taken together, Hypotheses 2, 3, and 4 predict that the effect of the task gender-fit and of the team's gender composition on individual team performance is distally mediated by the competence attributions that team members receive and the subsequent inter-

personal dominance. To test the distal mediation, we conducted a multilevel mediation analysis (Preacher, Zyphur, & Zhang, 2010) by specifying an according multilevel path model with MPlus Version 6.11 (Muthén & Muthén, 2010), see the top pane of Figure 3. It contained individual performance as an individual-level outcome with a fixed intercept. Gender task typicality, numeric representation, and their interaction were entered as individual-level categorical predictors that predicted the outcome, individual performance, and both mediators, attributed status and interpersonal dominance. The mediators were included as individual-level variables with a random intercept that was allowed to vary between teams. In accordance with Muthen and Muthen (2010b), the random intercepts are denoted by the black dots in the Figure. The slopes were not allowed to vary, because a multilevel regressions that regressed the mediators on their predictors showed that a random intercept model fitted better than an ordinary least-squares model,  $\Delta\chi(1) = 42.05$ ,  $p < .001$ , but a random intercept and slope model with random slopes for numeric representation, task gender typicality, and their interaction did not fit better than the random-intercept model,  $\Delta\chi(9) = 10.30$ ,  $p > .05$  (see Bliese, 2002, for this strategy of testing models with an increasing number of random effects for model selection). In the multilevel mediation path model, we also controlled for the influence of individual ability on all mediating and dependent variables. The indirect path from the independent variables task typicality, numeric representation and their interactions were specified as  $a_1bc$ ,  $a_2bc$ , and  $a_3bc$  accordingly (Preacher, Rucker, & Hayes, 2007) and their significance was determined via the confidence intervals of the MLR-based parameter estimates that MPlus employs for models with categorical variables (Muthen & Muthen, 2010a).

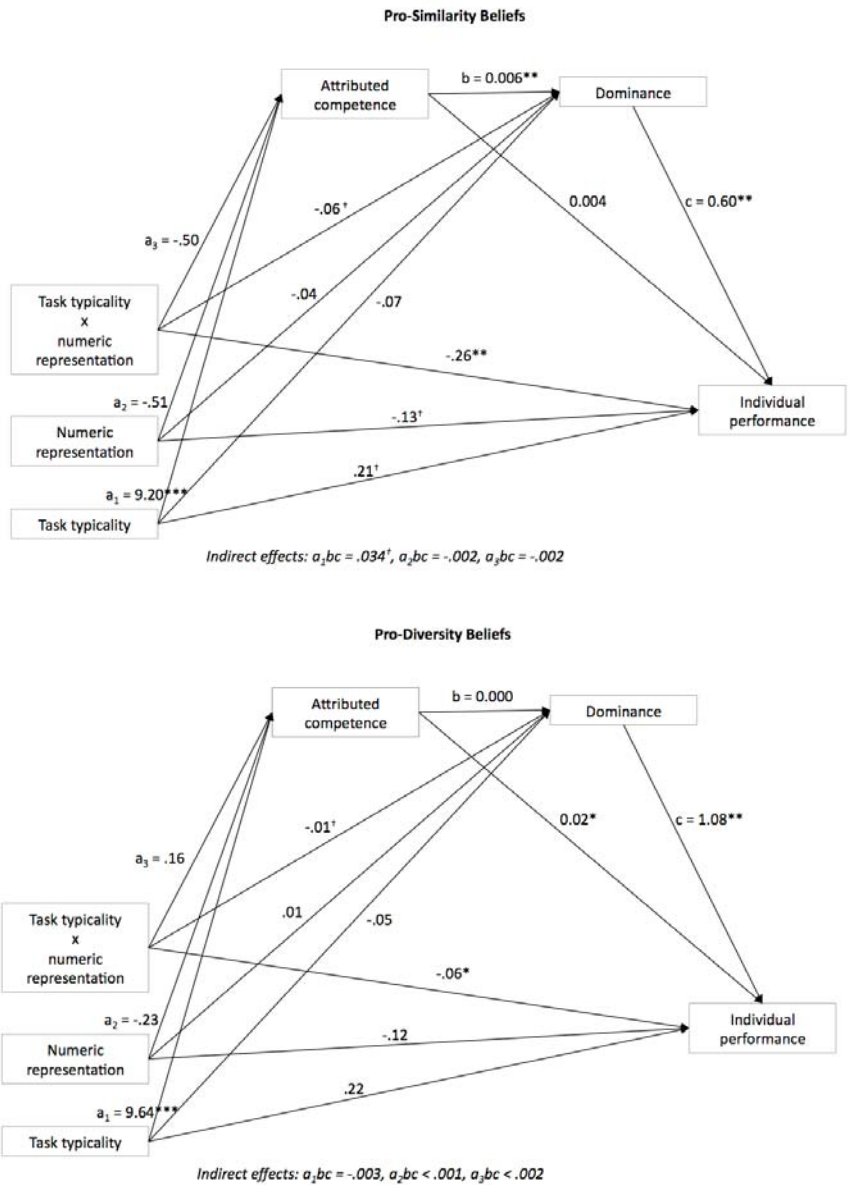
## FIGURE 2

*Individual performance in the group as a function of task typicality and numeric representation*



**FIGURE 3**

Multilevel path model ( $N = 388$ ) of the proposed distal mediation of task typicality and numeric representation on individual performance via attributed competence and dominance while controlling for individual ability (not shown). As diversity beliefs are hypothesized to moderate the process, the model is calculated for both levels of the moderator separately.



Note.  $\dagger p < .10$ ,  $* p < .05$ ,  $** p < .01$ ,  $*** p < .001$

Hypothesis 5 predicted that the relationship between interpersonal dominance and attributed status is contingent on team members' diversity beliefs, i.e., that the proposed distal mediation is moderated by diversity beliefs. Testing a moderated mediation with such a categorical moderator requires an estimation of the proposed indirect effect under the different levels of the moderator (Preacher et al., 2007). Therefore, we tested the path model and the significance of the indirect effects separately for those groups in the pro-similarity condition (see the upper pane of Figure 3) and for those in the pro-diversity beliefs condition (see the lower pane of Figure 3). Because the statistical power for detecting moderator effects in (distal) mediations is low (McClelland & Judd, 1993), we relaxed significance levels to  $p < .10$  for the moderated indirect effect (cf. Gebert & Kearney, 2009; Harrison et al., 1998).

In support of Hypothesis 2a, the significant path  $a_1$  under both conditions of diversity beliefs shows that task typicality influenced competence attributions: On average, participants whose gender fitted to the stereotypic gender of the task received higher status attributions than participants whose gender did not fit to the task stereotype. This relationship was however not moderated by participants' numeric representation, as visible by the insignificant paths  $a_3$ . Hypothesis 2b was thus rejected.

Hypothesis 3 assumed a positive relationship between attributed competence and behavioral dominance. As the two path models in Figure 3 were inconclusive with regard to a main effect because they showed different effects under the different levels of the moderator, we computed a random-intercept multilevel model regressing dominance on attributed competence, task typicality, numeric representation, and their interaction while controlling for individual ability (an according random intercept and slope model did not converge) with the nlme package (Pinheiro, Bates, DebRoy, Sarkar, & the R Core Team, 2011) of the open-source statistical environment R (R Development Core Team, 2012), see Table 2. It revealed a positive non-standardized association between attributed competence and interpersonal dominance of 0.003,  $SE = 0.001$ ,  $p = .066$ . As the association was in the direction postulated by the hypothesis, we interpret the one-tailed significance of  $p = .033$  as supporting Hypothesis 3.

Hypothesis 4 predicted that interpersonal dominance is positively associated with individual performance in the team. As visible in Figure 3, this relationship turned out to be significant under both the pro-diversity and the pro-similarity condition, supporting the hypothesis.

With regard to the malleability of the process, Hypothesis 5 assumed that the relationship between attributed competence and interpersonal dominance is moderated by



diversity beliefs in such a way that pro-diversity beliefs will decrease the strength of the association. In support of the hypothesis, this relationship was significant in teams in the pro-similarity experimental condition,  $b = 0.006$ ,  $SE = 0.001$ ,  $p < .01$ , but not in the pro-diversity beliefs condition,  $b < 0.001$ ,  $SE = 0.002$ ,  $p > .10$ . Accordingly, the total indirect effect of task typicality on individual performance via attributed status and dominance was significant in the pro-similarity condition  $a_1bc = 0.003$ ,  $SE = 0.001$ ,  $p < .10$ , but not in the pro-diversity beliefs condition,  $a_1bc = -0.003$ ,  $SE = 0.02$ ,  $p > .10$ .

Finally, based on the process considerations inherent to the previous hypotheses, Hypothesis 6 assumed a three-way interaction of task typicality, numeric representation, and diversity beliefs on individual performance. To test it while accounting for the different levels of the independent interacting variables (with task typicality and numeric representation on the individual level and diversity beliefs on the group level), we constructed an according multilevel model. As visible in Table 2, the cross-level three-way interaction between task typicality, numeric representation, and diversity beliefs turned out to be significant.

To interpret it, we plotted it with the multilevel interaction tool provided by Preacher et al. (2007), compare Figure 4. In full support of Hypothesis 6, the difference between typical and atypical solo team members was most pronounced under pro-similarity beliefs, and performance declined to the strongest extent from being a typical solo group member to being a typical majority group member. Accordingly, the simple slope test for multilevel interactions (Preacher et al., 2007) revealed that the relationship between numeric representation and performance was only significant for typical team members in the pro-similarity condition, simple slope =  $-0.46$ ,  $SE = 0.12$ ,  $t = -3.77$ ,  $p < 0.01$ . All other slopes were not significant, all  $ts < 1.21$ . In other words, there was no relationship between the group composition and task typicality on one side and individual performance on the other if team members held pro-similarity beliefs.

**TABLE 2**

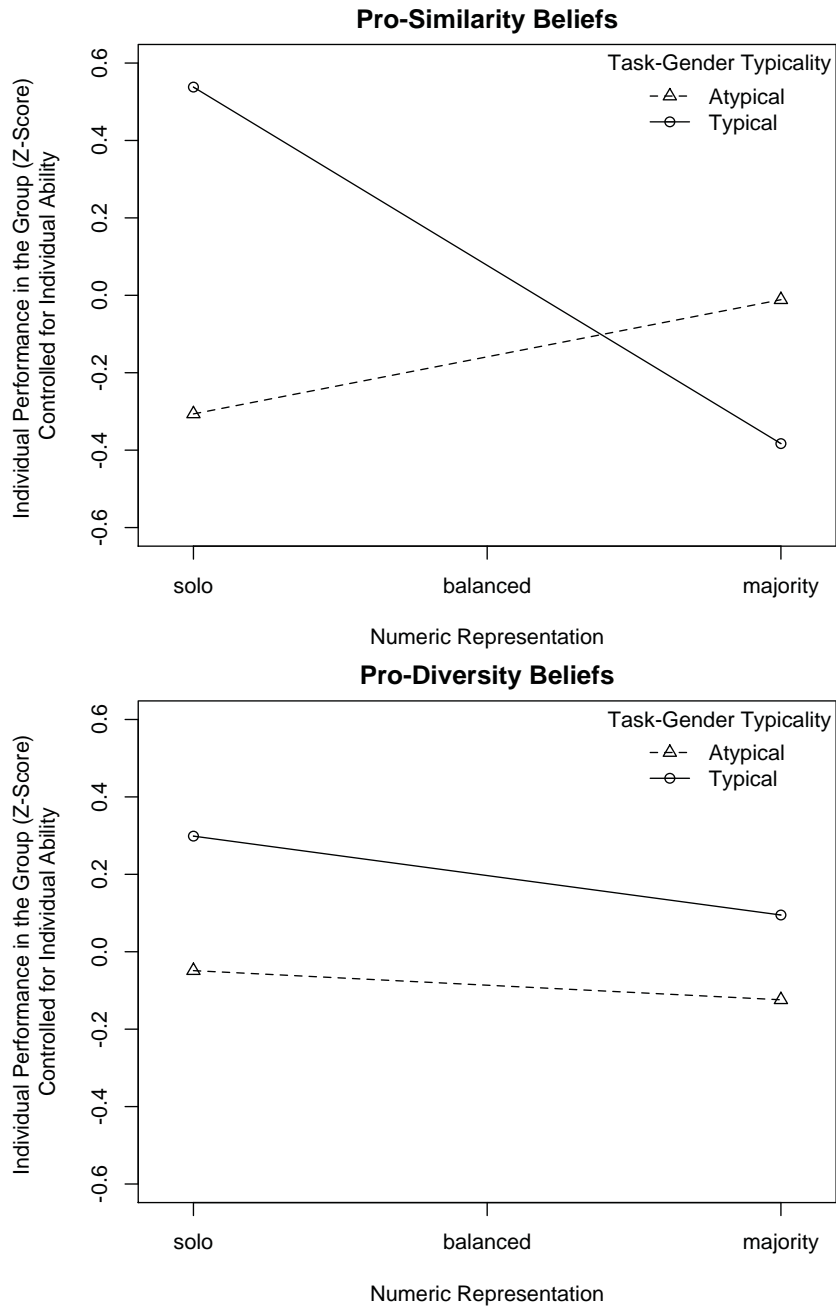
Multilevel models for testing the influence of attributed status on dominance (Hypotheses 3) and for testing the influence of task typicality, numeric representation, and diversity beliefs on individual performance (Hypothesis 6).

	DOMINANCE (H3)		INDIVIDUAL PERFORMANCE (H6)	
	Step 1 Null model	Step 2 (H3)	Step 1 Null model	Step 2 (H6)
<b>Independent Variables</b>	$\gamma$ (SE)	$\gamma$ (SE)	$\gamma$ (SE)	$\gamma$ (SE)
<b>Within-group variables</b>				
(Intercept)	2.88 (0.02)	2.72 (0.08)	-0.02 (0.04)	0.07 (0.05)
Individual ability	0.01 (0.01)	0.01 (0.01)	0.25 (0.05)***	0.25 (0.05)***
Attributed competence		0.003 (0.001)†		
Task typicality (TT)		-0.03 (0.01)†		0.13 (0.05)*
Numeric representation (NR)		-0.01 (0.02)		-0.11 (0.06)†
TT × NR		-0.04 (0.02)		-0.17 (0.07)*
TT × DB				0.01 (0.05)
<b>Between-group variables</b>				
Diversity beliefs (DB)				0.05 (0.05)
<b>Cross-level interactions</b>				
DB × NR				0.04 (0.06)
TT × NR × DB				0.14 (0.06)*
<b>-2 logLikelihood</b>	125.85	117.57	1034.20	1014.00
AIC	133.85	133.57	1042.20	1036.00
BIC	149.67	165.22	1058.01	1079.48
$\sigma_b^2$	0.02	0.02	0.00	0.00
$\sigma_e^2$	0.07	0.07	0.86	0.81
<b>Nagelkerke pseudo-R<sup>2</sup></b>	0.07	0.09	0.07	0.12

Note. †  $p < .10$ , \*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$  (two-tailed)

**FIGURE 4**

Multilevel interaction plot (Preacher et al., 2007) of individual performance in the group as a function of task typicality, numeric representation, and diversity beliefs.



## DISCUSSION

In replication of prior findings (Chatman et al., 2008), group members' stereotypic gender-task fit influenced their performance beyond their individual ability: Under control of individual ability, typical members performed significantly higher than atypical group members. This effect was more pronounced for solo group members and was not significant for majority group members. Extending prior findings and in partial support of the proposed process model, the effect of gender task typicality on performance was distally mediated through competence attributions and the resulting interpersonal dominance. Typical group members received higher status attributions, and individuals with higher status attributions exhibited higher levels of interpersonal dominance, which predicted their individual performance. This mediation did however not hold for the effect of task typicality and its interaction with numeric representation. In further support of the hypotheses, the mediation of task typicality on performance through status and dominance was moderated by diversity beliefs: Higher levels of stereotypically attributed competence only led to more dominance (and more performance) if team members saw value in gender-homogeneity. Therefore, as the effect of task typicality was moderated by diversity beliefs, diversity beliefs added to the initial two-way interaction of task typicality and numeric representation on team performance: It only held under pro-similarity beliefs.

In short, our study showed that whether stereotypical perceptions of each other translated into differences in behavior and performance depended on participants' diversity beliefs: If they saw value in diversity, behavior and performance were unaffected by the stereotypical perceptions. These findings enhance research on stereotyping in two significant ways. First, in contrast to current models on the consequences of stereotype threat that portray the processes leading up to the consequences as being intrapersonal in nature, our study showed that interpersonal cognitive and behavioral processes such as status attributions and dominance also account for consequences of stereotyping (see also Chatman et al., 2008). Second, as an answer to the quest to eradicate the consequences of stereotyping, we showed that instilling pro-diversity beliefs may provide an important instrument for this purpose.

### **Stereotype Threat and Interpersonal Behavior**

Our findings indicate that stereotype threat affects interpersonal processes and behavior. The fact that we employed experimental data from multiple sources, including behavior observation, underlines the robustness of these findings. Because there only are a few studies on this behavioral aspect of stereotype threat (e.g., Bosson et al., 2004), we put a premium on future research efforts to study the behavioral impact of stereotyping and the consequences thereof.

Such research efforts do not only need to include empirical studies, since we - as a research community - are clearly in need of an updated model of stereotype threat effects that includes a behavioral component. Next to the model of Schmader et al. (2008), our cognitive-behavioral process model of individual performance in a stereotype-prone group context (Figure 1) may provide a useful starting point. Note that in our model, the component *evaluation* plays a central role. Following status research (e.g., Ridgeway & Berger, 1986; but see also social identity's principle of comparative fit; Oakes et al., 1991), we argued that stereotype-confirming behaviors are the consequences of an evaluation process where group members use member characteristics as proxies to appraise their own and each other's relative status (i.e., competence on the task). As such, our findings suggest that the evaluation process serves as a prominent mediator in the relationship between being a stereotypee and behaving accordingly. In addition, Rudman and Fairchild's (2004) work that shows how both actors and perceivers actively engage in behavior to maintain a cultural stereotype may also provide useful input for a comprehensive model on the effects of stereotypes in team contexts.

### **Stereotyping and Diversity Beliefs**

Our findings supported the hypothesis that the consequences of stereotypical perceptions can be altered by motivating people to act based on a different belief. What makes this finding interesting is the fact that at the start of the task, as visible in the stereotypic competence attributions, stereotypes were clearly salient in the minds of the participants. Indeed, the pro-similarity condition showed stereotype-confirming behaviors and performance that resembled the findings of Chatman et al. (2008), thereby suggesting that the pro-similarity condition is the default condition. Given that stereotypes did not affect the performance of the team members in the pro-diversity beliefs condition, our study provides evidence that interventions can be successful in eradicating the negative effects of stereotyping - even when task-contexts are extremely prone to stereotype salience.

Interestingly, our findings showed that pro-diversity beliefs led to performance outcomes that are more true to people's individual ability. We argued that pro-diversity beliefs stimulated the participants to look beyond their categorical attributions and that they were more attentive to individuating information. Because it reduces the extent to which people are - or fear to be - judged based on stereotypes, it may be clear that the pro-diversity condition yields a fairer work-context for the participants than the pro-similarity condition.

From a performance perspective, one could argue however that it is somewhat a loss that with the eradication of stereotype effects, stereotype-lift effects are gone too. In our findings, the task-gender stereotype under pro-similarity beliefs served to increase typical

member performance, instead of diminishing the performance of the stereotypee. Although we perceive abolishing negative stereotypes at the expense of positive stereotypes to be preferable compared to maintaining both – because it is more true, and hence fairer, to people’s individual ability – it may be worthwhile to study if it is possible to motivate people to not act on negative stereotypes while motivating them to act on positive ones. This could be studied by, for example, providing only atypical participants with pro-diversity beliefs in a similar experiment. What makes such a manipulation particularly interesting is that it creates conflicting beliefs among group members and thus could enhance our insight into the relative importance of one’s own beliefs in comparison to the beliefs held by others about one’s competences.

### **Stereotyping, Status, and Diversity Research**

On a more general level, our results extend the current understanding of how stereotypes, group member status, gender diversity, and attitudes interact with each other in their influence on people’s behavior and performance in group contexts. Whereas these established research domains have been studied largely in isolation of each other, our findings suggest that it may be worthwhile to pursue attempts to integrate them. First propositions towards such an integration were put forward by Chattopadyhay et al. (2004): Taking a relational demography approach, they argued that the degree to which group members will identify with their workgroup or with their social category is based on an interaction between their perceived relational dissimilarity with their team and their status. Although our results show that actual dissimilarity and status perceptions also influence interpersonal behavior and performance, they nonetheless highlight the viability of Chattopadyhay et al.’s view that salient social categorizations influence the diversity-outcome relation (see also van Knippenberg et al., 2004). In line with their reasoning, the above results could indicate that the contextual salience of social categorizations and their associated status are the drivers of interpersonal behavior and performance. Because we can only infer the salience of social categories in the present study, future studies investigating the impact of stereotypes in the context of status perceptions should also investigate the salience of the stereotypes. In this way, diversity research could benefit from investigating the role of stereotypes on the relationship between work group diversity and group performance (van Knippenberg & Schippers, 2007).

In addition, our study suggests that status may be the linking pin between stereotyping on the one hand, and interpersonal and group processes and outcomes on the other. With the notable exception of social identity theory (Tajfel & Turner, 1986; cf. Haslam, 2004), status has predominantly been studied by sociologists and hence been neglected in social and organizational psychology. Several scholars therefore have called for more

research to status and status-related processes in social and organizational psychology research (e.g., DiTomaso, Parks, & Yancy, 2007; Magee & Galinsky, 2008; Mannix & Sauer, 2006; Ravlin & Thomas, 2005). In responding to that call, our study empirically shows the importance of integrating the (sociological) status literature in gaining a comprehensive understanding of group processes and behavior.

In this context, we have to note that status perceptions and dominance only mediated the effects of the task stereotype on individual performance, but not those of participants' gender representation, as indicated by the rejection of Hypothesis 2b. This can suggest that task stereotypes and group composition affect performance through different processes. Whereas task stereotypes might affect the behavior of all group members, the salience effects associated with solo representation might primarily affect the behaviors of other group members towards the solo member (cf. Chatman et al., 2008). In order to tease such different process routes apart, it may be helpful if future research investigated the effects of stereotypes and numeric representation from an Actor-Partner-Interdependence-Model perspective (APIM, e.g., Cook & Kenny, 2005). The APIM conceptualizes individual-level outcomes in social situations as results of inputs within the particular individual (the actor effect) and as results from inputs from the other individuals such as other group members (the partner effect) which are estimated separately. Further studies could thus differentiate between the partner and the actor effect of task typicality and numeric representation.

### **Practical Implications**

Our findings emphasize that teamwork contexts can easily be prone to stereotyping and that cues as little as the numeric configuration can increase stereotype salience. A first implication for practitioners thus yields a warrant against organizational contexts and settings that increase stereotype salience.

We are aware that often, this is just impossible. One cannot, for example, change the nature of a highly technical environment in order to make it less prone to stereotypes against women. What one can do in such an environment, however, is make one's employees aware that the women who do work in such environments individually perform on par with men and that their presence may actually enhance group creativity, innovation, and performance (van Dijk, van Engen, & van Knippenberg, 2012). Such a simple intervention may be enough to establish pro-diversity beliefs in an organization and hence eradicate the negative consequences of stereotypes. The fact that diversity beliefs can counter the effects of stereotypes thus shows that highlighting the value of diversity is a viable alternative to other forms of communication that aims to counter stereotypes. For example, the portrayal of successful non-typical role models such as female math professors has

recently been shown to impair women's interests in non-typical work domains (Betz & Sekaquaptewa, 2012). In terms of our opening riddle, this suggests that highlighting the value of gender diversity at the work place may be more helpful in enhancing the proportion of female doctors than portraying successful female doctors.

Clearly, in practice it is much more difficult to establish pro-diversity beliefs than in an experiment like ours. However, given that our manipulation apparently altered participants' reliance on beliefs that are long-held and widespread (e.g., that men are better at math tasks than women), we do believe that it is not a mission impossible to establish such pro-diversity beliefs. In fact, it may be that many diversity management programs and initiatives (implicitly) serve this function because their bottom-line message often entails that diversity is worth pursuing.

### **Limitations and Outlook**

In the artificial laboratory situation where participants did not know each other, they were unable to base their competence ratings for other group members on their knowledge about the others' actual capabilities, but had to rely on such diffuse and stereotypical cues such as gender. In real teams, where more valid cues for competence are likely to exist, competence attributions may be less influenced by stereotypical perceptions of gender. However, the initial stereotypical attributions such as the observed ones that occur when group members meet for the first time, could serve as the anchor for further attributions (Gould, 2002). In this way, it would be more difficult for group members from a stereotyped social group to appear as competent, even if they are (Foschi, 2000).

Moreover, our study did not include a condition where diversity beliefs were not manipulated. As a consequence, our results do not explain how group members would interact upon exposure to group composition without priming their beliefs. However, Chatman et al. (2008) did not manipulate diversity beliefs, and the effects of team gender composition and task typicality on individual performance as reported by Chatman and colleagues resemble our findings under the pro-similarity condition. This suggests that pro-similarity beliefs are the default in task settings as the one studied by Chatman et al. and by us. Furthermore, because we manipulated diversity beliefs after surveying competence attributions, we cannot conclude whether diversity beliefs impact stereotypic perceptions of other group members' competence. Research on multiculturalism has found that beliefs about multiculturalism, which might be similar to diversity beliefs, influence stereotype activation among majority and minority group members (Ryan, Hunt, Weible, Peterson, & Casas, 2007). Future studies could investigate whether diversity beliefs can moderate this relationship as well.



**Conclusion**

Our findings illustrate the potency of stereotypes in social settings, as they do not only influence behavior through cognitive mechanisms - as prior research showed - but also alter our interpersonal communication behavior, which also influences individual performance. Our finding that a simple manipulation of diversity beliefs can disable the link between stereotypical perceptions and interpersonal behavior and performance could serve as an initial starting point for further research in the field and for practical interventions alike.

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**Footnotes**

<sup>1</sup> In the remainder of this article, we continue to use the terminology of dominance in communication behavior. With dominance we refer to the level of assertiveness and confidence in the communication behavior of the group members. This is manifested through, for example, the frequency and length of speech and the extent to which unqualified statements and assertions are made (as opposed to hesitations and questions) (cf. Loyd, Phillips, Whitson, & Thomas-Hunt, 2010). Dominance in communication behavior the way we defined it here should thus not be confused with coercive behavior aimed at gaining control over a relationship (cf. Ridgeway & Berger, 1986).

