ENGAGING WITH DIVERSITY OF SOCIAL UNITS

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A SOCIAL IDENTITY PERSPECTIVE ON DIVERSITY IN ORGANIZATIONS

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Abstract

The construct diversity describes the collective amount of differences among members within a social unit. The present dissertation is based on the assumption that, through engagement with diversity, people acquire an understanding of what role diversity plays in the societies, organizations, work groups, or other social units they are part of. This understanding of the role diversity plays in a given social unit provides a vantage point from which people will engage with diversity in the future. These vantage points from which people engage with diversity are the general subject matter of the present dissertation. Two main research questions are addressed in this regard: First, whether the role diversity is given in a particular context does have effects on groups and the individual members therein. Second, if such effects exist, it seeks to explore the processes and mechanisms they are based on. Both questions are addressed from different perspectives in the three main chapters of this dissertation.

Chapter 5 contains two meta-analyses on the effects of diversity beliefs and diversity climates. Diversity beliefs are individual attitudes that describe the degree to which diversity is ascribed an instrumental value for achieving beneficial outcomes or avoiding detrimental ones. Diversity climates depict such a value of diversity on the group-level. Building on the social identity approach, I explain how diversity beliefs and climates can obviate diversity's detrimental effects and foster beneficial ones. As both diversity beliefs and climates can cause such effects, they are considered together in the main analyses in the chapter. In the first part of the chapter, a meta-analysis on these moderator effects of diversity beliefs/climates is presented (k = 23). The majority of studies that addressed such effects reported significant results. The patterns of these results showed that, in general, diversity will be more positively related to beneficial outcomes the more it is valued. However, the analysis also revealed that there are at least two types of patterns of this moderation. So far, it cannot be explained which pattern will occur under what circumstances. In the second part of the chapter, a meta-analysis on the main effects of diversity beliefs/climates on beneficial outcomes is presented (k = 71). These effects did not receive much attention in the primary studies. Based on the social identity approach and the fact that diversity is a ubiquitous feature of modern organizations, I argue that they are important nonetheless. The meta-analysis revealed a significant positive main effect of diversity beliefs on beneficial outcomes (r = .25; p < .0001). However, the effect sizes varied considerably across studies. Both moderator and main effects were found across a broad array of outcomes, study

designs, levels of analysis, and operationalizations of the constructs involved. They were found irrespective of whether diversity beliefs or diversity climates were considered.

The heterogeneity of results in the meta-analyses suggests that there is still much to be learned about when differences in vantage points from which people engage with diversity will have an effect and about the processes that underlie these effects. Chapter 6 is, therefore, predominantly concerned with these underlying processes. Most of the previous research has treated pro-diversity beliefs and pro-similarity beliefs as opposite poles of one underlying continuum. There is, however, evidence that people can hold both types of beliefs simultaneously. Therefore, I propose that both diversity in certain aspects and similarity in other aspects can simultaneously constitute valid and valued parts of an organization's identity, and that, hence, identifying with the organization can create two forms of solidarity among the employees: organic solidarity – based on meaningfully and synergistically interrelated differences, and mechanic solidarity – based on the common ground that all employees share. Furthermore, I propose that both forms of solidarity can coexist and that both are positively related to the quality of collaboration within the organization. Thus, organizational identification is proposed to influence quality of collaboration indirectly through both organic and mechanic solidarity. These propositions were tested with regard to the collaboration of different teams within two organizations: a German university (Study 1, $N = 699$) and a Taiwanese hospital (Study 2, $N = 591$). The results from both studies confirm the predictions. However, the relative importance of each form of solidarity varied across study contexts and across different facets of the quality of collaboration.

Chapter 7 also builds on the findings from the meta-analyses and is again predominantly focused on the processes underlying the effects of diversity beliefs and diversity climates, yet from a different angle. Previously, diversity beliefs and climates have often been discussed with regard to their potential to influence whether diversity will lead to more and deeper elaboration of information within the group. In chapter 7 a theoretical model is developed that complements these cognitive processes by addressing the emotional side of diverse groups. Central to the model is the assumption that group diversity can stimulate group members to engage with each other emotionally, resulting in higher levels of state affective empathy: an emotional state which arises from the comprehension and apprehension of fellow group members' emotional state. State affective empathy, in turn, is known to lead to a variety of beneficial team processes that can ultimately enhance individual and group-level performance. Thus, the central proposition of the model is that

the relationship between diversity and performance is mediated through state affective empathy. The other propositions in the model specify moderators that determine when diversity will indeed have this empathy-stimulating effect. Diversity beliefs and climates are considered second-order moderators that shape the relationship between diversity and empathy through their influence on the first-order moderators. In general, it is proposed that diversity is related to empathy more positively if it is valued by the group or its members.

In summary, the results from the meta-analyses in chapter 5, the results from the field studies in chapter 6, and the theoretical arguments presented in chapter 7 can be interpreted such that differences in vantage points from which people engage with diversity can indeed affect groups and their members. Therefore, the first research question of the present dissertation can be answered affirmatively from three different perspectives. However, it also became clear that there is still much uncertainty about the mechanisms underlying these effects. In line with the second research question of the present dissertation, these mechanisms were examined more closely in chapter 6 and 7. The field studies in chapter 6 highlighted the role of identification as the driving force behind the effects of different vantage points on diversity. Furthermore, they also corroborate the proposition that valuing diversity and valuing similarity can be co-occurring phenomena that both influence the collaboration within the group positively. The theoretical model presented in chapter 7 opens up a new emotional way in which diversity beliefs and climates can influence whether diversity will lead to better or worse performance. In sum, therefore, also with regard to the second research question of the present dissertation, progress has been made.

1 Introduction

"He will win whose army is animated by the same spirit throughout all its ranks."
Sun Tsu, (534 - 453 B.C.)

"For it is not two doctors that associate for exchange, but a doctor and a farmer, or in general people who are different and unequal."
Aristotélēs (384-322 B.C.)

"In a sense, all human beings belong to a single family. We need to embrace the oneness of humanity and show concern for everyone – not just my family, or my country, or my continent. We must show concern for every being, not just the few who resemble us. Differences of religion, ideology, race, economic system, social system and government are all secondary."
Dalai Lama (2001)

Differences between the members of social units – such as, for example, nations, organizations, or work teams – have attracted the attention of many people since time immemorial. What kinds of effects these differences entail and, in consequence, how these differences are dealt with best, are certainly among the questions that have been asked most often in this regard. Aristotle, for example, describes in *The Nicomachean Ethics* (VIII, 2) the doctrines on the origin of friendship at that time. According to this classic discussion, some see the origin of friendship in similarities between the friends; others emphasize the importance of meaningfully interrelated differences for friendship to occur. More than a century ago, Emil Durkheim came to similar insights in his disquisition on the division of labor in society (Durkheim, 1893/1999). According to Durkheim, both similarities as well as differences between members of a society can lead to a specific form of solidarity within societies. Only recently, Putnam (2007), again studied the role of differences within societies. He argues that most developed countries will become more ethnically diverse in the near future due to immigration. In the short to medium run, he assumes, this will result in reduced solidarity and social capital due to fragmentation – for example expressed in less trust, altruism, cooperation, and friendship within society. In the long term, though, he predicts cultural and economical benefits from this increased diversity. He argues that, in the past, successful immigrant societies have learned to overcome such fragmentation by creating cross-cutting forms of solidarity and more encompassing identities.

As these examples illustrate, the effects of diversity and the optimal way to deal with diversity have occupied scholars ever since. Discussions surrounding these questions have also always been present in politics, business, and legislation. The present dissertation is based on the assumption that, through such engagement with diversity, people acquire an understanding of what role diversity plays in the societies, organizations, work groups or other social units they are part of. Such an understanding of the role diversity has in a given social unit provides a vantage point from which people will engage with diversity in the future.

This dissertation is concerned with these vantage points and seeks to address two research questions in this regard: First, whether the role that diversity is given in a particular context does indeed have effects on groups and the individual members therein. Second, where such effects exist, it seeks to explore the processes and mechanisms these effects are based on.

In the following chapter, chapter 2, I will describe why these potential effects of the vantage points from which people engage with diversity could be especially important in organizational contexts. To understand the role these vantage points could play in organizations, it is important to consider them against the background of increasing diversity in organizations and the research on the effects of diversity in organizational contexts. Therefore, in chapter 2 both these points will be addressed. I will point out that, due to a variety of reasons, modern organizations become increasingly diverse. Organizations have always been concerned with the negative effects of this diversity. However, during the last decades they have also started to appreciate diversity as a valuable asset that can be used to foster organizational performance. Unfortunately, the efforts of organizations to manage diversity, as well as scientific research on diversity's effects, are complicated due to the multifaceted nature of the diversity construct. Diversity can be defined as the collective amount of differences among the members of a social unit. Theoretically, there is a multitude of ways in which these differences can appear. It comes as no surprise then, that research on the effects of diversity points out that diversity can have both positive as well as negative effects. Unfortunately, it is hard to predict thus far when positive or negative effects will occur. Typologies of good and bad forms of diversity have not proven useful in that respect in the past. More recent approaches, therefore, have started to examine more closely the contingency factors that shape the effects of diversity and the mechanisms underlying these effects. Among the contingencies that have been suggested to influence whether diversity will have positive or negative effects are the vantage points

from which people and groups engage with diversity. In other words, the effects of diversity depend on what people and groups think about this diversity.

In chapter 3, I shall argue that such an individual or group-level understanding of diversity and the way this understanding affects groups and people therein can be understood from a social identity perspective. In prior diversity research this theoretical perspective has predominantly been utilized to argue for the negative effects of diversity. In the present dissertation, I want to make the point that this falls far behind the potential of the social identity approach. Rather, the social identity approach is useful to explain why diversity is important in the first place, when a particular kind of diversity will become relevant in a given context, and under what circumstances diverse groups work together best. The vantage point from which people or groups engage with diversity theoretically has a key role to play in that respect.

Utilizing this social identity approach to diversity, I will address the two main research questions – whether the role that diversity is given in a particular context does have effects and what processes could underlie these effects – in the three chapters that constitute the main part of this dissertation. The main lines of argument contained in each chapter are laid out in more detail in chapter 4. These three main chapters offer different perspectives on the topic. Thus, in a way, the hope that diversity brings about better solutions to complex problems through the involvement of various different perspectives was the guiding principle behind the present research.

Chapter 5 primarily tackles the first research question from a meta-analytical perspective. As mentioned above, the vantage points on diversity have been suggested to determine whether diversity will lead to positive or negative effects. Hence, they are often conceived as moderators of diversity's effects. In chapter 5, I will meta-analytically summarize all available evidence on such moderator effects, thereby trying to answer the first question from a traditional perspective. In addition, I will argue that it makes sense to look at the direct effects of these different vantage points on diversity, offering a slightly different perspective on the first question. These effects will also be summarized in a separate meta-analysis. In that these two kinds of effects are distinguished, the chapter offers also some insights into the second research question.

Chapter 6 mainly addresses the second research question. It contains two field studies that are based on the proposition that the vantage point from which people engage with diversity can be part of an organization's identity. In that respect, three issues are examined that have not received much attention in previous research. First, the assumption

is put to the test that identification with the organizational identity is the driving force behind whatever effects particular vantage points on diversity will have. Second, the question is explored as to whether diversity and similarity can both be valued parts of a particular organizational identity, rather than opposing poles on a continuum, and whether they can each shape the quality of collaboration in organizations. Third, in order to explain how identification with an identity that includes similarity and diversity as valued parts can affect collaboration, two forms of solidarity – one based on similarity, one on differences – are introduced as mediators. As the chapter is concerned with collaboration between teams within organizations, rather than with collaboration within diverse teams as in most of the existing literature, it also offers a new perspective on the first research question.

Chapter 7, in turn, is also predominantly concerned with the second question, yet again from a slightly different angle. In this chapter a theoretical model is developed that describes how the vantage points from which people engage with diversity can determine how people react to diversity emotionally. While much of the previous research on the effects of diversity in groups and organizations has been influenced by the idea that diversity offers benefits for problem solving, information elaboration, and other cognitive processes, the emotional side of diversity is often overlooked. In the model an emotional pathway between diversity and performance is described. State affective empathy is proposed to mediate this relationship. The value diversity is given by groups or by individual members is conceived as an important contingency of the relationship between diversity and empathy.

This dissertation concludes with a summary and general discussion of the findings and contributions from all three main chapters (chapter 8).

2 Manifestations and Consequences of Diversity in Organizational Contexts

Diversity is a ubiquitous feature of modern workplaces. The necessity for organizations to deal with diversity successfully arises from a variety of factors. To begin with, modern organizations are subject to demographic developments in their societal environments. In consequence, they encounter diversity, for example, on the labor market or in contact with diverse customers. Similarly, global business cooperations and production processes create the need to deal with different cultures and ethnic backgrounds. The recent developments in anti-discrimination legislation also contribute to the increasing attention organizations pay to diversity issues. Furthermore, the current trend in organizations to increasingly utilize cross-functional work teams to achieve their goals adds another reason why organizations have to deal with diversity. This development also draws attention to the fact that diversity pervades all levels of an organization. Similarly, high job specialization in combination with increasing reliance on team-work or project-based work often also leads to certain kinds of diversity.

The list of potential kinds of diversity in organization is endless and not restricted to demographic or job-related differences. For example, mergers and acquisitions not only confront employees with a new organization they belong to, but traces of the previous organizational membership often remain, leading to another interesting kind of diversity within the newly merged firm (cf. Ullrich & van Dick, 2007; van Dick, Wagner, & Lemmer, 2004).

Until the early 1990s, organizations approached diversity predominantly from a perspective of equal-treatment and non-discrimination. Prevailing goals were to do the morally right thing and to reduce the costs of litigation due to unfair hiring procedures and similar problems (Jackson & Joshi, 2011). This approach to diversity has remained important ever since and certainly regains importance through recent changes in legislation (cf. Biester, 2006; Düwell, 2006). By the early 1990s, at the latest, another perspective on organizational diversity emerged and gained in popularity since then (Kirton & Greene, 2009). Organizations began to appreciate the idea that "supporting diversity made good business sense" (Jackson & Joshi, 2011, p. 652). According to this new approach, diversity is seen as an important organizational asset which can be used to increase the bottom line. This "business case for diversity" (e.g., Bowes, 2007; Cox, 1991; Knopf, 2006; Kochan et al., 2003; Orenstein, 2005; Robinson & Dechant, 1997) includes such aspirations as cost

savings due to lower absenteeism, lower turnover rates, and fewer lawsuits on discrimination. It also includes the aspirations to win the competition for talent as the labor market becomes increasingly diverse, to heighten the understanding of and access to diverse markets, and to build effective global business relationships. However, the hope that diversity might lead to increased creativity and innovation, to better problem solving, and, through this, to better overall performance, probably gained the most attention in the scientific community. As a consequence of all these aspirations that are tied to diversity under the new perspective, diversity became a business imperative. Nonetheless, the discussion also includes negative side effects of diversity, such as increased conflict and problems in interpersonal communication, leading to the necessity to manage diversity successfully and the question of appropriate methods to do so (e.g., Chavez & Weisinger, 2008; Cox, 1991).

As will be described in more detail below, neither the positive nor the negative prospects regarding the effects of diversity in organizations have found unambiguous research support. Diversity does indeed seem to have positive as well as negative effects. Organizations' ability to manage these positive and negative effects is hampered by the fact that diversity can appear in a multitude of ways. Likewise, this also complicates scientific endeavors to study diversity's effects. Therefore, in the next section diversity will be defined more precisely and a few conceptual distinctions will be introduced that help to comprehend the conceptual plurality of all the phenomena commonly labeled as diversity. Building on this enhanced understanding of the plurality of manifestations of diversity, the following section contains a review on the ambiguous effects of diversity and the various ways in which past research has tried to explain them. In the final section of this chapter, I will summarize this state of the art and argue for the importance of taking into account the subjective reality of diversity and, particularly, the vantage points from which people engage with diversity.

2.1 Diversity of Diversity: The Many Ways to Be Different

The term diversity usually refers to the fact that there are differences between the elements of a given social unit. The more pronounced these differences are the more diverse is the respective social unit. As simple and evident as this definition might appear at a first glance, defining and conceptualizing diversity more precisely is a complex endeavor. This is particularly evident in the great number of more or less overlapping terms and concepts that have been used to capture diversity in the past – such as dispersion, inequality, within-group

variability, (dis)agreement, consensus, heterogeneity, homogeneity, deviation, difference, distance, relational demography, or sharedness (Harrison & Sin, 2006). In their comprehensive review of the current status quo of diversity conceptualization, Harrison and Sin (2006) offer the following definition: "Diversity is the collective amount of differences among members within a social unit." (p. 196). This is meant to include a wide range of possible sub-conceptualizations of what exactly these differences look like. The need to allow for many kinds of differences is intuitively plausible because there is in principle only one single way in which the elements of a social unit can be exactly the same, whereas there is a theoretically unlimited number of ways in which they can differ. In particular, differences can exist with regard to an unlimited number of dimensions of difference (e.g., age, gender, marital status). On each of these dimensions the differences can take various forms. Differences with regard to more than one of these dimensions can be more or less aligned. Furthermore, the multilevel-nature of the construct diversity adds additional possible variations to conceptualize diversity in a particular context. These constitutive characteristics of diversity conceptualization are laid out in more detail in the next four sections.