<sup>2</sup> At the time of this study, no German translation of the MSCEIT existed. We obtained the here-employed items in part from a pilot study at a different university where a German translation of the MSCEIT was being piloted at the time. Note that Emotional Intelligence Items are, just like the GMAT items, formulated as problems, e.g., "What moods might be helpful when following a very complicated, demanding, cooking recipe?" that require cognitive effort and reasoning for arguing a solution.

<sup>3</sup> Chatman and colleagues (2008) employed verbal text comprehension problems from the GMAT as stereotypic female problems. However, in another pretest preceding the here-reported one, we did not find that GMAT verbal problems were perceived as typically female by another sample from our test population. We thus chose to employ EI items instead.

<sup>4</sup> EI tests frequently employ consensus scoring where an item response is scored with the proportion of participants from a referent population who chose the particular item (Roberts, Zeidner, & Matthews, 2001). For this study, we thus created a referent sample consisting of 912 individuals that were drawn from the same population as the study participants. The proportion of item scores from this referent sample was used for scoring the EI items in the current study.



## CHAPTER 5

Based on: van Dijk, H., Meyer, B., & van Engen, M. L. (under review). Reconsidering the diversity-performance relationship: The role of status in diverse work groups.

**ABSTRACT**

The social categorization and the information/decision-making perspective traditionally have been used to understand and study the relationship between work group diversity and group performance. Based on research to stereotype (threat) and status in groups, we take a different viewpoint and argue that status-related processes impact the diversity-performance relationship. In our status perspective on diversity, we assert that group performance depends on the extent to which within-group status differences (i.e. a group's status configuration) accurately reflect group members' levels of expertise. We propose that the effects of information elaboration on group performance depend on the accuracy of the status configuration and that – contrary to the propositions of the information/decision-making perspective – information elaboration can be harmful in groups with an inaccurate status configuration. An experiment with 97 gender-heterogeneous groups working on gender-typical problems, whose interactions were coded, supports the hypotheses. We discuss how to further advance our status perspective on work group diversity and its implications for the social categorization and the information/decision-making perspective.

*Keywords:* work group diversity, group performance, status, stereotypes, information elaboration.

## RECONSIDERING THE DIVERSITY-PERFORMANCE RELATIONSHIP: THE ROLE OF STATUS IN DIVERSE WORK GROUPS

With the increased entry of women and ethnic minorities into the workforce and the increased use of team work in contemporary organizations (Salas, Cooke, & Rosen, 2008), research to the consequences of different team members working together has been surging (Harrison & Klein, 2007). Because there are persistent stereotypes concerning the social categories individuals belong to, many researchers studied the consequences of stereotyping on individual cognitive processes and individual performance (e.g., stereotype content research, Fiske, Cuddy, Glick, & Xu, 2002; stereotype maintenance research, Rudman & Fairchild, 2004; stereotype threat research, Schmader, Johns, & Forbes, 2008). Another stream of research investigated how diverse group members interact with each other from a status perspective and denoted how belonging to the low- or high-status subgroup affects the subgroup interactions and the behavior of the subgroup members (e.g., Hornsey & Hogg, 2002; Ridgeway & Berger, 1986; Wittenbaum & Bowman, 2005). A third group of researchers has in particular been inspired by the so-called “business case for diversity” and focused on the extent to which the differences between group members result in individual-, group-, and organizational level outcomes (e.g., diversity research, Harrison & Klein, 2007; van Knippenberg & Schippers, 2007; Milliken & Martins, 1996; relational demography research, Chattopadhyay, Tluchowska, & George, 2004). These three domains of research have developed relatively independent from each other.

We posit that a proper understanding of the group dynamics underlying the performance of (gender) diverse groups - a research theme that thus far has been the focus of diversity research - needs to draw from the knowledge and insights from all three domains. More specifically, we assert that the research domains of stereotyping and of status offer insights on interaction patterns between diverse people that are valuable for understanding the consequences of work group diversity. Thus far, diversity research has been dominated by a bi-theoretical approach with the social categorization perspective accounting for diversity's negative consequences and the information/decision-making perspective for diversity's positive consequences (e.g., van Knippenberg, De Dreu, & Homan, 2004). We introduce a third perspective that is grounded in stereotyping and status research and show how it accounts for group processes and outcomes that the social categorization and information/decision-making perspective cannot account for.

Most significantly, based on our status perspective we argue that there are limits to the benefits of information elaboration, i.e. the exchange, discussion and integration of information (van Knippenberg et al., 2004). It has become an accepted notion among diversity researchers that information elaboration is key to the performance of diverse teams (Homan, van Knippenberg, Van Kleef, & De Dreu, 2007; van Ginkel & van Knippenberg, 2008;

van Knippenberg et al., 2004). We challenge this notion by arguing and showing that information elaboration can, in fact, be detrimental for diverse groups.

By means of our theoretical arguments and empirical validation, we respond to recent calls on the importance of theory development and empirical research to the role of status in organizational behavior and, more specifically, diversity research (DiTomaso, Parks, & Yancy, 2007; Magee & Galinsky, 2008; Mannix & Sauer, 2006; Ravlin & Thomas, 2005; cf. Chattopadhyay, Finn, & Ashkanasy, 2010). Moreover, research in diversity rarely studies actual behavior regarding the processes that are theorized. In our study we used behavioral observations, thereby enabling us to shed a light at ongoing processes in diverse work groups and to substantiate our claims.

## **DIVERSITY-PERFORMANCE THEORY RECONSIDERED**

The business case for diversity delineates that diverse work groups are expected to be able to outperform homogeneous work groups. The differences between the group members (e.g., in age, tenure, personality) are expected to reflect a richer and more heterogeneous pool of insights, knowledge and perspectives which, when integrated, should enable diverse groups to reach higher quality decisions and solutions than more homogeneous work groups.

Such diversity-performance research has been grounded in two theoretical perspectives that describe the black-box processes underlying the positive and negative consequences of work group diversity. Core to the business case for diversity and in line with the information/decision-making perspective, the positive consequences of diversity are generally attributed to what van Knippenberg et al. (2004) coined information elaboration, which refers to the sharing, discussing and integrating of task-relevant knowledge, ideas and perspectives among team members. Because teams with high levels of diversity are expected to have more informational resources at their disposal than more homogeneous teams, diverse teams are expected to outperform more homogeneous teams when they are able to integrate those informational resources (Hinsz, Tindale, & Vollrath, 1997; Tsui & O'Reilly, 1989; van Knippenberg et al., 2004).

The negative consequences of diversity are generally attributed to social categorization (Tajfel & Turner, 1986; Turner, Hogg, Oakes, Reicher, & Wetherell, 1987) and similarity/attraction (Byrne, 1971) processes. According to the social categorization perspective, people categorize others into ingroup and outgroup members based on the extent to which they are perceived as similar or different, respectively. In turn, people have been found to respond more favorably toward ingroup members than toward outgroup members in a variety of ways, including the level of affection, the willingness to cooperate, and the

level of trust (Haslam, 2004; van Knippenberg, 2003). Based on the social categorization perspective it can therefore be expected that the group processes in more homogeneous groups are more cooperative and hence productive than the group processes in more diverse groups (van Knippenberg et al., 2004). In line with these assumptions, several studies have shown that perceptions of within-team diversity can lead to decreased levels of team social integration, interaction, and performance (e.g., Harrison, Price, Gavin, & Florey, 2002; Liao, Chuang, & Joshi, 2008; Meyer, Shemla, & Schermuly, 2011; Zellmer-Bruhn, Maloney, Bhappu, & Salvador, 2008).

In the current understanding of the information/decision-making and the social categorization perspective, stereotyping and status-related processes are not taken into account. This entails that according to the dominant perspectives in diversity research, stereotype- and status-related processes do not affect the performance of diverse work groups. But is that true?

We posit that stereotypes and status matter. Given that stereotype and status-related processes in diverse groups have been shown to affect individual behavior (e.g., von Hippel, Wiryakusuma, Bowden, & Shochet, 2011), individual performance (e.g., Chatman, Boisnier, Spataro, Anderson, & Berdahl, 2008), and subgroup behavior (e.g., Ridgeway & Berger, 1986; Wittenbaum & Bowman, 2005), we believe it to be probable that stereotype- and status-related processes impact group outcomes too (cf. Bendersky & Hays, 2012; Bunderston, 2003; Groysberg, Polzer, & Elfenbein, 2011). In the following, we briefly introduce research to stereotyping in groups and argue that stereotypes in combination with the task environment result in a status configuration, which we define as an informal social order or hierarchy. Based on status research, we subsequently posit that a status configuration can to a large extent determine the group processes and, ultimately, group performance.

### **Stereotyping and the Emergence of a Status Configuration**

Stereotypes are cognitive structures that hold a variety of beliefs and assumptions regarding a specific group (Fiske & Taylor, 2008). In work settings, stereotypes often contain beliefs and assumptions regarding the competence of target individuals or group members on the task at hand (Fiske, 2012; Fiske et al., 2002). A crucial factor in the activation of stereotypes is the comparison with referent group members about one's task competence. Stereotype threat research (Steele & Aronson, 1995) has shown that in stereotype-prone task-settings, the mere comparison with a supposedly inferior or superior (sub) group leads to awareness of the stereotype, which results in various sorts of stereotype-confirming behaviors and outcomes (Aronson, Lustina, Good, Keough, Steele, & Brown, 1999; Huguet & Regner, 2007; Nguyen & Ryan, 2008). This entails that when member characteristics (e.g., gender) are stereotypically thought to predict one's level of competence

(e.g. in construction work), the presence of diversity on those characteristics in a work group tends to be sufficient to serve as an initiator of stereotyping processes that lead to the (perceived) distinction between more- and less-competent group members (men perceived to have 'innate' construction work competencies).

Likewise, expectation states theory (Correll & Ridgeway, 2003; Berger, Conner, & Fisek, 1974) posits that group members anticipate their behavior on their expectations of fellow group members' level of task competence. When group members are attributed high levels of task competence (i.e., status), they will be more often deferred to and will be given more opportunity to participate. As a consequence, group members who are expected to perform well (i.e., high-status group members) will be more influential than group members who are expected to be less competent (i.e., low-status group members) (Chatman et al., 2008; Correll & Ridgeway, 2003; cf. status hierarchies theory, Gould, 2002).

Expectation states theory is grounded in the work of Bales (1950), who discovered that status differences between group members emerged more or less at the outset of a group's formation and persisted over time. Whereas Bales worked with homogeneous groups, within-group status differences are particularly likely to emerge in diverse work groups (Berger et al., 1974; Berger, Fisek, Norman, & Zelditch, 1977). According to status characteristics theory (Berger et al., 1977), the reason for this is that people's characteristics tend to be associated with the quantity and quality of one's (informational) resources. When, for example, economists and sociologists work together on a sociological problem, a status structure is likely to emerge that distinguishes the economists from the sociologists based on the perception or expectation that, in comparison with the economists, the sociologists have more expertise and knowledge at hand to resolve the sociological problem. Given that expectation states theory indicates that status differences between group members tend to emerge automatically in homogeneous groups, one implication of status characteristics theory thus is that status differences between group members are likely to be even more pronounced in diverse groups (cf. Lucas & Baxter, 2012; Ridgeway, Boyle, Kuipers, & Robinson, 1998).

Consequently, both research to stereotyping and research to status in work groups suggest that when different member characteristics are perceived, expected, assumed or believed to correspond with different levels of competence on a task at hand, diversity in such member characteristics automatically translates into status differences between group members. The resulting status configuration serves as an informal structure (i.e. social order or hierarchy) that defines and distinguishes between high- and low-status group members. Based on stereotyping and status research we thus may expect that group members use any cues or member characteristics (including gender, age and ethnicity) to create a status configuration when those cues or characteristics are (stereotypically thought to be) related to competence pertaining the specific task at hand<sup>1</sup>.

Note that the pertinence and composition of a group's status configuration cannot be considered or predicted void of context. Because a person's status is tied to the task at hand, a person's characteristics are likely to affect a person's status only when those characteristics are (stereotypically) believed or thought to predict task competence. Gender has been argued to be the most salient and signaling status characteristic (e.g., Haslam, Rothschild, & Ernst, 2000). We therefore focus on the extent to which status differences emerge in gender diverse teams when working on a gendered task. When gender diverse groups are working on a masculine task, we expect that male group members will be ascribed a high-status and female group members will be ascribed a low-status. However, when gender diverse groups are working on a feminine task, we expect that male group members will be ascribed a low-status and, consequently, that female group members will be ascribed a high-status (cf. Chatman et al., 2008).

*Hypothesis 1a: In a gender-diverse team, the task context determines the relationship between a group's gender composition and a group's status configuration in such a way that female group members are high-status and male group members are low-status in feminine task contexts whereas male group members are high-status and female group members are low-status in masculine task contexts.*

Research on tokenism (Kanter, 1977) suggests that the numeric or proportional representation of a subgroup (e.g., males) can influence the extent to which a person is characterized as being a representative of that subgroup. When a person is the sole representative of his or her gender, that person is thought to be stereotyped more than a person who has group members of the same gender. In support of this argument, several studies have shown that solo group members are more susceptible to stereotype threat and stereotype lift effects than group members who are not the sole representative of their gender (Chatman et al., 2008; Sekaquaptewa & Thompson, 2002).

Extending this theory and corresponding findings, we propose that a person's status is susceptible to the numeric representation of that person's subgroup. If a person is a token representative of his or her gender, status attributions may be more in line with the gender stereotype than a person who is not the sole representative of his or her gender. Accordingly, we hypothesize that:

*Hypothesis 1b: The effect of task context on the relationship between a group's gender composition and a group's configuration (hypothesis 1a) is enhanced when a group member is a solo representative of his or her gender, thereby increasing the level of status configuration disparity.*



### **Status Configuration and Information Elaboration**

An implicit underlying assumption of the information/decision-making perspective (cf. van Knippenberg et al., 2004) is that group members contribute equally to the information elaboration process, and that the information provided by each group member in the information elaboration process is valued equally. However, from a status perspective it could be argued that a group's status configuration delineates, among others, who is thought to provide the most valuable input: Because high-status team members are expected to be most knowledgeable about the task at hand, it is likely that their input is valued more. Accordingly, from a status perspective it can be expected that the more information elaboration takes place, the more high-status group members are able to exert their opinion over the other group members and, consequently, influence the outcomes of the group processes.

Support for this argument is found in, among others, research in information sharing in mixed-status decision-making groups. In their review, Wittenbaum and Bowman (2005) posited that low-status group members more often repeat already shared information than high-status group members (Larson Jr, Christensen, Abbot, & Franz, 1996; Wittenbaum, 1998), that high-status group members tend to communicate more information overall than low-status group members (Franz & Larson Jr., 2002; Schmid Mast, 2002; Thomas-Hunt, Ogden, & Neale, 2003), and that information shared by high-status group members is remembered and repeated more than information shared by low-status group members (Stewart & Stasser, 1995; Wittenbaum, 2000). Likewise, according to status hierarchies theory (e.g., Gould, 2002), judgments about the merit of an argument is socially influenced in such a way that contributions by high-status group members are overvalued, whereas contributions by low-status group members are undervalued. All in all, these arguments suggest that high-status group members do not only have more influence than low-status group members in information elaboration processes, but that they may even gain more influence over time. Accordingly, we hypothesize that:

*Hypothesis 2: More information elaboration in groups is associated with more influence of high-status group members on the decision-making process.*

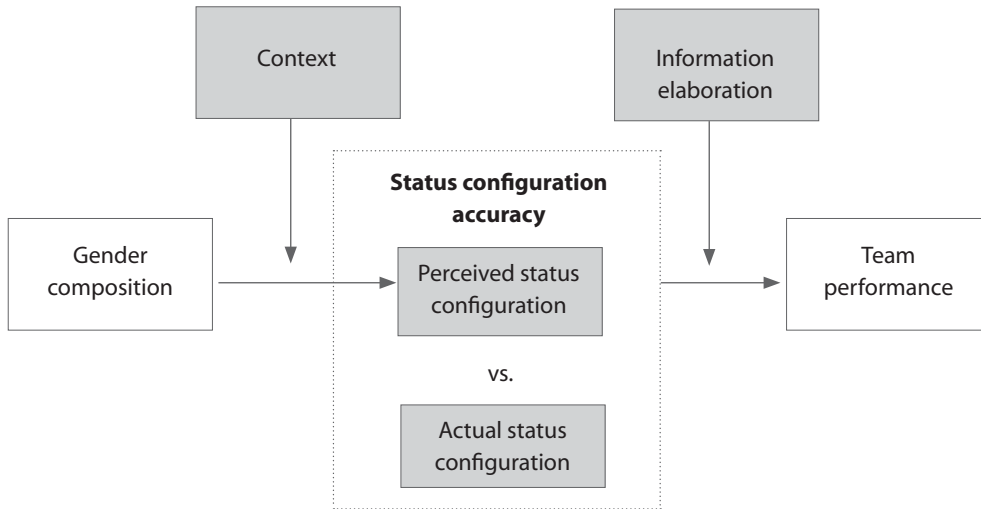
### **Status Configuration Accuracy, Information Elaboration, and Group Performance**

Because status configurations are the product of group members' perceptions of each others' relative levels of task competence, this rank order may be inaccurate (Bunderson, 2003; cf. Lim & Klein, 2006). In a gender diverse group, for example, it may be expected that the status configuration pertaining a mathematical task typically depicts men as high-sta-

tus and women as low-status given that, stereotypically, men are regarded to perform better on mathematical tasks than women (Huguet & Regner, 2007; Inzlicht & Ben-Zeev, 2000; cf. Chatman et al., 2008). Such a status configuration does however not indicate whether or not the male group members actually are better at math than the female group members: Status configurations do not reflect actual competence, but only attributed competence. This entails that the most influential (i.e., high-status) group members may not be the most knowledgeable group members. In groups with an accurate status configuration, high-status group members are also the most competent group members. However, in groups with an inaccurate status configuration, high-status group members are inaccurately considered to be the most knowledgeable group members. We posit that this distinction between accurate and inaccurate status configurations, together with our hypothesis that information elaboration augments the influence of high-status group members, holds important implications for team performance.

Because high-status group members in groups with an accurate status configuration are also the most expert group members, these competent group members will have the highest impact on group outcomes. Moreover, the expertise of these high-status and high-competence group members will be utilized the more that information elaboration takes place. We therefore expect that in groups with an accurate status configuration, information elaboration enhances group performance. Along the same line of reasoning, we expect a contrasting outcome for groups with an inaccurate status configuration, i.e. that information elaboration will diminish group performance. Because in groups with an inaccurate status configuration high-status group members are the least-knowledgeable group members, group members' trust in high-status group members will be misplaced. More information elaboration results in a higher impact of these less-knowledgeable group members on group outcomes. We therefore expect that in groups with an inaccurate status configuration, the increased influence of high-status yet less-competent group members by means of more information elaboration is likely to inhibit group performance. Taken together, we posit that information elaboration can leverage or disrupt group performance, depending on the accuracy of a status configuration. If a status configuration is accurate, information elaboration will enhance group performance. However, if a status configuration is inaccurate, information elaboration will inhibit group performance. Accordingly, we hypothesize:

*Hypothesis 3: Information elaboration moderates the relationship between status configuration accuracy and group performance in such a way that elaboration is beneficial in groups with an accurate status configuration and detrimental in groups with an inaccurate status configuration.*

**FIGURE 1***Research model***METHOD**

We tested the hypotheses with a large dataset with observational data that we collected both for the current team-level study and for another study on individual level processes and performance (Meyer, van Dijk, & van Engen, 2011). In the latter study, we investigated how the representation of one's own gender in a small group, group member's diversity beliefs, and task type influence individual-level perceptions of status, individual behavioral dominance, and individual performance in the group<sup>2</sup>.

**Sample**

The sample consisted of 97 four-person gender-diverse groups comprising 186 men and 202 women with an average age of 26.88 years ( $SD = 7.93$ ). There were 28 groups with one woman and three men, 36 groups with one man and three women, and 33 groups with two women and two men. The participants participated in the experiment for a payment of the equivalent of 30 USD and for a chance to win another cash prize of about 200 USD. The sample consisted of students and young adults that were recruited through a public website operated by the Psychology department of the university where the study took place.

## Procedure

The groups - whose members did not know each other - were assigned randomly to either work on math problems or on emotional intelligence (EI) problems. At the beginning of the experimental session, participants for ten minutes individually worked on items that were of the same type as the items in the upcoming group task. These were either 21 math tasks of varying difficulty from the Graduate Management Aptitude Test (GMAT, e.g., Hecht & Schaefer, 1986) or 21 Emotional Intelligence items taken from self-scoring EI tests (Daniel, 2000) and the MSCEIT (Mayer, Salovey, Caruso, & Sitarenios, 2003). Math items were scored according to the respective instructions and the EI items were scored with the consensus method<sup>3</sup>. None of the participants managed to complete the math and EI problems within the time limit. This individual task enabled us to calculate each participant's task ability on the math or EI task and to create a within-group rank order of actual task ability.

After participants familiarized themselves with the task in this way, we asked them to estimate each others' task competence on a scale from 0 - 100. Subsequently, the group worked together on a single booklet containing further problems of the same task type for 30 minutes. This interaction was recorded on video, and these videos were coded with the Discussion Coding System (DCS) as we describe below.

After the group interaction, participants provided demographic information on a final questionnaire, were debriefed, thanked, paid, and dismissed.

## MEASURES

### Status Configuration

Each group member received three ratings of his or her task ability with regard to the task type that the group was working on from their three fellow group members after the pretest. We calculated the attributed status of each individual on a task by aggregating those three assessments. Aggregation was justified as indicated by a two-way ICC(1) of .40,  $F(380, 760) = 3.03, p < .001$ , and by a two-way ICC(3) of .67, with the latter being equivalent to a Cronbach's alpha across the three raters. Subsequently, we averaged the attributed status scores for the female team members and for the male team members and subtracted the average rating of the female team members from the average rating of the male members. If there was only one representative of a given gender in the group, his or her single value would be used instead of the average. In this way, the resulting difference score exhibited positive values if the male team member(s) was or were perceived as more competent and negative values if the female group member(s) was or were perceived as more competent. Means and standard deviations of all measurement variables are given in Table 1.

**TABLE 1**

*Means, standard deviations, and bivariate correlations of measurement variables and control variables (N = 94 groups).*

	<b>M</b>	<b>SD</b>	<b>1.</b>	<b>2.</b>	<b>3.</b>	<b>4.</b>	<b>5.</b>	<b>6.</b>	<b>7.</b>	<b>8.</b>
<b>1. Status configuration</b>	0.60	14.50								
<b>2. Status configuration accuracy</b>	0.18	0.51	-.01							
<b>3. Elaboration</b>	200.53	52.42	-.45***	-.02						
<b>4. Group performance</b>	0.00	1.00	-.14	.07	-.08					
<b>5. Influence from low-status members</b>	64.45	29.57	-.31**	-.08	.35***	.03				
<b>6. Influence from high-status members</b>	77.78	35.88	-.17	.05	.46***	.09	.06			
<b>7. Diversity beliefs</b>	0.00	1.01	.03	.08	-.07	.09	-.20*	-.15		
<b>8. Numeric configuration</b>	0.00	0.95	-.09	.17	.13	.11	.08	-.12	-.03	
<b>9. Task type</b>	0.00	1.01	.69***	-.02	-.58***	.00	-.20	-.20	.03	-.06

### Status Configuration Accuracy

To quantify the accuracy of the status configuration, we rank-ordered the above-mentioned individual-level status attributions within each group. We then correlated this within-group rank-order of perceived competence with the within-group rank-order of actual task ability with the tau non-parametric rank-order correlation coefficient. This resulted in a tau value between 1 for perfect alignment between ability and attributed status (thus indicating accurate status perceptions in the group) and in -1 for a perfect negative association between the two, i.e., for a case where the member with the highest ability receives the lowest status attribution. In the sample, this group-level measure of status configuration accuracy ranged from -1 to 1. This measure was not normally distributed as indicated by a Shapiro-Wilk test,  $W = .95, p = .002$ . As a consequence, we employed robust techniques in the analyses involving this variable as we outline below.

Note: Diversity beliefs: Pro similarity = -1, pro diversity = 1; Numeric configuration: -1 = one solo gender member and three gender majority members, 1 = gender-balanced; Task type: -1 = El, 1 = Math

### **Elaboration of Task-Relevant Information**

We operationalized the elaboration of task-relevant information in the group as the number of content speech acts in a group's interaction during the group task. These were identified by coding the video recordings of the groups' interaction with the Discussion Coding System (DCS; Schermuly & Scholl, 2012). The DCS dissects the group interaction into individual statements or acts of communication according to a set of seven hierarchical rules. Each act is transcribed in brief. Based on the categories distinguished by Bales (1950) and Fisch (1994), the main function of a speech act is coded as belonging to one of three exclusive and extensive categories: An act can be a social-emotional statement (differentiated in positive or negative affect), a statement concerning the content of the task, or a statement aimed at regulating the discussion. In addition, for each speech act the DCS captures its accompanying interpersonal affect in terms of dominance or affiliation, its function (i.e., whether it is a question or a suggestion), and its responses in terms of agreement or rejection. It is thus adapted to the sequential, vertical, and reciprocal nature of interaction (Boos, 1995).

Two expert coders who were blind to the hypotheses and experimental conditions coded the videos with the DCS coding scheme in the video analysis software Mangold INTERACT (Mangold, 2011). Their agreement for the number of content speech acts was acceptable, Cohen's  $k = .68$ .

### **Influence of High- and Low-Status Group Members**

Because the proportion of speaking time a group member has during a group interaction is a sign of that group member's influence (Schmid Mast, 2002; van Engen, van Knippenberg, & Willemsen, 1996), we employ the proportion of speech acts of the overall number of speech acts in the group by the group member with the highest status rank as the behavioral operationalization of the influence of high-status group members. Accordingly, the proportion of speech acts of the overall number of speech acts in the group produced by the group member with the lowest attributed competence is employed as a measure for the influence of low-status group members. For each group of four participants, there thus were two ratings: influence of the lowest-status group member and influence of the group member with the highest status.

### **Group Performance**

In the group task section of the experiment, the group worked on 21 items of the same type as employed in the pretest. For a measure of group performance, we scored the solution to the problems that the group indicated on their joint answer sheet. Math items were scored according to the respective instructions and the EI items were scored with

the consensus method<sup>3</sup>. To compare the performance scores between groups working on math tasks and groups working on EI tasks, the scores were Z-transformed. None of the groups were able to complete all 21 items during the 30 minutes time limit, so no ceiling effects occurred in the performance variable.

## RESULTS

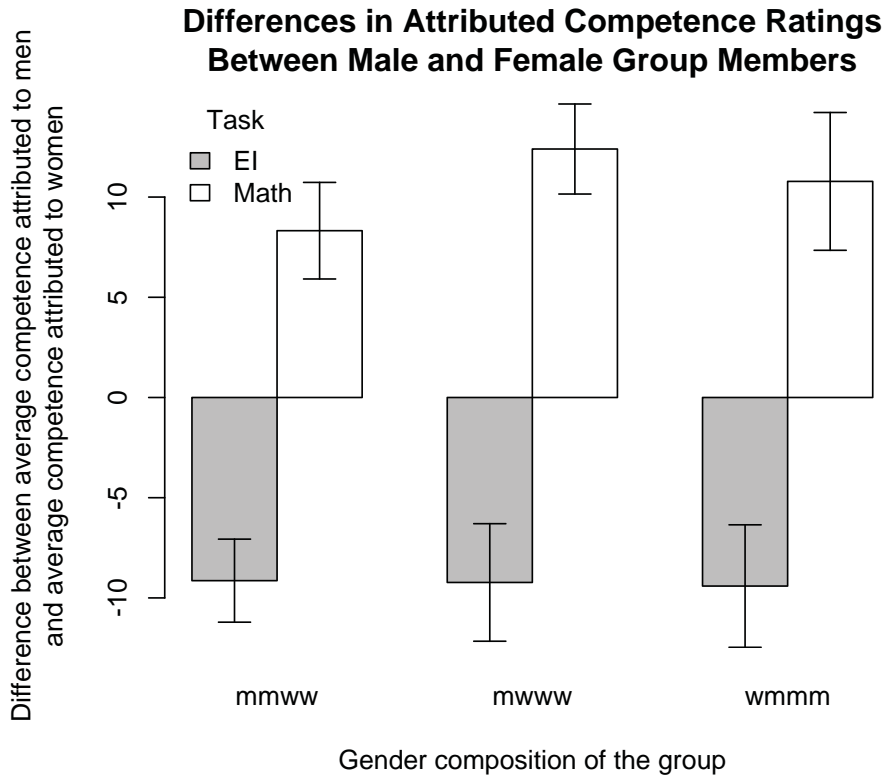
We first checked the data for extreme outliers with multivariate outlier analysis (Filzmoser, Garrett, & Reimann, 2005). Based on this analysis, we excluded three groups (all from different conditions) from the final data set employed in the analysis. Means, standard deviations, and bivariate correlations of the final sample are presented in Table 1.

Hypothesis 1a predicted that the status configuration in the team, which we operationalized as the difference between status attributions received by male group members and the status attributions received by female members, depends on the task context. Hypothesis 1b predicted that this relationship is moderated by the team gender composition such that differences would be more pronounced in groups with solo group members. To test these hypotheses, we subjected the status configuration measure to a 2 (task context: math vs. EI)  $\times$  3 (team composition: two women two men, one woman, three men, one man, three women) between-group ANOVA while controlling for diversity beliefs. In support of Hypothesis 1a, it revealed a large and significant main effect of task context,  $F(1,90) = 81.47, p < .001, \eta^2 = .47$ , see Figure 2: Competence attributions were based on stereotypic perceptions of the fit between gender and task. All other effects turned out to be nonsignificant, all  $F_s < 1.00$ , all  $p_s > .40$ . Hypothesis 1b was therefore rejected by the data. Hypothesis 2 predicted that the influence of high-status group members increases with higher levels of information elaboration. In order to test this hypothesis, we regressed information elaboration on the influence of high- and low-status group members while controlling for the experimental manipulations and their interactions.

First of all, a regression revealed a significant influence of task type on information elaboration,  $b = -25.54, SE = 4.24, t = -5.78, p < .001$  (two-tailed), thereby indicating that there was more elaboration in groups working on EI tasks than in groups working on math tasks. Second, and more relevant to the hypothesis, it revealed a significant positive effect of the influence of high-status group members on elaboration,  $b = 0.54, SE = 0.11, t = 4.71, p < .001$  (two-tailed) and a significant positive effect of the influence of low-status group members on elaboration,  $b = 0.38, SE = 0.14, t = 2.76, p < .01$ . According to the formula provided by Paternoster, Brame, Mazerolle, and Piquero (1998), the influence from high-status group members was stronger than the influence of low-status group members,  $z = -1.60, p = .05$ . Hypothesis 2 thus was supported by the data: High-status group members had a stronger influence on elaboration than low-status group members.

**FIGURE 2**

*ANOVA of the effect of task context and group composition on status configuration (i.e., the difference between the attributed competence of male and female group members).*



Hypothesis 3 predicted that the relationship between information elaboration and group performance is moderated by status configuration accuracy: Based on our status perspective we argued that elaboration is more beneficial in the case of an accurate status configuration. To test this hypothesis, we conducted a stepwise regression of group performance on information elaboration, status configuration accuracy, and their interaction. The first step regressed group performance on the main effect of information elaboration. To rule out the influence of other contextual factors on group performance, we also controlled for task type, gender composition, and diversity beliefs. In a second step we added status configuration accuracy and its interaction with information elaboration to the previous regression (Baron & Kenny, 1986). However, regression diagnostics revealed that the residuals were not normally distributed, but heavily tailed due to the fact that the status configuration accuracy variable was not normally distributed (see above). The assumption

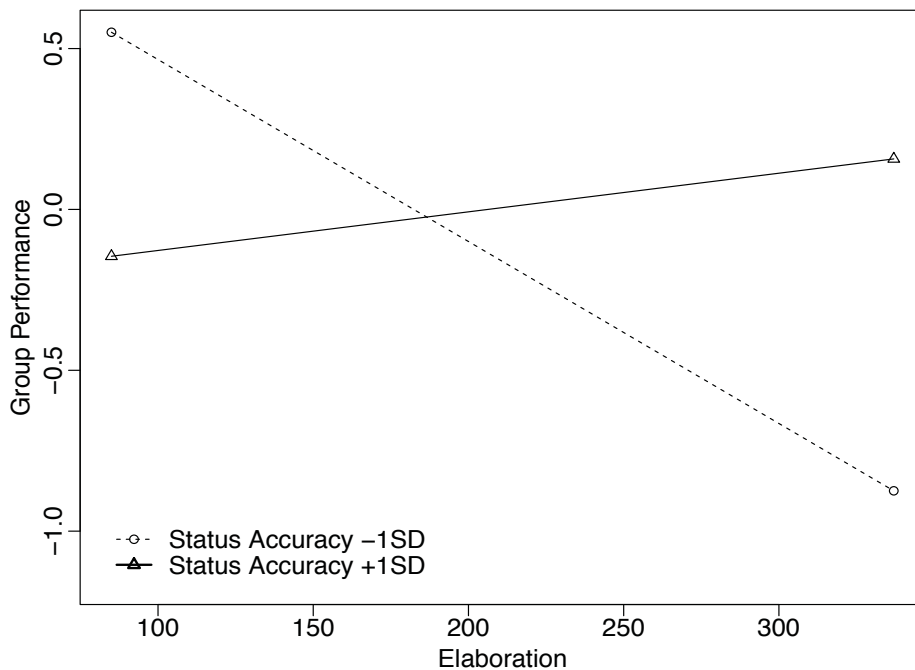


of independently and normally distributed residuals was thus violated. We therefore tested the proposed relationships with robust regressions (Huber, 1964; Rousseeuw & Leroy, 1987), which can deal with such violations by attributing less influence to observations that distort the overall result. Specifically, we employed the `rlm()` function provided in the MASS package (Venables & Ripley, 2002) of the statistical environment R (R Development Core Team, 2011). Following the suggestions by Venables and Ripley (2002), we used 95% confidence intervals based on non-parametric bootstrapping for significance testing because these do not require distributional assumptions for statistical inference.

Step 2 in Table 2 revealed a significant interaction between status accuracy and information elaboration. To foster its interpretation, we plotted it employing the tools provided by Preacher, Curran, and Bauer (2006), see Figure 3.

### FIGURE 3

*Two-Way Interaction of Group Performance as a Function of Groups' Status Configuration Accuracy and Information Elaboration.*



**Note:** If controlling for other variables, as in the present case, the scale of the y-axis may be inaccurate, but the shape of the interaction is accurate (Dawson & Richter, 2006).

In support of Hypothesis 3, an increase in the level of elaboration led to a decrease in performance in groups with an inaccurate status configuration: The simple slope of elaboration for groups with an inaccurate status configurations was  $-0.01$  ( $SE = 0.002$ ),  $t = -2.04$ ,  $p < .05$ . For groups with an accurate status configuration, the relationship between elaboration and performance was nonsignificant (simple slope =  $0.001$ ,  $SE = 0.003$ ,  $t < 1$ ). Neither task type, nor the gender composition of the team, nor their interaction influenced the team's performance, and controlling for these variables did not make the interaction of status configuration accuracy  $\times$  elaboration disappear, which underlines its robustness.

**TABLE 2**

*Robust regression of group performance on status configuration accuracy (step 1), information elaboration, and their interaction (step 2) while controlling for the experimental manipulations and their interactions of the individual-level study.*

	Step 1		Step 2	
	<i>b</i> ( <i>SE</i> )	95% CI	<i>b</i> ( <i>SE</i> )	95% CI
<b>Diversity beliefs (DB)</b>	-0.06 (0.11)	[-0.28, 0.17]	0.14 (0.10)	[-0.07, 0.35]
<b>Numeric configuration (NC)</b>	0.15 (0.11)	[-0.07, 0.35]	0.09 (0.10)	[-0.12, 0.29]
<b>Task type (TT)</b>	0.04 (0.11)	[-0.13, 0.29]	0.00 (0.12)	[-0.22, 0.21]
<b>DB <math>\times</math> NC</b>	0.14 (0.11)	[-0.17, 0.25]	0.14 (0.10)	[-0.06, 0.34]
<b>DB <math>\times</math> TT</b>	0.14 (0.11)	[-0.06, 0.37]	0.16 (0.10)	[-0.04, 0.38]
<b>NC <math>\times</math> TT</b>	0.04 (0.11)	[-0.06, 0.38]	0.03 (0.10)	[-0.18, 0.21]
<b>DB <math>\times</math> NC <math>\times</math> TT</b>	-0.09 (0.11)	[-0.17, 0.23]	-0.10 (0.10)	[-0.32, 0.09]
<b>Status configuration accuracy (S)</b>	0.10 (0.21)	[-0.27, 0.53]	-1.25 (0.70)	[-2.45, 0.05]
<b>Elaboration (E)</b>			0.00 (0.00)	[-0.01, 0.00]
<b>S <math>\times</math> E</b>			0.01 (0.00)	[0.0003, 0.01]

**Note.** Status configuration accuracy and Elaboration were Z-transformed for the creation of their product term.

## DISCUSSION

Our finding that information elaboration can decrease a diverse group's performance (under conditions of an inaccurate status configuration) supports our status perspective on work group diversity, but opposes conventional wisdom in the field. Research to the consequences of work group diversity has been dominated by a bi-theoretical perspective, with the information/decision-making approach accounting for the positive consequences and the social categorization perspective accounting for the negative consequences (e.g., van Dijk et al., 2012; van Knippenberg et al., 2004). Based on research to stereotyping and status processes in mixed-status groups, we advanced a status perspective on the consequences of work group diversity that challenges some of the assumptions of the information/decision-making and the social categorization perspective. Our status perspective is grounded in the assertion that stereotypical associations with member characteristics (e.g., gender) and task competence yield a status configuration that delineates the informal social order pertaining a specific task (e.g., math). People at the top of the status configuration (i.e., high-status group members) are expected to be more dominant and influential (cf. Groysberg et al., 2011), whereas people at the bottom of the status configuration (i.e., low-status group members) are expected to be more submissive and compliant.

We found that high-status group members contributed more to the elaboration of task-relevant information than low-status group members. Moreover, we found that the relationship between the accuracy of the group status configuration and group performance was moderated by the elaboration of task-relevant information: If the status configuration was inaccurate, elaboration decreased performance. Whereas these findings are in line with our status perspective, they are opposite to what would be expected from an information/decision-making perspective. Given that the information/decision-making perspective plays a central role in conventional diversity theory (cf. van Knippenberg et al., 2004), the implications of our findings for diversity research challenge, or at least qualify, the predictions of the information/decision making perspective. What makes these findings particularly interesting is that they are based on behavioral data, which represents an objective way of measuring such processes. Consequently, the finding that information elaboration can negatively impact the diversity-performance relationship can be considered as rather robust.

In the following, we discuss how our status perspective on diversity calls for a partial reconsideration of the information/decision-making and the social categorization perspectives on work group diversity. After providing an overview of the limitations of our study, we discuss the practical implications.

### **A Reconsideration of the Information/Decision-Making Perspective**

Up till now, diversity researchers have used the information/decision-making perspective under the implicit assumptions that (a) all members contribute equally to the information elaboration process, and that (b) the input of each group member is valued equally. When those two assumptions are met, the information/decision-making perspective might hold its explanatory power. We may however expect that more often than not status differences exist between team members – in particular when group members are diverse on characteristics that are (stereotypically thought to be) related to task performance (Correll & Ridgeway, 2003). Our findings show that in such instances the contributions from the incompetent group members with high status hinder the productivity of the team. Consequently, a reconsideration of the information/decision-making perspective with regard to diversity's consequences is warranted.

Central to such a reconsideration should be the notion that status configurations delineate which (i.e. high-status) group members tend to have a disproportionately high influence on the information elaboration process and who do not (i.e. low-status group members) (cf. Wittenbaum & Bowman, 2005). Because gender stereotypically is thought to be related to performance on math or EI tasks, for the current experiment gender was shown to serve as a cue for the emergence of a status configuration. Of course, for other task contexts other cues may yield a status configuration (cf. Bunderson, 2003; Chattopadhyay et al., 2010). A thorough understanding of the dynamics and consequences of status configurations, including how it impacts the information elaboration process, thus requires a context-sensitivity that the information/decision-making perspective in its current shape doesn't account for. We call for more research that will replicate our findings with other status cues in different task contexts.

### **A Reconsideration of the Social Categorization Perspective**

In addition to a reconsideration of the information/decision-making perspective, our findings also warrant a refinement of the role of social categorization in diversity theory. One way of looking at the emergence of status configurations is that the stereotypes pertaining to the interaction between social categories and task context result in within-group status rankings. In other words, because certain social categories are stereotypically linked with task performance, the accessibility of these categories is increased in these particular task situations, making the particular category more salient (Turner et al., 1987). This entails that if status configurations are based on such categories, they distinguish between salient high-status and low-status social categories. Social categorization thus is a prerequisite for the formation of a status configuration.

Interestingly, in combination with our findings that the accuracy of status configurati-

ons with more information elaboration yields improved performance, this suggests that social categorization enables improved performance. Contrary to common wisdom in the field, our status perspective thus not only suggests that the information/decision-making perspective can account for a negative diversity-performance relationship, but also that the social categorization perspective can account for positive diversity-performance relationships. Our status perspective on diversity therefore also warrants a reconsideration of the social categorization perspective on the consequences of work group diversity.

Note, however, that next to social categorizations accurate (stereotypical) expectations about the extent to which social categories predict group members' task ability are needed for social categorizations to result in improved performance. Given the negative consequences of stereotypes – in particular for those who are negatively stereotyped against, we do not wish to convey the message that it is best if group members conform themselves to stereotypes. Instead, we put a premium on future research efforts to distinguish other factors that contribute to status configuration accuracy. In this regard, it is interesting to note that in more than one-third of our groups the members who were attributed highest status did not fit the stereotype (i.e. women were better in math and/or men were better in EI). Because acquiring an accurate status configuration has to do with having accurate perceptions of fellow group members' qualities, probably every factor that enhances the collection of individuating information contributes to the accuracy of status configurations. Consequently, future research could study whether well-known individuation-enhancing factors like intergroup contact (Pettigrew & Tropp, 2006; Ridgeway et al., 1998) and low levels of acceptance of stereotypes (Carter, Hall, Carney, & Rosip, 2006) yield more accurate status configurations.

Obtaining accurate status configurations may however not always be possible. How can such groups that suffer from inaccurate status configurations enhance their performance? Arguably, any practice aimed at reducing the influence of high-status group members and enhancing the participation of each group member is likely to be helpful, including a leadership style that facilitates open communication and trust in diverse teams, such as transformational leadership (Kearney & Gebert, 2009). However, the difficulty here is that group members of groups with an inaccurate status configuration generally are not aware of the inaccuracy of their beliefs about their group members' task expertise. We therefore believe the key to enhancing the performance of groups with an inaccurate status configuration lies too in gathering individuating information.

### **Limitations**

By definition, the experimental setting reduces the extent to which our findings are generalizable to real work settings. Moreover, we only tested our hypotheses by looking at the

effects of gender diversity in a gendered task context. Future research will have to assess whether similar status-related processes emerge on tasks where (stereotypical) associations between other social categories (e.g., ethnicity, personality, educational background) and task ability are present. However, given that our status perspective is not grounded in any gender-specific theory, we expect to obtain similar status-related processes for (stereotypical) associations between task ability and other social categories. As a consequence, we believe there is reasonable ground to assume that the processes identified in our status perspective on the diversity-performance relationship emerge in any task setting where group members' social categories are (stereotypically) assumed to predict task ability.

Another limitation to the generalizability of our findings is that our study has been conducted with newly formed teams where team members do not know each other. Longitudinal research is needed to examine how these status-related attributions and processes evolve over time. Intergroup contact theory, for example, suggests that the salience of and hence the reliance on member characteristics may wane over time because group members have more information to estimate a person's expertise on the task at hand (Allport, 1979; Pettigrew & Tropp, 2006; cf. Harrison et al., 2002). However, research on the reinforcing nature of status (e.g., status hierarchies theory, e.g., Foschi, 2000; Gould, 2002; stereotype maintenance theory, e.g., Rudman & Fairchild, 2004; prescription-based discrimination, e.g., Eagly & Karau, 2002) suggests that the initial social category based impressions may set the stage for any subsequent impression of group members about each others' task ability. Indeed, the tendency for high-status group members to gain more influence the more groups engaged in information elaboration provides some evidence for the latter theory, but more research to status dynamics in diverse groups is needed. An experimental study in which both pre- and post-task measures of status are taken would provide more insight into these matters.

Our finding that a status configuration is based on the interaction between group composition and task context is congruent with research to stereotyping, which suggests that status is an outcome of the stereotype process (Fiske et al., 2002). It may therefore be called remarkable that our hypothesis that tokenism may enhance status disparity was not supported given that tokenism is supposed to enhance stereotype salience (Sekaquaptewa & Thompson, 2002). An explanation for this may be that tokenism enhances stereotype salience on the side of the stereotypee, but not on the side of the stereotyper: Whereas a group member may be more aware of his or her social category membership when he or she is a token group member, for the other group members the stereotype will be salient regardless of the proportion of focal group members. Obviously, future research is needed to substantiate this potential explanation.

**Managerial Implications**

First and foremost, our study points at the importance of accurate status configurations in work groups. For managers, it thus is pivotal to ensure that each employee's status is congruent with their true task ability. Of course, the immediate question that follows is how managers can enhance the accuracy of a status configuration, and regrettably our paper stays mute to that question. Interestingly, so does the management literature at large. Status management is a topic that has hardly been studied in organizational settings (for an exception, see the dissertation of Owens, 1998).

This, however, is not to say that we cannot say anything about these matters. As indicated above, individuation – the process of looking beyond social categories, perceiving each individual as an individual and acknowledging everyone's ideosyncracies – should enable employees to more accurately estimate a person's true abilities. In addition, managers would do well to inventarise how people in their teams/organization earn status. According to the stereotype content model of Fiske et al. (2002, see also Fiske, 2012), status is not only based on expertise but also on (interpersonal) warmth. It might therefore be a good question to ask if people are valued because of what they are able to do, or does, for example, belonging to the majority group earn a person a higher status? The more a person receives a higher status based on non task ability related features, the more likely it is that a status configuration is inaccurate and ultimately decreases the teams performance.

Somewhat related, it may be worthwhile for managers to assess what characteristics are stereotypically thought to relate to high performance for each specific job or position. Math and EI are typical examples of a masculine and a feminine task, respectively, but we believe that similar (gender) stereotypes exist for the majority of jobs or positions. In making such an assessment, managers are able to discern whether, for example, ethnicity, tenure or personality are thought to predict a person's ability. Subsequently, the question is whether those characteristics tend to accurately predict people's task ability. If not, then it may be wise to publicly denounce the myth pertaining the relationship between that specific characteristic and task ability in order to avoid other employees to continue making wrong status inferences based on people's characteristics.

Our study speaks to the value of information elaboration in work groups in a way that has not been done before: Information elaboration is beneficial only when status configurations are accurate. Moreover, information elaboration can be detrimental when status configurations are inaccurate. Our study shows that this is due to an increased influence of inaccurate high-status group members in the information elaboration process. Research is needed to show how such negative effects of information elaboration can be mitigated without inhibiting the positive effects of information elaboration. Until then, we recommend practitioners not to take positive effects of information elaboration in diverse teams for granted.

## Conclusion

Our findings signify the importance of studying and understanding stereotyping- and status-related processes in diverse work groups. Inaccurate attributions of status to group members based on stereotypical attributions of task ability harm the performance of diverse groups through the influence these inaccurate group members have in their team. Yet accurate attributions of task abilities based on member's diverse characteristics benefit the team's performance. Our findings thereby support our status perspective on work group diversity, which challenges existing models of diversity in the literature and sets the stage for a wide array of future research - conceptual as well as empirical.

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## Footnotes

<sup>1</sup>. One can also understand a status configuration as a specific type of a team mental model. Mental models represent knowledge frameworks that allow team members to anticipate and coordinate their behaviors (Lim & Klein, 2006; Mathieu, Heffner, Goodwin, Salas, & Cannon-Bowers, 2000). A status configuration represents such a team mental model about the informal hierarchy that delineates who is (supposed to be) more and who is less competent at the task at hand.

<sup>2</sup>. In the individual-level study, task type (math problems vs. emotional intelligence problems), diversity beliefs (pro-diversity beliefs vs. pro-similarity beliefs) and group members' numeric representation based on gender (solo, balanced, majority) were manipulated in a fully factorial balanced design. In the pro-similarity beliefs condition, participants read an informational text during the study. It stated that prior research had shown that gender-homogeneous groups tend to perform better on the task at hand, and that members of gender-homogeneous groups find working with each other on such tasks more enjoyable than members of gender-heterogeneous teams. In the pro-diversity beliefs condition, participants read the same with reference to gender-heterogeneous groups. Based on the fact that the individual-level hypotheses are different from the ones presented here, that the other study investigated individual-level constructs whereas the current hypotheses pertain to the group level, and that there is no overlap in dependent and independent variables between the studies, we deem the usage of a data set that has been analyzed previously in accordance with the guidelines provided by the American Psychological Association (VandenBos et al., 2010). In fact, the correlation matrices of measurement variables between the two studies are fully distinct, and the only overlap between the data sets occurs because we control for the experimental manipulations, which have no relevance for our hypotheses.

<sup>3</sup>. EI tests frequently employ consensus scoring where an item response is scored with the proportion of participants from a referent population who chose the particular item (Roberts, Zeidner, & Matthews, 2001). For this study, we created a referent sample consisting of 912 individuals that were drawn from the same population as the study participants. The proportion of item scores from this referent sample were used for scoring the EI items in the current study.







## CHAPTER 6

Based on: van Dijk, H., & van Engen, M. L. A status configuration process model (SCPM) of the relationship between work group diversity and group performance. *Manuscript in preparation.*

## **ABSTRACT**

For years the social categorization and the information/decision-making perspective have guided research to the relationship between work group diversity and performance. Recently, however, it has been noticed that status-related processes too may account for the diversity-performance relationship. In this conceptual paper, we advance a process model of the diversity-performance relationship that depicts how status-related processes relate to and interact with social categorization and information elaboration processes. Among others, we propose that work group diversity through social categorization processes more or less automatically yields within-group status differences, and that these status differences impact group behavior (of which information elaboration is just one aspect) and group performance. We advance a research agenda and discuss the implications of our model for managing diverse work groups.

## A STATUS CONFIGURATION PROCESS MODEL (SCPM) OF THE RELATIONSHIP BETWEEN WORK GROUP DIVERSITY AND GROUP PERFORMANCE

Since the seminal articles of Milliken and Martins (1996) and Williams and O'Reilly (1998) on work group diversity were published, research exploring the extent to which work group diversity impacts group performance has been surging (Harrison & Klein, 2007). In these fifteen years, diversity research has been dominated by a bi-theoretical approach: Whereas the social categorization perspective accounted for diversity's negative consequences, the information/decision-making perspective was used to explain diversity's positive consequences (Williams & O'Reilly, 1998). The pinnacle of this bi-theoretical approach to the diversity-performance relationship is the seminal conceptual paper of van Knippenberg, De Dreu and Homan (2004). In their Categorization-Elaboration Model (CEM), van Knippenberg et al. (2004) outline how social categorization processes moderate the relationship between work group diversity, information elaboration, and group performance. Thus far, the CEM has proven to be very useful for diversity researchers in that a large number of findings from empirical studies are well-aligned with the CEM (e.g., Homan, Hollenbeck, Humphrey, van Knippenberg, Van Kleef, & Ilgen, 2008; Kearney, Gebert, & Voelpel, 2009; cf. van Knippenberg & Schippers, 2007).

However, various researchers (e.g., DiTomaso, Post, & Parks-Yancy, 2007; Magee & Galinsky, 2008) have noted that status-related processes in general are neglected in diversity research. This is remarkable given that an abundance of research has shown that differences between group members are likely to yield within-group status differences (e.g., status construction theory, Berger, Fisek, Norman, & Zelditch, 1977; Ridgeway, 1991; expectation states theory, Berger, Conner, & Fisek, 1974; status hierarchies theory, Gould, 2002), and that within-group status differences are known to impact group processes (Hornsey & Hogg, 2002; Wittenbaum & Bowman, 2005) and, potentially, group performance (van Dijk & van Engen, 2011; van Dijk, Meyer, & van Engen, 2012a). There thus is reasonable ground to assume that status-related processes play a role in the diversity-performance relationship. As a consequence, there is need for a new process model on the relationship between work group diversity and group performance, i.e. one that does take status-related processes into account.

In this article, we advance such a process model. We do this by first providing a concise overview of the current theoretical understanding of the diversity-performance relationship based on the social categorization and the information/decision-making perspective. After discussing the limitations of this bi-theoretical approach, we outline the status perspective on work group diversity as developed by van Dijk and van Engen (2011, see also van Dijk et al., 2012c). Subsequently, we introduce our Status Configuration Process Model

(SCPM), which depicts how status-related processes relate to and interact with social categorization and information elaboration processes. We do this by advancing propositions for each relationship that is drawn in the SCPM. Finally, we advance a research agenda and discuss the implications for managing diversity.