2.1.1 Dimensions of objective and subjective difference

One such characteristic is the nature of the differences, i.e. their content. For example, van Knippenberg and Schippers (2007) state that "diversity is typically conceptualized as referring to differences between individuals on any attribute that may lead to the perception that another person is different from self" (p. 517). This definition alludes to an unlimited pool of potential dimensions for differentiation. In spite of this, van Knippenberg and Schippers conclude that much of previous diversity research has focused predominantly on only a few of these dimensions: gender, age, ethnicity, tenure, education, and functional background. Past research has employed various typologies to distinguish between certain clusters of theses dimensions. With regard to the effects of diversity, these typologies have failed to provide deeper insight so far, as will be shown in more detail below (chapter 2.2.2).

In their own definition of the construct, van Knippenberg and Schippers (2007) additionally highlight the difference between subjectively perceived versus objectively present diversity:

> *"Diversity may be seen as a characteristic of a social grouping (i.e., group, organization, society) that reflects the degree to which there are objective or subjective differences between people within the group (without presuming that group members*

are necessarily aware of objective differences or that subjective differences are strongly related to more objective differences).” (p. 519)

Together with the unlimited pool of relevant dimensions of differentiation, the distinction between subjectively perceived and objective diversity illustrate two of the sources of conceptual heterogeneity in the field of diversity research.

Given this plurality of ways to be different, two questions become all the more important: (a) Under what circumstances will a particular dimension of diversity become relevant? (b) How does the process of perceiving diversity work from a psychological point of view? I will come back to these questions below (chapter 3) and argue that the social identity approach offers useful insights into both of them.

2.1.2 Forms of diversity

Besides the specific dimension of diversity and the distinction between subjective and objective diversity, a third characteristic of the diversity construct originates in the fact that on any given dimension of diversity, differences can take a variety of different forms. These forms are inherently linked to the way diversity is measured – equaling an operational definition of diversity (Harrison & Sin, 2006). More or less implicitly, they have been around in diversity research for a long time. Recently, Harrison and Klein (2007) stimulated the discussion of these forms again. They proposed three basic forms of diversity – separation, variety, and disparity – that can be distinguished most clearly by describing what maximum diversity means in each case (Figure 2-1).

Maximum diversity in the form of separation is present if, for example, half of the members of a particular group are positioned at the lower limit of an underlying continuous dimension and the other half at the upper limit. The general picture emerging is one where the overall group is divided into two maximally distinct but in themselves homogeneous subgroups. Maximum variety, in turn, is present when all members of a particular group belong each to a different category on an underlying nominal construct – such that on a certain dimension no one is alike. Finally, maximum disparity occurs when one member of the group outranks all others on a socially desired or valued resource (e.g., pay or status). This form is slightly counter-intuitive when coming from a classic diversity perspective because it includes a value asymmetry along the dimension of difference. If, for example, one member earns very little and everyone else earns quite a lot, disparity is low; if everyone earns very little but for one single lucky person, disparity is high. Although not necessarily prominent in the literature on diversity in organizations (Harrison & Klein,

2007), conceptualizing diversity from a disparity perspective more often could help to develop the field by bringing back issues of status, power, and dominance back into diversity research (cf. Konrad, 2003).

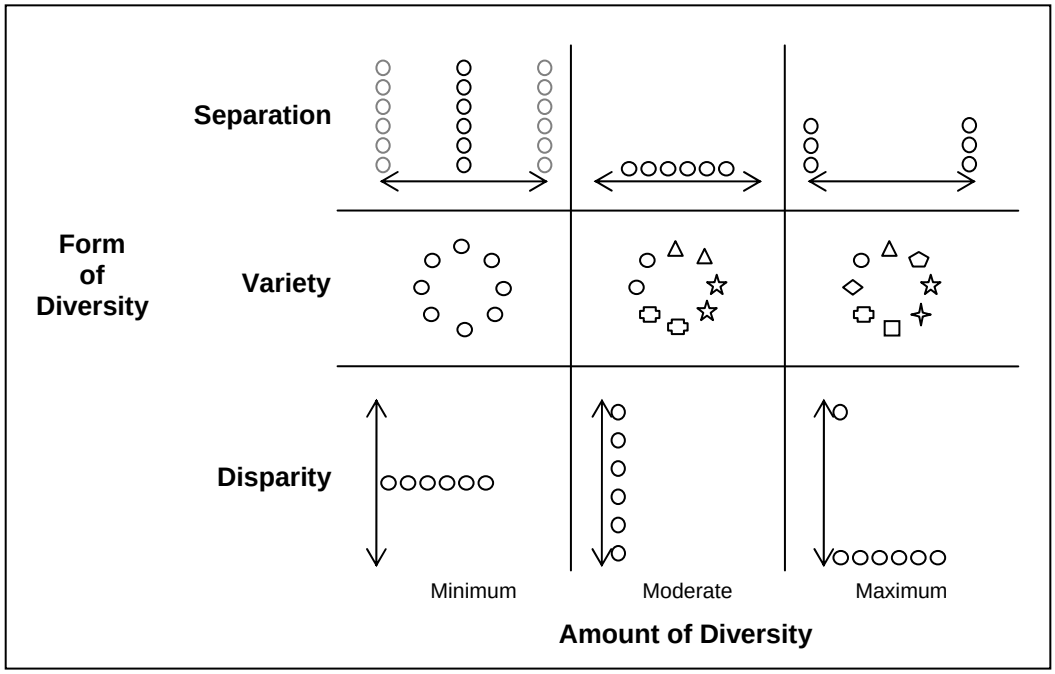

Figure 2-1. Forms of diversity (adapted from Harrison & Klein, 2007).

Each of the three forms of diversity is linked to particular ways of measurement and operationalization. Separation, for example, is often measured through the standard deviation; variety through Blau's index (Harrison & Klein, 2007; Harrison & Sin, 2006). Thus, at least implicitly through the choice of diversity coefficients, researchers make assumptions about what it means when a group becomes increasingly diverse in their particular study context. For example, if in a particular study age diversity is measured using the standard deviation, the more groups become diverse the more they approach maximum separation. This could probably fit well with research questions addressing conflicts between old and young group members. However, the index is less apt, for example, to describe the fact that many different age cohorts in one team are beneficial for creative problem solving – because under maximum separation there would be only two such age groups. Variety, measured through the Blau's index, would be a better conceptualization with regard to such a question, because maximum variety would imply that each member of the group belongs to a different age cohort.

2.1.3 Faultlines

A fourth factor that adds further diversity to the conceptualizations of diversity in the literature arises from the co-existence of differences on various dimensions within the same social unit. Following a similar term in geology, Lau and Murnighan (1998) coined the term "faultlines" to describe this phenomenon. Faultlines are thought of as dividing lines that can split groups into a number of sub-groups on a variety of dimensions of difference. Depending on how many dimensions are included and on how well these dimensions are aligned, these faultlines will be more or less strong. For example, if there are many dimensions involved (e.g., age, gender, educational background) and if the people who belong to the same sub-group according to one dimension (e.g., age) belong to different sub-groups with regard to other dimensions (e.g., gender and educational background), the resulting picture would be rather that of a net of superficial cracks in the overall group. However, if on many dimensions the same people fall into the same sub-group, the faultline will be strong, resulting in a single deep trench dividing the group into two parts.

Contrary to the other conceptual characteristics of diversity, the faultline concept has been invented with the intention of explaining when diversity will have beneficial or detrimental effects. The basic idea was that a stronger emergence of sub-categories through faultlines would lead to problems within the overall group (Lau & Murnighan, 1998). This is in line with the basic assumption to be found in much of the diversity literature, according to which the formation of sub-groups within a diverse group leads to all kinds of negative effects. However, the evidence regarding this assumption is not consistent (e.g., Lau & Murnighan, 2005; Phillips, Mannix, Neale, & Gruenfeld, 2004; Sawyer, Houlette, & Yeagley, 2006; for a summary see van Knippenberg & Schippers, 2007). In the context of the present work it is especially interesting to note that the way in which people engage with diversity has an important moderating influence on the effects of faultlines in groups. Homan, van Knippenberg, van Kleef, and De Dreu (2007), for instance, found that even when faultlines were present, the use of informational diversity was positively related to performance when the groups believed that diversity was good for achieving the task at hand. In a similar vein, Meyer and Schermuly (in press) found that although faultline strength in general was negatively related to performance of groups, this finding was qualified by a significant three-way-interaction. In groups that were motivated to engage with the task and in addition held the belief that diversity was a valuable resource for the fulfillment of the task, faultline strength was *positively* related to performance. In all other conditions, the relationship remained negative.

2.1.4 Multilevel nature of the concept

As a final, and fifth, characteristic of diversity conceptualizations, it is apparent from the nature of the above definitions that diversity can only be understood from a multilevel perspective (e.g., Klein & Kozlowski, 2000). Diversity as a characteristic of a social unit necessarily emerges from the characteristics of the individual elements in that social unit. As such, diversity is a classic example of what is referred to as "configural unit property" (Kozlowski & Klein, 2000), that is, a unit-level characteristic that emerges through compilation of the variability and pattern of the individual elements' characteristics. This is analogous to what Chan (1998) calls a "dispersion model" of composition.

Slightly different from this approach, diversity is sometimes conceptualized in constructs that describe individual members. These constructs refer to "being different" on an individual level, through the creation of an index that describes how different a single group member is from the rest of the group ("relational demography", Tsui, Egan, & O'Reilly, 1992). Most of the time, however, the term diversity is understood to denote a characteristic of the group.

This characteristic can be operationalized through the composition of differences between the individual-level elements into an overall diversity index ("dispersion model", Chan, 1998). It also can be assessed by asking people how diverse they believe their group to be. Although this is still an individual-level perception, the *referent* of the question asked is the whole group. Such individual-level diversity perceptions are interesting constructs in themselves. However, given sufficient consensus among the members of one group, these individual level perceptions can be aggregated to resemble an emergent group-level construct ("referent-shift consensus model", Chan, 1998).

Individual diversity perceptions, aggregated diversity perceptions, and compiled indices of individual member characteristics would all fall under the broad definitions of diversity presented above. Nonetheless, they all illustrate that the nature of diversity as a multilevel-phenomenon allows for considerable variation in conceptualizations. These multilevel-issues extend also to constructs that are related to the diversity of the group, as I will illustrate below when discussing the nature of beliefs about diversity and climates for diversity (chapter 5.1). Moreover, models describing the effects of diversity necessarily have to take into account the level of the constructs involved and describe the levels of the relationships involved (Kozlowski & Klein, 2000), as will be apparent in the model below on the mediating role of empathy (chapter 7).

Summarizing the above constitutive characteristics of diversity, defining what exactly is meant by diversity in a particular context is far from trivial. There is an unlimited pool of dimensions to be drawn from, on each of these dimensions diversity can take various forms, and several of these dimensions can create more or less strong faultlines. In addition, each kind of diversity can be conceptualized either as subjective perceptions of diversity or as objectively present diversity. Finally, the multilevel-nature of the construct contributes further variations of conceptualization. This diversity of diversity makes it difficult for organization's to manage the positive and negative effects of diversity. This conceptual plurality is also important to keep in mind when interpreting the research results regarding the effects of diversity.

2.2 Consequences of Diversity: Disentangling the Positive and the Negative Effects

At the same time as organizations become increasingly diverse (Mannix & Neale, 2005; van Knippenberg & Schippers, 2007; K. Y. Williams & O'Reilly, 1998), research on diversity in organizations and work groups is growing almost exponentially (Harrison & Sin, 2006). In this line of research, paramount attention is given to the consequences of diversity throughout all levels of an organization – individual employees (e.g., turnover, creativity), work groups (e.g., cohesion, conflicts), and the whole organization (e.g., reputation, gross margin). In the following, I will review the main findings regarding these effects of diversity.

In line with many of the aspirations included in the business case for diversity, some empirical findings do indeed suggest that diversity is beneficial for organizations. For example, the demographic diversity of the board of directors has been shown to be positively related to hard organizational performance data and this effect was mediated through both increased innovation and firm reputation (T. Miller & Triana, 2009). Also, diversity on senior management, middle management, and non-managerial levels of the organization has each been found to correlate positively with firm performance (Allen, Dawson, Wheatley, & White, 2008).

In other studies, the effects have been less straightforward. For example, Richard and colleagues found curvilinear relationships between management-level diversity and productivity that were further moderated by the degree of innovativeness and risk taking at the firm level (Richard, Barnett, Dwyer, & Chadwick, 2004). Curvilinear relationships have also been found regarding, for example, the information use of teams (Dahlin, Weingart, &

Hinds, 2005). Interestingly, in some conditions these curvilinear relationships imply that a moderate degree of diversity outperforms high or low diversity; in other cases, however, the opposite curvilinear pattern is observed (Dahlin et al., 2005; Gibson & Vermeulen, 2003; Richard et al., 2004). Yet other studies clearly show the negative consequences of diversity. For example, Vodosek (2007) found that cultural diversity was associated with decreased group performance and that this effect was mediated through increases in conflict.

These findings are just few out of many that illustrate that there are no straightforward, general, and simple answers to be expected regarding the effects of diversity in organizations. However, diversity research has been conducted for a long time and the research interest seems rather to increase than to diminish. In fact, it appears that the field has developed a degree of elaboration that encourages more and more researchers to conduct quantitative and qualitative reviews on the effects of diversity. There is an abundance of such reviews available today (e.g., Bell, 2007; Bowers, Pharmer, & Salas, 2000; Chattopadhyay, Tluchowska, & George, 2004; Christian, Porter, & Moffitt, 2006; Hülsheger, Anderson, & Salgado, 2009; Jackson, 1996; Jackson, Joshi, & Erhardt, 2003; Joshi & Roh, 2009; King, Hebl, & Beal, 2009; Mannix & Neale, 2005; Milliken & Martins, 1996; Oerlemans, Peeters, & Schaufeli, 2008; Phillips, Kim-Jun, & Shim, 2011; Roberge & van Dick, 2010; Shore et al., 2009; Stahl, Maznevski, Voigt, & Jonsen, 2010; van Knippenberg & Schippers, 2007; Webber & Donahue, 2001; K. Y. Williams & O'Reilly, 1998). As an underlying theme in most of these reviews, it appears that many issues regarding the conceptualization of diversity, its effects, the processes through which these effects come about, and the moderators that shape the effects of diversity, are rather complex, and that there is still much to be learned. What is clear is that diversity has been shown to have a variety of positive, as well as a variety of negative effects for organizations, work groups and individual employees. However, as of today, it is rather difficult to predict under which circumstances what kinds of effects will occur.

One possible reason for this unsatisfying state of art is that past research has been preoccupied with testing two competing theoretical perspectives on the effects of diversity against each other, without much success.

2.2.1 Traditional theoretical perspectives on the positive and negative effects of diversity

Traditionally, two theoretical perspectives have been guiding research aimed at exploring the effects of diversity (K. Y. Williams & O'Reilly, 1998). On the one hand, the

social categorization/similarity-attraction perspective follows the assumption that similarities and differences between members of a social entity form the basis for the emergence of sub-groups within the overall entity. On the basis that people tend to prefer ingroup over outgroup members (Tajfel, Billig, Bundy, & Flament, 1971; Tajfel & Turner, 1986) and that they are attracted to others based on similarity (Byrne, 1971), this perspective predicts rather dismal prospects for the functioning of diverse groups. On the other hand, the information/decision-making perspective is based on the proposition that diverse groups command a richer pool of knowledge, skills, abilities and similar informational resources, which might enable them to cope better with complex or creative tasks. Additionally, the need to integrate different points of view is thought to stimulate deeper information processing, which ultimately leads to better performance (e.g., van Knippenberg, De Dreu, & Homan, 2004).

These perspectives have long been conceived and tested as competing alternatives. In consequence, as van Knippenberg and Schippers (2007) conclude in their review on work group diversity research, much of the past research has been focused on simple relationships between dimensions of diversity and outcomes without considering further moderating variables. Like many other reviewers of the field, they come to the conclusion that neither theoretical perspective has been proven right on the basis of these tests. Hence, they declare the "bankruptcy" of this "main effects approach" (van Knippenberg & Schippers, 2007) and recommend paying greater attention to the processes that moderate and those that mediate the effects of diversity.