## LIMITATIONS OF OUR CURRENT UNDERSTANDING OF THE DIVERSITY-PERFORMANCE RELATIONSHIP

Work group diversity is frequently quoted as a double edged sword (Milliken & Martins, 1996: 403), and indeed, for each study that reveals a positive relationship between a certain dimension of group diversity (e.g., ethnic diversity) and group performance, there is a study showing opposite effects. The past decade various meta-analyses have been conducted with the aim to unravel these inconclusive findings (e.g., Bell, Villado, Lukasik, Belau, & Briggs, 2011; Horwitz & Horwitz, 2007; Joshi & Roh, 2009; van Dijk, van Engen, & van Knippenberg, 2012; Webber & Donahue, 2001). In about all of these analyses, the information/decision-making and the social categorization perspective are referred to as providing the theoretical explanations for the positive and negative consequences of work group diversity, respectively (see also van Knippenberg & Schippers, 2007; Williams & O'Reilly, 1998).

The information/decision-making perspective is grounded in the assumption that more (informational) resources enable better decision-making. Because differences between people tend to be associated with differences in (informational) resources (Tsui & O'Reilly, 1989), diverse groups are expected to have more (informational) resources at their disposal than more homogeneous groups. If diverse groups are able to mobilize and integrate their (informational) resources, they are expected to be able to outperform more homogeneous teams (Hinsz, Tindale, & Vollrath, 1997). Van Knippenberg et al. (2004) proposed that key to the mobilization and integration of (informational) resources in (diverse) teams is the process of information elaboration, which refers to the exchange, discussion and integration of task-relevant knowledge, ideas and insights.

The social categorization perspective is grounded in the assumption that people tend to have a preference for interacting and working with similar others (cf. the similarity/attraction paradigm; Byrne, 1971). Founded on social identity (Tajfel & Turner, 1986) and self-categorization theory (Turner, Hogg, Oakes, Reicher, & Wetherell, 1987), the social categorization perspective asserts that member characteristics represent one of the main grounds for distinguishing between group members who are similar to oneself (the ingroup) and group members who are different from oneself (the outgroup). Ample research in intergroup relations has shown that categorizations into ingroup and outgroup yields more favorable attitudes towards ingroup members, including a greater willingness to cooperate

(Haslam, 2004; Tajfel, 1982; van Knippenberg, 2003). Because members of homogeneous groups are more likely to categorize each other as an ingroup, from a social categorization perspective it can be expected that more homogeneous groups enjoy smoother and more cooperative group processes.

Because the information/decision-making perspective accounts for diversity's positive effects and the social categorization perspective for diversity's negative effects, in combination these perspectives can easily be used to account for any empirical finding with regard to the consequences of work group diversity. Consequently, it may be easy to settle for the bi-theoretical perspective as *the* explanatory framework underlying diversity's consequences. Over the past couple of years, however, various researchers (DiTomaso et al., 2007; Magee & Galinsky, 2008; Ravlin & Thomas, 2005) have noted that diversity research has generally omitted status-related processes and questioned whether status is irrelevant for understanding the diversity-performance relationship (cf. Chattopadhyay, Finn, & Ashkanasy, 2010).

Van Dijk et al. (2012c) recently were more specific in their criticism by delineating that the bi-theoretical approach to the diversity-performance relationship operates on the basis of two (implicit) assumptions. The first assumption is that all group members (are able to) provide equal input during information elaboration processes, the second assumption is that the contributions of all group members are valued equally. Among others, research in information sharing among mixed-status teams has shown that - compared to low-status group members - high-status group members tend to provide more (unique) input during information elaboration processes, and that contributions of high-status group members are valued more (Berger, Cohen, & Zelditch, 1972; Wittenbaum & Bowman, 2005). As a consequence, group processes in mixed-status teams are likely to be rather different than group processes in work groups where members have an equal status.

These assumptions do not need to be problematic if most or all (diverse) groups would generally consist of group members with an equal status. However, critical diversity researchers have for a long time pointed out that differences between group members have a history of yielding inequality, and that this inequality is persistent in everyday organizational life (e.g., Noon, 2007; Plaut, 2010; Zanon, Janssens, Benschop, & Nkomo, 2010). Moreover, sociological research indicates that differences in member characteristics automatically tend to be associated with status differences (e.g., Alderfer & Smith, 1982; Berger et al., 1977; Ridgeway, Boyle, Kuipers, & Robinson, 1998), not in the least because of persisting societal inequalities. This suggests that diverse teams, if anything, are more likely to be comprised of members who differ in status than of members with an equal status. As a consequence, the question about whether or not status processes impact the diversity-performance relationship appears to be a valid question - and is one that van Dijk and van Engen (2011) recently addressed in their status perspective on work group diversity.

### **The Status Perspective on Work Group Diversity**

Status can be defined as an individual's prominence, respect, and influence in the eyes of others (Anderson & Kilduff, 2009a; Magee & Galinsky, 2008). Status is often confused with power, but a fundamental difference between the two is that power implies that a person has tools at his or her disposal to reward or punish other persons, whereas status does not (Anderson, Willer, Kilduff, & Brown, 2012; Lucas & Baxter, 2012). In other words, power refers to influence gained by resources or qualities that are external to a person, whereas status refers to influence gained by resources or qualities that are attributed to a person. Status in work groups tends to be attributed based on judgments of task-related expertise and competence (Anderson, John, Keltner, & Kring, 2001; Magee & Galinsky, 2008), which entails that a person's status in a work group is likely to rise the more that fellow group members perceive the person as competent at the task at hand.

The status perspective on work group diversity (van Dijk & van Engen, 2011; van Dijk et al., 2012c) is established on two premises. The first is that within-group diversity automatically will give rise to status differences between group members the moment that different member characteristics are (stereotypically) associated with different levels of task competence. The second premise entails that within-group status differences for a large part structure group processes and impact group members' behavior and performance. Both premises are grounded in established and empirically validated theories.

### **Work group diversity and status differences**

Most notably, expectation states theory (Berger et al., 1974) provides an explanation for the emergence of status differences between group members who work together on accomplishing a collective task or goal (Correll & Ridgeway, 2003). The origin of expectation states theory lies in the work of Bales (1950), who recorded the interactions of homogeneous decision-making groups of three to seven students. Although there was no designated leader, inequalities between group members arose quickly and persisted over time. These inequalities were observed in four different behaviors: the amount of opportunities given to participate, the amount of initiated participation, the level of received evaluations, and the amount of influence over others (Correll & Ridgeway, 2003). According to expectation states theory (Berger et al., 1974), this happens because group members who work together on a task anticipate the cues concerning fellow group members' levels of task competence in deciding on how to act. The higher the anticipated level of competence (i.e. status), the more those group members will be deferred to and will be given the opportunity to participate. As a consequence, these performance expectations shape group behavior and interaction in a self-fulfilling fashion: The higher the status of an individual, the more influence a person will have (Correll & Ridgeway, 2003; cf. status hierarchies theory; Gould, 2002).

One conclusion of Bales (1950) was that the quick emergence of status differences between equal homogeneous group members suggests that it is likely to happen in any group. However, research by Berger et al. (1972; 1974) suggests that status differences are particularly likely to rise in diverse groups given that the origin of status differences can often be found in people's characteristics like age, gender, ethnicity, or occupation. Status characteristics theory (Berger et al., 1972) was crafted to more specifically explain how associations with people's characteristics translate into performance expectations. Status characteristics are "attributes on which people differ (e.g., gender, computer expertise) and for which there are widely held beliefs in the culture associating greater social worthiness and competence with one category (e.g., men, computer expert) of the attribute than another (e.g., women, computer novice)" (Correll & Ridgeway, 2003: 32). Status characteristics thus represent those attributes of a person that are (stereotypically) thought to predict task competence (cf. Fiske, Cuddy, Glick, & Xu, 2002).

Importantly, whereas social identity theory predicts that social categorization results in favoring one's own category over another, status characteristics theory posits that social categorization in a task-context yields consensual evaluations of one category being more competent than another when those member characteristics are (stereotypically) thought to predict task performance (Ridgeway, Boyle, Kuipers, & Robinson, 1998; cf. Eagly & Karau, 2002). Status characteristics theory therefore posits that the mere salience of status characteristics more or less automatically leads to status differences, and that status characteristics are salient the moment that people differ on those characteristics – as is often the case in diverse work groups. Taken together, we learn that status attributions are based on (stereotypical) associations between group members' characteristics and task competence, and that these status attributions result in an informal social order that distinguishes high- from low-status group members.

Empirical validation for these assertions can be found in numerous studies showing that group members' characteristics automatically tend to impact fellow group members' expectations about each other's task competence. Classic examples where people derive status from member's characteristics involve demographic characteristics like gender (e.g., Eagly & Karau, 2002; Meyer, van Dijk, & van Engen, 2011) and age (Freese & Cohen, 1973). Interestingly, competence attributions can however also be based on job-related characteristics like tenure (e.g., Bunderson, 2003) or functional background (e.g., Chattopadhyay, Finn, & Ashkanasy, 2010) and on deep-level characteristics like personality (e.g., Anderson & Kilduff, 2009b). Within-group status differences thus do not only emerge from those characteristics that have a history of inequality (e.g., gender, ethnicity, cf. Plaut, 2010), but can be based on any within-group difference in member characteristics (Correll & Ridgeway, 2003).



Van Dijk and van Engen (2011) coined the informal social order that is shaped by within-group status differences a status configuration. A status configuration thus delineates the extent to which group members are perceived as more (high status) or less (low status) competent at the task at hand. Importantly, this entails that status configurations in principle are dynamic and that the number of status configurations thus equals the number of (sub-) tasks. If, for example, a work group is comprised of seven individuals and their group task can be further split up in seven sub-tasks (e.g., designing, developing, producing etc.), then it is possible that each group member ranks highest on one of the seven status configurations pertaining the specific sub-tasks. Of course, it is also possible that one group member ranks highest on each of the seven status configurations.

### **Status differences and group performance**

In line with theory stressing the functionality of hierarchies (cf. Halevy, Chou, & Galinsky, 2011; Halevy, Chou, Galinsky, & Murnighan, 2012), van Dijk and van Engen (2011) argued that a group's status configuration impacts group performance: In distinguishing between higher- and lower-status group members, a status configuration provides structure and clarity on (a) who is most likely to provide valuable input in decision-making processes and (b) who can best be assigned to certain tasks and carry certain responsibilities. Consider the example of an information technology company that relies on cross-functional project teams consisting of designers, programmers, and sales and after-sales representatives (van Knippenberg et al., 2004: 1011). It is likely that designers will be most influential on discussions how their product can best be designed, whereas programmers will be most influential on discussions what can and what cannot be programmed. The background of each group member thus enables fellow group members to automatically estimate the relative value of group member's contributions in a decision-making process about specific issues. Likewise, the background of each group member enables fellow group members to swiftly agree on who is most suitable to carry out decisions once they are made. If, for example, a new sales strategy is determined, it is likely that designers will act upon it only as far as it has implications for product design, but that further about all action points will be handled by the sales representatives (for a related example based on age and/or tenure see Eisenhardt, 1989).

Interestingly, the idea that a status configuration enables a group's shared understanding of 'who does what' suggests that work group diversity can enhance group performance even if no information elaboration is required. Indeed, when a group's responsibilities require a large variety of skills (as is often the case in, for example, project teams or top management teams), more diversity may simply mean that group members together cover about all the skills that are required for more successfully carrying out their res-

possibilities than when the group would be more homogeneous (e.g., the project team being comprised of designers only). As such, van Dijk and van Engen's (2011) status perspective on diversity negates conventional wisdom in diversity research that "information elaboration is the primary process underlying the positive effects of diversity on group performance" (cf. van Knippenberg et al., 2004: 1011). Instead, the status perspective on work group diversity posits that a group's status configuration drives the performance of diverse groups by serving as a tacit coordination function that may directly enhance a group's performance (cf. de Kwaadsteniet, Homan, & van Dijk, 2012; Halevy et al., 2012). The two premises imply a clear causality: work group diversity leads to the emergence of a group status configuration, and a group's status configuration impacts group performance. We thus propose that:

*Proposition 1: A group's status configuration mediates the relationship between work group diversity and performance in such a way that work group diversity enhances the emergence and prominence of a group's status configuration, and that the prominence of a status configuration enhances group performance.*

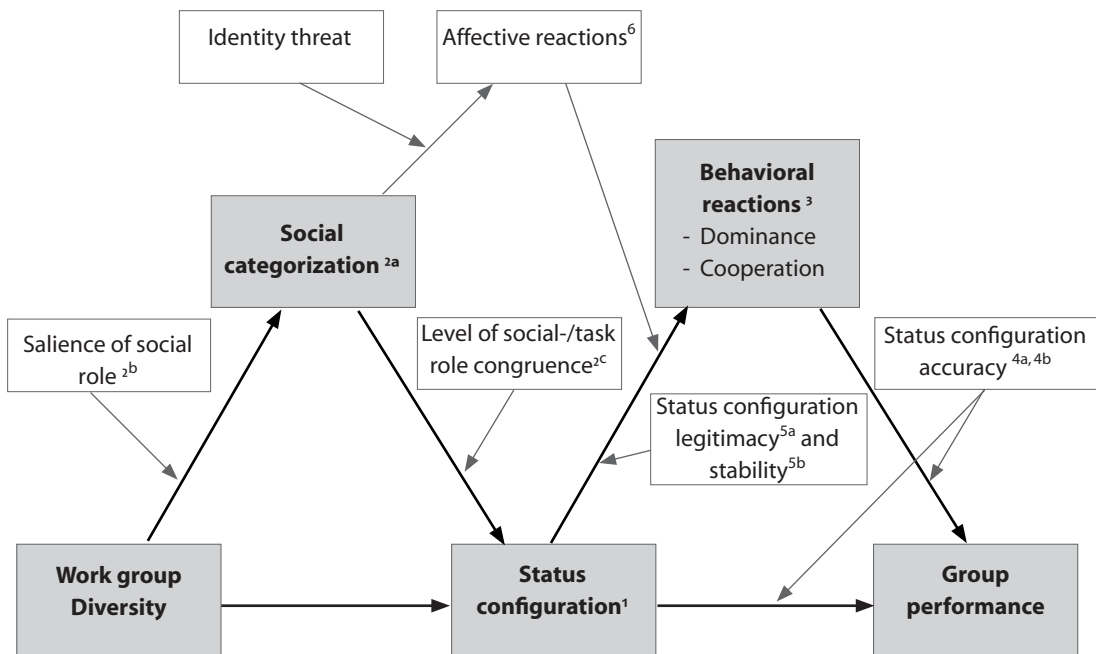
Proposition 1 describes the core process of the status perspective on the relationship between work group diversity and group performance. Because the proposed process is rather different from the processes that diversity researchers typically assume to underlie the diversity-performance relationship, a question that is likely to arise is how the status perspective relates to the social categorization and the information/decision-making perspective. In the following, we introduce our Status Configuration Process Model (SCPM) that delineates the proposed relationships between the social categorization-, status-, and information elaboration-related processes involved in the diversity-performance relationship.

### THE STATUS CONFIGURATION PROCESS MODEL (SCPM)

Figure 1 depicts our SCPM. The core of the SCPM is shaped by the relationship between work group diversity, status configuration, and group performance as advanced in our first proposition. The numbers in the model correspond with the respective propositions. The first set of propositions discusses how social categorization processes partially mediate the relationship between work group diversity and a status configuration. The second set of propositions considers how information/decision-making processes partially mediate the relationship between a status configuration and group performance. Finally, the third set of propositions discusses how social categorization processes moderate information/decision-making processes.

**FIGURE 1**

*The Status Configuration Process Model (SCPM) of the relationship between work group diversity and group performance. Superscripts indicate which propositions discuss the respective relationship in the text.*



### Work Group Diversity and a Group's Status Configuration

Following social psychological research on impression formation (e.g., Fiske & Neuberg, 1990; Ginosar & Trope, 1980; Krueger & Rothbart, 1988), we propose that there are two roads by which diverse work groups develop a status configuration. The first, direct path is through individual-level differences between group members. These idiosyncrasies provide group members with individuating information about what specific task-related information and abilities individual group members possess. The extent to which group members' individuating information is believed to predict task performance determines whether group members are assigned a higher- or lower position in a group's status configuration.

The second, indirect path is mediated by social categorization and pertains to assumptions and inferences about fellow group member's task-related competencies and abilities based on social categories (i.e., status characteristics). Building on role congruity theory (Eagly & Karau, 2002), we assert that the formation of a status configuration based on social categories in diverse groups is enabled by the accessibility of social role stereotypes and the level of congruency between a person's social role and the task-role stereotypes. Role congruity theory (Eagly & Karau, 2002) posits that a potential for prejudice stems from the congruity that people assume between characteristics that are predictive of good task performance and the characteristics that are – stereotypically – believed to be characteristic of certain social groups. Stereotypes about social groups provide the descriptive and prescriptive content that delineates a person's social role. Accordingly, *social role* can be defined as consensual beliefs and expectations about the qualities and behavioral tendencies of people who belong to that social category (Eagly, 1987). The stereotypes pertaining to what characteristics predict task performance delineate consensual beliefs about the qualities and behavioral tendencies that are required to perform well on a task. These stereotypes thus pertain to a *task role*.

Role congruity theory predicts that the extent to which a person's social role and a task role are congruent determines the extent to which social perceivers are biased in favor or against that person's occupation of the task role (Eagly & Karau, 2002). As such, role congruity theory arrives at the same conclusion as expectation states theory: When a group member's social role is more congruent with a task role than the social role of fellow group members, the result will be a status configuration in which the member with the higher level of role congruity will be assigned a higher status than the group members with lower levels of role congruity. For example, if a group of two women and one man need to appoint a group leader, it is more likely that the man will be assigned as group leader because the male role/status characteristic is more congruent with the leader role/status characteristic than the female role/status characteristic.

Role congruity theory thus suggests that three factors play a role in shaping a status configuration in diverse teams. The first is social categorization (e.g., distinguishing between races), the second is the salience of social role stereotypes (e.g., stereotypes about white and black people), and the third is the salience of task role stereotypes (e.g., stereotypes about basketball players). We propose that the salience of social role stereotypes enables social categorization. The reason for this is that distinguishing between categories is only meaningful when there are significant differences between categories. Stereotypes are commonly understood as consensual beliefs and assumptions regarding social categories (Fiske & Taylor, 2008). Stereotypes thus carry and provide the content based on which social categorization takes place: the beliefs and assumptions that are captured in stereotypes provide people with theories to categorize and understand their surrounding (Yzerbyt, Rocher, & Schadron, 1997). Consequently, the more that we hold and are aware of stereotypes about certain groups or categories (i.e., stereotype salience), the more we are likely to categorize our surrounding accordingly (Wittenbrink, Hilton, & Gist, 1998).

Importantly, social role theory (Eagly, 1987; cf. role congruity theory, Eagly & Karau, 2002) posits that stereotypes are more than neutral beliefs about different categories: stereotypes tend to be normative in the sense that they also prescribe desirable qualities and behaviors. Therefore social categorization entails more than merely differentiating between different categories. The descriptive elements translate into injunctive norms that provide “consensual expectations about what a group of people ought to do or ideally would do” (Eagly & Karau, 2002: 574). These injunctive or normative aspects of social categories capture the components regarding competence that we earlier referred to as status characteristics and that set the stage for vertically differentiating between group members.

According to stereotype content theory, such vertical differentiation happens on two dimensions: the first is competence, the second is affect (i.e. warmth) (Fiske, 2012; Fiske et al., 2002). We discuss the affective component of stereotypes later. For now, we propose that the extent to which social categories translate into within-group status attributions depends on the level of congruency between the salient social roles and the task-role stereotypes. Our argumentation for this proposition is similar to our reasoning underlying the effects of the salience of social role stereotypes on social categorization: In order to distinguish between more- and less-competent (i.e., high vs. low-status) group members on a group task, one needs to have a notion of what attributes and qualities are needed in order to perform well on a task. If group members (stereotypically) believe that leaders need to be agentic, then social categorizations that stereotypically relate to being agentic (e.g., gender) will translate into status differences between members (e.g., males, fema-

les) who belong to different social categories (cf. Correll & Ridgeway, 2003; Eagly & Karau, 2002).

In sum, we have argued that work group diversity more or less automatically induces a status configuration by means of two paths. The direct path is through individuating information that is believed to be a proxy for task competence. The indirect path is mediated by social categorization. We have argued that the impact of diversity on social categorization is contingent on the salience of social role stereotypes, whereas the impact of social categorization on the emergence and prominence of a status configuration is contingent on the level of social and task role congruency. We therefore advance the following propositions:

*Proposition 2a: Group members rank higher on a work group's status configuration the more that their individuating information and social category membership are thought to predict task performance.*

*Proposition 2b: Group members are more often categorized into different subgroups the more that social role stereotypes regarding characteristics of group members are salient.*

*Proposition 2c: Group members with higher levels of (attributed) task-social role congruency obtain a higher position in a group's status configuration than group members with lower levels of task-social role congruency.*

### **Status Configuration and Group Performance**

We propose that there are two ways in which the status configuration of a (diverse) work group has an impact on group performance. The first, direct path is due to the (tacit) coordination function of hierarchies. A status configuration reflects an implicit hierarchical order that distinguishes between group members who are perceived to be more- versus less-valuable for task performance. Whereas diversity researchers have generally considered inequality to be harmful (e.g., Harrison & Klein, 2007; Zanon et al., 2010; cf. Gould, 2002), research indicates that differentiating between high- and low-status group members can facilitate group functioning and performance (Halevy et al., 2011; Halevy et al., 2012): Hierarchies enable group members' understanding of who does what, when and how, without the need to verbally discuss those matters with each other (de Kwaadsteniet & van Dijk, 2010; Halevy et al., 2012). Consequently, a status configuration provides diverse groups with a structure that enables them to outperform more homogeneous teams without the need to engage in information elaboration processes (van Dijk & van Engen, 2011).

The second, indirect path by which a group's status configuration impacts group performance is mediated by behavioral reactions. Wittenbaum and Bowman (2005) posited in their review on information exchange in mixed-status groups that high-status group members (a) share more information, (b) share more unique information, (c) are more interested in unique information, and (d) are more often deferred to than low-status group members (cf. Bales, 1950; Correll & Ridgeway, 2006). This suggests that with increased levels of diversity not so much the quantity of information elaboration changes, but that increased levels of diversity changes the dynamics of information elaboration: The more that within-group differences in member characteristics are believed to correspond with differences in task-competence, the more information elaboration processes will be skewed towards high-status group members in that they will be more influential than low-status group members (van Dijk & van Engen, 2011).

Two recent experimental studies using behavioral coding speak about this in an insightful manner. The first was conducted by Chatman, Boisnier, Spataro, Anderson and Berdahl (2008), who video recorded the interactions of four-person gender-diverse groups working on stereotypically male- (math) or female-typed (language) tasks. Chatman et al. (2008) found that task-typical (i.e. high-status) group members were more often deferred to than task-atypical (i.e. low-status) group members. In a similar experiment, Meyer et al. (2011) showed that these findings can well be understood in terms of behavioral dominance. Meyer et al. employed a more sophisticated tool to code behavioral interactions and found that task-typical group members show more dominant behavior (e.g., postural expansion, interrupting others), whereas task-atypical group members are more submissive (e.g., avoiding eye contact, speaking quietly). Moreover, by coding who provided correct solutions to the group tasks and controlling for individual ability, both Chatman et al. (2008) and Meyer et al. (2011) found that task-typical group members perform better than task-atypical group members in mixed-status diverse groups.

These findings align well with stereotype threat research. Stereotype threat refers to the phenomenon that self-stereotyping tends to result in various sorts of stereotype-confirming behaviors and outcomes (Nguyen & Ryan, 2008; Steele & Aronson, 1995). In comparing one's own relative level of competence with that of fellow-group members, a group member either gains or loses self-confidence in his or her ability to perform well on a task (cf. Schmader, Johns, & Forbes, 2008). Following this line of reasoning, the behaviors of task-typical and task-atypical group members in the experiments of Chatman et al. (2008) and Meyer et al. (2011) are likely to reflect their levels of self-confidence: Through their comparison with task-atypical group members, task-typical group members increase their relative status and thus their self-confidence, which results in more dominant behavior. In contrast, task-atypical group members lose status by comparing themselves

with task-typical group members, which results in reduced levels of self-confidence and is expressed in more submissive behavior.

In sum, this suggests that within-group status differences result in various sorts of behavioral reactions, which arguably can best be understood in terms of behavioral dominance: high-status group members tend to behave more dominantly, whereas low-status group members tend to behave more submissively. One implication of this is that, on a group-level, diversity may not change the amount of information elaboration, but that diversity does alter the direction of information elaboration: The more pronounced a status configuration is in terms of distance between high- and low-status group members, the more information elaboration processes will be centralized around high-status group members. Accordingly, we propose that a diversity-inferred status configuration yields various sorts of behavioral reactions, which in turn impact group performance.

*Proposition 3: Behavioral reactions partially mediate the relationship between a group's status configuration and group performance in such a way that a more pronounced status configuration enhances the influence of high-status group members on information elaboration processes and on group performance.*

To what extent does a larger influence of high-status group members on information elaboration processes and on group performance benefit group performance? We propose that this depends on the accuracy, legitimacy and stability of a status configuration (cf. van Dijk & van Engen, 2011).

### **Status configuration accuracy**

One way of looking at the concept of a status configuration is by perceiving it as an aspect of a team mental model. Mental models are knowledge structures that enable people to describe, explain and predict events in their environment (Mathieu, Heffner, Goodwin, Salas, & Cannon-Bowers, 2000). Team mental models are such knowledge structures pertaining to the team. A status configuration can thus be understood as team members' (implicit) assumptions about fellow team members' task competence that enable team members to anticipate and coordinate their behaviors adequately. However, just as knowledge can be inaccurate, assumptions can be wrong. If attributions of group members' levels of task competence are wrong, the team will put their trust in the wrong person because their team mental model is inaccurate (Lim & Klein, 2006). We therefore propose that status configuration accuracy moderates the impact of status configuration on group performance in such a way that more accurate status configurations enhance the extent to which a status configuration positively affects group performance. We argue that this



happens in two ways.

First, we assert that there is a moderating effect of status configuration accuracy on the direct relationship between status configuration and group performance. The accuracy of a status configuration speaks about the extent to which a person is the right person for a job within the team (van Dijk & van Engen, 2011). Although interaction and information elaboration are key elements of group work, for a large part individual group members must be trusted by fellow group members to be able to successfully handle their responsibilities. If, however, non-expert group members are inaccurately considered high status group members on a certain task, they are entrusted with responsibilities that they are not capable of handling. Or, alternatively, they are capable of handling many responsibilities, but are inaccurately perceived as low-status and therefore not given the responsibilities that they are capable of handling. Either way, the misfit between competences and responsibilities that characterizes inaccurate status configurations is likely to result in suboptimal performance levels (van Dijk & van Engen, 2011). Support for this argument is found by Woolley, Gervase, Chabris, Kosslyn, and Hackman (2008), who conducted experiments with teams where (the salience of) team expertise was manipulated. They found that teams performed best when the expertise of experts on certain aspects of the task was recognized (i.e. in teams with an accurate status configuration).