This "bankruptcy" of the main effects approach is also evident in the meta-analytical findings on the relationship between diversity and a variety of outcomes. For example, in their meta-analysis of k = 117 studies on the effects of work team diversity on team performance Joshi and Roh (2009) found an overall weighted mean correlation of r = -.01 (CI 95%: -.02 to .00). Accordingly, on average diversity does not contribute to performance in either a positive or a negative way. However, Joshi and Roh also report a significant amount of heterogeneity in the effects sizes, suggesting that the relationship between diversity and performance can vary considerably depending on further moderating factors. Another meta-analysis (Stahl et al., 2010) on k = 42 studies revealed an average correlation between team cultural diversity and performance of r = -.02 (CI 95%: -.04 to .00) and again a significant amount of heterogeneity – the authors report a range of effects from r = -.60 to .48. In the same study, meta-analytic relationships between diversity and eight other outcome measures were reported. For all but one of these outcomes significant

heterogeneity in effect sizes was detected. Other meta-analytical results corroborate these findings (Bowers et al., 2000; Horwitz & Horwitz, 2007; van Dijk, van Engen, & van Knippenberg, 2009; Webber & Donahue, 2001). In sum, these results illustrate that diversity can have both positive and negative consequences for organizations and that there is a need for additional clarification as to when either will occur.

2.2.2 Typologies of good an bad kinds of diversity

Taking into account the conceptual plurality of diversity constructs it comes as no surprise that one of the oldest approaches to illuminate some of the ambiguity in diversity's effects is to distinguish between various types of diversity. In essence, it was assumed that different types of diversity will have different types of effects. Although they have been named differently in various publications, there are two major distinctions present in the literature. First, the distinction has been made between task-oriented (e.g., functional background, task knowledge) versus relationship-oriented/non-task oriented (e.g., gender, personality) dimensions of diversity (e.g., Jehn, Northcraft, & Neale, 1999; Pelled, Eisenhardt, & Xin, 1999). Second, another distinction can be made between readily-detectable/surface (e.g., age, gender) versus underlying/deep-level (e.g., task knowledge, personality) dimensions of diversity (e.g., Harrison, Price, Gavin, & Florey, 2002). Sometimes both these distinctions are used in combination (Jackson, 1996; Jackson & Joshi, 2011).

The assumed relationships between these distinctions and the effects of diversity are fairly intuitive. Often the argument is made that task- or job-related diversity is more likely than non-job-related diversity to be exploited by the group to achieve better outcomes – along the lines of the information/decision-making perspective (van Knippenberg & Schippers, 2007). In favor of this assumption a small meta-analysis (Hülsheger et al., 2009) showed a small positive effect of job-related diversity on innovation (k = 15, r = .16, CI 95%: .00 to .31), whereas background diversity was not significantly related to innovation (k = 8, r = -.13, CI 95%: -.32 to .05). However, the confidence intervals of both effects were overlapping. Another meta-analysis using a set of studies of comparable size, also found a small positive relationship between task-related diversity and two indicators of team performance, but no significant relationship for demographic diversity on team performance (Horwitz & Horwitz, 2007). Yet again, the confidence intervals of the effects were overlapping, and the distinction did also not make any difference with regard to the social integration of the team. Results from two further meta-analyses underline the general

impression that these types of diversity do not explain when diversity will have positive or negative consequences for work groups (Bowers et al., 2000; Webber & Donahue, 2001).

Regarding the second distinction, it has sometimes been argued that readily detectable attributes of diversity are more likely than less detectable attributes to elicit biases, prejudices, and stereotypes and therefore affect team functioning negatively – along the lines of the social categorization perspective (e.g., Milliken & Martins, 1996). In addition, the argument in favor of deep-level diversity is often based on the assumption that these types of diversity are often more relevant for the job at hand (Harrison et al., 2002) – relating again more to the information/decision-making perspective (cf., van Knippenberg & Schippers, 2007). Probably the most important impact of this distinction between deep- and surface-level diversity on the field of diversity research is that it gave rise to some of the few endeavors to study the effects of team diversity over time. According to these studies, as groups engage in meaningful collaboration and exchange over time, the effects of surface-level diversity diminish and those of deep-level diversity increase (Harrison, Price, & Bell, 1998; Harrison et al., 2002).

Overall, however, the accumulated empirical evidence on the moderating effects of such typologies of diversity leads to the conclusion that they fell short of the expectation to explain the ambiguity in diversity's effects (Joshi & Roh, 2009; van Knippenberg et al., 2004; van Knippenberg & Schippers, 2007). Type-distinctions alone do not seem to make a difference. While some scholars still hold on to the potential prospect of these typologies and ask for more elaborated research on this topic (Jackson & Joshi, 2011), others are prepared to close the case and abandon the attempts to clarify the effects of diversity through typologies (van Knippenberg et al., 2004; van Knippenberg & Schippers, 2007).

In support of the latter view, van Knippenberg, DeDreu, and Homan (2004) make the case that specific dimensions of diversity are not exclusively tied to social categorization or information/decision-making effects. They point out that dimensions which are rather surface-level and not job-related at first glance (e.g., marital status), might well prove to entail useful informational variety given specific circumstances (e.g., in an HR-team developing personnel policies). On the other hand, they argue that even less visible and fairly job-related forms of differences might spark negative social categorization processes (e.g., opponents vs. proponents of a particular position).

Summarizing the above, it is fairly obvious that diversity can have positive as well as negative effects for individuals, teams, and organizations. As there is great need on the side of organizations to effectively manage diversity, further clarification is needed on the

question of when diversity will have what kinds of effects. The attempts to achieve such clarification through typologies of basically "good" and "bad" kinds of diversity have not been blessed with success. Moreover, the usefulness of the long held dualistic view of two competing theoretical perspectives – social categorization versus information/decision-making – has probably also outlived its usefulness. Therefore, and in line with van Knippenberg and Schippers (2007), I suggest that the time is probably ripe to look beyond simple distinctions. Rather, the examination of the contingencies that shape the effects of diversity and of the mediating mechanisms underlying these effects offers brighter prospects.

2.2.3 Processes influencing and underlying the effects of diversity

Recently, researchers have begun to develop more complex models of the effects of diversity, paying more attention to possible moderating factors influencing these effects and looking more closely at the mediating processes that bring about these effects (van Knippenberg & Schippers, 2007).

For example, in top management teams gender diversity has been found to be positively related to firm performance, *if* the organization at large followed a growth oriented strategy, whereas the relationship was not significant under low growth orientation (Dwyer, Richard, & Chadwick, 2003). Also, in top management teams, the relationship between functional diversity and firm performance was shown to be positive *if* the members worked at the same physical location (Cannella Jr, Park, & Lee, 2008). In another study on a broad variety of different teams, the relationships between diversity and team reflexivity – that is the amount the teams reflected on and modified their own functioning – was more positive *if* there was high outcome interdependence between group members (Schippers, Den Hartog, Koopman, & Wienk, 2003). For satisfaction and subjective performance as outcomes, the same moderation pattern was present. In the same study the relationship between diversity and reflexivity was more positive the shorter the team has been working together. Again the moderation was similar for performance and satisfaction as outcomes.

A study concerned with multidisciplinary teams in the gas and oil industry illustrated that collective team identification is another contingency factor (van der Vegt & Bunderson, 2005). In this setting, expertise diversity was more positively related to team learning and performance under conditions of high collective team identification; the relationship was negative under low collective identification. In a similar study on a sample of teams from different organizations, Kearney, Gebert, and Voelpel (2009) found that diversity exhibited

more positive relationships with the elaboration of task-relevant information, collective team identification, and performance when the average team members' need for cognition was high rather than low. Very similar moderating effects have also been found for transformational leadership (Kearney & Gebert, 2009).

In a recent meta-analysis by Joshi and Roh (2009) gender and ethnic diversity were less negatively related to performance in occupations with a more balanced demographic composition with regard to the gender and ethnic minority status. However, a similar pattern could not be established for age- or task-related types of diversity. They could also show that type of industry moderated the relationship between relations-oriented diversity and performance. The relationship was positive in service industries, but negative in manufacturing or high-technology settings. Team interdependence also moderated the relationship between task-related diversity and performance, such that task related diversity was more positively related to performance when interdependence was high. Similarly, the longer the teams were expected to exist, the more negative was the relationship between relations-oriented diversity and performance. Other meta-analyses also revealed moderating effects for task type, difficulty and complexity (Bowers et al., 2000; Stahl et al., 2010), as well as team tenure, size and dispersion (Stahl et al., 2010).

Apart from new insights about potential contingency factors, the new perspective on the effects of diversity has also shed more light on the mediating processes underlying the effects of diversity. Many of these underlying processes are seemingly related to the old social categorization and information/decision-making perspective. For example, the degree to which teams elaborate task-relevant information, as well as team reflexivity as a form of team-meta-cognition, have been shown to mediate the relationship between diversity and performance (e.g., Homan et al., 2007; Kearney & Gebert, 2007; Kearney et al., 2009; Schippers et al., 2003). Other proposed mediators of the effects of diversity include team learning (van der Vegt & Bunderson, 2005), collective team identification (Kearney & Gebert, 2007; Kearney et al., 2009), identification with the team (van Dick, van Knippenberg, Hägele, Guillaume, & Brodbeck, 2008), and relationship conflict (Jehn et al., 1999).

While it is probably premature to summarize these contingency factors and mediating concepts into an overall model of diversity management, the picture emerging from the more recent studies following such a contingency/mediating processes approach, is certainly more promising than many results driven predominantly by the main effects approach or the distinctions between various types of diversity.

2.2.4 The categorization elaboration model

The new research agenda has been paralleled by a shift in theorizing about the effects of diversity. This is probably most evident in what has quickly become the hallmark theoretical framework for much of the contemporary diversity research: the categorization elaboration model (CEM, van Knippenberg et al., 2004). This model is especially relevant for the present dissertation. In the original publication of the model, the authors suggest a few points where the subjective attitudes and beliefs people hold about the diversity of their work groups can influence the effects of diversity. Although these attitudes are not explicitly mentioned in the model itself, much research regarding these attitudes towards diversity has been inspired by the CEM. Therefore, it paved the way for the study of the vantage points from which people engage with diversity.

The model comprises a set of eight interrelated propositions (see Figure 2-2). Following closely the traditional information/decision-making perspective, the first proposition is that the "primary process underlying the positive effects of diversity on group performance is elaboration of task-relevant information" (p. 1012). This central mediator of

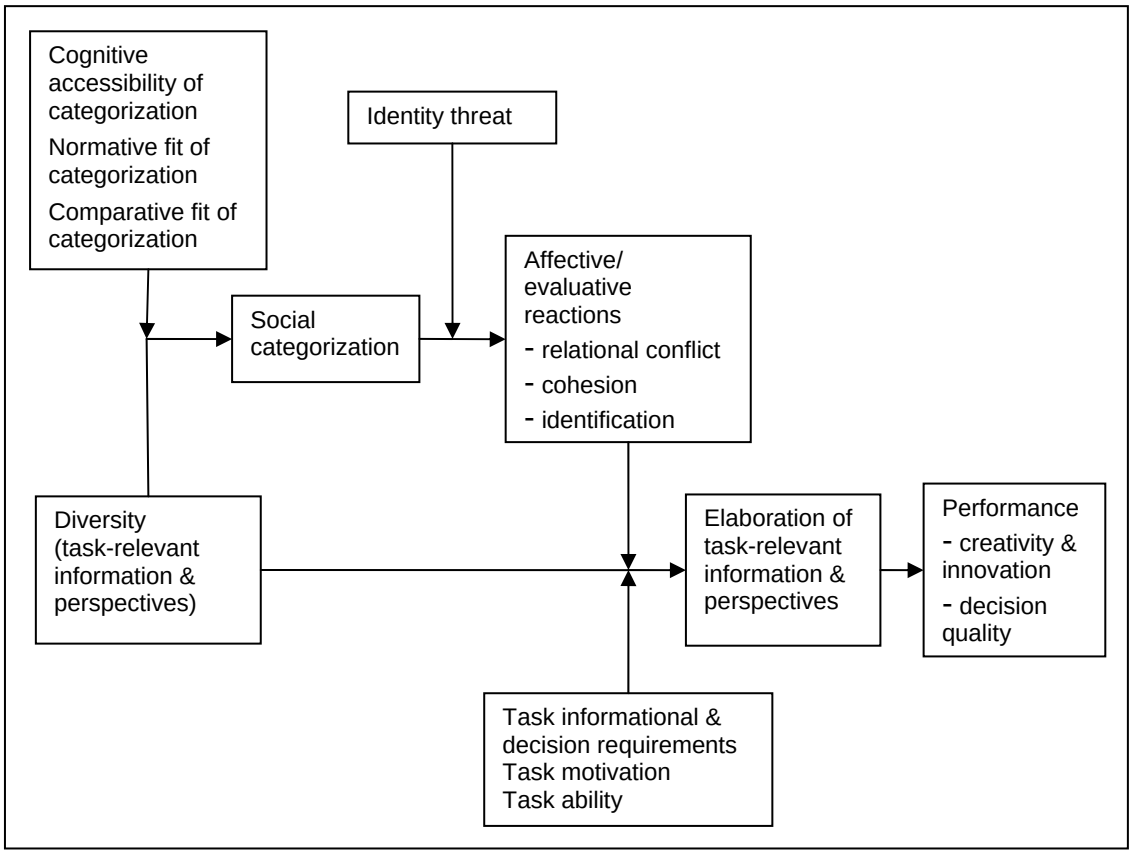

Figure 2-2. The categorization elaboration model (CEM, adapted from van Knippenberg et al., 2004). In the original publication of this model the authors placed comparative fit together with diversity in one box. According to proposition 5 of the CEM this it is better depicted together with the other conditions for category salience.

the CEM – information elaboration – includes the individual group members' processing of information available in the team, the feeding back of these individual reflections to the group, and their discussion as well as integration in the group. This mediating process between diversity and performance constitutes the core of the model. The other propositions basically define qualifying conditions which determine when diversity will lead to more or less information elaboration and performance.

Accordingly, proposition two states that diversity will entail better performance the more the group's task requires information processing and creative, innovative solutions. Proposition three and four state that diversity will lead to more information elaboration and better performance, the more group members are motivated to accomplish the task at hand and the more they are able to do so. The contribution of these three propositions is that they explicitly link diversity research to a large body of research on task motivation and ability that had not yet been considered in diversity research. The authors list concepts like leadership, goal-setting, cognitive ability, communications skills, and organizational justice as potential candidates for further inquiry in this respect.

Although not explicitly mentioned in the original publication of the CEM, this is the first point, where people's attitudes towards diversity could play a key role. It is plausible to assume that the vantage point from which people engage with the diversity of their groups is likely to influence both motivation and the perception of task requirements. Specifically, people who believe that diversity is valuable for achieving their own or the goals of the work group will include this role of diversity into how they perceive the task requirements. Similarly, if a certain kind of diversity is perceived as bad for the task at hand, this will constitute a part of the task requirements. In the case of motivation, it is important to consider that motivation is usually not understood as an undefined urge to behave, but rather is informed by a qualitative direction, a goal that is desired or even a desired path to that goal. Thus, the motivation to achieve a certain goal in a diverse context can be directed and shaped by the value that diversity is assigned for achieving the goal. This extension of the CEM will be discussed in more detail in chapter 7.

In the fifth proposition, the relationship between objectively present differences between group members and the occurrence of social categorization is further specified. Whereas previous research often assumed social categorization to be directly related to the objectively present diversity, the CEM states that the relationship between diversity and social categorization is contingent on the cognitive accessibility of the particular social categories, as well as on their normative and comparative fit. These basic conditions are part

of the self-categorization theory (Turner, Hogg, Oakes, Reicher, & Wetherell, 1987, see chapter 3) and refer to how accessible a particular categorization is for a particular perceiver given current motives and past learning, to how well the meaning associated with the categories fits the situation at hand, and to how useful the present categories are to form clear contrasts and, thereby, to structure the social environment (see chapter 3).

At this point in the model, van Knippenberg and colleagues themselves point out that the vantage point from which people and groups engage with diversity – specifically, whether diversity is believed to be beneficial or detrimental for fulfilling the task at hand – is likely to influence normative fit (van Knippenberg et al., 2004). That is, the more a particular kind of diversity is perceived as meaningful with regard to the present task context, the more it makes sense to categorize people along the lines of this kind of diversity (see chapter 5 and 7).