Second, we assert that status configuration accuracy moderates the relationship between group behavior and group performance. Because high-status group members are more influential in group interactions and discussions (Wittenbaum & Bowman, 2005), it is likely that high status group members have an impact on group outcomes in particular during information elaboration processes. Indeed, according to status hierarchies theory (Gould, 2002), a person's status affects the perceived merit of his or her contributions in such a way that arguments of high-status group members are overvalued, whereas contributions of low-status group members are undervalued. Support for these arguments is found in an experiment by van Dijk et al. (2012c). Prior to the group task, group members were asked to estimate their fellow group members' level of task competence. When these attributions of fellow group members' levels of competence matched the actual task ability of the group members (thus resulting in an accurate status configuration), more information elaboration increased group performance. If, however, group members attributed higher levels of competence to group members with low levels of task competence, more information elaboration decreased group performance.

In sum, we posit that status configuration accuracy moderates the relationship between group status configuration and group performance in two ways:

*Proposition 4a: Status configuration accuracy moderates the relationship between a group's status configuration and group performance in such a way that status configurations enhance group performance when the status configuration is more accurate.*

*Proposition 4b: Status configuration accuracy moderates the relationship between a group's behavioural reactions and group performance in such a way that behavioural reactions enhance group performance when the status configuration is more accurate.*

### **Status configuration legitimacy and stability**

Next to the accuracy of a team mental model, another important aspect of a team mental model for team performance is that it is shared (Lim & Klein, 2006; Mathieu et al., 2000). That is, team performance is expected to be enhanced when team members' beliefs and ideas correspond with each other. With regard to status configurations, sharedness thus refers to the extent to which group members hold corresponding beliefs about which group members are more- and which group members are less-competent at the task at hand (cf. Tindale & Kameda, 2000). This concept of sharedness in status attributions relates to the notion of status legitimacy. Status legitimacy refers to the extent to which group members agree on the status configuration (Bettencourt, Dorr, Charlton, & Hume, 2001). Whereas status configuration accuracy is concerned with the actual or objective accuracy of a group's status configuration, status configuration legitimacy thus is concerned with the perceived or subjective accuracy of a group's status configuration.

We propose that status legitimacy impacts the status configuration – team performance relationship by moderating the relationship between status configuration and behavioural reactions. Under conditions of an illegitimate status configuration, group members disagree with each other on who is/are the right person(s) for a job (van Dijk & van Engen, 2011). One consequence of this is that high-status group members will be motivated to protect their higher, yet contested status position (Bettencourt & Bartholow, 1998; cf. ingroup favouritism, Tajfel & Turner, 1986). Because an important means in the contest for status is withholding information (Toma & Butera, 2009), a notable way in which high-status group members may suppress low-status group members is in withholding information (cf. Groysberg, Polzer, & Elfenbein, 2011). Moreover, high-status group members may engage in various sorts of petty tyranny to 'show who's boss' (Ashforth, 1994). Status illegitimacy is thus likely to result in various forms of discriminatory behaviour from high-status group members towards low-status members (van Dijk & van Engen, 2011).

The behaviour of low-status group members under conditions of status illegitimacy is dependent on the stability of the status configuration. Status configuration stability refers

to the perceived probability that a status configuration is subject to change (Bettencourt et al., 2001). Status configuration illegitimacy is the major determinant of status instability in the sense that status illegitimacy provides the main motive for pursuing change in a social order (Bettencourt & Bartholow, 1998; Ellemers, Wilke, & van Knippenberg, 1993). If status configurations are illegitimate yet stable, low-status group members do not challenge the existing social order because they perceive it to be impossible to change the status configuration, or consider the cost of fighting it too high. However, their perception of the illegitimacy of the status configuration is likely to evoke feelings of unfairness and injustice. As a consequence, low-status group members are likely to show various forms of resigning behaviour, ranging from lower levels of commitment to full apathy (van Dijk & van Engen, 2011). Examples of such behaviours are taking less initiative and being less willing to challenge fellow group members' arguments (Wittenbaum & Bowman, 2005). In contrast, when status configurations are unstable, low-status group members are likely to challenge the more privileged position of high-status group members in their pursuit for equality (Tajfel & Turner, 1979). As a consequence, status conflicts are likely to arise (Bendersky & Hays, 2012), where low-status group members may engage in various sorts of counterproductive behaviour, including spreading rumour, forming coalitions, and causing slowdowns (van Dijk & van Engen, 2011). Whereas the stability of the social order under the condition of an illegitimate yet stable status configuration continues to provide an environment that enables group members to perform and work together (Mannix & Sauer, 2006; Weick, 1993), performing and working together becomes close to impossible when a status configuration is illegitimate and unstable (see also van Dijk & van Engen, 2011).

In sum, we posit that status legitimacy and status stability impact group members' behavioural reactions on a group's status configuration. These behavioural reactions are likely to be different for high-status and low-status group members. However, what they have in common is that the behavioural reactions on status illegitimacy and status instability for both high- and low-status group members are likely to inhibit group performance. We therefore propose that:

*Proposition 5a: Status configuration legitimacy moderates the relationship between a group's status configuration and group behaviour in such a way that status configurations yield more productive behavioural reactions when the status configuration is legitimate.*

*Proposition 5b: Status configuration stability moderates the relationship between a group's status configuration and group behaviour in such a way that status configurations yield more productive behavioural reactions when the status configuration is stable.*

## **SOCIAL CATEGORIZATION, AFFECT, AND BEHAVIOURAL REACTIONS**

Our final set of propositions deal with how social categorization indirectly moderates the relationship between status configuration and behavioral reactions. As mentioned before, stereotype content theory posits that one part of stereotypes involves attributions of competence, whereas the other part involves attributions of warmth. Based on expectation states theory (Correll & Ridgeway, 2003) and role congruity theory (Eagly & Karau, 2002), we have argued that competence attributions result in the emergence of a status configuration. Following social identity theory, here we will posit that both low- and high-status group members are likely to show ingroup favouritism in their attributions of warmth.

### **Social categorization, affect, and identity threat**

Ample research captured under the header of social identity theory has shown that social categorization has the tendency to result in intergroup bias (Haslam, 2004). Intergroup bias refers to the phenomenon that people tend to have more favourable perceptions of people who are similar to themselves (i.e. ingroup) than of people who are more different (i.e. outgroup) (Byrne, 1971; van Knippenberg et al., 2004). Such more favourable perceptions express themselves in affective-evaluative reactions. Examples include lower identification with outgroup than with ingroup members and a lower liking of outgroup than of ingroup members (Hewstone, Rubin, & Willis, 2002). Because more homogeneous groups by definition are composed of more ingroup members than diverse groups, it may be expected that negative affect is more present in diverse groups than in more homogeneous groups.

Van Knippenberg et al. (2004) pointed out that this however does not mean that social categorization always leads to intergroup bias. The reason why people distinguish between members of an ingroup and members of an outgroup is because individuals value a positive and distinctive (group) identity (Brewer, 1991). Consequently, people will be prone to displaying intergroup bias only when there is a threat to one's positive self-identity (e.g., labelling someone as an outgroup member when that group member makes a mistake) (Riek, Mania, & Gaertner, 2006). People thus do not always prefer ingroup over outgroup members. As long as outgroup members do not pose a threat to a person's positive self-identity, a person may actually like outgroup members more than fellow ingroup members (cf. Fiske et al., 2002; Jost & Banaji, 1994).

For a comprehensive elaboration of this point, see van Knippenberg et al. (2004). We will now turn to the question how the affective reactions that are influenced by intergroup bias affect the work group diversity-performance relationship.

**Affective and behavioral reactions**

Affective reactions are likely to translate into specific behaviours. For example, a low liking of outgroup members is likely to result in less cooperation and more relational conflicts with outgroup than with ingroup members. Based on the social categorization perspective, it is therefore commonly argued that greater diversity yields less cohesive group behaviours (Williams & O'Reilly, 1998). The reason for this is that ingroup members, and thus information coming from them, are trusted more than (information coming from) outgroup members (van Knippenberg et al., 2004). As a consequence, it can be expected that ingroup members engender more cooperative behaviours than outgroup members.

Whereas attributions of competence evoke behaviours displaying a certain level of dominance, attributions of warmth thus evoke behaviours displaying a certain level of affiliation. The immanent question that follows is if these behavioural reactions affect each other. That is, is there a relationship between behaviours that stem from interpersonal affect and behaviours that stem from the status configuration?

Research in relational communication suggests that dominance and affiliation capture different aspects of communication, but nevertheless do influence each other (e.g., Dillard, Solomon, & Samp, 1996). Dominance and affiliation are understood as the fundamental features of interpersonal communication (White, 1980; cf. Leary, 1957). Whereas dominance reflects the degree to which a person attempts to regulate the behaviour of another person (ranging from highly submissive to highly dominant), affiliation reflects the degree to which a person regards another person positively (ranging from extremely negative to extremely positive) (Dillard, Solomon, & Palmer, 1999). Dillard et al. (1996; 1999; see also Dillard, Palmer, & Kinney, 1995) argued that actors can only focus on one of these aspects at a time due to limited cognitive resources. When the dominance aspect of communication is salient, affiliation becomes less salient; whereas the salience of affiliation inhibits the salience of dominance.

As such, we propose that perceptions of warmth and perceptions of competence are mutually inhibitory. The more that social categorization yields affective reactions (either positive or negative), the more that behavioural reactions will be based on attributions of warmth and thus not on attributions of competence. Vice versa, the more that social categorization leads to a pronounced status configuration, the more that behavioural reactions will be based on attributions of competence instead of attributions of warmth. In corroboration with these suggestions, a recent study showed that (social category) diversity in work groups reduces group members' focus on establishing positive bonds with fellow group members and increases their focus on task performance (Loyd, Wang, Phillips, & Lount, in press; cf. Lount & Phillips, 2007). Accordingly, we propose that:

*Proposition 6: More intense affective reactions reduce the extent to which group members' behaviours are affected by their position on a status configuration.*

## DISCUSSION

Our SCPM differs from existing models on the consequences of work group diversity in a number of ways. Most notably, our SCPM stresses the involvement of status-related processes and, more specifically, the centrality of a group's status configuration in explaining diverse groups' processes and performance. Second, in arguing that diversity augments (tacit) group coordination processes, we are the first to argue that information elaboration is not required for diversity to enhance group performance. Third, our SCPM integrates research on stereotyping and prejudice with the diversity literature. Despite the obvious relevance of research on stereotyping for diversity research, an explicit and coherent integration of stereotyping processes into the diversity literature thus far has been absent. Fourth, we posit that status processes in diverse groups cause significantly different group dynamics and interactions in a number of ways (e.g., deferrals, dominance and submissiveness, participation) compared to the group dynamics and interactions in more homogeneous work groups. Finally, in contrast to models that suggest that processes related to social categorization, status, and information elaboration tend to occur more or less in isolation of each other (e.g., Carton & Cummings, 2012; Harrison & Klein, 2007), we assert that social categorization processes affect status-related processes, and that status-related processes steer and guide information elaboration processes. Our SCPM thus offers an integrated approach to the relationship between work group diversity and group performance. In the following, we discuss the implications of our SCPM for future research.

### **Implications for Research to the Diversity-Performance Relationship**

The propositions that are advanced in this paper offer various opportunities for research. Most propositions are grounded in earlier research, therefore we limit this discussion of future research directions based on our propositions to two elements that we believe are in dire need of research attention.

First, we would like to highlight the need for field research to the role of stereotype-related processes given that most research to (the consequences of) stereotyping has been conducted in the lab. Future research could, for example, study the formation of project teams with diverse team members who do not know each other. By asking them to estimate each others' level of task competence upon the moment that they meet for the first time, status attributions can be measured (cf. Meyer, van Dijk, van Engen, 2011). If another group of persons provide their descriptions of task-role stereotypes and indicate that, for

example, they perceive the task as more feminine than masculine, one can compare that outcome with the extent to which women received higher scores than men. A similar study can be conducted with newcomers. For example, one could ask group members to denote their task-role stereotypes at the time that there is a vacancy, and to subsequently rate their expectations of newcomers' level of task competence upon the first time of meeting them. The SCPM suggests that newcomers will be attributed a higher status when there is more congruence between a person's characteristics and the task-role stereotypes. Alternatively, researchers could examine the extent to which task-role stereotypes can be altered and if such a manipulation impacts work groups' status configurations. This can be done by developing an intervention in which group members are asked to individually write down what characteristics they perceive to be important for performance on a specific aspect of a task, and to subsequently discuss what each group member wrote down. Such a discussion may lead to a consensual task-role stereotype and thus increase the likelihood on a consensual status configuration (cf. van Dijk, van Engen, & Paauwe, 2012). A positive side-effect of this intervention is that it may enhance the legitimacy of a group's status configuration.

Second, research is needed to the impact of a status configuration on group performance. About all research to within-group status differences has focused on inequality (e.g., Gould, 2002), cohesion (e.g., Haslam, 2004) and (sub)group behaviour (e.g., Wittenbaum & Bowman, 2005), but the relationship with group performance has remained largely unexplored (e.g., the paper by Greer and van Kleef, 2010, focuses on power hierarchies, which is a different matter than status hierarchies; e.g., Magee & Galinsky, 2008). The renewed interest in the role of status in organizational life (e.g., Magee & Galinsky, 2008) is promising, but most studies focus on the negative consequences of status-related processes (e.g., Bendersky & Hays, 2012; Groysberg et al., 2011). The concepts of status configuration accuracy, legitimacy and stability may be helpful in understanding why and when status configurations may leverage group performance, but their usefulness needs empirical validation. In experimental settings, this can be done in two steps. The first step is an individual-level assessment of task competence. The second step is to create groups who work together on a similar task and to manipulate their status beliefs. For example, by providing all group members the same information on individual performance ranking, researchers can influence the accuracy of a group's status. By providing group members different information on individual performance ranking, researchers can manipulate the legitimacy of the status configuration. In turn, status configuration stability can be influenced by appointing the highest-status group member the role of group leader. It may be expected that in such groups, status configurations are more stable than in groups where no group leader is appointed, or where the appointed group leader is someone else than

the highest-status group member.

In organizational settings it may be more difficult to obtain objective information on people's competence levels and therefore to assess status configuration accuracy. However, researchers could ask group members to denote their perception of the group status configuration on a specific task. By assessing the level of congruence between group members' status configurations, researchers can measure status configuration legitimacy. If organizations do have some form of objective information on group members' level of task competence (e.g., scores from assessment centres), then the level of congruence between those scores and the group's status configuration can be an indicator of status configuration accuracy. The extent to which status differences receive some form of formal recognition may be an indicator of status configuration stability (e.g., titles like 'project leader', representing the group in meetings with a supervisor). Alternatively, researchers could measure status legitimacy and stability by means of a questionnaire. Status legitimacy could be measured by asking group members to indicate on a Likert-scale the extent to which they agree with questions such as *Team members' levels of influence are contingent on their level of task-competence*, and status stability by asking questions such as *My role in the team is clearly defined*.

### **Venues for future research inspired by the SCPM**

Besides the suggestions provided by the propositions, the SCPM may inspire other venues for future research. For example, the SCPM raises the question whether attributions based on social categorization or attributions based on individuation have more weight in the formation of a status configuration. In their Continuum Model of Impression Formation Processes, Fiske and Neuberg (1990) posit that individuation happens when social categorization does not suffice, e.g., when people display counter-stereotypical behaviour. This suggests that attributions based on social categorization are the default and that individuation occurs only when information about a person does not fit the stereotypical behaviour that can be expected based on the social category/-ies that a person belongs to. Fiske and Neuberg posit that in such instances, perceiver's will first try to recategorize a person into a subcategory (e.g., a white rapper), but their model suggests that if recategorization fails, attributions may be based on individuation alone (see also Pratto & Bargh, 1991). A consequence of this would be that belonging to a low-status social category does not necessarily influence a person's position on a status configuration.

Interestingly, status characteristics theory suggests otherwise. Berger et al. (1977) delineated a set of assumptions about the attribution of status based on people's social category membership/status characteristics. One of these assumptions is the aggregation assumption, which entails that all salient status cues are incorporated into an aggregated



evaluation of expected competence. Importantly, whereas information about a person that confirms the default impression based on a person's social category membership is assumed to have less impact on a person's status (e.g., a caring nurse), information about a person that is incongruent with the default impression (e.g., a hostile nurse) is expected to receive more attention than it would have if there was no other information present (Correll & Ridgeway, 2003). Status characteristics theory thus suggests that belonging to a low-status social category will always have an impact on a person's position on the status configuration of a team.

It may be clear that the implications of Fiske and Neuberg's (1990) model and of Berger et al.'s (1977) status characteristics theory for people who belong to a low-status social category are rather different: Whereas impression formation theory suggests that it may be best to consistently disconfirm one's membership of a low-status social category in order to enhance one's status, status characteristics theory seems to suggest that there can be merit in valuing one's low-status category membership because it increases the effect of status-enhancing information. We therefore put a premium on future research to this relationship between social categorization, individuation, and their effects on a work group's status configuration.

### **Managerial Implications**

Although the primary aim of this paper was to point out how stereotype- and status-related processes affect the relationship between work group diversity and group performance and to push the field forward in terms of research, there are a few messages here that are relevant for managing diverse work groups.

The first is that diversity is likely to lead to within-group status differences. Whether or not this happens depends on the extent to which there are task-role stereotypes. It may be worthwhile to assess and challenge the accuracy of those stereotypes because that may enhance the legitimacy of a status configuration – and possibly even its accuracy (cf. van Dijk et al., 2012c). Such an assessment can be done by denoting the different tasks of a team, asking each team member to write down their perception of characteristics that are important for performing on the task, and then to discuss everyone's input.

Second, the pervasive relationship between status and influence poses challenges for managers who wish to increase the influence of low-status group members. This may be desirable especially during creative processes when out-of-the-box thinking is required – such as brainstorming. In default mode, low-status group members tend to show submissive behaviour. Increasing their level of involvement is therefore likely to require specific attention, for example by specifically asking low-status group members for their input. On a similar note, Meyer et al. (2011) showed that low-status group members behaved more

dominantly under conditions of positive diversity beliefs, i.e. when group members believe that diversity enhances performance. It may therefore be worthwhile to emphasize that low-status group members can provide valuable contributions.

However, an important implication of our SCPM is that within-group status differences can be productive (cf. Halevy et al., 2011): It provides clarity on who is (supposed to be) the most competent group member (Bunderson, 2003). Managers should therefore not be too afraid for the emergence of within-group status differences – as long as they remain dynamic and can differ per task. Given that status tends to reinforce itself (Gould, 2002), managers would do wise to regularly challenge the status quo. This can be done by asking group members to denote for each task their perception of the status configuration for each task, and then to discuss those.

Finally, our SCPM suggests that person-job fit is most important in selecting and recruiting team members. Recruiting or composing a team with the aim of making it diverse is frequently promoted when data suggests that work group diversity enhances (group) performance (e.g., Catalyst, 2004). However, if such persons are not perceived as very competent by their fellow group members (which is more likely to happen when there is no good person-job fit), it is likely that their value to the team will be low. In contrast, if fellow group members also perceive there to be high levels of person-job fit (which logically is more likely to happen when the primary search criterion is to achieve person-job fit), this may enhance the level of status configuration legitimacy – and thereby group performance.

### **Conclusion**

Our SCPM shows the importance of integrating research on stereotyping and status with research to the consequences of work group diversity. We believe that stereotype- and status-related processes can qualify some inconsistent findings in diversity-performance research and have provided a number of propositions and suggestions that together shape an agenda for research to the consequences of diversity in work groups.





## CHAPTER 7

Based on: van Dijk, H., van Engen, M. L., & Paauwe, J. (2011). Reframing the business case for diversity: A values and virtues perspective. *Journal of Business Ethics*, 111, 73-84

## **ABSTRACT**

We provide an ethical evaluation of the debate on managing diversity within teams and organizations between equality and business case scholars. Our core assertion is that equality and business case perspectives on diversity from an ethical reading appear stuck as they are based on two different moral perspectives that are difficult to reconcile with each other. More specifically, we point out how the arguments of equality scholars correspond with moral reasoning grounded in deontology, whereas the foundations of the business case perspective are crafted by utilitarian arguments. We show that the problems associated with each diversity perspective correspond with the traditional concerns with the two moral perspectives. To resolve this stalemate position, we argue that the equality versus business case debate needs to be approached from a third, less well-known moral perspective (i.e. virtue ethics). We posit that a focus on virtues can enhance equality by reducing prejudice and illustrate this by applying it to the HRM domains of recruitment and selection and of performance management. Subsequently, we argue that values are key to aligning virtues with each other and with corporate strategy, delineate our values and virtues perspective on diversity, and argue why and how it can enhance organizational performance.

*Keywords:* (managing) diversity, equality, HRM, deontology, utilitarianism, virtue ethics.

## REFRAMING THE BUSINESS CASE FOR DIVERSITY: A VALUES AND VIRTUES PERSPECTIVE

*The most striking feature of contemporary moral utterance is that so much of it is used to express disagreements; and the most striking feature of the debates in which these disagreements are expressed is their interminable character. I do not mean by this just that such debates go on and on and on – although they do – but also that they apparently can find no terminus. There seems to be no rational way of securing moral agreement in our culture. – MacIntyre (2007: 6)*

The past two decades have witnessed a huge amount of attention to managing diversity that comes from two different streams of research. Inspired by the question whether differences between co-workers in member characteristics (e.g., age, gender, functional background etc.) lead to increased creativity, higher quality decisions, more innovative solutions and various other positive team- and organizational level outcomes, proponents of the business case for diversity (i.e. supporting diversity as a means to achieve, ultimately, organizational profit) conducted and published numerous studies aimed at providing verification for the so-called “value-in-diversity” hypothesis (for recent meta-analytical reviews, see Bell, Villado, Lukasik, Belau, & Briggs, 2011; Joshi & Roh, 2009; van Dijk, van Engen, & van Knippenberg, 2012). At the same time, a distinctive group of scholars oppose this instrumental take on diversity that the business case for diversity represents (Jones & Stablein, 2006; Noon, 2007; Zannoni & Janssens, 2004; Zannoni, Janssens, Benschop, & Nkomo, 2010). These scholars depart from the perspective that power inequalities in societies exist in organizations too and that, as a consequence, organizations should pursue diversity in order to empower minority groups and transform these inequalities (Noon, 2007).

At surface-level it appears as if the equality as well as the business case perspective on managing diversity posits that diversity is good and that organizations thus should pursue having a diverse workforce. Moreover, Tomlinson and Schwabenland (2010) recently suggested that in practice the contrast between the two perspectives is less strong than in theory (see also Liff & Dickens, 2000; Kirton, Greene, & Dean, 2007). However, fifteen years of debate between equality and business case proponents have not yet lead to a theoretical perspective on dealing with diversity in organizations that adequately integrates the main arguments of the equality and the business case perspective (Syed & Kramar, 2009). In a recent review of critical diversity studies, Zannoni et al. (2010: 19) argue that the business case perspective is unable to sufficiently represent and defend the rights of minorities as it does not compensate minority group members for their – often – reduced access to resources and, in fact, may “even contribute to its reproduction”. Moreover, because the business case perspective ignores the historically rooted and today still persisting inequalities in society and organizations, Noon (2007: 781) suggests that the business case perspective does not constitute an ethical approach to managing diversity:

*The argument for the moral case based on the human rights of all employees and job seekers must not be abandoned for the current fashion of diversity and the business case.*

Consequently, Zanoni et al. (2010: 19) plea that equality scholars “next to formulating critique” should “examine and develop practices and interventions reflecting an affirmative, engaged and pragmatic ethos on diversity”; which entails that equality scholars are encouraged to develop a viable alternative for the business case perspective on managing diversity.

In this paper we advance such an alternative perspective. We do not, however, opt for one of the two (i.e. the equality or the business case) perspectives as a starting point of reference. Instead, we consider and evaluate the equality and the business case perspectives from a moral point of view and assert that equality and business case proponents are (implicitly) stuck in a stalemate position as their foundations are grounded in two moral perspectives (i.e. deontology and utilitarianism, respectively) that do not only differ but also oppose each other. As a solution to this stalemate position, we propose a novel approach to managing diversity that is grounded in virtue ethics.

In the following, we discuss the shift from the equality to the business case rationale in terms of a shift from a deontological to a utilitarian perspective on dealing with diversity in organizations. In drawing from theory on moral difficulties with deontological and utilitarian perspectives, we outline the negative (moral) ramifications when organizations would exclusively adopt either an equality or business case approach to diversity. After introducing virtue ethics, which posits that morality ought to be assessed based on the character of a person, we illustrate how virtue ethics may enhance equality in selection and assessment procedures. Subsequently we advance our “values and virtues” perspective and argue why we consider that a more (morally) benign approach to managing diversity within organizations.

## **ISSUES OF MORALITY WITH CURRENT PERSPECTIVES ON DEALING WITH DIVERSITY**

The first advocates for diversity on the work floor based their arguments on the (moral) conviction that excluding a person based on demographic or non-task related characteristics essentially constitutes discrimination and hence is/should be illegal (Ferner, Almond, & Colling, 2005). In the USA this led to equal employment opportunity (EEO) and affirmative action (AA) policies and programs in the 1960s, which proved to be effective means to increase the representation of minority groups in the workforce (Crosby, Iyer, & Sincharoen, 2005). In the 1980s several scholars pointed to the negative consequences of EEO and AA programs (Gilbert, Stead, & Ivancevich, 1999; Litvin, 2006). Among others, a time of job insecurity, backlash effects for beneficiaries of AA policies, anti-affirmative

action groups, and complaints of and law suits involving reverse discrimination initiated a decline in EEO and AA policies in the USA (Graham, 1998; Kelly & Dobbin, 1998).

Threatened by losing their jobs, advisors and consultants of EEO and AA programs in the USA responded to these developments by reframing the anti-discrimination policies into the business case rationale (Kelly & Dobbin, 1998; Litvin, 2006). Consequently, the transformation from equality to business case rationales appeared to be rather natural and, if anything, a step forward. Indeed, USA-based scholars - consultants like Cox (1991) and Thomas (1991) argued that the business case perspective on diversity represents a better argument for increasing the representation of minorities by reasoning that EEO and AA programs lead to legal compliance, whereas practices based on the business case involve voluntary commitment to creating a diverse workforce (cf. Ely & Thomas, 2001; Gilbert et al., 1999). This business case rhetoric was quickly adopted by international companies world-wide and thus found a way in European countries as well (Lorbiecki & Jack, 2000; Mor Barak, 2011).

The emergence of the business case perspective on diversity led to a surge of research focussing on the question whether diversity in work groups and organizations relates to positive outcomes (e.g., competitive advantage, group and organizational performance, creativity), which in particular thrived after Milliken and Martin (1996) and Williams and O'Reilly (1998) concluded in their narrative reviews that the available empirical evidence yielded inconclusive results (Harrison & Klein, 2007). Numerous conceptual and empirical studies followed that have greatly advanced our insights into the consequences of diversity for group and organizational processes and performance. However, whereas among practitioners the business case for diversity and hence the belief that diversity enhances business performance is upheld (Edelman, Fuller, & Mara-Drita, 2001; Heres & Benschop, 2010), the empirical, scientific studies point more and more to the contingent nature of diversity's benefits (Kochan, Bezrukova, Ely, Jackson, Joshi, Jehn, Leonard, Levine, & Thomas, 2003; van Dijk et al., 2009). The business case for diversity thus appears not as unequivocal as it sounds, and even diversity management practices aimed at enhancing diversity's positive effects have been found to occasionally cause more harm than good (Pendry, Driscoll, & Field, 2007; Roberson, Kulik, & Pepper, 2003; Von Bergen et al., 2002).

Meanwhile, various scholars from widely different domains have criticized the business case rationale in arguing that it does not substitute the need for affirmative action and equal employment opportunity policies as business case perspectives do not (sufficiently) empower minorities in the workplace (Zanoni et al., 2010). The inconclusive findings with regard to the validation of the business case add fuel to the fire as they weaken the arguments of the business case and provide equality scholars with an additional argument to warrant against an instrumental take on diversity. Indeed, the contingent nature of the business case perspective can easily turn into an argument against diversity the moment



diversity appears to have a negative impact on organizational performance (Noon, 2007). Consequently, whereas in the past scholars have attempted to reconcile the business case and the equality perspective with each other (e.g., Liff & Dickens, 2000), nowadays it becomes increasingly clear that they may be incongruent (cf. Lorbiecki & Jack, 2000). In the following we explain this incongruence by pointing out that the shift from EEO and AA legislation and policies to the business case-philosophy in the USA corresponds to a radical change in thinking and actually represents a shift from a deontological to a utilitarian ethical paradigm. We will show how the differences between equality and business case rationales correspond with the classic binary between deontology and utilitarianism and how the problems associated with the equality and with the business case perspectives reflect the shortcomings of deontological and utilitarian approaches, respectively.

### **The Deontological Versus the Utilitarian Paradigm**

In (business) ethics, the different ethical theories that are discussed are often limited to the deontological, or principle-based, paradigm on the one hand, and the utilitarian paradigm on the other (Ladkin, 2006; Macdonald & Beck-Dudley, 1999). According to deontology, behaviour is moral when it is based on certain established moral principles, for acting based on such principles indicates that the person's intentions are sound (i.e. the good will). In contrast, according to utilitarianism the morality of an act is determined by the extent to which it produces the greatest proportion of good over evil (Macdonald & Beck-Dudley, 1999). In opting for a course of action when confronted with several alternatives, the utilitarian paradigm thus indicates that the morally superior alternative is that which overall yields the most positive consequences.

As the ultimate indicators of morality according to deontology are the person's intentions (regardless of the consequences) but according to utilitarianism are the consequences (regardless of the intentions), the two paradigms are generally considered to be mutually exclusive. For example, based on the principle that all people are equal and thus ought to have equal opportunities, deontologists typically would defend individual development programs, mentoring programs and coaching trajectories reserved for underrepresented groups, such as women and minorities, with only a limited regard for the consequences for businesses. In contrast, utilitarians typically depart from the perspective that when businesses prosper, society prospers (de Woot, 2005), and hence would never invest in activities if they do not clearly contribute to business results.

A necessary first step to settle a dispute that has its underpinnings in contrasting moral arguments is to understand the flaws of each perspective. To start with deontology, a first concern of addressing moral dilemmas from a purely deontological perspective is that rules represent *general* guidelines of what is good (e.g., it is good to pursue diver-

sity). As a consequence, a deontological perspective tends to be inflexible when contextual details (e.g., the availability of minority members in a certain region, the extent to which members of one group might have a disposition or more relevant experience to perform better on a certain task than members of the other group) alter the outcome of the question ‘what is good?’. Second, good intentions do not always lead to equally good outcomes and may even contribute to evil consequences. What if, for example, the costs of trajectories for minorities are not earned back? To what extent could that be considered as a reasonable loss? A strict deontological perspective would consider such a question irrelevant as it does not seek the answer to a normative question in the potential consequences (for business).

There are, however, also several objections to adopting utilitarianism as the moral point of reference. One of these concerns is that the utilitarian principle of the greatest amount of happiness for the greatest amount of people may include disadvantaging a minority for the benefit of the majority. Examples may be restricting immigrants’ access to work or education to prevent them from “taking” jobs, or ensuring that minorities can only have jobs that are not popular among majority members. In societies where the law is based on utilitarianism only, it can therefore be that inequality, suppression, prejudice and discrimination can be judged to be morally benign when it leads to the most positive consequences for the majority.

Second, a more fundamental difficulty with utilitarianism is the extent to which people can predict what the consequences of their actions will be. There is a quantitative and a qualitative side to this. First of all, our bounded rationality limits our ability to understand the extent (i.e., quantity) of the consequences of our actions: We tend to have only a limited regard for the outgroup in considering the potential consequences of alternative courses of action. Second, in utilitarianism there is generally no regard for the extent to which advantages and disadvantages may be qualitatively different: To what extent does an advantage for one person outweigh the disadvantage of another, and how do the merits of justice, equality, profit, sustainability etcetera compare to each other? Utilitarianism does not provide an answer to these questions that are critical in the application of utilitarianism to real-life situations. Indeed, despite the fact that in the past decades a common consciousness of the equality of all people has been established, in the Western world and in Western organizations – which are primarily governed by utilitarian lines of thought (cf. Edelman et al., 2001) - inequality, suppression and discrimination still exist (Plaut, 2010).

### **Deontological Versus Utilitarian Arguments for Diversity**

The differences between the deontological and the utilitarian moral paradigms provide the foundation of the difference between the equality and the business case perspectives

on diversity. Although equality and business case proponents both advocate an increase in the representation of minorities in the workplace, the underlying arguments are fundamentally different. From a deontological principle it is wrong to recruit, select and hence discriminate based on member characteristics<sup>1</sup>. In contrast, the business case perspective essentially entails an argument that is based on the utilitarian conviction that diversity yields better consequences than homogeneity for teams and organizations, i.e. that there is value in bringing together people who differ from each other on whatever characteristics. Consequently, according to the business case for diversity it actually can be beneficial to recruit and select based on exactly those characteristics that according to the no-discrimination principle ought not to be selected upon.

Just as the arguments favouring diversity of the equality and the business case scholars reflect (moral) reasoning based on deontology and utilitarianism, the arguments in opposition to the equality and the business case perspectives reflect arguments against deontology and utilitarianism. A first concern with the business case argument for diversity is that it actually does not celebrate diversity in itself, but that diversity is supported only if and as long as it drives competitive advantage and organizational profit (Noon, 2007). The business case rationale thus represents a contingent argument that considers minority members to be a means to an end, thereby violating the deontological principle that people ought not to be treated merely as a means (Greenwood, 2002). Second, the business case perspective on diversity appears to depart from the perspective that the single most important consequence that justifies all means is competitive advantage and that it is an established notion that diversity leads to competitive advantage. Indeed, as Joshi and Roh (2007: 2) rhetorically wondered:

*If researchers are unable to provide definitive answers regarding the benefits and overall performance gains from diversity, why would companies continue to invest in and implement diversity management practices?*

The current empirical evidence however indicates that it is anything but an established notion that diversity leads to competitive advantage (e.g., van Dijk et al., 2012). Following the contingent argument of the business case for diversity that organizations should pursue diversity as it is presumed to lead to competitive advantage, from a utilitarian perspective Joshi and Roh (2007) are right in suggesting that findings that show that diversity does not enhance performance (or that diversity might even diminish performance) provide organizations with a (moral) justification for pursuing homogeneity rather than diversity.

This is not to say that there are no problems with the equality perspective on diversity. First, one may argue that the equality perspective tends to assume that (the compositions of) member characteristics do not bear any consequences and that recruitment and selection based on those characteristics thus constitutes discrimination. One of the major

outcomes of research to the consequences of diversity in work groups is that diversity does have consequences, but that those are contingent on the task characteristics (van Dijk et al., 2012). Consequently, in crafting diversity management strategies a context-sensitivity may be needed that deontological principles by their nature have difficulty to live up to (Clegg, Kornberger, & Rhodes, 2006).

Second, a more fundamental problem with the equality perspective is its axiom that inequality is wrong and hence is to be avoided. Arguably, organizations are embedded in a utilitarian context where the highest goods are competitive advantage, shareholder value, and profitability. Consequently, equality does not rank highest on the priority list of most organizations (see, for example, the uptake in modern Human Resource Management thinking on distinguishing different staff categories based on their added value, Huselid, Beatty, & Becker, 2003; Lepak & Snell, 1996). From a deontological perspective that stresses the worth of each human being irrespective of race, gender, colour etcetera, such a prioritization of business results over defeating inequality may come across as immoral, but in a business context where employees are commonly referred to as “resources” or “asset” and hence solely as means to an end, it constitutes a reality that is not likely to be sensitive to deontological principles and arguments.

### **The Necessity of a Novel Perspective on Managing Diversity**

In light of the concerns raised above we argue that neither the equality nor the business case perspective for diversity yields a sustainable or viable framework for managing diversity in the workplace. The problems we identified are probably less apparent in practice because managing diversity practices tend to represent more of a blend of both perspectives and thus are not exclusively based on deontological or utilitarian principles (Gagnon & Cornelius, 2000; Kirton et al., 2007; Tomlinson & Schwabenland, 2010). However, we argue that there are two reasons why blended diversity practices ultimately may cause more harm than good.

First, the lack of understanding of ethical theory underlying arguments in favor or against specific diversity practices can easily lead to rhetoric and practices that are not aligned with each other and/or that are not aligned with the company strategy. Pendry et al. (2007: 44) name the example of employees who undergo training aimed at improving gender relations and improving equal opportunities:

*...should they step back into a working environment where, for example, there are subtle but institutionalized pressures dictating that women should place career before children, or the converse, then equal opportunities have not in truth been achieved. (...) effects may be hampered by an incompatible organizational ethos.*

Deontology and utilitarianism are only compatible inasmuch as they yield the same implications. In fact, an assumption underlying the business case for diversity is that equality leverages business results and hence that there is utilitarian (financial) merit in deontological reasoning. The moment that this ceases to be true, a blend of more deontology- and of more utilitarianism-based diversity practices and strategies are likely to be ill-aligned and hence ineffective.

Second, we fear that the current status-quo in theory and practice about perspectives on managing diversity may lead to the perils of (a) diversity scepticism and (b) diversity opportunism. Diversity scepticism refers to a disbelief of the pro-diversity claims that are characteristic of the current business case rhetoric (e.g., Hansen, 2003) and that can easily translate into (hidden) anti-diversity practices. Less-extreme and more likely to emerge is the attitude of diversity opportunism, which can be conceptualized as openly supporting diversity when it is proven to be advantageous but (secretly) avoiding diversity when the consequences are likely to be less beneficial. In fact, from a short-term utilitarian point of view such diversity opportunism may even represent the morally superior perspective on managing diversity as it entails that diversity is pursued when it is advantageous for business and that it is avoided when it is disadvantageous. The interesting fact here is that it is indeed such an attitude of diversity opportunism that is promoted in several studies to the consequences of diversity: When findings show positive relationships between homogeneity and (various indicators of) performance, managers are recommended to invest in diversity management practices (e.g., Ancona & Caldwell, 1992; Jehn & Bezrukova, 2004). In contrast, when findings show positive relationships between (certain dimensions of) diversity and (various indicators of) performance, these findings are broadly quoted and exhibited in order to promote diversity (e.g., Catalyst, 2004).

Such utility-driven recommendations suggest that we should pursue a situation where, depending on the question whether they still add value to the business, minority members and diverse groups can be celebrated the one day yet disposed of the next. Derry (1996: 105) illustrates this point from a feminist ethics perspective:

*...it is not a great step forward to say that women have terrific value in the workplace because now we recognize that female skills could do us some good. Women's redemptive role will last only as long as the current wave of management theory holds sway.*

Not only from a feminist or deontological (e.g., Noon, 2007) perspective such a future scenario sounds horrendous, from a business perspective the contingent attitudes towards minority members and diverse groups (and, actually, towards all employees) closely resembles the inconsistency that Collins refers to as "the signature of mediocrity" (2009: 92), i.e. characteristic of companies that will never become really successful. Collins (2009: 92)

describes such utility-driven companies as trying out “all sorts of new programs, new fads, new strategies (...). And when one silver bullet fails, they search for another and then yet another.” Surely there must be room for a better, more sustainable perspective on managing diversity in the workplace.

In the next section we develop such a perspective based on virtue ethics. First we introduce virtue ethics theory, subsequently we outline what a virtue ethics perspective on diversity entails.

## VIRTUE ETHICS AND DIVERSITY

Virtue ethics has originally been advanced by Aristotle in his *Nicomachean Ethics*, but gained renewed attention after MacIntyre (1981; 2007) modernized the concept and argued that the virtue ethics perspective is superior to moral perspectives such as deontology and utilitarianism (cf. González, 2003). In his historical account of how the different moral perspectives emerged, MacIntyre (2007) posits that deontology as well as utilitarianism suffered from the failed quest in the enlightenment period to identify an objective purpose or “telos” in life that could justify morality. Albeit the deontological and the utilitarian perspectives differ in their emphasis on the intentions or the wishes/aspirations of people and individuals, both have in common that their justification of what is good is based on properties of people void of context (Clegg et al., 2006). And this is exactly where virtue ethics is radically different, for virtue ethics is grounded in the notion that morality can only be properly understood and assessed when the context in which the moral issue takes place is taken into account.

Virtue can be defined as “excellence of any kind” (MacIntyre, 2007: 122). Because the ability to excel is grounded in a person’s character, virtues are generally denoted in terms of character traits that can be enacted upon. What kinds of virtues are considered virtuous is contingent on (a) the situational demands and (b) the position or role of the actor(s) involved. We first explain what is meant with the latter before we turn to the former.

Role theory posits that human beings are members of social positions or roles (e.g., parent, fire-fighter, passenger, student) and hold expectations about their own and other people’s behaviours based on those roles (Biddle, 1986). These expectations are based on the conceptions, or, more specifically, ideal-types that people have of what is required by specific social roles. MacIntyre argues that virtues are those character traits or qualities which “enable an individual to do what his or her role requires” (2007: 128). For example, an ideal-type nurse is someone who, among others, promotes the interests and dignity of those in their care (Gallagher, 2004). In order to become such an exemplary nurse, practicing the virtue of compassion would be an example of a quality that enables a nurse to

meet the expectations raised by his or her role. Hence, with each role comes an ideal-type that delineates the more or less perfect normative description of how that role ought to be fulfilled, and the actual virtuous fulfilment of a role by a person can only be done by exercising those virtues that lead to acting according to the ideal-type. This not only entails that different roles may require the exercise of different virtues, it also implies that an act (e.g., washing a patient) can be regarded as virtuous when it is done by one person (e.g., a nurse) but as vicious when done by another (e.g., a hospital manager).

Context is of crucial importance for what specific virtues are required. The situational demands of feeding a patient or assisting in an operation room do not change a nurse's role membership, but they do alter what is expected of him or her. Virtue ethics thus posits that with a role or social position comes a certain responsibility and that context defines what that responsibility is. People can be held (morally) accountable for the extent to which they fulfil their responsibilities, and the actual fulfilment is done by exercising or practicing those virtues that match the normative prescriptions or expectations as denoted in the ideal-type fulfilment of the role.

Consequently, in assessing the morality of an action, virtue ethics asks the question whether the actor has practiced the virtue that was required in the given situation (MacIntyre, 2007). In doing so, virtue ethics overcomes the deontological problem of acting based on a rule that in some contexts may be completely inappropriate, while the consistency of the virtues overcomes the potential inconsistency and possibly even contradiction in behaviours and actions that can result from utilitarianism. Moreover, people's limited ability to predict the consequences of their actions easily causes a utilitarian approach to result in acting based on the anticipation of what enhances the happiness of the actor – or at most the overall happiness of the ingroup (e.g., team, organization) of the actor. Virtue ethics, however, in the words of MacIntyre (2007: 150):

*...presupposes a crucial distinction between what any particular individual at any particular time takes to be good for himself and what is really good for him as a man[kind]. It is for the sake of achieving this latter good that we practice the virtues (...).*

Hence, in practicing those virtues that belong to the social position or role that a person occupies, virtue ethics posits that ultimately the good of the society or community that the actor is embedded in will be established. What that "good" exactly constitutes is completely contingent on the situational demands, which causes virtue ethics to be richer and more capable of addressing and balancing different needs or demands (e.g., equality, profit) than deontology or utilitarianism.

Now that we have introduced virtue ethics and contrasted it to deontology and utilitarianism, we are ready to apply virtue ethics to the question of how to approach and manage diversity in organizations.

### **A Virtue Perspective on Diversity**

As virtues refer to excellence or qualities of any kind that enable an individual to do what his or her role requires, the heart of a virtue ethics perspective on managing diversity lies in identifying and denoting those qualities that are considered pivotal to a job role or function. For issues concerning diversity such a focus on excellence in character and in qualities bears the important implication that other personal characteristics (including age, gender and ethnicity) are relevant only inasmuch they are undisputedly related to those qualities. There are two HRM domains where this is particularly pertinent and that serve well as illustrations, namely recruitment and selection, and performance management.

### **Recruitment and selection**

Despite decades of research and attention to discrimination in recruitment and selection, present-day it is still widespread (Agars, 2004; Davison & Burke, 2000; Plaut, 2010). The causes of discrimination in the recruitment and selection process are often contingent on the specific circumstances and the type of job (e.g., demographic characteristics of the recruiter, perceived fit between job type and demographic characteristics of the applicant). One common denominator, however, is that when discrimination in recruitment and selection occurs, it generally has to do with stereotypes being held by the recruiter. As has been substantially demonstrated for instance, the female gender stereotype is often at odds with stereotypes we have of the 'typical', and particularly the 'ideal' worker (Burgess & Borgida, 1999; Eagly & Karau, 2002; Heilman, 2001). Consequently, gender stereotypes have been shown to bias, among others, hiring and promotion decisions (Heilman, Wallen, Fuchs, & Tamkins, 2004; Rudman & Glick, 2001; Vinkenburg, van Engen, Eagly, & Johannesen-Schmidt, 2011).

We suggest that a virtue ethics approach to recruitment and selection could help in battling these persisting inequalities, not only to the benefit of minority group members but also to the benefit of the organization. A focus on virtues as the prime recruitment criteria entails that before job applicants are assessed, those virtues that they will be evaluated upon need to be identified. This requires discussing and describing the virtues that are possessed by the ideal-type of person in the role or position that is vacant. During this process, stereotypes can be addressed and corrected in order to create the profile of the ideal-type (cf. Dortants, 2010). To use the nurse example again, virtues that may be mentioned are compassion, courage, and respectfulness (Armstrong, 2006). As it may be hard to assess to what extent a candidate possesses those virtues, the identification of the ideal-type virtues needs to be followed by describing suitable indicators or criteria. It is here where some may suggest that positive patient ratings is an indicator of respectfulness and



that being female is an indicator of compassion. The explication of these two proposed indicators provides other recruitment and selection committee members to address the accuracy of these (stereotypical) expectancies and, if necessary, disapprove of them.

Consequently, a focus on virtues that the ideal-type candidate possesses in order to successfully conduct his or her role can help recruitment and selection committee members in distinguishing an ideal-type from a stereotypical candidate. Not only can this result in a less biased recruitment and selection process and hence in reduced prejudice, discrimination and inequality, it can also help the recruitment and selection committee members in engaging in a recruitment and selection process that is focused more on only those criteria that are highly relevant to performing well in the role of a nurse.

### **Performance management**

Discrimination, prejudice and stereotyping do not stop once people are employed by the organization. There is ample evidence that minority group members face discrimination in the different phases of the performance management process too. Performance management refers to the measurement and management of employee performance and includes the creation of performance standards, methods to measure and evaluate performance based on those standards, and providing feedback through, e.g., (formal) performance reviews (Armstrong & Baron, 2005; Den Hartog, Boselie, & Paauwe, 2004).

Because majority members tend to have more voice in creating performance standards, it is likely that the performance standards will be more considerate towards majority members than towards minority members (e.g., not taking maternity leave into account when compiling a list of best performing employees based on, e.g., number of media appearances or amount of sales). With regard to measuring and evaluating performance, there's a long track record of bias in performance evaluations against minority members (Eagly, Makhijani, & Klonsky, 1992; Hekman, Aquino, Owens, Mitchell, Schilpzand, & Leavitt, 2010; Kraiger & Ford, 1985; Stauffer & Buckley, 2005).

Just as in the recruitment and selection process, we suggest that a virtue ethics approach could reduce the inequalities that are caused by these biases and, consequently, be beneficial to the organization and its members. This requires the identification of the (prime) virtues needed for each role in the organization, and subsequently the creation of performance indicators in order to assess the extent to which a person possesses and correctly practices those virtues. Next to reducing bias in performance evaluations, we believe such a virtues-based performance management process may result in more focus on those performance criteria that relate to sustainable, long-term business results (cf. the literature on the importance of setting mastery or development goals instead of performance goals (e.g., Butera, Darnon, & Mugny, 2011; Dewettinck, 2008; Jawahar & Williams,

1997): As a virtues-based performance management process would focus on the extent to which individuals master the virtues that are required for performing on a certain role, it more or less automatically emphasizes the importance of acquiring and developing competencies over demonstrating that competence in comparison to others).

Having denoted what a virtue perspective on diversity within organizations entails and how it can be applied to two highly-relevant HRM domains, we discuss how a virtue perspective can be embedded within the larger organizational context.

### **A Values and Virtues Perspective on Diversity**

*What we find is that the enduring great enterprises are driven by purpose beyond money and success. That purpose is rooted in core values that they will not compromise.* – Collins (2010, in a seminar)

A pending question that remains is whether a virtue approach to diversity is limited to focussing on the core virtues of the individual employees, or whether it also has implications on a more aggregate or general level. If not, a plausible concern could be that the individual focus might result in incompatible profiles for different job positions and that, as a consequence, the organization operates more as a collection of individuals than as a collective whole (cf. Collins, 2009; Meglino, Ravlin, & Adkins, 1989).

We propose that this is where the importance of (core) business *values* comes in. Business values can be regarded as normative aspects of the (corporate) culture that defines how to do business (Agle & Caldwell, 1999; Barney, 1986). More specifically, values can be defined as “concepts or beliefs about desirable end states or behaviors that transcend specific situations, guide selection or evaluation of behaviour and events, and are ordered by relative importance” (Schwartz & Bilsky, 1987: 551). Whereas virtues thus represent individual qualities that can be enacted upon, values denote what virtues are valued as most important. For example, in the health care sector virtues represents those qualities that are needed in order to pursue excellence in caring, whereas values guide the physician into what he or she should give priority: cost effectiveness or quality of care (cf. van der Wal, de Graaf, & Lawton, 2011). This entails that values may change: over time the focus of an organization may develop and hence alter. Virtues, on the other hand, are stable: no matter if and to what extent quality of care is preferred; when a physician is spending time with patients there is a given set of virtues that will enable him or her to excel in that practice.

In her inventory of more than 20 years of research to high performance companies, Kirby (2005) denoted that a strong set of values is one of the characteristics that such companies have in common (cf. Collins & Porras, 1997). Values related to equality (e.g., inclusiveness) could play an important role in fostering diversity. Indeed, Pless and Maak (2004: 130) argue that the potential of workforce diversity can only be unleashed when a

culture of inclusion is established:

*Diversity is first and foremost, a cultural question and thus a question of norms, values, beliefs and expectations. As such, it is an ethical question and determined by some very essential founding principles of human coexistence. Not before this is taken into consideration, acknowledged and institutionalized, can "diversity management" be successful.*

We therefore coin the approach to managing diversity that we have advanced in this article the "values and virtues perspective". Virtues represent the core aspects of our perspective and involve excellence to be pursued by individual employees within the organization. Values bring focus to and create coherence among the virtues and hence involve excellence to be pursued by the organization (cf. Ibarra-Colado, Clegg, Rhodes, & Kornberger, 2006).

### **Rebuttals to Arguments Against our Values and Virtues Perspective**

Thus having denoted what our values and virtues perspective entails, it is likely that several questions linger. More specifically, one might wonder if our perspective will lead to less prejudice and stereotyping, if it can really enhance equality, and if it really contributes to the bottom-line of organizational performance.

To start with the first, one might argue that ideal types can easily be influenced by stereotypes and hence be biased in favour of majority members. Role congruity theory (Eagly & Karau, 2002), for example, proposes that prejudice is likely to occur when inconsistencies exist between member characteristics (e.g., being female) and the characteristics that are (stereo)typically associated with a certain role or ideal type (e.g., being male for leaders). This illustrates a common criticism against virtue ethics about the likelihood that ideal types are subject to prejudice and bias (e.g., Derry, 1996).

Whereas we agree that such biases may be apparent, we name two reasons why we contend that our values and virtues perspective could reduce prejudice. First, we believe that virtues are less clearly associated with member characteristics than roles – or at least may be more ambiguous in their associations with member characteristics (cf. Kirton & Healy, 2009). In the example of the nurse - which stereotypically is depicted as a feminine role - the virtue of compassion may be categorized as feminine, but the virtue of courage will likely be categorized as masculine. Likewise, the role of an engineer will be easily categorized as masculine, but what about virtues that belong to being an engineer like sensitivity to risk or respect for nature (Harris, 2008)? We do not deem those to be gendered virtues – or, if anything, more feminine than masculine.

Second, the main problem with stereotypes and prejudice is that they generally operate on a sub-conscious level. In order to eradicate stereotypes, we thus first must become aware of the fact that we have stereotypes and that they influence the decision-making

process. The process of delineating virtues forces people to make any beliefs about potential indicators of certain virtues salient, thereby creating better opportunities to falsify stereotypes and focus on individuating information instead. Nevertheless, in the process of identifying the prime virtues and their respective performance indicators for each ideal type, it is of vital importance that not only the dominant coalition but a wide range of employees are involved.

From a deontological stance, a problem with our values and virtues perspective might be that it represents a liberal approach to equality: If inclusiveness or equality is not one of the organization's core values, then how does our perspective enhance the position of minority members?