Contrary to former conceptions of social categorization, the CEM does not assume social categorization to automatically cause negative consequences for group functioning. Drawing on empirical evidence from the domain of intergroup research, the sixth proposition states that social categorization will disrupt group functioning to the extent that there are threatening or challenging relationships implied between the sub-categories within a diverse group. This proposition is based on self-categorization theory and social identity theory, which posit that negative intergroup relationships will ensue not in every case, but only if the groups are competing for status along the lines of a dimension of comparison that is relevant to the self-concept of the members (see chapter 3).

At this point within the model, van Knippenberg and colleagues again suggested that the degree to which diversity is assigned instrumental value for achieving the tasks at hand can play a key role (van Knippenberg et al., 2004). Building on prior research (Ely & Thomas, 2001; van Knippenberg & Haslam, 2003), they argue that, to the degree that people and groups value diversity in such a way, differences between the members of the group will not be seen as problematic and threatening. Rather, if diversity is deemed necessary for the group, this makes the different group members mutually dependent on each other through exactly the differences between them. How this can be conceptualized from a social identity perspective is outlined in more detail in chapter 3.

Proposition seven links this elaborate picture of social categorization processes in diverse groups with the proposition on information elaboration. It states that it is not social categorization per se, but rather the intergroup biases elicited by social categorization under certain conditions that disrupt the information elaboration and, thus, hinder group

performance. Finally, the eighth proposition is meant to set the scope of application for the model: All dimensions of diversity are thought to have the potential to elicit information elaboration as well as social categorization processes.

This set of eight interrelated propositions has influenced contemporary diversity research to a great extent. Part of this influence can certainly be attributed to the innovative consolidation of the social categorization and information/decision-making perspectives, which had been considered as competing theoretical approaches for a long time before. Another contribution of the CEM to the field was that it sparked interest in examining the contingency factors of the diversity-performance relationship as well as the factors mediating this relationship.

In regard of the purpose of the present dissertation, another important contribution of the CEM is that it further stimulated the discussion about the effects of how diversity is interpreted by the people involved. Of similar importance to the present work is the acquittal of social categorization from being an automatic evil in diverse groups. Through this, the CEM opened up the way to put social categorizations and their subjective relevance for the people involved at the very core of what diversity is about. This paves the way for a conceptualization of diversity from a social identity perspective. As will be outlined in the following chapter, such a social identity perspective proves useful to understand the ways in which people engage with diversity and the effects such an engagement might have.

2.3 The Necessity to Take Into Account the Subjective Reality of Diversity

Diversity is of growing importance to modern organizations. The accumulated research regarding the effects of diversity reveals that diversity can have both positive and negative effects on organizations and the people who work in them. However, the knowledge about when each effect will occur is limited so far. This is in part because there are many ways in which diversity can occur, and in part because research has been preoccupied for too long with distinctions between various types of diversity and the testing of two competing lines of theory. Recently, more complex models were tested that proved useful to understand when diversity will have positive or negative effects, as well as how these effects come about. The present dissertation is intended to add to this knowledge through the examination of the subjective side of diversity.

In the above review, two reasons became apparent as to why it is apt to examine more closely how diversity is subjectively experienced by the people involved and how they

engage with it. First, as there is an unlimited number of ways in which social units can be diverse, and as there is no way to distinguish between objectively good or bad types of diversity, it becomes important to understand when a particular type of diversity will be relevant in a given context. To answer this question, it is necessary to understand in more detail, how diversity is perceived by the people involved and why it is important to them. Second, group members' subjective understanding about the value of a particular kind of diversity has been proposed to determine what kinds of effects diversity will have in that context. For these two reasons, I argue that studying the subjective reality of diversity can contribute to our understanding of the effects of diversity in organizations. In the following chapter, I will outline how the social identity approach can be utilized to describe both how diversity is subjectively experienced, and what role the vantage points from which people engage with diversity can play.

3 A Social Identity Approach to Diversity

Differences between people are what diversity is essentially about. They also lie at the core of both social identity theory (SIT, Tajfel & Turner, 1979; Tajfel & Turner, 1986) and self-categorization theory (SCT, Turner et al., 1987). Both theories are often subsumed under the label of social identity approach (e.g., Haslam, 2004; Hornsey, 2008; Postmes & Branscombe, 2010). Originating in the social psychological study of intergroup relations and discrimination of the 1970s, today both SIT and SCT are among the cornerstones of psychological theorizing on intergroup relations and social categorization. As such they have found entry into most of the classic and contemporary textbooks on social psychology. From the very onset until today, the social identity approach has also been applied successfully to explain a broad range of phenomena within organizations (Haslam, 2004; Hogg & Terry, 2001; van Dick, 2001, 2004). It has also been present in the discussion surrounding work group and organizational diversity for some time. However, apart from a few exceptions (e.g., van Knippenberg et al., 2004; van Knippenberg & Haslam, 2003), the reception of the social identity approach is often restricted to a theoretical rational for the social categorization perspective underlying all the negative sides of diversity (cf. K. Y. Williams & O'Reilly, 1998). Unfortunately, this falls short of the social identity approach's actual capacity to describe the full subjective reality of diversity in groups and the relationships of sub-groups within diverse groups. In the following, this potential of the social identity approach will be laid out in more detail.

In the present dissertation, I want to point out that both SIT and SCT can be applied to describe the subjective reality of diversity in organizations – that is, what diversity means from a psychological point of view. They also provide expedient explanations regarding the circumstances under which a certain kind of diversity will be relevant and regarding how diversity can lead to positive as well as negative effects. Central to the present dissertation, I will also point out that people's understanding of the role that diversity plays for a particular social unit can be framed from a social identity perspective. The social identity approach also explains why such an understanding theoretically can determine how diversity affects groups and their members.

In what follows, the common core of both SCT and SIT will be outlined briefly, along with the major differences between them. Both SCT and SIT will then be described in more detail together with their implications regarding the subjective reality of diversity. Next, two models are described that can explain how the relationships between members of

diverse social units can be improved based on the social identity approach. Finally, it is explained why the vantage points from which people engage with diversity have an important role to play in this respect theoretically.

3.1 The Social Identity Approach: Common Core and Differences between Self-Categorization Theory and Social Identity Theory

At the core of both SIT and SCT lies the assumption that people infer large parts of their identity based on their memberships in various social groups – their social identity. Another common proposition is that people strive towards a positive social identity. To do so, they try to become "good" members of the groups they are part of by trying to come closer to the group prototype (SCT) and by trying to ensure that their groups compare favorably with relevant outgroups (SIT). Finally, both SIT and SCT propose that there is a certain discontinuity between interpersonal behavior and the behavior in and between groups – that is to say the step from "I" to "we" goes along with a psychological transformation that brings about otherwise non-existing processes (Turner, 2001).

Maybe due to this conceptual overlap between SIT and SCT, they are often confused in the literature. John C. Turner, who was involved in the development of both theories, points out that SIT historically precedes SCT, and that SCT is indeed based upon some of the older ideas (Turner, 2001). However, he also argues that the theories have to be treated separately, as they both contain different hypotheses at the core and seek answers to different phenomena. SIT originated in the desire to understand the reasons for discrimination between social groups. The basic assumption behind SIT is that people engage in social comparison between groups and try to distinguish their own group positively from others, in order to achieve a positive social identity. In contrast, SCT is meant to answer why people act, feel, and think "as one group" rather than separate individuals under certain circumstances. The basic assumption behind SCT is that the shift between group and individual psychology corresponds to a shift in self-perception and -definition. In essence, therefore, SIT is focused on the relationships between "us" and "them", whereas SCT is rather aimed at explaining differences between "I" and "we" (Turner, 2001; see also Turner & Reynolds, 2010 for a more detailed description of the history of the social identity approach). Due to these differences in perspective, SCT and SIT are treated separately in the present dissertation.

3.2 Self-Categorization Theory

3.2.1 Why are differences between people important?

According to SCT, the self-concept is comprised of a variety of components. These components are cognitively represented as self-categorizations, which are defined as

> *"[…] cognitive groupings of oneself and some class of stimuli as the same (identical, similar, equivalent, interchangeable, and so on) in contrast to some other class of stimuli." (Turner et al., 1987, p. 44).*

These self-categorizations exist at various levels of abstraction, with higher level categorizations (e.g., being a member of my multinational work group) including lower levels (e.g., being a member of the German sub-group within that work group). The SCT principles are specified to work on all these levels of self-categorization.

On each level of abstraction, self-categorizations are formed through social comparison along what has been termed the meta-contrast principle:

> *"[…] any collection of stimuli is more likely to be categorized as an entity (i.e., grouped as identical) to the degree that the differences between those stimuli on relevant dimensions of comparison (intra-class differences) are perceived as less than the differences between that collection and other stimuli (inter-class differences)" (Turner et al., 1987, p.47)*

This principle is also applicable to single stimuli in order to determine their position within the respective entity. In this case the term used is prototypicality, which refers to the degree that, for example, an individual group member is similar to the other members of that group and simultaneously dissimilar from members of other groups. Important in this respect is that both meta-contrast and prototypicality are context-sensitive. Depending on which dimensions of difference are used to compare the same sets of stimuli, meta-contrasts can change. Similarly, varying dimensions of difference and varying outgroups can change the prototypicality of a single member.

As a necessary condition for the comparisons involved in forming meta-contrasts, the stimuli involved in the comparison have to be comparable. According to SCT, this comparability is derived from some kind of similarity on a higher level of abstraction. For example, apples and oranges are not comparable, as long as one does not realize that both are fruits – that is, they belong to a common higher order category. The fact that all fruits can be compared on, for example, sweetness, makes apples and oranges comparable. Likewise, a comparison of female and male work group members with regard to their average income would follow the same principle. Paradoxically, therefore, diversity necessarily depends on similarity on a higher level.

Another proposition of the SCT states that there is functional antagonism between levels of self-categorization, because

> *[…] the salience of one level [of self-categorization] produces the intra-class similarities and inter-class differences which reduce or inhibit the perception of the intra-class differences and inter-class similarities upon which lower and higher levels respectively are based (Turner et al., 1987, p. 49).*

This is to say, for example, that if an employee perceives herself as part of the group of female members of the organization at one particular point in time, this frame of reference will make it hard to perceive both female and male members as similar and, hence, to shift to a self-categorization as member of the overall organization. Similarly, it makes it also less likely that differences within the female employees will play a role in that particular situation, such that, for example, female employees in part- vs. full-time jobs could emerge as an even lower level of self-categorization. However, this does *not* imply that these alternative self-categorizations cannot be important parts of the overall social identity, but rather that they will not play a role in that particular moment.

Consistent with the above, SCT states that whenever a particular group membership becomes salient, differences between the self and other ingroup members cease to play a role. Rather, similarities between ingroup members and the differences between ingroup and outgroup members become accentuated. In this situation, ingroup members perceive themselves as interchangeable with other ingroup members – a process that has been called "depersonalization" (Turner et al., 1987). Depersonalization is proposed to be the underlying process upon which all other group phenomena are based (e.g., stereotyping, cohesion, cooperation, altruism, empathy, or social influence, Turner et al., 1987) and has been shown to be of considerable importance to many organizational phenomena such as leadership, motivation, or group performance (Haslam, 2004).

Self-categorization and depersonalization are no cold-blooded mental shifts in self-perception. Self-categorizations include a value aspect that links them to self-esteem and the liking of others. Turner and colleagues propose that "self-categories tend to be positively evaluated and that there are motivational pressures to maintain this state of affairs" (Turner et al., 1987, p. 57). Although self-categories could in principle be negatively valued, it is assumed that this is an aversive state that motivates various possible actions to restore a positive self-esteem. In consequence, the prototype of the self-category tends to be a positive reference point for evaluating oneself and others that belong to the same category. The prototype, in turn, is context-specific and in parts defined through distinguishing the ingroup from relevant outgroups. The prototype of a self-category could be understood also

as “ideal self” (Turner et al., 1987), represented through, for example, a (maybe imaginary) member of a group that is maximally similar to all group ingroup members and maximally distinct from all outgroup members. In a way, therefore, the prototype is the best description of what a particular self-category is about and what all members of this category strive to achieve.

Following on directly from this evaluative component of self-categories and the nature of depersonalization, deductions for attraction, cohesion, and cooperation in and between groups can be made (Turner et al., 1987). Depersonalization is essentially based on perceived similarity between oneself and other group members; therefore, when compared with regard to the now common self-category prototype, the other group members will be relatively closer to the positively valued prototype than prior to depersonalization. It follows that attraction between members will increase, leading to more cohesion. From a more instrumental perspective, Turner and colleagues also postulated that

> *“the perception of identity between oneself and ingroup members leads to a perceived identity of interests in terms of the needs goals and motives associated with ingroup membership” (Turner et al., 1987, p. 65),*

which in turn fosters cooperation between group members. By the same token,

> *“where outgroup members are compared, they tend to be personally less attractive to the degree that they are relatively prototypical for a negatively valued outgroup (or les prototypical of a more inclusive self-category)” (Turner et al., 1987, p. 60).*

This and similar statements from the original publications by Henri Tajfel and John Turner have probably contributed to the traditional social categorization perspective in diversity research. According to this perspective, the emergence of sub-categories within diverse groups is always detrimental to the cohesion of the overall group and the cooperation between the sub-groups. Since, as will be described in more detail below, all subjectively relevant diversity is bound to elicit meaningful and self-relevant social categorization processes, this would indeed be bad news.

However, based on SCT, I propose that members of different sub-categories, although different on one level, can be liked when seen in the light of a common overarching group membership. This, however, would imply that the differences between sub-categories on a lower level become less salient – to wit, that diversity is less pronounced. The central tenet of the present dissertation will be that the way in which people conceive diversity as part of what the overarching self-categorization is about, is key in balancing these two levels of self-categorization. Therefore, it has a key role in shaping

the effects of the self-categorization processes inevitably elicited by meaningful diversity. I will outline this further below in more detail.

Summarizing the above propositions along their relevance for diversity in organizations it becomes apparent that SCT offers a psychological account of what exactly underlies the perception of differences between members of diverse social units. It provides an understanding of the subjective reality of diversity. When seen from this perspective, diversity implies opportunities to form self-categorizations which are linked to the self-concept. These self-categories allow people to make sense of who they are. Moreover, through the link between the positive value of self-categories and self-esteem, people are motivated to become "good" group members in that they try to become prototypical for what the group stands for. In addition, depersonalization and prototypicality also provide an explanation for when people will like each other, cooperate more with each other, and form more cohesive groups. In brief, SCT offers a useful way to describe what diversity is and why it can become so important from a psychological point of view.

3.2.2 When does a particular kind of diversity become relevant?

However, recalling what has been said about the multitude of kinds of diversity that can exist in organizations (chapter 2), it seems rather implausible that all theoretically possible distinctions between employees in organizations and work groups can form the basis of their self-concepts in a valid and relevant way. SCT states precisely under which conditions a particular differentiation will become salient. Salience here refers to the fact that a "specific group membership becomes cognitively prepotent in self-perception to act as the immediate influence on perception and behaviour." (Turner et al., 1987, p. 54).

SCT specifies three basic conditions, under which a particular self-categorization will become salient in a particular situation (Turner et al., 1987). The first condition is comparative fit. It is defined by the degree of meta-contrast entailed by a particular distinction between two categories. Members of a fitting category have to be similar to each other and, at the same time, different from members of other categories. The stronger the contrast, the more informative – and, hence, salient – will the particular categorization appear. The idea behind this process is similar to that of an analysis of variance in statistical terms. An example for this could be a work team that entirely consists of relatively young entrants, who all are of similar age. In addition, some of them may be highly extraverted, to a comparable degree, whereas there may be another sub-set of people who are more of the

introvert type. In this case a categorization along personality characteristics will produce a much better contrast than a categorization according to age.

The second condition for category salience is normative fit. The degree to which a certain categorization fits the situation at hand from a normative point of view is dependent on what is known about a particular categorization beforehand. This can be illustrated by the example of dress and gender. There exist certain expectations about the kind of clothing a woman might wear and what kind of clothing is to be worn by men. In certain business contexts that are marked by gender-inequality, a woman might choose to "disguise" her gender slightly by adapting to a more male dress code. This way, she does not appear so "female", hence reducing the normative fit of the gender categories. In the same way, she also decreases differences between herself and her male colleagues, thereby reducing the comparative fit of the gender categorization.

The third condition for the salience of a particular categorization has been called accessibility or perceiver readiness. It is driven by the current motives of the perceiver and past learning. For example, if the perceiver is currently motivated to assemble a cross-functional project team, categorizing people along their functional background makes perfect sense, whereas asking for their marital status does not. In a similar vein, if the perceiver has learned that in a particular organization there are tensions between permanent and temporary workers, he will be more ready to use this categorization when dealing with someone from that organization.

According to SCT, identification with a particular self-category is a strong determinant of this accessibility. Identification with a group is defined as the relatively stable incorporation of the group membership in one's self-concept (Turner et al., 1987) – as opposed to the highly context-specific salience of self-categories. In consequence, it is, for example, through salience and depersonalization that the well-known benefits of identification with the organization come about (e.g., higher job satisfaction, job involvement, in-/extra-role performance, and lower turnover intentions, see Riketta, 2005; Riketta & van Dick, 2005; van Dick, Grojean, Christ, & Wieseke, 2006; van Dick, van Knippenberg, Kerschreiter, Hertel, & Wieseke, 2008).

Together, comparative fit, normative fit, and accessibility of social categories determine whether a specific categorization will be salient in a particular situation. As diversity is conceptually tied to differences between people, these conditions also inform about the subjective relevance – or salience – of a particular kind of diversity in a given situation.

For this reason, the three classic conditions of category salience are also acknowledged in the categorization elaboration model. According to this model, social categorization processes in diverse groups only occur if categories are made salient through both types of fit and accessibility (Proposition 5, van Knippenberg et al., 2004). Notably, however, diversity is still linked to information elaboration irrespective of these conditions. This is in line with the classic distinction between social categorization perspective and information/decision-making perspective. However, assuming that differences between people have conscious consequences without being represented mentally as such, is contradicting the definition of information elaboration as conscious sense-making process.

Nonetheless, this peculiarity of the categorization elaboration model is understandable based on how the term social categorization is generally used in diversity research. Diversity is often distinguished from social categorization in general diversity research. In this context, diversity is sometimes referred to as the mere existence of differences between group members; social categorization, in turn, is often understood as the forming of sub-groups within such a diverse group. When seen from a SCT perspective, though, all principles of SCT are applicable on all levels of self-categorization, including even the differences between single persons within a group. This is why the mere existence of differences is bound to be insignificant – at least on a conscious level – unless it becomes salient through the principles outlined in SCT. This point will be elaborated on further in chapter 7. If this is the case, however, diversity is necessarily bound to the emergence of different sub-groups within a particular group, leading to intergroup relations within a diverse group. Social identity theory provides a useful theoretical framework to understand these relationships.

3.3 Social Identity Theory

3.3.1 Basic tenets on the relations between groups

SIT is based upon the idea that a part of our identity is derived from knowledge about our membership in certain groups. To achieve a positively valued sense of self, people strive to find ways to make sure that their own group compares favorably against other groups. For these comparisons to make sense a particular group member has to have internalized the group membership in the self-concept to some degree, the situation has to allow for the selection of relevant relational attributes to compare the groups, and the comparison groups should be perceived as relevant (Tajfel & Turner, 1986). Given that

these conditions are met, social comparisons are informative regarding the relative value of one's own social identity – or at least regarding the part of it that is comprised by the respective group membership. Much of the remainder of the theory is concerned with the ways in which people manage to achieve positive distinctiveness for their group.

According to SIT, there are basically two ways in which people can react if they find themselves in a group on the lower end of a valued dimension in comparison to a group that is relatively better off (e.g., a female employee compares the average income of female and male employees in the same company). They can either try individually to change groups or they can act collectively to challenge the situation. Which option they choose depends upon two successive appraisals of the situation. First, the more the boundaries between the groups are permeable, the more people will tend to increase their status through passing into a higher status group (e.g., the female employee could try to adopt a more masculine behavior because "acting male" is valued in her organization). If group boundaries are not permeable, however, the strategy for improving the value of one's social identity depends on whether the given status relationships between the groups are perceived as secure. Secure status in this respect is defined through both temporal stability and legitimacy. If status relationships are perceived as insecure, group members will try to openly challenge the given status quo and thereby improve the value of their own group; social competition ensues (e.g., if the female employees of the company collectively sue the company for gender-discrimination). If status relationships are perceived as secure, a strategy is most likely that has been termed social creativity. This can involve a change in comparative dimensions (e.g., from "income" to "work-life-balance"), a change in the meaning of the current dimension (e.g., "They do it for the money; we do it because we believe in what we do."), or a change in the comparative frame (e.g., comparing oneself with another outgroup earning even less). All these different strategies – changing group membership, changing status relationships, and changing the perception of the situation – are ultimately aimed at restoring a positive social identity.

When seen from the perspective of diversity within organizations, however, none of these strategies really fits the impression of a culture in which differences are a valued asset of the organization. Rather, they all imply that the employees' positive sense of self is threatened through status relationships between the various sub-groups. It is hardly conceivable that under such conditions, the various sub-groups would openly debate their differing points of view and try to integrate them, thereby learning from one another. Probably due to similar impressions, SIT has often been cited as arguing for the negative effects of diversity through processes of social categorization. However, the proposition that

salience of social category membership or identification with a social category are sufficient causes for intergroup bias and hostility between groups has never been part of the original SIT (Tajfel & Turner, 1979). Rather, depending on the circumstances, people can even prefer outgroups. What has been received less often in the wider literature is the fact that SIT points to the circumstances of the situation and the particular relationship between the meanings of the categories in question as key factors in shaping the relationships between groups.

3.3.2 Reception of social identity theory in diversity research

Similar as in case of the SCT, the idea that social categorization is a process occurring more or less independent of the mere existence of diversity has probably also influenced the reception of SIT in general diversity research. Both theories, SIT and SCT, are in fact among the oldest and most cited theoretical foundations of diversity research. Nonetheless, in many publications, their use is restricted to providing an argument for the negative relationships between sub-units that are supposed to occur in diverse social units according to the traditional social categorization perspective.

Often this argument is not based on SIT itself but rather on a common interpretation of the seminal experimental studies that led to the development of both SIT and SCT. Based on one reading of these classic "minimal group studies" (Tajfel et al., 1971), it is often assumed that social category salience is a sufficient cause for all sorts of negative relationships between sub-groups in a diverse organizational unit. In these experiments, Tajfel and colleagues assigned participants to groups that are free from any form of deeper meaning – so called minimal groups. As a consequence of this assignment to minimal groups they found that participants started to favor ingroup members over outgroup members when allocating resources – even though they never actually met anyone from the in- or outgroup and even though there was nothing for them to be gained personally through ingroup favorism. Short-cutting later theoretical developments, these experiments are often seen as justifying the proposition that the mere salience self-categorizations – or the more enduring identification with a social category for that matter – is sufficient for ingroup favorism, discrimination and other negative relationships to occur between groups.

This simplification of the original social identity theory has been the cause for a long-lasting debate (e.g., Brown, 2000; Livingstone & Haslam, 2008; McGarty, 2001; Reicher & Haslam, 2006; Spears & Haslam, 1997). However, the conceptualization of social categorization processes as the cause of problems in diverse social entities is likely to

be an oversimplification. In their review on 40 years of research on the link between stereotyping and prejudice, Park and Judd (2005) argue that much work in this area has been disproportionately focused on social categorization as the major cause for intergroup animosity. In their summary of the research they conclude that there is no empirical ground to back up this relationship. They argue that instead of mere cognitive categorization, other factors, such as the negative affective reactions to a particular social category, should also be considered. Support for the usefulness of such an enlarged focus comes, for example, from a study on the relationship between catholic and protestant students in Northern Ireland (Livingstone & Haslam, 2008). In this study, ingroup identification was related to negative intergroup relationships only if the content of the involved social categories was perceived to be antagonistic. Livingstone and Haslam (2008) argue that

> *"social identities have particular content and meanings that are inextricably tied to intergroup relations. Nevertheless, […] social psychological research on intergroup relations has tended to downplay identity content, focusing instead on more generic constructs and processes such as categorization and identification." (p. 2).*

This is also evident in that a closer reading of the original publications of social identity theory (Tajfel & Turner, 1979, 1986) brings up a far more complex theoretical framework which renders the "social categorization equals trouble"-assumption premature, if not falsified.

Building on a similar interpretation of the literature, van Knippenberg and colleagues (2004) emphasize the importance of distinguishing between factors that influence the salience of social categories within diverse groups and the factors that lead to intergroup bias between these groups. Consequentially, the categorization elaboration model posits that negative relations between salient sub-categories within a diverse social category will only occur if the respective sub-categories pose a substantial threat to each other. Such threats may come in different forms, but they all challenge the positive image of one's own group. Again, it is the content of a social category through which the identification with this particular category unfolds its effects.

Summarizing the major contributions the social identity approach has to offer on the topic of diversity in organizations so far, the following points become apparent:

1. Any subjectively meaningful kind of diversity is bound to be perceived on the basis of self-categorizations on at least two levels: Self-categorization as a member of the overall social unit, and self-categorization as a member of a particular sub-unit distinct from at least one other possible sub-unit.

2. It is through the implied self-categories and the relevance of these self-categories for the self-concept that diversity issues gain much of their subjective importance.
3. As the implied self-categories have a value component to them, they form the basis for the evaluations of the self and of others – with consequences for attraction, group cohesion, and cooperation.
4. Whether a particular kind of diversity will be salient in a particular context depends on its comparative fit, normative fit, and the accessibility of this particular kind of diversity to the perceiver.
5. The mere distinction between social categories is not sufficient for negative relations to occur.
6. Negative relations between sub-units in a diverse social unit depend on the content of the self-categories implied through the distinction of sub-units.
7. If the self-categorizations implied by meaningful diversity are challenging each other's status – and hence the self-esteem of their members – negative relations will occur between the sub-units.

Especially the fourth deduction could prove extremely helpful to disentangle the ambiguous research findings with regard to the effects of diversity. In many studies on diversity, the kind of diversity studied is a preset theoretical deduction made by the researchers. Only rarely is the choice of diversity under study discussed in detail with regard to its particular importance for the participants taking part in the study. Inductive choices are even rarer. According to the social identity approach to diversity, assessing the subjective salience of a particular kind of diversity should be of paramount importance for any study, because what may be a relevant social categorization in one context may not play any role at all in another context. This probably also holds for diversity management in organizations. Here, assessing the full set of potentially relevant self-categorizations is an important step when installing measures to use the full potential of diversity (Haslam, Eggins, & Reynolds, 2003).

Paying more attention to the subjective reality of diversity, however, is but one step towards understanding and managing the effects of diversity in organizations. Another step would be to examine conditions that minimize challenging relationships between self-categories and that enable diverse social units to use the full potential of their diversity.

3.4 Fostering Positive Relationships within Diverse Social Units by Means of Social Identity

Fortunately, the reception of the social identity approach in intergroup-relations research has not been restricted to the explanation of negative effects between groups – as it has been in much of the diversity literature. Indeed, there is a long tradition of research dealing with the improvement of intergroup relations by means of social categorization, based on which a variety of different models to improve intergroup relations were developed. To appreciate the utility of these models for diversity research in full, it is necessary to keep in mind that diversity implies self-categorizations on at least two levels: (a) self-categorization as a member of the overall unit (e.g., a particular work group) and (b) as a member of one of the sub-units implied by diversity (e.g., one of the two engineers in that work group). The terms used in these models usually refer to self-categories that are relatively enduring and internalized into the self-concepts of their members. Hence, the models mostly refer to group identities, rather than self-categories.

3.4.1 The common ingroup identity model

This line of research is spearheaded by the common in-group identity model (Gaertner & Dovidio, 2000; Gaertner, Dovidio, Anastasio, Bachman, & Rust, 1993). The basic tenet of this model is to foster positive intergroup contact through extending the benefits of a shared group membership to former out-group members. This is supposed to happen through the creation of a common overarching identity that entails an emphasis on similarity between sub-groups. Theoretically, according to SCT, whenever the superordinate identity becomes salient in the perception of the members, former subgroup-distinctions cease to be relevant and the depersonalization process now encompasses former outgroup members, making them more prototypical to the now relevant overarching self-category, and therefore increasing attraction, cohesion and cooperation between former sub-groups. Given that the social categorization in question is in itself of no further use, this is probably a desirable outcome. Empirically, this common identity has been shown to reduce intergroup bias, negative attitudes towards outgroups (Dovidio, Gaertner, & Saguy, 2007; Gaertner & Dovidio, 2000) and also perceptions of intergroup threat (Riek, Mania, Gaertner, McDonald, & Lamoreaux, 2010).

Mapping this insight on diverse organizations, however, would often imply downplaying the salience of important and meaningful sub-categories, such as departments within the organization or differences in functional background within a project team.

Depending on the specific circumstances, neglecting these differences might be neither feasible nor desirable. In fact, many of the positive effects associated with diversity in organizations essentially depend on diversity being an active, appreciated and visible feature of the organization (see chapter 5). Similarly, in the case of already developed intergroup conflicts, it is often argued that getting conflict parties to perceive themselves as belonging to one group is essentially ignoring social reality and hardly possible in cases of conflicts with an intense history (Haslam, 2004). In a similar vain, it has been argued that abandoning meaningful social categories seems hardly feasible given that they are an inherent part of human cognition, aside from the fact that many people will not be prepared to simply give up a once valued and important aspect of their social identity (Park & Judd, 2005; Spears & Haslam, 1997). This argument fits in nicely with the empirical finding that trying to convince people who identify strongly with their respective sub-category to perceive themselves more in terms of the overarching category can backfire and produce even worse intergroup relations (Crisp, Stone, & Hall, 2006). One important factor in this respect is the potential self-concept threat resulting from overly inclusive groups (Hogg & Hornsey, 2006; Hornsey & Hogg, 1999).

For the sake of completeness, it should be mentioned that this criticism also applies to another approach to improving intergroup relations. In their decategorization model, Brewer and Miller (1984) suggested that intergroup relations would benefit from making social categories less salient altogether, hence reducing the situation to encounters between individual persons. However, like the common ingroup identity model, this could imply neglecting meaningful social identities. Moreover, in an organizational context it seems preferable not to abandon the concept of categories altogether since, for example, the overall organizational identity transports valuable information, such as the organization's missions or culture. Thus, installing a common ingroup identity would be preferable to decategorizing employees into separate individuals.

From the traditional social categorization perspective to diversity, which is basically blaming social categorization as the origin of diversity's detrimental effects, installing a common ingroup identity at the expense of loosing valid self-categories at a lower level might be a sensible thing to do. As argued above on grounds of the social identity approach, however, the traditional social categorization perspective might be flawed. It ignores the fact that the meaningful diversity is necessarily perceived through the lens of social categorization, and that, therefore, also the beneficial effects of diversity are contingent on

the differences between the group members being an accessible and vivid aspect of the group.

3.4.2 The dual identity model

Such and similar considerations led to the insight that under certain circumstances it is preferable to preserve and acknowledge the sub-units' identities as well as the overarching common identity (Dovidio et al., 2007; Gaertner, Dovidio, & Bachman, 1996). The mental representation that comes with this dual identity model is one where sub-categories exist within an overarching common identity. Theoretically, the model is still aimed at expanding the benefits of common ingroup membership to members of former outgroups. However, through allowing for identification on the level of sub-groups, subjectively important self-categories on that level are preserved and acknowledged. Furthermore, social categorization as a general human way to structure the world is less restricted, and the fact that distinctions between groups may be rooted in a long history is not denied.

In support of these ideas, it has been found that people holding a strong identification with such sub-groups actually showed more, rather than less, intergroup bias when experimentally led to take on an overarching common identity together with members from other sub-groups. In a dual identity condition, however, this bias was reduced (Crisp et al., 2006). In a similar vain, members of minority groups – both real-world and experimentally created – also seem to prefer dual identities resulting in less bias against other groups (Dovidio, Gaertner, Niemann, & Snider, 2001; Dovidio et al., 2007; Gaertner et al., 1996; Gonzalez & Brown, 2006).

In organizational contexts, the distinction of sub-categories (e.g., organizational departments) is often dictated through certain necessities of division of labor and specialization. Perceiving and acknowledging these differences makes perfect sense in daily business; so does orchestrating them under the umbrella of an overall organizational vision and more specific goals the organization tries to achieve. Similarly, some sub-categories of organizations might have a history of long lasting debate and conflict (e.g., union representatives vs. management). It seems unlikely that these conflicts can be resolved by downplaying the very differences they are based on. However, this does not necessarily hold for all sub-categories within an organization (e.g., in many teams gender differences do not necessarily have to affect team processes or effectiveness).