Next to less bias in selection and appraisal procedures, we believe there are two other ways in which our perspective can enhance equality. First, with its emphasis on delineating an organization's core values, our perspective forces the (top) management team to be more outspoken in whether or not they endorse equality and to align their strategy accordingly (cf. Pless & Maak, 2004). This is all the more important because (top) management support has been found pivotal in enhancing equality in organizations (Kalev, Dobbin, & Kelly, 2006). Our perspective thus can help (top) managers to create an inclusive organization *if* they want to. Second, our values and virtues perspective is not necessarily a substitute for more progressive policies and practices endorsing equality. Indeed, one of the advantages of virtue ethics is that it does not conflict with deontology or utilitarianism and thus can easily be used for complementing, for example, deontological rules and/or requirements (MacIntyre, 2007; cf. González, 2003). Consequently, our values and virtues perspective can be adopted regardless of whether country legislation enforces them to pay attention to equality, and it can be combined with other approaches aimed at promoting equality (e.g., threshold selection, Noon, 2012).

Finally, it may be unclear how exactly our values and virtues perspective may enhance organizational performance. First, we have argued how virtues-centred selection and appraisal procedures may reduce bias. This entails that the assessments of candidates and employees may be less influenced by task-irrelevant criteria but focus more on qualities that contribute to their (potential) job performance. Second, the centrality of an organization's values in our perspective may enhance the alignment of an organization's diversity policy with their strategic aims (cf. Dickens, 1999). In turn, ample research – among others research in HRM – has shown that strategic alignment enhances organizational performance (Becker, Huselid, & Ulrich, 2001; Paauwe, 2004). Third, pro-diversity values are likely to enhance the *social legitimacy of an organization*, which refers to “a generalized perception or assumption that the actions of an entity are desirable, proper, or appropriate within some socially-constructed system of norms, values, beliefs, and definitions” (Suchman,

1995: 574). As such, pro-diversity values may increase the societal support and trust that is needed in order to perform well.

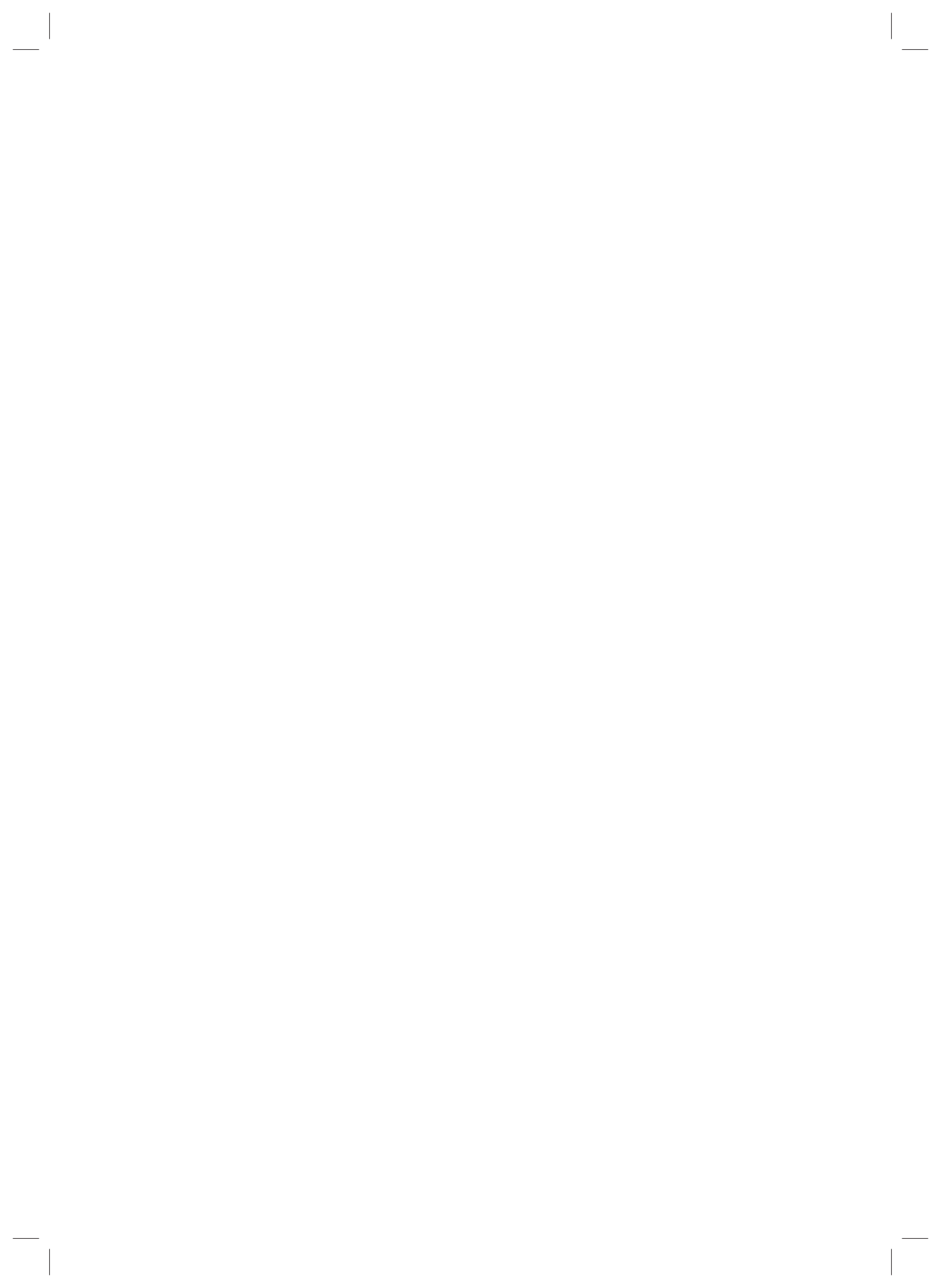
Consequently, in everything it is of utmost importance that organizations carefully 're-think' the values that guide their choices (Albert, Ashfort, & Dutton, 2000). When practiced accordingly, we argue that the organizational actors' enactment of those values by means of practicing virtues could lead to outcomes that are aspired by equality as well as by business case scholars. Note, however, that such prospects about the practical consequences of our values and virtues perspective are tentative. The contribution of this paper is theoretical: Empirical research is needed to substantiate - or falsify - the value of our perspective. In addition, the merit of our perspective is likely to be contingent on the extent to which it diverges from existing practices. Legislative differences across countries have created a wide variety of organizational practices aimed at managing diversity (Mor Barak, 2011). The consequences of our values and virtues perspective will probably be more noticeable when its implications diverge more from current practices.

### **Final Remarks**

In the present paper, we have discussed the contrasts between the equality and the business case perspective on diversity from a moral perspective and reasoned that they are stuck in a stalemate position because they are built on opposing moral perspectives. In practice - and sometimes also in research - the binary between the equality and the business case perspective is often less strong (Tomlinson & Schwabenland, 2010). One of the reasons for this may be that business case scholars sometimes use deontological principles (e.g., in arguing that profitability is a business imperative) and that equality scholars sometimes use utilitarian arguments (e.g., in quoting studies that show that diversity enhances business performance) in building their case (cf. Kirton et al., 2007). We introduced virtue ethics and advanced our values and virtues perspective as a more congruent, context-sensitive and, consequently, more sustainable approach to managing diversity. We posit that our perspective can enhance equality as well as business outcomes. Obviously, these claims need to be put to the test. Our perspective thus opens up venues for empirical research that hopefully push the field forward.

**Footnote**

<sup>1</sup> This is under the assumption that such discrimination leads to ingroup favoritism and thus advantages for majority group members. Equality scholars differ in the extent to which they would favor affirmative action or positive discrimination policies (cf. Liff, 1997; Liff & Dickens, 2000). Equality scholars who emphasize “difference” generally favor such policies because they compensate minority group members for (structural) inequalities (i.e. emphasizing colorful approaches). In contrast, equality scholars who emphasize “sameness” generally reject such policies based on the argument that all people are essentially the same and hence should be treated the same (i.e. emphasizing color-blind approaches).





# CHAPTER 8



**TABLE 1**

*Overview of the chapters in which research questions are (partially) addressed.*

<b>RESEARCH QUESTION</b>	<b>CHAPTER(S)</b>
<b>General Research Question:</b> To what extent and how does work group diversity impact group performance?	<b>2, 3, 4, 5, 6</b>
<b>Research Question 1.</b> To what extent do demographic diversity and job-related diversity in work groups differentially impact group performance?	<b>2</b>
<b>Research Question 2.</b> How and to what extent do status-related processes affect the relationship between work group diversity and group performance?	<b>3, 4, 5, 6</b>
<b>Research Question 3.</b> How and to what extent do stereotypes affect the relationship between work group diversity and group performance?	<b>2, 4, 5, 6</b>
<b>Research Question 4.</b> From a moral perspective, what is the best approach to managing diversity?	<b>7</b>

*Note:* Chapters in **bold** indicate the chapters that most clearly answer the respective research question. The other chapters are mentioned because they provide partial answers to the respective research question.

## DIVERSITY, STATUS, AND PERFORMANCE: DISCUSSION

In Chapter 1, I presented a number of research questions that I aimed to address in my dissertation (see Table 1). In this final chapter I want to reflect upon the extent to which I have provided answers to those research questions in this dissertation.

Research Question 1 (*To what extent do demographic diversity and job-related diversity in work groups differentially impact group performance?*) was addressed in Chapter 2, where a meta-analysis was presented that showed that teams that are diverse in job-related characteristics tend to outperform demographically diverse teams *only* on highly complex and on innovative tasks. Any other differences between demographic and job-related diversity in their relationships with performance can mainly be accounted for by subjective performance ratings of raters external to a team – more objective performance indicators do not support the notion that demographic and job-related diversity have different consequences for in-role performance indicators. We attributed this finding to the predominant stereotypical beliefs about diverse teams: Demographic diversity is (stereo)typically depicted as having a negative impact on performance, whereas job-related diversity is (stereo)typically depicted as having a positive impact on performance. Because external raters interact less frequently with the team (as opposed to team members or leaders who are part of the team), they may be more susceptible to be influenced by such stereotypical beliefs when they assess the performance of diverse teams (Pettigrew & Tropp, 2006). The subsequent chapters built on these findings in that their focus was on the extent to which stereotype- and status-related processes impact the diversity-performance relationship. Whereas Chapter 2 primarily focused on the performance outcomes of work group diversity, the subsequent chapters thus were mainly involved with the group processes and dynamics underlying the diversity-performance relationship.

Chapters 3-6 provided conceptualizations (Chapters 3 and 6) and tests (Chapters 4 and 5) of the extent to which stereotype- and status-related group processes account for the diversity-performance relationship. In the bi-theoretical perspective that diversity researchers commonly used to understand and explain the diversity-performance relationship, stereotype- and status-related processes are absent (e.g., van Knippenberg, De Dreu, & Homan, 2004). Chapter 3 provided a theoretical argument about the role of status in the diversity-performance relationship, and the Status Configuration Process Model (Chapter 6) delineated how stereotype- and status-related processes assume centre stage in the diversity-performance relationship. Individual- (Chapter 4) and group-level (Chapter 5) data from an experiment provide empirical validation for the idea that stereotypical associations with member characteristics create status differences between group members, and that those status differences guide group behaviour and performance. Altogether, these chapters answered Research Question 2 (*How and to what extent do status-related*

*processes affect the relationship between work group diversity and group performance?) and 3 (How and to what extent do stereotypes affect the relationship between work group diversity and group performance?).*

Thus having examined the relationship between work group diversity and group performance and its underlying group processes, Chapter 7 discussed the more meta-level implications of diversity research. From a moral point of view, we argued that the two conventional approaches to managing diversity (i.e. the business case and the equality approach) at least theoretically oppose each other and hence cannot be integrated into a single approach to managing diversity (thereby answering Research Question 4). Moreover, we identified several shortcomings of both approaches and advanced an alternative approach that is based on virtue ethics. The heart of our approach lies in identifying and denoting the virtues (i.e. qualities) that are considered pivotal to a job role or function. In doing so, managers may learn to look beyond their initial and category-based impressions and – instead - recruit, select, train and assess based on virtues. We posited that such a virtues-based approach reduces discrimination and therefore may increase the representation of minorities in the workplace. Moreover, because virtues are supposed to represent those qualities that are required for job performance, we argued that a focus on virtues enable employees to excel in their jobs. Accordingly, we posited that our virtues-based approach reduces discrimination and enhances performance, thereby leading to outcomes that are aspired by equality as well as business case scholars.

Before turning to answering the general research question, I would like to point out some common threads that run through the different chapters. In dissecting the processes underlying the diversity-performance relationship, Chapters 3-6 represent the core of this dissertation, with the SCPM as its pinnacle. Interestingly, there are some commonalities between the findings of the meta-analysis and the SCPM, and between the SCPM and the virtues approach that have not been discussed in the individual chapters. I will therefore discuss those commonalities here.

### **Diversity Clusters and the SCPM**

The dichotomy between demographic- and job-related diversity (see Chapter 2) threatens to divide diversity research into different research domains, each involved with different processes and outcomes: Whereas information/decision-making processes tend to be mainly related to job-related diversity, social categorization processes tend to be mainly related to demographic diversity. Because the information/decision-making perspective traditionally accounts for diversity's positive consequences and the social categorization perspective for diversity's negative effects, conventional wisdom in the field suggests that job-related diversity is the domain of positive performance, whereas demographic dimen-

sions of diversity is the domain of negative performance effects (Horwitz & Horwitz, 2007; Joshi & Roh, 2009; Webber & Donahue, 2001). In their recent meta-analysis of the diversity-performance relationship, Bell, Villado, Lukasik, Belau, and Briggs (2011: 730) even argue that each dimension (here: variable) of diversity (e.g., age, gender, functional background) should be studied independently:

*Making statements that suggest diversity is “good,” “bad,” or unrelated to team performance without specifying the variable of interest and the way in which diversity is conceptualized, is a flawed approach.*

More and more, researchers thus tend to suggest that there is no use in studying the consequences of work group diversity in general: Different clusters (demographic, job-related, deep-level) and/or dimensions (e.g., age, ethnicity, tenure) of diversity are thought to be involved with different processes and outcomes.

The theory and empirical results that are presented in this dissertation warrant against such an understanding of diversity's consequences<sup>1</sup>. Of course, the data that speaks most directly to this issue is the meta-analytical comparison between the effects of demographic and of job-related diversity on group performance. However, on a more fundamental level the SCPM provides a strong argument against the idea that different clusters and/or dimensions of diversity are involved with different processes and hence should be studied separately. Instead of attributing different diversity-performance outcomes to differences between clusters and/or dimensions of diversity, the SCPM points at the role that context plays in accounting for differences in diversity-performance relationships: The task-role stereotypes that depict the supposedly ideal or prototypical worker are likely to differ per task. For example, it is likely that educational background is not a salient characteristic in the task-role for football players, but that age and physical appearance are. In contrast, physical appearance may only to a limited extent be a salient characteristic in the task-role for computer experts, but age and - in particular - educational background likely are. As a consequence, a dimension or cluster of diversity may have more of an impact on outcomes like group performance in some task contexts than in other task contexts.

I thus oppose the idea that different processes underlie the effects of different diversity clusters or dimensions and that each cluster or dimension of diversity should be studied independently. This is however not to say that I believe each cluster or dimension of diversity to yield similar consequences. Because some characteristics (e.g., gender) are more prone to becoming subject of task-role stereotypes than other characteristics (e.g., length), it is likely that characteristics that are liable to be part of task-related stereotypes will be more consequential than characteristics that are not. Moreover, there may be a direct linear relationship between a characteristics' liability to stereotyping and the extent to which stereotypical attributions are inaccurate. Think, for example, of gender, which is

the characteristic that is most susceptible to being part of task-role stereotypes. Whereas there was a mass increase in the representation of women in the global workforce in the past decades, most task-role stereotypes are persistent in depicting men as the prototypical or ideal workers (Eagly, 1987; Nelson, Acker, & Manis, 1996). Try to think of the gender that is typically associated with different types of jobs – I find it much easier to think of jobs that depict men as the prototypical worker than of jobs that are stereotypically associated with female workers. Different relationships of dimensions of diversity with group performance may therefore very well be caused by their liability to being part of task-role stereotypes: If it is true that characteristics that are prone to stereotyping are more likely to lead to inaccurate attributions, then based on the SCPM it follows that stereotype-prone characteristics are more likely to be related to reduced performance than characteristics that are less likely to become the subject of task-role stereotypes. Given that demographic characteristics such as gender and ethnicity tend to be more susceptible to be part of task-role stereotypes than job-related characteristics such as tenure and functional background, demographically diverse teams may be met with more suspicion than teams that are diverse in job-related characteristics.

These potentially different impacts that different dimensions of diversity may have on performance do however not suggest that different dimensions are involved with different processes. It just implies that some dimensions of diversity are more likely to fall prey to, for example, social categorization processes than other dimensions of diversity. This dissertation thus indicates that different dimensions of diversity all are susceptible to the same processes and that, consequently, one model can cover the basic processes that explain the consequences of different dimensions of diversity.

### **Seeing the SCPM Through an Ethical Lens**

Task role is a central concept in the SCPM as well as in the virtues approach (Chapter 7). The difference is that in the SCPM task role *stereotypes* are the topic of scrutiny, whereas task role *prototypes* are key to understanding the virtues approach. This difference may be somewhat confusing, but distinguishing between the two leads to interesting insights for the SCPM.

Task-role stereotypes delineate people's individual beliefs and ideas about what the ideal or prototypical worker would (and should) look like and how he or she would (and should) behave (cf. Biddle, 1986; Eagly, 1987). Task-role prototypes delineate a shared idea about what the ideal or prototypical worker would (and should) look like and how he or she would (and should) behave. Whereas task-role stereotypes thus represent (subconscious) subjective conceptions that may differ between individuals, task-role prototypes are more objective descriptions of the ideal worker for the task that has been the topic of

discussion and is agreed-upon by a wide variety of stakeholders. In our virtues approach, we have argued that during the process of agreeing upon the task-role prototype, task-role stereotypes are shared, discussed, and falsified where needed, thus reducing the likelihood of discrimination (see Chapter 7). The SCPM however suggests that such a process of scrutiny in work groups may also enhance group performance by shaping more accurate status configurations.

According to the SCPM, status configurations are for a large extent based on a comparison between people's social roles and task-role stereotypes: The higher the level of role congruency, the higher a person's status is (cf. Eagly & Karau, 2002). Status configuration *accuracy* (the extent to which group members' relative status truthfully reflects their respective levels of task competence) is an important moderator of the relationship between a work group's status configuration and group performance, with more accurate perceptions of a group's status configuration leading to higher levels of performance. The extent to which a status configuration is accurate is likely to depend on the accuracy of a person's task-role stereotypes. If group members inaccurately think that, for example, male group members are more competent at a task at hand, then the male group members will mistakenly rank higher on the status configuration pertaining to that specific task. In the process of converting individually-held, subconscious task-role stereotypes into group-level shared conceptions of task-role prototypes, it is likely that status configurations will be more accurate and hence enhance group performance.

### **Work Group Diversity: What You See is What You Get**

That having said, it is time to look at the General Research Question of this dissertation: *To what extent and how does work group diversity impact group performance?* After four years of studying this topic that resulted in the previous six chapters, my conclusion and answer to this question is the following:

*Diversity is what you make of it.*

There are a number of observations that contribute to this conclusion.

First, the findings from our meta-analysis (Chapter 2) suggest that the conventional wisdom about the differential effects of demographic and job-related diversity has been built on popular beliefs. More objective assessments of performance do not indicate there to be significant differences between the consequences of demographic and job-related diversity. It is likely that the large proportion of diversity studies that used performance ratings provided by raters external to the team have created the impression among diver-

sity researchers that demographic and job-related diversity do differentially impact group performance. It may thus very well be that diversity research has contributed to this false belief. Given the effect that expectations and attributions can have on behaviour and performance (see my next point), it is an interesting question to what extent this false belief (about the negative performance effects of demographic diversity and the positive performance effects of job-related diversity) has influenced diverse work groups.

Second, the multilevel analysis of our experiment (Chapter 4) indicates that stereotype- and status-related processes tend to function in a self-fulfilling fashion: Group members who are confronted with negative stereotypes are generally attributed a lower status ranking, which tends to result in more submissive behaviour and reduced performance. In contrast, high-status rankings are the result of positive stereotypes, which tend to result in more dominant behaviour and enhanced performance. The group-level analysis of our experiment (Chapter 5) shows that these stereotype- and status-related processes impact group performance: Status predicts influence, and influence predicts group members' impact on group performance (see also the SCPM, Chapter 6).

Third, the multilevel analysis of our experiment (Chapter 4) shows that the self-fulfilling effects of stereotype- and status-related processes can be attenuated by diversity beliefs. This entails that the influence of some processes underlying the diversity-performance relationship can be altered – or at least on the individual level. What this suggests is that, although persistent, stereotypes can be changed and/or that people can choose not to act upon stereotypes. Note that this corresponds with other research to diversity beliefs, which indicates that the performance of diverse groups tends to be enhanced when people value diversity (e.g., Homan, van Knippenberg, van Kleef, & De Dreu, 2007; van Dick; van Knippenberg, Hagele, Guillaume, & Brodbeck, 2008; van Knippenberg, Haslam, & Platow, 2007).

Finally, our SCPM (Chapter 6) suggests that task-role stereotypes to a large extent determine and shape the interactions of diverse groups. Because task-role stereotypes can be scrutinized and replaced by task-role prototypes that are likely to yield more accurate status configurations (Chapter 7), the consequences of work group diversity are not necessarily a given: They can be moulded and changed.

Before I discuss the implications for theory, research and practice of this dissertation and conclusion, I will discuss its limitations.

### **Limitations**

In contending that diversity is what you make of it, there are two inherent self-criticisms when it comes to the meta-analysis. The first is that we didn't measure or manipulate people's diversity beliefs (or the diversity climate in those organizations; Shore, Randel, Chung,

Dean, Ehrhart, & Singh, 2011). It may be that, for example, predominant beliefs against demographic diversity and in favour of job-related diversity affected the outcomes in an unknown way. It is therefore recommended that future meta-analytical examinations of the diversity-performance relationship include diversity beliefs as a moderator. However, Stegmann (2011) concluded in a recent attempt that there were not yet enough primary studies that included diversity beliefs for conducting such a meta-analysis. It may therefore be needed to wait a few more years for conducting such a meta-analysis.

Second, the contention that diversity is what you make of it raises the question what value should be attributed to the outcomes of our meta-analysis. That is, if diversity-performance relationships can change over time, then what is the value of our current meta-analytical findings? From a predictive point of view, the value may be limited – or even non-existent: If people will value diversity differently in the years to come, it may very well be that such a change will impact the diversity-performance relationship. Being the most comprehensive meta-analysis of the diversity-performance relationship to date, our current meta-analysis however does provide interesting and useful information about the current state of the science – and an interesting benchmark for a follow-up study.

A final limitation of this dissertation is that no field data has been gathered about the role of stereotype- and status-related processes in the diversity-performance relationship. Of course, the SCPM is designed to be context-sensitive and is thus meant to be applicable across a wide range of (organizational) settings where diverse groups work together on specific tasks. However, the SCPM has mainly been developed based on studies that have been conducted in the lab (e.g., Chapter 4 and 5). The applicability of the SCPM to (various) organizational contexts thus remains speculative until it is empirically verified.

### **Implications for Theory and Research**

Notwithstanding these limitations, there are a number of implications from this dissertation for (diversity) theory and research. Many implications have been discussed in the previous chapters, therefore I would like to limit the theoretical implications here to the ones that have not been mentioned earlier. Of course, one of the main implications of this study for diversity research is that stereotype- and status-related process in diverse groups matter! But there is a more fundamental argument to make here: This dissertation shows the importance of taking a multidisciplinary approach to understanding (work group) diversity. The chapters on the role of stereotype- and status-related processes in accounting for the consequences of work group diversity already show the contribution of a multidisciplinary approach, but this point is perhaps best conveyed by Chapter 7. By using moral theory to dissect the debate between equality and business case scholars, we were able to point at the core differences between their respective approaches to managing diver-



sity and provide an alternative approach. Diversity is a complex theme that, somewhat depending on the specific research question of interest, can only be properly understood by considering and combining insights from, Organizational Psychology, Social Psychology, Sociology, Ethics, Law, and (Human Resource) Management – among others (cf. Plaut, 2010). I hope that this dissertation inspires researchers to take the time to explore what they can learn from other disciplines for their research.

Second, in particular our multilevel analysis of the experiment (Chapter 4) and – to a lesser extent - the SCPM point out that individual- and group-level phenomena both have a strong impact on the diversity-performance relationship. Without understanding what the influence of status is at the individual and subgroup level, I would not have been able to comprehend the impact that status could have on the behaviour and performance of diverse groups. Likewise, stereotyping is a topic that is generally studied on the intrapersonal or dyadic level. Understanding how stereotypes qualify group-level processes thus requires a comprehension of the consequences of stereotypes at the individual level.

The first implication of this is that our conceptualizations of the consequences of diverse work groups may require some pinpointing down to the individual level. Vice versa, understanding what happens at the individual level within diverse groups requires an understanding of how group dynamics and behaviour influence individual group members. Any theorizing about individual or group performance needs to take such top-down and bottom-up processes into account. Second and related, it is important that empirical studies to the consequences of diversity accordingly, i.e. by conducting cross-level analyses. Now that the methods for conducting multilevel analyses are becoming increasingly sophisticated yet easy to use, the field would benefit from studies that adopt a multilevel approach.

Last but – certainly – not least, the contention that diversity is what you make of it suggests that (the lack of) diversity management practices can have a relatively large impact. Here it is interesting to note that an experiment by Chatman, Boisnier, Spataro, Anderson and Berdahl (2008) that was comparable to our multilevel analysis of the experiment (Chapter 4) yielded results that were similar to the pro-similarity condition. This suggests that pro-similarity is the default belief and that proactive diversity management is needed for instilling pro-diversity beliefs and/or a climate for inclusion (Shore et al., 2011). The good news here is that much research has already been conducted to benevolent diversity management practices (e.g., Kalev, Dobbin, & Kelly, 2006). However, the bad news – and potentially the cause of the good news – is that research to the effects of diversity management practices is rather oblique (Pendry, Driscoll, & Field, 2007). This may not come at too much of a surprise given that in this dissertation I have argued that our understanding of diversity's consequences to date has been limited. Stereotype- and status-related pro-

cesses have been largely ignored in earlier theories on the diversity-performance relationship, and thus are likely to have been absent in theorizing on effective diversity management practices. A possible venue for future research is therefore to apply the insights on stereotype- and status related processes as advanced in this dissertation to the literature on managing (work group) diversity.