Nonetheless, like the common identity model, the dual identity model is not without its difficulties. Interesting in that respect, a study conducted in Portugal showed that for members of ethnic minority sub-groups a common ingroup identity, rather than a dual identity, reduced intergroup biases the most (Guerra et al., 2010). For members of the ethnic majority in that study a dual identity worked best. Guerra and colleagues discuss these findings behind the background of the historical relationships that exist between the ethnic sub-groups in Portugal. They argue that the process of integration has not yet led to stable and secure relationships such that the dual identity preference of the majority might be interpreted as a wish for further securing the status-relationships. They juxtapose their results to findings from the United States, where the history of inter-ethnic relationships is much longer. In this context, they argue, a majority preference for a common identity could illustrate the wish for downplaying the existing and relatively secure inequalities between the ethnic groups (for a detailed discussion see Dovidio, Gaertner, & Saguy, 2009; Guerra et al., 2010). In consequence, these comparisons illustrate that the mere appreciation of sub-group identities can be interpreted in various ways; just as neglecting them can. This points to the fact that there is more that needs to be specified in a working dual identity model than just the degree to which an overarching identity and various sub-identities are appreciated.

A second concern regarding the effects of dual identities is rooted in studies on ingroup-projection (Mummendey & Wenzel, 1999; Wenzel, Mummendey, & Waldzus, 2007). These studies provide evidence that under dual identity conditions, members of the sub-categories can project parts of their distinct identity on the overarching category. In consequence members of the other sub-categories will be perceived to be less prototypical for the overarching category. According to SCT, this can lead to negative effects regarding the cohesion and cooperation within the overall category.

A third problem of the dual identity model is based on the principle of functional antagonism from SCT (Haslam, 2001). Functional antagonism states that once differences on a particular level of abstraction become salient, this renders it unlikely that people will be perceiving similarities on a higher level or differences on an even lower level. Applied to a dual identity this would mean that salience of the overarching category implies perceiving all members therein as similar and that this similarity in turn makes it difficult to maintain the salience of the different sub-categories and vice versa.

Important in this respect, salience is conceived here as importance perceived by a particular group member at a particular point in time and in a particular context. According to the social identity approach – and irrespective of functional antagonism – a social identity

can, nonetheless, be comprised of any number of particular group memberships at various levels of abstraction that are internalized as enduring parts of the self-concept. All theses group memberships can become salient in a particular context – one at a time.

However, using diversity in the way it is implied by the business case for diversity or the classic information/decision-making perspective, means using differences of sub-categories while trying to achieve goals derived from a common overarching identity and while working together as one team with people who have to be appreciated as being different from the self at the same time. Using diversity in this way implies creatively integrating two different levels of self-categorization that, at first glance and according to stated theory, contradict each other.

3.5 Reconciling Levels of Self-Categorization: Diversity Beliefs and Diversity Climates

From the above models for approving intergroup relations on the basis of the social identity approach, a few conclusions regarding the effects of diversity in organizations can be drawn. First, salience of a common overarching identity that bridges the various different subgroups implied by diversity will provide a "common ground" for cooperation between different subgroups. Second, subjectively relevant diversity can only be used for the good of a particular organization or work group if this diversity remains salient in the perception of the members. Third, trying to use subjectively relevant diversity based on the common ground implied by an overarching identity makes it necessary to simultaneously use features of two levels of self-categorization. Fourth, this will make it inevitable to reconcile these two levels to avoid functional antagonism and to avoid negative sub-group relationships.

As outlined above, the relationship between different self-categories is not merely dependent on the salience of these categories, but also critically dependent on how the contents of the categories are related to each other. In a similar vein, in one of the earliest formulations of the dual identity model Gaertner, Dovidio, and Bachman (1996) argue that contextual features and also "qualitative dimensions of the dual identity, such as members' perceptions of the functional relations between the subgroups within the superordinate entity" (p. 288-289) should be studied in more detail in order to understand when a dual identity is superior to a single common identity. This also points out the importance of looking closely at the contents of the involved social categories – both at the subordinate and the superordinate level – and how they relate to each other.

One of the first accounts on how two levels of self-categorization can be reconciled through category content is provided by Haslam (2001). Reviewing the state of art in negotiation research, he points out that the insights from social identity-based models on improving intergroup relations and from other lines of research show a good match. The common theme that these lines of research converge on is the importance of acknowledging both superordinate as well as subordinate social identities during negotiations – along the lines of the dual identity model. Haslam points out, however, that the original dual identity model is in danger of violating the principle of functional antagonism from SCT. He also points out that this can be avoided if "the *content* of the emerging superordinate identity *requires* lower-level differentiation and is therefore *sustained by* lower-level identification" (p. 191).

This specification of the dual identity model is inspired by Emil Durkheim's (1893/1933) work on the division of labor in society. Durkheim (1893/1999) distinguished between two types of solidarity that can exist in societies. The first one is based on members of the society clinging together on grounds of common rules, norms, and values. This "mechanic solidarity" is part of a "conscience collective" – that is, a collectively shared attitude or norm. Through the lens of mechanic solidarity, all deviant behavior is seen as detrimental to the common welfare. The second form of solidarity is based on internal differentiation and members' capacities to fulfill specialized roles in a synergistic way. Through the lens of this "organic solidarity" differences and deviance are valuable for the common welfare of the society.

Borrowing the term "organic" from Durkheim, Haslam hypothesizes that, whatever the nature of the subordinate categories in the negotiation process might be, the superordinate category has to be organic:

> *The "process of successful negotiation requires parties who have different lower-level theories of the self (i.e. conflicting mechanical or organic social identities) to develop and internalize an integrated theory of the self (a superordinate organic social identity) that incorporates, makes sense of, and utilizes those differences."(Haslam, 2001, p. 192)*

It is this organic character of the overarching category which makes salience of category membership on both levels of the dual identity model reconcilable. It is the cardinal way in which "being the same and different at the same time" is possible.

Under the condition of such an organic superodinate identity, the dual identity model works as intended. The salience of the sub-categories ensures that existing conflicts are

addressed and important differences are not overlooked. Salience of the overarching category membership, in turn,

> *"is necessary for the parties to share a common motivation to do the creative intellectual work that is needed for social differences to be reconstrued as sources of strength rather than bones of contention" (Haslam, 2001, p. 192).*

In consequence, Haslam argues that there is much to gain for organizations from adopting a strategy of "organic pluralism", that is the promotion of the creation of such organic superordinate identities that make use of lower-level identities (see also Haslam, Powell, & Turner, 2000). Based on these ideas and previous research on intergroup negotiations (published later in Eggins, Haslam, & Reynolds, 2002), organic pluralism was developed into the guiding principle for a multi-phase model of organizational development towards a better management of different sub-groups within an organization (ASPIRe, Haslam et al., 2003).

Although Haslam's account has been specified with regard to intergroup negotiations in organizations, the basic idea is valid beyond these specific levels of the organization. Around the same time, van Knippenberg and Haslam (2003) provided a similar account that focused on the relationships between members of diverse workgroups and on how the "diversity dividend" can be realized from a social identity point of view. Their basic assumption is that diversity can be one aspect of a given social identity – which is congruent with proposing an organic nature for that social identity. Following from this, they assumed that members hold beliefs about what kind of composition is desirable for their group as a part of their understanding of what their group is essentially about. Van Knippenberg and Haslam (2003) referred to these as "composition beliefs" or "diversity beliefs". In a set of studies they could show that these diversity beliefs moderated the effect of diversity on identification with the overall group (see also van Knippenberg, Haslam, & Platow, 2007). Diversity was more positively related to identification the more people valued diversity as an important aspect of their group. Since their original publication, these results and the concept "diversity beliefs" have inspired a variety of studies, which further underlined the importance of diversity beliefs for diverse workgroups (e.g., Homan, Greer, Jehn, & Koning, 2009; Homan et al., 2007; van Dick, van Knippenberg, Hägele et al., 2008; van Knippenberg & Haslam, 2003).

Starting from yet another vantage point, research on ingroup-projection within a dual identity context came to a fairly similar conclusion. In this line of research, one proven way to avoid in-group projection is the creation of a complex prototype which leaves enough

room for all sub-categories to fit in (Peker, Crisp, & Hogg, 2010; Waldzus, Mummendey, Wenzel, & Weber, 2003). The idea of a complex prototype comes close to what has been described above as organic social identity or the quality of the social identity captured through diversity beliefs. Further concepts that follow a similar line of thought can be found in research on multiculturalism (Correll, Park, & Smith, 2008; Richeson & Nussbaum, 2004; Wolsko, Park, Judd, & Wittenbrink, 2000) or acculturation (Berry, 1984; Bongard, Kelava, Gilan, Kim, & Sabic, submitted; Sam & Berry, 2010).

At the core, all these concepts address the importance of diversity for the social entity in question. Therefore, they hold the potential to explain to what extent an individual will be able to fruitfully integrate perceptions of being different from and yet sharing a (organic) common identity with others in the group. Also on higher levels of self-categorization they can explain how sub-groups can reconcile the preservation of their own social identity as meaningfully different from other sub-groups, and, at the same time, see themselves as belonging to the same overarching social identity with the other sub-groups.

The concepts themselves can also exist at various levels. The term "diversity beliefs" is usually meant to designate individuals' beliefs about the value of diversity for their group. With regard to these individual diversity beliefs, two defining characteristics are important. First, diversity beliefs are not to be confused with concepts like prejudice or stereotyping (cf. Bargh, Chaiken, & Trope, 1999; Jost et al., 2009; Pettigrew & Meertens, 1995). Although prejudice and negative stereotypes certainly have the potential to disturb the relationships in diverse groups, they focus on how people are disposed towards people who are unlike themselves. Diversity beliefs, on the other hand, focus on how people are disposed towards social units that consist of sub-units that differ from one another. Second, diversity beliefs have an instrumental component. They do not only assess whether diversity is liked or disliked in itself, but rather whether it is valued or not because of its usefulness for achieving certain relevant outcomes. Accordingly, diversity beliefs have often been defined with regard to the instrumental value of diversity for group functioning and performance. For example, van Dick, van Knippenberg, Hägele, Guillaume, and Brodbeck (2008) defined diversity beliefs as

> *"beliefs individuals hold about how group composition affects workgroup functioning, that is, the extent to which individuals perceive diversity to be beneficial for or detrimental to the group's functioning." (p. 1467).*

Groups, organizations, and other social units can in themselves possess a shared norm regarding the value of diversity. Such group-level constructs can be described as

"diversity climates". On the level of organizations, the discussions surrounding the business case for diversity provides ample evidence for such climates (e.g., Cox, 1991). For example, the very shift from the previous non-discrimination perspective to the modern business case for diversity illustrates that, by and large, there seems to be a trend for organizations to engage diversity as a valuable asset which can be utilized to achieve the goals of the organization. Also in smaller organizational units such group-level perspectives on diversity exist. This is probably best illustrated in a qualitative study by Ely and Thomas (2001) who found three different perspectives on cultural diversity that were predominant in different work-groups:

> *"According to the integration-and-learning perspective on diversity, the insights, skills, and experiences employees have developed as members of various cultural identity groups are potentially valuable resources that the work group can use to rethink its primary tasks and redefine its markets, products, strategies, and business practices in ways that will advance its mission." (p. 240).*
>
> *"An access-and-legitimacy perspective on diversity is based in a recognition that the organization's markets and constituencies are culturally diverse. It therefore behooves the organization to match that diversity in parts of its own workforce as a way of gaining access to and legitimacy with those markets and constituent groups. Work groups in which this perspective prevails use their diversity only at the margins, to connect with a more diverse market; they do not incorporate the cultural competencies of their diverse workforces into their core functions." (p. 243)*
>
> *„The discrimination-and-fairness perspective is characterized by a belief in a culturally diverse workforce as a moral imperative to ensure justice and the fair treatment of all members of society. It focuses diversification efforts on providing equal opportunities in hiring and promotion, suppressing prejudicial attitudes, and eliminating discrimination. A culturally diverse work group, therefore, is meant to be evidence of just and fair treatment of employees. In contrast to the previous two perspectives, in the discrimination-and-fairness perspective there is no instrumental link between diversity and the group's work."(p. 245f)*

The first two of these perspectives resemble closely the arguments associated often with the business case for diversity; the last one, however, is representative of the older non-discrimination approach.

In summary, whether climate or beliefs, the psychological value of these constructs is that they provide the basis on which different levels of self-categorization can be sensibly reconciled. This reconciliation is necessary for diversity to have beneficial rather than detrimental effects on social units and their members. This is because for diversity to be subjectively relevant, the self-categorizations on the level of sub-units have to be subjectively salient and for this diversity to be orchestrated towards a common purpose, the self-categorization on the level of the overall social unit has to be salient, too. If these levels

of self-categorization are meaningfully interrelated, people will react differently to diversity than if this is not the case. In a way, therefore, both constructs describe from what vantage point individuals or social units engage with diversity. This social identity based engagement with diversity is the general subject matter of the present dissertation.

4 The Present Research

4.1 General Subject Matter and Research Questions

As outlined above, differences between people who belong to the same social unit have preoccupied many people, both within and outside of academia, from ancient times until today. On the societal level, this is obvious from the discussions surrounding, for example, immigration policies and anti-discrimination laws. However, diversity is also a very important topic in modern organizations. For a variety of reasons, organizations and sub-units of organizations, such as departments or work-groups, become increasingly diverse and face the challenge of dealing with this diversity. The beneficial and detrimental effects that this diversity potentially could bring about are of major concern to organizations. Unfortunately, the accumulated research findings on the effects of diversity point to the conclusion that all kinds of diversity can have positive as well as negative effects and that it is not yet possible to sufficiently predict when each will occur. Due to this unsatisfying state of the art, a trend emerges in diversity research to examine the factors that shape the effects of diversity and the mechanisms underlying these effects in more detail. One of the factors that could influence the effects of diversity in organizations are the vantage points from which people engage with diversity.

In the present dissertation, I would like to draw attention to these vantage points from which people engage with diversity. The basic assumption behind these vantage points is that people engage with diversity of their social units every day and thereby acquire an understanding of what diversity means for a particular social unit. People in organizations encounter diversity, in whatever form it might be present, equipped with a range of knowledge, the capacity to think and the ability to react to the environment based on their interpretations of the circumstances. They do so actively while being motivated by personal goals and while trying to comply with organizational requirements. Over time, these encounters with diversity are likely to accumulate in a set of experiences. These experiences can be exchanged and discussed between people. Not least due to these interactions, organizations and work groups as social systems also accumulate experiences. On the organizational level, these experiences manifest themselves through organizational structures, policies, vision statements, and climates. In essence, through these sense-making processes individuals and organizations acquire an understanding of what it means for a particular social unit to be diverse in a certain way.

According to the above outlined social identity approach to diversity, this individual and group-level understanding theoretically plays a pivotal role in shaping the effects of diversity. When seen from this perspective, a diverse social unit can be understood as a system of social categories on at least two levels of abstraction. For diversity to be perceived as relevant at all, social sub-categories have to be salient within the diverse social unit. For these sub-categories to work together towards the common purpose of the overall social unit, this purpose – represented in the identity of the social unit – has to be subjectively salient, too. For the salience of self-categories to be possible on both these levels of abstraction simultaneously, the nature of the overall social unit has to be organic – that is, it has to integrate the differences between the sub-categories meaningfully. As outlined above, individual diversity beliefs and group-level diversity climates capture the degree to which this is achieved, in that they describe the value that a particular kind of diversity has for a particular social unit. Through this they have the capacity to critically influence the relationships between sub-units in a diverse social unit.

Therefore, the key proposition behind the present research is that acquired experiences regarding diversity – as represented in diversity beliefs and climates – will influence how people engage with diversity in the future. They provide a vantage point from which people will engage with diversity.

These different vantage points to engage with diversity are the general subject matter of the present dissertation. The main questions this dissertation seeks to answer with regard to these vantage points are, first, whether they have any effects on groups and the individuals therein and, second, if so, how these effects come about. These questions are addressed in the three main chapters of this dissertation. Each chapter offers a slightly different approach. Chapter 5 contains a meta-analysis on previous research regarding these effects. Based on this state of the art, the following two chapters are meant to extend the understanding on how these effects come about from different perspectives. I will now briefly outline the main line of inquiry contained in each of the next three chapters.

4.2 A Meta-Analysis on the Effects of Diversity Beliefs and Diversity Climates

The aim of the fifth chapter is to quantitatively summarize all available research on the effect of the ways in which individuals and groups are disposed to diversity. To that avail a constitutive definition of diversity beliefs – that is individuals' attitudes towards

diversity – and diversity climates – collectively held positions towards diversity – is introduced. With regard to diversity climates, certain conceptual issues are clarified that arise from the multilevel-nature of the construct. Building on the social identity approach to diversity and the categorization elaboration model, a theoretical rational is presented that explains why diversity beliefs and climates both moderate the relationship between diversity and beneficial outcomes for individuals and groups. In addition, I shall argue in this dissertation that there is good reason to assume that diversity beliefs and climates also have direct effects on group- and individual-level outcomes. In a meta-analysis on all available research on this topic, the moderation and direct effects of diversity beliefs and climates are tested. To help structure the field of diversity beliefs and climate research, various differences between conceptualizations of diversity beliefs/climates and outcome variables, as well as study designs are examined as meta-analytical moderators. Figure 4-1 provides an overview over the tested hypotheses and the meta-analytical moderators.

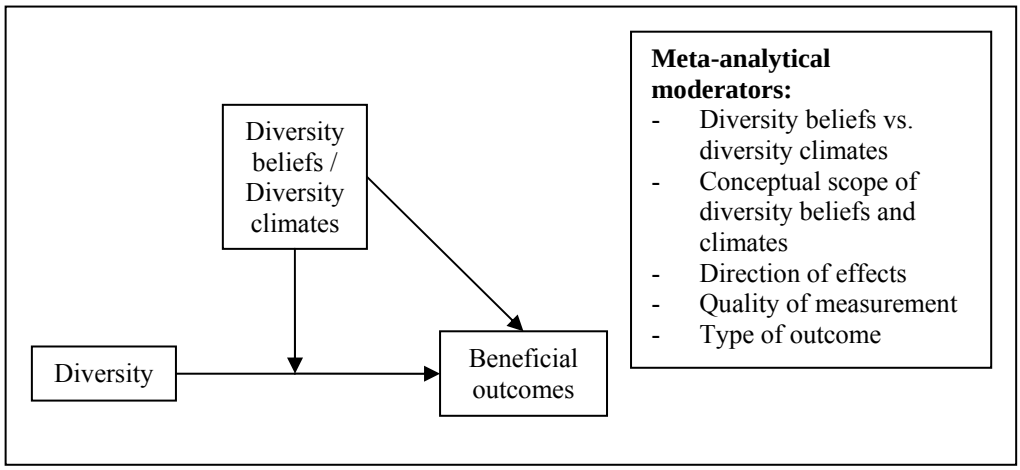

Figure 4-1. The general model underlying the meta-analyses in chapter 5.

There are three major contributions this chapter seeks to make. First, providing the first meta-analytical summary on the effects of diversity beliefs and climates, it seeks to generate attention to the effects of diversity beliefs and climates and to contribute to unifying the field. Second, the meta-analytical moderators regarding conceptual differences in the primary literature are meant to offer some structure for future research. Third, the explicit theoretical deduction and test of both moderator and direct effects should draw attention to the fact that often the question is not so much whether diversity is given or not, but rather what to do with it.

4.3 Organic and Mechanic Forms of Solidarity as Mediators between Organizational Identification and Successful Intergroup Collaboration

Building upon the findings from the meta-analysis the sixth chapter aims at further exploring three theoretical aspects of diversity beliefs and climates that have often been overlooked in previous studies. First, diversity beliefs and climates are theoretically part of the content of an organization's identity. This implies that whatever effects they might have, these effects are energized through identification with the organization. Second, much of the previous research on diversity beliefs and climates has been concerned with a one-dimensional conceptualization of the constructs. Measures used in these studies could theoretically range either from more to less pro-diversity or from pro-diversity to pro-similarity. However, there are good theoretical and empirical reasons to assume that both diversity and similarity can be valued aspects of the same social identity at the same time.

Third, combining the other two aspects, the case is made that identification with the organization can lead to two distinct forms of solidarity within the organization – one based on diversity and one based on similarity – which, furthermore, both can positively influence the effectiveness of collaboration within the organization. Contrary to previous research concerned with similar concepts, both forms of solidarity are not meant to be mutually exclusive. Whether only one or both are mediating the relationship between identification and collaboration in a specific organization depends on the specific content of the respective organizational identity. Therefore, the pattern of this multiple-mediation can vary across organizations. These propositions are summarized in Figure 4-2. They are put to the test in two very different organizations, to wit, a Taiwanese hospital and a German university. Contrary to previous diversity research, the collaboration focused on in these studies occurs between teams in an organization, rather than individuals in teams. The chapter also includes results from a small longitudinal sample, providing a first test of the causality of the proposed relationships.

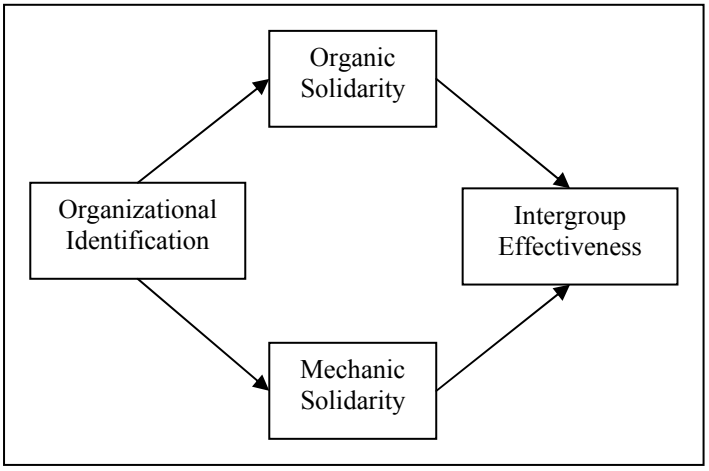

Figure 4-2. The general model underlying chapter 6.

There are three contributions this chapter intends to make. First, the linkage of diversity beliefs and climates to the organizational identity is meant to emphasize the motivational role of organizational identification behind the effects of diversity beliefs and climates. Second, the chapter seeks to draw attention to the fact that both similarity and diversity can be valued aspects of an organizational identity at the same time and should, thus, be studied independently. Third, the chapter is aimed at expanding the scope of diversity research from the cooperation between diverse individuals to also include the cooperation between diverse groups.

4.4 The Role of State Affective Empathy as Mediator between Work Group Diversity and Performance

The seventh chapter extends previous research on diversity beliefs and climates in yet another way. Previous studies on the moderator effects of diversity beliefs and climates on the relationship between diversity and various outcomes focused on the idea that diversity can stimulate information elaboration. In this chapter, a theoretical model is developed that complements this classic cognitive pathway between diversity and group performance through an emotional mediating process (see Figure 4-3). Fundamental to this emotional pathway is the idea that people who value diversity or work in groups where diversity is valued, will most likely engage with their groups' diversity not only cognitively, but will also be more inclined to get involved on an emotional level.

Beginning with early research in the tradition of the information/decision-making perspective, it has often been argued that diverse groups can muster a richer pool of informational resources that ultimately can foster performance. Complementing this informational potential of diverse groups the proposed model includes an emotional potential of diverse groups – that is diverse groups can also pool a richer variety of emotional states which, in turn, can enable them to perform better.

The central mediating mechanism in the categorization elaboration model is information elaboration. Complementing this process the model developed in chapter 7 includes state affective empathy as central mediator. That is to say, the encounter with different people in diverse work groups is proposed to stimulate people not only to think, but also to empathize. Empathy, in turn, is known to lead to a variety of beneficial effects within interpersonal relationships, which will ultimately lead to better performance.

Further paralleling the categorization elaboration model, contingency factors are proposed to influence the relationship between diversity and empathy. Diversity is proposed

to lead to more empathy, the more organizational and task requirements suggest the benefits of relating to others, the more work group members are motivated to relate to others in the team, and the more they are familiar with each other, such as to enable an understanding of what happens in the other person. In addition, it is proposed that the sub-categories implied by the diversity must not entail opposing or threatening relationships between the members for this empathy stimulating effect of diversity to occur.

Diversity beliefs and diversity climates are incorporated in the model as second-order contingency factors. They are assumed to foster the motivation to relate to others and to diminish potentially threatening or challenging sub-group relationships. To the degree that they describe the instrumental value of diversity for the group or the organization, they also can be seen as part of task or organizational requirements. More elaborated diversity beliefs might even include knowledge about different others. Finally, diversity beliefs and climates are proposed to influence whether objectively present differences between members of the group are perceived as subjectively relevant social categories.

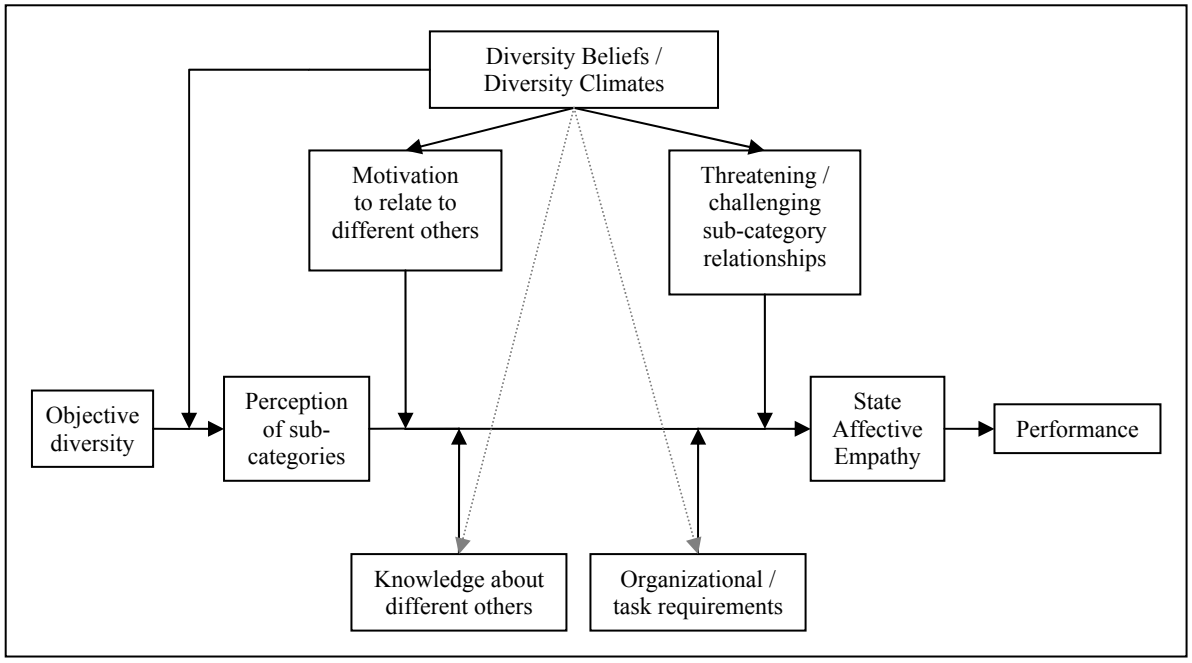

Figure 4-3. The theoretical model developed in chapter 7.

The contributions this model is aimed at are again threefold. First, it is meant to complement classic cognitive information elaboration with empathy as another mediator of the diversity-performance relationship – essentially leading to a more holistic perspective on diverse groups. The second contribution is the detailed description of all involved processes with regard to the multilevel-nature of concepts and relationships. The third, and probably most important contribution in the present context, is that the model provides an alternative

way in which diversity beliefs and climates can influence how people in work groups will engage with diversity and, in the end, whether diversity will lead to better or worse performance.

5 A Meta-Analysis on the Effects of Diversity Beliefs and Diversity Climates[1]

As described in the chapter 2, the term *diversity* is usually applied to describe the extent to which there are differences between the members of a social unit on one or more dimensions (e.g., age, educational background, or ethnicity). Such diversity is a ubiquitous feature of modern organizations. In fact, it is often assumed that organizations will become even more diverse in the future. Not least because of this increasing prevalence of diversity, organizations and the people therein are concerned with its potential consequences. Unfortunately, research on these consequences is ambiguous. Sometimes it is found that *diversity is beneficial* – e.g., with regard to performance, innovation, firm reputation, attraction of qualified personnel, and employee turnover (Allen et al., 2008; Florida & Gates, 2002; T. Miller & Triana, 2009; Orenstein, 2005; Roberson & Park, 2004; Spiers, 2008). At the same time it has been argued and shown that *diversity is detrimental* – e.g., leading to more conflict, informational overload, and problems through conflicting allegiances with outside parties (Sethi, Smith, & Park, 2002; Vodosek, 2007). For more than two decades, many researchers reviewed and tried to integrate these and other seemingly contradicting findings regarding the effects of diversity (e.g., van Knippenberg & Schippers,

[1] **This chapter is based on the following manuscript:**

Stegmann, S., & van Dick, R. (2011). *As you like it — meta-analyses on the moderator and main effects of diversity beliefs*. Unpublished Manuscript, Goethe University. Frankfurt, Germany.

and the following conference presentations:

Stegmann, S., & van Dick, R. (2009). *„Vorsprung durch Vielfalt" oder „Einigkeit macht stark"? Eine Metaanalyse zu den Effekten von Diversitätsüberzeugungen.* Paper presented at the 6. Tagung der Fachgruppe Arbeits- und Organisationspsychologie der Deutschen Gesellschaft für Psychologie, Vienna, Austria, 9 - 11 September.

Stegmann, S., & van Dick, R. (2009). *Does it matter what we think about diversity? A meta-analysis on the effects of diversity beliefs.* In: J. Dawson, Team processes and outcomes: Diversity, information sharing, reflexivity, and innovation. Symposium conducted at the Annual Meeting of the Academy of Management (AOM), Chicago, Illinois, USA, 7 – 11 August.

Stegmann, S. & van Dick, R. (2009). *Does it matter what we think about diversity? A meta-analysis on the effects of diversity beliefs*. In: J. Dawson, Team processes and team performance: The relationships between diversity, information sharing, reflexivity, and team innovation. Symposium conducted at the 14th European Congress of Work and Organizational Psychology (EAWOP), Santiago de Compostela, Spain, 13 – 16 May.

Stegmann, S. (2009). *Does it matter what we think about diversity? A meta-analysis on the effects of diversity beliefs*. Paper presented at the 6. Nachwuchsworkshop der Fachgruppe Arbeits- & Organisationspsychologie der Deutschen Gesellschaft für Psychologie. Mainz, Germany, 4 - 6 March.

Stegmann, S., & van Dick, R. (2008). *What do we think about being different? – Measuring Diversity Beliefs*. Paper presented at the 15th General Meeting of the European Association of Experimental Social Psychology (EAESP), Opatija, Croatia, 10 - 14 June.

2007; K. Y. Williams & O'Reilly, 1998). Unfortunately, most of these reviews point out that many of the processes related to diversity in work groups and organizations are not fully understood yet. In consequence, it is currently rather difficult to predict the effects that diversity will have in different situations. This state of the art, in turn, poses a theoretical challenge that has inspired research in many directions. Exploring the potential effects of diversity beliefs or climates is especially promising in this regard, given that the basic idea behind this line of research is both simple and theoretically compelling, to wit, the way diversity affects our lives depends on the way it is perceived and evaluated by the people involved.

As outlined in the introduction, people have reflected on the diversity of the social units they belong to ever since. This is not surprising given that among the most designative characteristics of human beings is our capacity to think and to react to the environment based on our interpretations of the circumstances we find ourselves in. Moreover, we exchange these interpretations, influence others through this and are subjected to such influences ourselves. The assumption underlying the present dissertation is that, through such a typically human form of engagement with diversity, people acquire an understanding of what diversity means for a particular social unit and that they will continue to engage with diversity on the basis of this understanding. Such an understanding of the role of diversity for a particular social unit can exist on an individual level – as diversity beliefs – and on a group-level – as diversity climate.

Both diversity beliefs and diversity climate have been subject to empirical investigation for quite some time. The research in this field is distributed among various scientific disciplines. The constructs used and the study designs employed vary considerably. Nonetheless, the common goal of much of this research has been to elucidate at least some of the long standing ambiguity regarding the effects of diversity. The basic tenet in many of these publications is that diversity beliefs or climates will moderate the effects of diversity. If diversity is positively valued, detrimental effects are assumed to occur less and beneficial effects more often. Some publications also take diversity of social units as a given state and, hence, investigate simple main effects of diversity beliefs or climates on a variety of outcomes. Here, again, ascribing diversity a positive value is mostly assumed to create more beneficial and less detrimental outcomes.

In this chapter, I will meta-analytically summarize the available research on the moderator and main effects of diversity beliefs and climates. Thereby, I predominantly seek to address the question of whether such an understanding of the role that diversity is

assigned in a particular social unit does indeed have effects on groups and their members – the first research question guiding the present dissertation. However, the meta-analysis is also aimed at providing insights into the way that these effects come about – the second general research question.