### **Practical Implications**

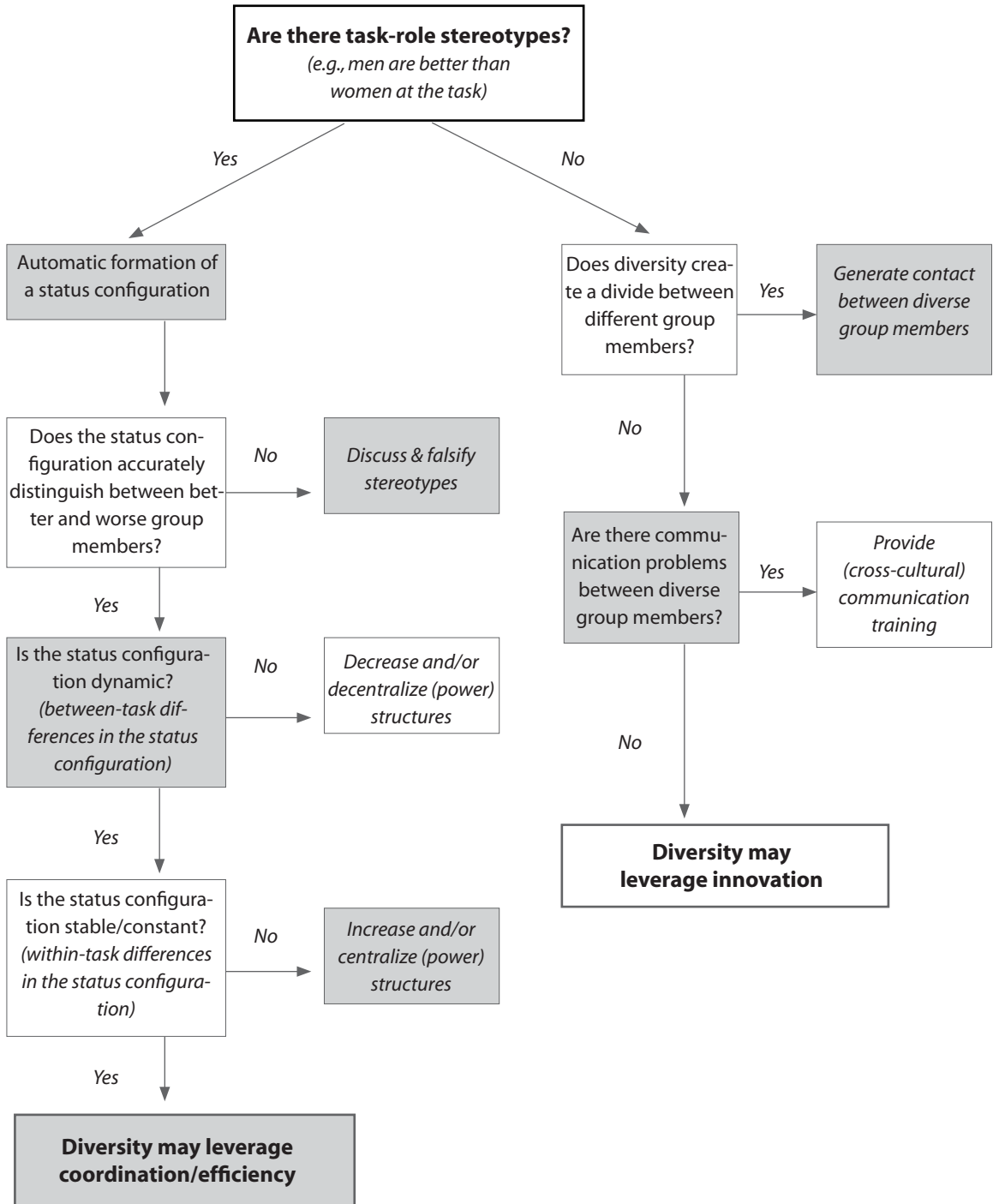
Following my previous suggestion, I have created a decision tree for (HR) managers based on the insights advanced in this dissertation (see Figure 1). The decision tree shows the specific interventions that may be useful when difficulties are encountered in managing and working with diverse teams.

The first question to be asked is whether or not there are task-role stereotypes: Do group members tend to believe that people with certain characteristics (e.g., male, short, Master of Science, conscientious,  $x$  years of experience) than people lacking those characteristics? Depending on whether the answer to this question is yes (and provided that group members differ on those characteristics), it is likely that there is a status configuration that delineates the status differences between group members. If the status configuration (a) accurately reflects differences in task-competence between group members, (b) differs between tasks, but (c) is constant within tasks, then diversity may leverage coordination and efficiency within the work group.

However, if the status configuration does not accurately distinguish between better and worse group members (condition a – see the status configuration state of ignorance in Chapter 3), then the task-role stereotypes are at fault and need to be falsified. A notable way in which this can be done is by organizing a discussion of the virtues that are required for task performance with all group members (see Chapter 7). If the status configuration does not differ between tasks (condition b – see the status configuration state of suppression in Chapter 3), then this suggests the presence of a halo effect in which group members expect high-status group members who are competent at certain tasks to be competent at other tasks as well. Of course, it may be that one or several group members are the most competent group members at all group tasks and therefore constantly rank highest in different status configurations. If, however, there are no between-task differences in the status configuration whereas there are between-task differences in group members' relative levels of competence, then it may very well be that there are (power) structures in place that enhance or leverage the influence of high-status group members over lower-status group members (Lichtenstein, Alexander, McCarthy, & Wells, 2004; cf.

**FIGURE 1**

*A decision tree about interventions for the management of diverse teams.*



French & Raven, 1959). Consequently, (power) decentralization may be the key to change in these groups. Interestingly, for work groups that are confronted with an unstable status configuration (condition c – see the status configuration state of conflict in Chapter 3), the problem and corresponding solution may be the reverse: Because within-task differences in status configurations are likely to cause diffusion and conflict about who is responsible for what, in such groups some (power) structures may be needed in order to provide clarity on who is responsible and accountable for what aspects of the task (cf. Groysberg, Polzer, & Elfenbein, 2011).

To the extent that differences between group members are incongruent with task-role stereotypes, our decision tree suggests that these differences may leverage innovation if (i) the differences do not create a divide (i.e., subgroups) between group members belonging to different categories and (ii) there are no communication problems between diverse group members. With regard to the possibility of subgroup formation (condition i), the problem there is that the creation of subgroups can lead to various sorts of biases against outgroup members and in favour of ingroup members (Haslam, 2004). Stimulating and facilitating contact between diverse (sub)group members can attenuate such effects (Pettigrew & Tropp, 2006). But even if there is no such division in subgroups between diverse group members, it may be that there are communication problems between diverse group members (condition ii). The causes of such communication problems may vary, ranging from straightforward language barriers in cross-cultural teams to being accustomed to different jargons in cross-functional teams or differences in expressing oneself due to differences in personality. (Cross-cultural) communication training may help to bring messages across when communicating and interacting with diverse group members.

For work groups that are in the state of synergy (i.e., where certain values or categories of member characteristics are valid proxies for expertise or leadership and diversity leverages coordination, efficiency, and/or innovation – see Chapter 3), from a distributive justice point of view practitioners may want to (formally) recognize those informal status differences. They should however be careful of institutionalizing status differences that are linked to different values or categories of member characteristics because it (a) triggers social categorization processes, and (b) increases the possibility of status configuration inaccuracy and illegitimacy.

Consider the example of age as an indicator of experience. When age is connected to something as salient as a position, a faultline is created that, because of the relationship between differences in the value or category of a member characteristic and (formal) differences in status, increases the likelihood that social categorization processes obtain (Lau & Murnighan, 1998). But even if age in general is an accurate indicator of experience or expertise, it does not automatically imply that older team members contribute more to

team performance than younger team members (i.e., in the case of status inaccuracy). Hence, when age becomes a determinant of one's position or pay level, this can easily lead to perceptions of injustice (status illegitimacy) - particularly among younger employees who are paid less but perform on par with the older employees. Practitioners are therefore advised to avoid any structural differentiation between team members in status based on different values or subcategories in demographic, job-related or deep-level member characteristics. As argued in Chapter 7, a much better alternative is the differentiation between group members based on their acquisition and mastery of (task-)relevant virtues. I contend that for a work group, those are the most important differences.

### **Conclusion**

Diversity is consequential. But what exactly are those consequences? My dissertation has improved our understanding of the implications of (work group) diversity that – hopefully – push the field forward. In particular the SCPM provides researchers with possible venues for future research. For practitioners, my conclusion that *diversity is what you make of it* contains a promise as well as a threat. However, I believe that the SCPM as well as the values and virtues approach that I advanced in this dissertation provide practitioners with insights and tools to reap the promises of diversity.

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### **Footnote**

1. Of course, many dimensions of diversity (e.g., gender, ethnicity) have idiosyncratic socio-cultural histories that provide different and unique content to each of those diversity dimensions (e.g., Plaut, 2010). However, in the following sentences I argue that the key to understanding and accounting for these idiosyncratic histories and qualities of diversity dimensions is by understanding the context in which diversity is studied.



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# SAMENVATTING



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In hoeverre werken teams die bestaan uit mannen en vrouwen op een andere manier dan teams die bestaan uit enkel mannen of enkel vrouwen? Presteert een team met mensen uit verschillende landen beter dan een team dat bestaat uit mensen die allemaal uit hetzelfde land komen? Wat zijn de voor- en nadelen van een team dat bestaat uit een mix van medewerkers met veel en met weinig ervaring?

Onderzoek naar de gevolgen van diversiteit (verschillen tussen mensen) in een team en in een organisatie probeert antwoord te geven op dit type vragen. Het onderzoek naar dit thema heeft de laatste decennia een grote vlucht genomen. Hiervoor zijn drie redenen te noemen. De eerste is dat de werkende populatie steeds diverser wordt: Enkele decennia geleden was de typische werknemer in Nederland een blanke man. De globalisering en de arbeidsdeelname van vrouwen hebben er echter voor gezorgd dat veel werknemers niet meer aan dit (stereo)typische beeld voldoen. De tweede reden is dat er steeds meer wordt gewerkt in teamverband en dat verschillende mensen dus steeds vaker met elkaar moeten samenwerken. De derde reden waarom er meer onderzoek wordt gedaan naar de gevolgen van diversiteit in een team en in een organisatie is omdat eerder onderzoek geen duidelijk beeld schiep over de mate waarin diversiteit in teams van invloed is op de team prestaties. In deze dissertatie richt ik mij op de vraag of, en zo ja waarom team prestaties worden beïnvloedt door diversiteit in teams.

### **Diversiteit en Team Prestaties**

Ten eerste heb ik mij gericht op de vraag óf er een relatie bestaat tussen team diversiteit en team prestaties. Eerder onderzoek gaf een onduidelijk beeld in hoeverre diversiteit in teams een positieve of negatieve uitwerking heeft op team prestaties. Op basis van het similarity/attraction paradigma (Byrne, 1971) en het sociale categorisatie perspectief (Tajfel & Turner, 1986) werd verondersteld dat diversiteit een negatieve invloed heeft op team prestaties. De gedachte hierachter is dat mensen geneigd zijn om andere mensen in te delen sociale categorieën en een voorkeur te hebben voor omgaan en samenwerken met mensen die tot dezelfde sociale categorie behoren als zij. Hoe meer teamleden op elkaar lijken, hoe soepeler en beter de samenwerking. Omgekeerd betekent dit dat op basis van het sociale categorisatie perspectief wordt verwacht dat een grotere mate van diversiteit leidt tot meer onbegrip en conflict. Haaks hier tegenover staat het informatie/besluit perspectief (Hinsz, Tindale, & Vollrath, 1997), welke stelt dat beslissingen beter worden naarmate er meer en betere informatie voorhanden is. Omdat mensen die van elkaar verschillen vaak ook andere achtergronden en zienswijzen hebben, kan er op basis van het informatie/besluit perspectief worden verwacht dat diversiteit in teams samenhangt met de rijkheid aan informatie in het team: Hoe meer diversiteit, hoe groter de rijkheid aan

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informatie, en hoe beter het potentieel om tot goede beslissingen te komen.

Nadat in de jaren '90 duidelijk werd dat er geen eenduidig directe relatie was tussen team diversiteit en team prestaties en dat dus noch het ene, noch het andere perspectief werd bevestigd, zijn onderzoekers onderscheid gaan maken tussen demografische en taakgerelateerde diversiteit. Men veronderstelde dat demografische diversiteit in teams (bijvoorbeeld geslacht, ethniciteit, leeftijd) vooral gerelateerd is aan sociale categorisatie en dus voornamelijk negatieve gevolgen heeft. Daarentegen verwachtte men dat taakgerelateerde diversiteit in teams (bijv. werkervaring, beroep) voornamelijk zou samenhangen met een rijkheid aan informatie in het team en dus behoort te leiden tot betere team prestaties. Andere studies leken deze conclusies echter te weerleggen. De eerste studie van deze dissertatie doet verslag van een meta-analyse, oftewel een kwantitatieve synthese van het bestaande onderzoek naar team diversiteit en team prestaties. Via deze meta-analyse was erop gericht om een antwoord te geven op de volgende vraag:

*Hebben demografische en taakgerelateerde diversiteit een verschillende uitwerking op team prestaties, en welke indicatoren zijn van invloed op deze relatie?*

Om deze vraag te beantwoorden, hebben we 146 studies geanalyseerd die gaan over de relatie tussen team diversiteit en team prestaties (zie hoofdstuk 2). Op basis daarvan hebben we aangetoond dat de verschillende uitkomsten voor demografische en taakgerelateerde diversiteit voor een groot deel kunnen worden verklaard door wie de prestaties van de teams beoordeelt: Wanneer de prestaties van een team objectief worden bepaald, is er geen verschil tussen teams die divers zijn in demografie of taakgerelateerdheid. Hetzelfde geldt voor teams waarbij de prestaties worden beoordeeld door de teamleden of door teamleiders die onderdeel zijn van het team. Wanneer de prestaties van teams echter worden beoordeeld door teamleiders of andere beoordelaars die niet onderdeel zijn van het team, zien we dat demografisch diverse teams slecht presteren en dat taakgerelateerde diversiteit positief samenhangt met team prestaties.

Deze bevinding komt overeen met onze verwachtingen gebaseerd op onderzoek naar de invloed van stereotypes op de percepties van mensen, welke aantoonde dat de percepties van mensen meer beïnvloed worden door stereotypes naarmate ze minder bekend zijn met de persoon of groep in kwestie. Aangezien de stereotype verwachting is dat demografische diversiteit een negatieve invloed heeft en taakgerelateerde diversiteit een positieve invloed (Joshi & Roh, 2009), is het dus goed mogelijk dat beoordelaars welke een team niet goed kennen zich eerder laten leiden in hun beoordelingen door hun stereotypische indruk gebaseerd op de samenstelling van een team dan beoordelaars die onderdeel zijn van een team.

De invloed die stereotypische verwachtingen van beoordelaars hebben op de relatie tussen diversiteit en team prestaties hadden me aan het denken gezet over de veronderstellingen in diversiteitsonderzoek aangaande de groepsprocessen. Kon het niet zo zijn dat stereotypes binnen teams ook van invloed zijn op de prestaties van (diverse) teams? Deze vraag deed mijn aandacht verschuiven van de uitkomsten van diversiteit in teams naar de groepsprocessen in diverse teams.

### **Groepsprocessen in Diverse Teams**

Veel sociaal-psychologisch en sociologisch onderzoek toont aan dat mensen geneigd zijn om mensen een status toe te kennen aan de hand van hun eigenschappen (Correll & Ridgeway, 2003), en dat deze status vervolgens van invloed is op zijn of haar gedrag en prestaties (Wittenbaum & Bowman, 2005). Op basis van onze stereotypes hebben mannen bijvoorbeeld over het algemeen een hogere status in organisaties dan vrouwen, en autochtonen een hogere status dan allochtonen. Onderzoek naar diversiteit had echter geen aandacht besteedt aan deze literatuur over status: Het sociale categorisatie perspectief en het informatie/besluit perspectief besteedden niet of nauwelijks aandacht aan de rol die status mogelijk zou kunnen spelen in het groepsproces van diverse teams. De belangrijkste onderzoeksvraag voor dit deel van mijn dissertatie was dan ook:

*“Wat is de rol die status heeft in de relatie tussen de samenstelling van een (divers) team en team prestaties?”*

De zoektocht naar het antwoord op deze vraag mondde uit in een *status perspectief op diversiteit*. Allereerst hebben we dit status perspectief uiteengezet in een conceptueel raamwerk (zie hoofdstuk 3). Aan de hand van sociaal-psychologisch en sociologisch onderzoek naar status stellen we in dit hoofdstuk dat verschillen tussen mensen min of meer automatisch leiden tot status verschillen, en dat status verschillen van invloed zijn op de manier waarop groepsleden zich gedragen en presteren. We veronderstelden dat status verschillen in principe een positieve uitwerking op team prestaties hebben: Ze zorgen voor een heuristische rangorde, welke we een *status configuratie* noemen. Deze status configuratie verschaft duidelijkheid over wie de expert in het team behoort te zijn. We argumenteren echter dat of deze status configuratie ook daadwerkelijk een positieve uitwerking heeft op de prestaties van een team afhangt van de mate van status accuraatheid (is de beoogde expert daadwerkelijk een expert), status legitimiteit (is men het ermee eens dat de persoon die als expert wordt gezien ook echt die status heeft), en stabiliteit (kan men gemakkelijk de status van expert verwerven of kwijtraken).

Een aantal van de veronderstellingen in ons status perspectief op diversiteit testten



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we vervolgens aan de hand van experimenten met studenten die in een groep een taak samen maakten. Deze groepen bestonden uit vier mannelijke en vrouwelijke studenten (en dus divers waren op het gebied van geslacht) en werkten aan een 'typisch mannelijke' (rekenen) of 'typisch vrouwelijke' (emoties herkennen) taak. Om iemands status te meten, vroegen we aan de deelnemers om de taak competentie van de anderen te schatten. Doordat we het gedrag van de teamleden registreerden met videocamera's, konden we hun gedrag en individuele prestaties binnen het team analyseren. Deze individuele prestaties konden we vergelijken met objectieve data die we eerder hadden verzameld over ieder's individuele vaardigheid wat betreft de taak waaraan ze in de groep moesten werken.

In het eerste experiment (zie hoofdstuk 4) keken we naar het gedrag en de prestaties van het individu in de groep. We veronderstelden dat groepsgenoten vanaf het begin een hoge of een lage status zou worden toegewezen op basis van hun sekse: Een hoge status wanneer hun sekse overeen komt met het type taak (mannelijk – rekenen, vrouwelijk – emoties herkennen), en een lage status wanneer dat niet zo is (Eagly & Karau, 2002). Vervolgens veronderstelden we dat status een voorspeller zou zijn van gedrag en prestaties: Hoe hoger iemands status, hoe zelfverzekerder die persoon zich zou gedragen en hoe beter die persoon ook zou presteren. Al deze veronderstellingen werden bevestigd door de data.

In het tweede experiment (zie hoofdstuk 5) keken we naar de prestaties van het team. Volgens het informatie/besluit perspectief presteren diverse teams vooral goed wanneer ze veel informatie met elkaar uitwisselen doordat op die manier de informatie gedeeld wordt (van Knippenberg, Homan, & De Dreu, 2004). Onderzoek naar status toont echter aan dat bij informatie uitwisseling er vaak meer aandacht uitgaat naar informatie die gedeeld wordt door mensen met een hoge status dan naar informatie die gedeeld wordt door mensen met een lage status. Zodoende veronderstelden wij dat de uitwisseling van informatie enkel voordelig zou zijn wanneer de persoon met de hoogste status in een team ook daadwerkelijk de inhoudelijke expert van het team was. Indien de persoon met de hoogste status niet het meest competente groeplid was, veronderstelden we dat team prestaties juist zouden lijden onder meer uitwisseling van informatie. Ook deze veronderstellingen werden bevestigd.

Beide experimenten boden zodoende bewijs voor ons status perspectief op diversiteit en toonden aan dat het status perspectief inzicht geeft in de groepsprocessen van diverse teams. Een belangrijke vraag die nog opgelost moest worden, was hoe het status perspectief samenhangt met het sociale categorisatie en het informatie/besluit perspectief. We hebben zodoende een geïntegreerd conceptueel model ontwikkeld dat het groepsproces weergeeft via welke team diversiteit een positieve dan wel negatieve invloed heeft

op diversiteit (zie hoofdstuk 6). Hierin veronderstellen we dat een status configuratie ontstaat op basis van sociale categorisatie, en dat informatie uitwisseling en besluitvorming gebaseerd is op de status configuratie: Hoe hoger iemands status, hoe meer invloed die persoon heeft op het informatie uitwisselings- en besluitvormingsproces. Volgens ons conceptueel model is de status configuratie dus hét centrale begrip dat duidt hoe groepsprocessen in diverse teams positieve dan wel negatieve gevolgen kan hebben. Dit conceptuele model biedt zodoende zowel duidelijkheid over de groepsprocessen die spelen in diverse teams als suggesties voor toekomstig onderzoek om ons begrip van de gevolgen van diversiteit voor het functioneren van teams te vergroten.

### **Een Nieuwe Benadering van Diversiteit in Organisaties**

Ten derde heb ik mij verdiept in de vraag wat we kunnen doen met de uitkomsten van diversiteitsonderzoek. Er kan in de diversiteitsliteratuur onderscheid gemaakt worden tussen twee verschillende benaderingen: De “business case” benadering en de “gelijkheids” benadering. De eerste beschouwt diversiteit als iets waar organisaties gebruik van kunnen en moeten maken (Ely & Thomas, 2001). Volgens deze benadering functioneren teams en organisaties het beste wanneer medewerkers elkaar aanvullen. Aan de hand van de business case benadering dient diversiteitsonderzoek dus voornamelijk te duiden op welke manier diversiteit leidt tot betere resultaten. De gelijkheids benadering beschouwt diversiteit als iets wat door organisaties beschermd moet worden (Zanoni, Janssens, Benschop, & Nkomo, 2007). Doordat sommige groepen (bijv. vrouwen, buitenlanders) van nature een lagere status hebben dan andere groepen (bijv. blanke mannen), worden mensen met een lagere status op verschillende vlakken gediscrimineerd en mensen met een hogere status voorgetrokken. Volgens deze benadering is diversiteit zodoende niet iets dat van nature tot stand komt of wordt gewaardeerd, en is het tevens mogelijk dat diversiteit negatieve gevolgen heeft omdat niet al het talent gezien en benut wordt.

Aanhangers van de gelijkheids benadering beschouwen de business case benadering over het algemeen als minder ethisch (Noon, 2007). Om te onderzoeken of dit echt zo is, heb ik gekeken naar de ethische onderbouwing van beide benaderingen. De onderzoeksvraag voor dit laatste deel van mijn proefschrift was:

*“Wat is een goede benadering voor het omgaan met diversiteit vanuit een ethisch perspectief?”*

Om deze vraag te beantwoorden, hebben we eerst de twee benaderingen vergeleken met de twee ethische perspectieven die het meest gangbaar zijn in de toegepaste ethiek: Utilitarianisme en deontologie (zie hoofdstuk 7). Volgens het utilitarianisme is iets goed

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wanneer het leidt tot goede resultaten. Deontologie staat hier haaks tegenover door te stellen dat of iets goed is niet wordt bepaald door de uitkomsten, maar door principes: iets is goed wanneer iemand handelt volgens algemeen geaccepteerde principes of regels (bijv. behandel een ander zoals je zelf behandeld wil worden). We hebben gesteld dat de business case benadering hoofdzakelijk gestoeld is op utilitarianistisch denken en dat de gelijkheids benadering hoofdzakelijk gestoeld is op het deontologisch gedachtengoed: Bij de business case benadering is het centrale uitgangspunt immers dat diversiteit geacht wordt tot positieve gevolgen te leiden, terwijl bij de gelijkheids benadering het principe centraal staat dat elk persoon gelijkwaardig behandelt dient te worden. Doordat in de ethiek utilitarianistisch en deontologisch denken haaks op elkaar staan en ze niet kunnen worden geïntegreerd in één coherent ethisch perspectief, beargumenteren wij in het eerste deel van dit hoofdstuk dat de business case benadering niet kan worden geïntegreerd met de gelijkheids benadering.

In het tweede deel van dit hoofdstuk bieden wij een alternatieve benadering: De *waarden en deugden* benadering. Deze benadering is gestoeld in de Aristoteliaanse deugden ethiek. Volgens dit ethische perspectief is iets goed wanneer er wordt gehandeld volgens bepaalde deugden, zoals voorzichtigheid, verstandigheid, moed. We beargumenteren dat diversiteit niet zozeer in demografische of taakgerelateerde aspecten gezocht dient te worden, maar in deugden: Wanneer deugden meer centraal staan in organisaties, zou sociale categorisatie minder (negatieve) gevolgen hebben omdat deugden zich moeilijker laten stereotyperen dan demografische kenmerken. Daarnaast zou een nadruk op deugden leiden tot een meer optimale person-job fit. Doordat verschillende posities andere deugden vereisen, is een gevaar van deugdenethiek dat er teveel verscheidenheid ontstaat. Dit kan worden opgevangen door organisatiebrede waarden in te stellen. Deze waarden zorgen voor coherentie over de breedte van de organisatie – en dus ook tussen teamleden, ongeacht hoe verschillend ze van elkaar zijn.

### **Conclusie**

Diversiteit in teams leidt tot een complexe samenhang van sociale categorisatie, status en besluitvormings processen die gezamenlijk prestaties van teams beïnvloeden. Een goed begrip van de gevolgen van diversiteit in teams en organisaties en een goede manier om diversiteit in teams te managen vergt een multidisciplinaire benadering. Dit is een belangrijke uitdaging gegeven dat de wetenschap een hoge mate van segregatie kent.





## ABOUT THE AUTHOR

In March 2009, Hans van Dijk (born July 15, 1984) started his PhD research under the supervision of Prof. dr. Jaap Paauwe and Dr. Marloes van Engen.

Before that, Hans studied Policy & Organization Studies (Drs. – equivalent to Msc.) and Labor- & Organizational Psychology (BSc) at Tilburg University. During this time he spent a semester at Lund University in Sweden. After his studies, Hans received a scholarship from the VSB fund to study Applied Ethics (MA) in Leuven, Belgium, for which he graduated *magna cum laude*. Subsequently he started working at the HRM Centre of Vlerick Business School.

At Vlerick, Hans was involved in several research projects, including research to performance management and the aging workforce. Further he coordinated executive education programs, organized the Master Programme in European Human Resource Management, trained Master's and MBA students in social skills, developed a workshop on ethical reasoning, and taught cross-cultural management in the Executive Master Class in HRM. He also obtained his MBTI trainer's degree at Vlerick.

During his PhD, Hans trained Master's students in personal skills, supervised students who wrote their Master's thesis, and was the instructor for the Master's course International Human Resource Management. In addition, Hans was involved in the TSB PhD council, was a board member of the PhD network PHResh, co-organized the first EAWOP Doctoral Consortium, and (co-)founded the Tilburg Veritas Forum, Serve the City Tilburg, WePraise, and Being Real.

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