To that avail, I will begin, first, by defining diversity beliefs and climates more precisely. Second, I will briefly outline the theoretical rationale behind both the moderation and main effects of diversity beliefs and climates. Third, in order to structure the field of diversity beliefs/climates research, a set of theoretically important distinctions between the constructs and designs employed in the primary literature will be introduced. Fourth, the evidence regarding the moderator effects of diversity beliefs/climates on the relationship between diversity and various outcome variables will be summarized. Here, I will place particular focus on the different patterns of moderation that emerge across primary studies. These patterns of moderation have almost never been discussed in the literature. Fifth, I will present a meta-analysis on the main effects of diversity beliefs on various outcomes. These direct influences have rarely been discussed theoretically and have often been reported only in passing in the primary studies. In both the analysis of moderator effects and the analysis of the main effects, I will use the introduced conceptual differences between the constructs and designs employed in the primary literature as meta-analytical moderators, thereby testing the generalizability of the meta-analytic findings.

5.1 Defining and Distinguishing Diversity Beliefs and Diversity Climates

At the core both diversity beliefs and diversity climates describe an understanding of the role that a particular form of diversity is perceived to play in a particular social unit. On an individual level, such understanding of the value of diversity will manifest itself in cognitive content comprising at least two components. First, it necessarily contains a mental representation of the diversity in question, with varying degrees of specificity as to how exactly this diversity looks. Second, this mental representation can then be associated with a particular value which is due to this diversity's instrumentality for achieving certain beneficial or detrimental outcomes, again varying in specificity. For the purpose of the present meta-analysis, I refer to such individual person's associations between a mental representation of a social entity's diversity and an assessment of this diversity's value for producing certain outcomes as *diversity beliefs*. This term was originally coined by van Knippenberg and Haslam (2003) and has been used in a variety of other publications since

(e.g., Homan et al., 2007; van Dick, van Knippenberg, Hägele et al., 2008). However, these associations have also been referred to as, for example, attitudes (e.g., Nakui, Paulus, & van Oudenhoven-van der Zee, 2008), ideologies (e.g., Plaut, Thomas, & Goren, 2009), "openness to diversity" (Fujimoto, Härtel, & Härtel, 2004) or "valuing diversity" (e.g., Tropp & Bianchi, 2006).

Whereas such diversity beliefs refer to people's own cognitive content that they personally hold as true, an understanding of the value of a particular form of diversity can manifest itself also on the level of a whole social unit. In this meta-analysis, I will refer to these unit-level associations between a certain kind of diversity and an assessment of this diversity's value for producing certain beneficial or detrimental outcomes as *diversity climate*. The key point here is that the referent of the construct is the whole social unit (cf. Chan, 1998) – such that, for example, a group values diversity, an organization supports diversity, or a team seeks out diversity in order to achieve its goals. This formulation, however, can only be a metaphorical approximation of the core of the construct, because in reality social units lack the subjectivity necessary to think or act independent of their members.

This peculiarity has lead to a variety of conceptualizations of diversity climates. For example, it has been assessed through quasi-objective ratings of an organization's policies and practices (e.g., Button, 2001), resembling a "global unit property" (Kozlowski & Klein, 2000). Others have conceptualized it as individual members' perception of how much their respective social unit is valuing diversity (e.g., Avery, McKay, Wilson, & Tonidandel, 2007), resembling a specific type of "psychological climate" (Glick, 1985). Methodologically, this implies an individual level construct referring to a characteristic of the whole unit as the object of appraisal ("referent-shift", Chan, 1998). Others, again, have conceptualized diversity climate as the aggregate of such individual climate perceptions on the unit-level (e.g., McKay, Avery, & Morris, 2008), a specific form of "organizational climate" (Glick, 1985). Methodologically, this implies an emergent "shared unit property" (Kozlowski & Klein, 2000). Finally, diversity climate has also been conceptualized through the aggregation of individual-level diversity beliefs on a unit-level (e.g., Homan, Greer, Jehn, & Koning, 2010), again resembling an emergent shared unit property, only that in this case the lower level elements are individual beliefs and not perceptions of climate. This conceptual plurality of diversity climate constructs can be confusing, and I will attempt to disentangle it a little more below. However, at the core of all diversity climate conceptualizations lies the *unit-level* association of the unit's diversity with its value to

achieve certain outcomes. Metaphorically phrased, they all describe whether the group "thinks" that diversity is good or bad.

Diversity beliefs and diversity climates are distinct constructs from a multilevel-theoretical point of view. However, there are good reasons why they should be highly interrelated. From a social identity perspective (see chapter 3) diversity climates can be seen as the perception of that part of the group's identity that is related to diversity. If members of such groups perceive the group as a salient self-categorization, this group's identity will become part of their own identity. Thus, the group and the individual merge through the process of depersonalization. Under such conditions, the group prototype becomes the ideal self, such that group norms are taken on as their own ideals by the members. If valuing diversity is part of what the group is about – i.e., if the group has a pro-diversity climate – this should lead identified members to believing in this value themselves – i.e., holding pro-diversity beliefs. From a more instrumental perspective, it is highly likely that diversity climates are enforced and sanctioned within the group, such that individual members will behave accordingly and comply with the norms – although their willingness to do so will ultimately be influenced again by their identification with the group (cf. Turner, 1991).

Starting from the other end, individual members' diversity beliefs are also likely to influence the overall group's diversity climate. This is implicitly acknowledged in some of the measures of diversity climate that are based on aggregated individual diversity beliefs. Through processes of social influence and communication group-level diversity climates are likely to emerge from individual level constructs (cf. Chan, 1998; Kozlowski & Klein, 2000).

The publications concerned with diversity climates and diversity beliefs most often do include either one of these constructs. In consequence little is known so far about their interrelation. However, in most of the literature the basic assumptions regarding the effects of diversity beliefs and diversity climates are similar, which is plausible given that they are likely to be interrelated. For the sake of readability, I will therefore refrain from describing the theoretical mechanisms separately for both diversity beliefs and climates. Furthermore, the main analyses in this chapter will be conducted taking into account diversity beliefs and climates simultaneously. Nonetheless, the distinction between them will be considered in the meta-analytical moderator analyses.

5.2 The Mechanism behind the Potential of Diversity Beliefs and Climates: Reconciling Contradicting Levels of Social Categorization

More than a decade ago, Milliken and Martins (1996) summarized the state of the art in research on diversity's effects by comparing diversity with a "double-edged sword". The term has remained popular with researchers ever since (e.g., van Knippenberg, Homan, & van Ginkel, 2010) and is used to refer to the fact that diversity can have both positive and negative effects. Many research endeavors have been aimed at indentifying factors that help to diminish the negative effects of diversity and to facilitate the positive ones, thereby creating the knowledge necessary to wield the double-edged sword. The promise of studying diversity beliefs and climates in this respect is of striking simplicity. The basic tenet, as stated above, is that the more diversity is valued, the less negative and the more positive effects it will entail. This idea is so straightforward, that a deeper theoretical description of the psychological processes underlying these effects is seldom to be found in primary studies.

In chapter 3.5, I have described how both the nature of diversity beliefs/climates and how they shape the effects of diversity can be understood based on a social identity approach to diversity (see also Haslam, 2001; van Knippenberg & Haslam, 2003). This particular theoretical framework offers a theoretical detail not often achieved in other theoretical approaches. It has inspired a variety of empirical studies on the topic (e.g., van Dick, van Knippenberg, Hägele et al., 2008; van Knippenberg et al., 2007), and is in good accordance with the majority of other theoretical approaches to be found in primary studies. Coming from this social identity perspective, the basic argument is that diversity beliefs and climates exert their influence through their potential to reconcile perceptions of being different from others and of belonging to the same group as exactly these others. In the following I will briefly recapitulate the main theoretical assumptions that lead to this proposition and derive testable hypotheses.

According to the social identity approach to diversity described in chapter 3, any effect of diversity depends on this diversity to be perceived as relevant. In other words, differences between the members of a social unit will not make any – positive or negative – difference if nobody perceives them as relevant. From the perspective of self-categorization theory such relevance can be understood as salience of self-categorizations. Thus, for

diversity to be relevant, a particular group member has to perceive him/herself as belonging to a subgroup within the overall group, which is distinct from other subgroups.

For these subgroups to work together towards a common purpose, the overall group has to be a salient self-categorization, too. This overarching social identity is proposed to provide the common ground necessary for the collaboration. It is necessary in that it leads to the motivation to integrate and build upon the differences between subgroups that would otherwise merely coexist or might even spark conflicts.

However, demanding that both subgroup differences and the overall group's identity must be salient in order to result in positive outcomes for diversity could lead to conflicting perceptions within the individual. Self-categorization theory posits that categorizing oneself into one category entails perceiving oneself as identical to the other members of that category. The above proposition would therefore imply the request to categorize oneself as different from *and* similar to other group members. Achieving this simultaneously is logically implausible and was therefore ruled out in self-categorization theory through the principle of *functional antagonism*. Nonetheless, bringing the above argument to the point, the beneficial effects of diversity remain contingent on the ability of employees to reconcile and integrate perceptions of being different and similar at the same time.

Fortunately, there is a simple and elegant way out of this conflicting state: the integration of diversity as a defining feature into the definition of the group as a whole. In this way the particular differences are valued as a central aspect of the group. Individual diversity beliefs and group-level diversity climates describe the degree to which this is achieved. At the core, both concepts address the importance of diversity for the social entity in question. Therefore, they hold the potential to explain to what extent an individual will be able to fruitfully integrate perceptions of being different from and yet sharing a common identity with others in the group.

Therefore, diversity beliefs and climates can help to explain under which circumstances members of a group will be able to reconcile potentially conflicting self-definitions. If a particular form of diversity is conceived of as an integral part of what the group is essentially about, this will render negative subgroup relations less likely. In this case, members of different subgroups can be respected and liked because they contribute through their differences to what the overall group is about. Moreover, integrating diversity in the overall group's identity will enable members of diverse groups to identify with their group not in spite of but *because* of being different from other members. This identification, in turn, is likely to produce beneficial outcomes on behalf of the group and provides a

motivational basis for utilizing the differences between the members. In contrast, if diversity is considered a negative aspect of the group that must be overcome in order for the group to work well, the members will find it harder to reconcile these different levels of self-categorization. In this case they might not only fail to use the full potential of diversity, but they might also experience detrimental effects, such as conflicts between subgroups. Following a similar line of thought, van Knippenberg, De Dreu, and Homan (2004) argued that diversity beliefs could influence whether social categorization in diverse groups leads to threatening relationships between subgroups. According to their categorization elaboration model, such "identity threat" would have negative consequences for the elaboration of information and, hence for performance (see chapter 2.2.4).

In sum, therefore, the social identity account on diversity beliefs and climates emphasizes the importance of diversity beliefs and climates as a key factor in shaping the effects of diversity. These effects of diversity have proven to be heterogeneous in many studies. The above line of argument leads to the conclusion that part of this heterogeneity could be explained through the moderating influence of what people think about diversity. Therefore, it is plausible that people holding positive beliefs towards diversity or working in a pro-diversity climate will be in a better position to use the potentials of diversity and to avoid or buffer its downsides. Several studies have addressed these moderator effects in the past. I will summarize this evidence thereby testing the following hypothesis meta-analytically:

> *Hypothesis 1: The relationship between diversity and outcome variables will be moderated by diversity beliefs/climates. Specifically, the relationship between diversity and beneficial outcomes – such as identification or performance – will be more positive when diversity is valued, as compared to when it is not. The relationship between diversity and detrimental outcomes – such as conflict or stress – will be more positive when diversity is <u>not</u> valued, as compared to when diversity is valued. (Moderator Hypothesis)*

Although this conceptualization of diversity beliefs and climates as moderator of the relationship between the diversity of a given social entity and relevant outcome variables is straightforward, there are also good reasons to assume that diversity beliefs might exert positive main effects. First, diversity can be seen as a ubiquitous feature of almost every modern organization. Therefore, situations where there is no diversity should be rare. This translates the above moderation hypothesis into a main-effects model: As there is diversity all around, people and groups that are negatively disposed towards diversity will either have

to face these settings – which might in turn produce negative effects for them or their surroundings – or cease to participate in many organizational settings in one way or the other. People and groups positively disposed to diversity, on the other hand, will find the conditions they desire everywhere and will therefore be in a better motivational state to make the best out of it for themselves and the organization they work for.

Second, diversity beliefs are likely to shape the motivational and attentional readiness to perceive diversity in the first place. That is, people and groups holding pro-diversity beliefs will not only try to harness diversity in a positive way where they find it, but also actively seek to identify meaningful and useful differences in their environment. This, in turn, should put them in a better position to benefit from the positive and to avoid the negative aspects of diversity. Following a similar line of thought, van Knippenberg, De Dreu, and Homan (2004) suggested that diversity beliefs could also be linked to the normative fit of social categories (see chapter 2.2.4). Normative fit can be understood as degree to which a social categorization makes sense in a given situation based on what is known about the categories involved. If the behavior of the people to be categorized matches the perceiver's beliefs and expectations regarding a particular category – that is, if they behave as people of that group normally do – and if that behavior makes sense in the given situation, normative fit will be high. Therefore, the more a particular kind of diversity is perceived as meaningful with regard to the present task context, the more it makes sense to categorize people along the lines of this kind of diversity. Hence, both perceiver readiness and normative fit – two of the classic conditions for the salience of social categories according to self-categorization theory (see chapter 3.2) – are likely to be influenced by diversity beliefs and climates.

Third, people holding pro-diversity beliefs are likely to find it easier to identify with and positively relate to a broader range of social categories. People seeking groups which are homogeneous in all defining characteristics will find it much more difficult to relate to any real-life work group, since diversity is a given fact of modern social life. Similarly, groups that value diversity will find it much easier to attract members.

For any of the above three reasons, it is quite plausible to assume that pro-diversity beliefs and climates in themselves will have beneficial effects for both employees and organizations. Thus, I propose the following relationship:

> *Hypothesis 2: Pro-diversity beliefs/climates will be positively related to outcomes that are beneficial for individuals or organizations and negatively related to detrimental outcomes. (Main Effect Hypothesis)*

5.3 Describing the Diversity of Diversity Beliefs/Climates Research

The effects of diversity beliefs and climates on relevant organizational outcomes have been studied in a variety of research contexts and from different theoretical perspectives. As a result, the pool of available studies on this matter is marked by a rich conceptual plurality. Summarizing the key theoretical distinctions between the various conceptualizations of this line of research helps in understanding this plurality and provides potential moderating factors against which the generalizability of effects can be tested. Most of the empirical work, however, is exclusively concerned with only one form of each of the conceptual peculiarities below. For example, most of the time, either diversity beliefs *or* diversity climates are studied. Hence, only little is known about their interrelation as well as about their differential effects. Given the lack of theory, the lack of direct tests, and the possible confounding aspects, these distinctions are addressed in the present dissertation in an explorative fashion.

5.3.1 Diversity beliefs versus diversity climate

It was proposed that parts of the heterogeneity of effects reported in general diversity research might be due to the fact that diversity will have different effects depending upon the instrumental value that is placed on diversity. This value can be either held by an individual person or a whole social entity. Theoretically, individual diversity beliefs and a social entity's diversity climate are very different – albeit interrelated – concepts. From a perspective of operationalization, this distinction becomes apparent through the *referent* of the diversity beliefs measure or manipulation – i.e. whether the value is assigned to diversity by the individual research participant or whether the value is assigned by the social entity the participant belongs to (Chan, 1998). It is important to bear in mind that, even when questioning or instructing individual participants, the referent can be the group or the organization (e.g., a typical questionnaire item would be "I think that *my team* values diversity").

In principle, the referent of the concept is independent of whether the concept is assessed or manipulated directly at the group level (global unit property, Kozlowski & Klein, 2000), aggregated from the individual group members characteristics (emergent group property, Kozlowski & Klein, 2000), or measured as individual group members' responses. To cover this aspect, diversity beliefs manipulations and measures on an *individual level* were distinguished in the analyses from constructs operationalized on a

group level (including aggregated measures). Both the referent and the level of the constructs can be used to answer the following exploratory question:

Question 1: Do diversity beliefs and diversity climate have different moderating or main effects?

5.3.2 Conceptual scope of diversity beliefs/climates

There are two issues to be addressed with respect to the conceptual scope of diversity beliefs and climate measures and manipulations: the *sidedness* of the measure and the *number of dimensions* of difference included in the measure. The *sidedness* of a measure – or manipulation – is based on the fact that items can be phrased either in favor of or in opposition to diversity (i.e. pro- vs. contra-diversity). Also, one can phrase items that would speak in favor of similarity or against it (i.e. pro- vs. contra-similarity). The most commonly used approach is to use some pro-diversity items together with some of the other three possible item-types, recoding the latter if necessary and adding them to the former as if they were measuring the same thing. I refer to these as *double-sided* measures, as opposed to those approaches where only pro-diversity items have been used, so called *single-sided* measures. Theoretically, the double-sided measures cover a broader range of possible beliefs. Empirically, it has been found that people can hold pro-similarity and pro-diversity beliefs at the same time (Stanley, 1996; Stegmann & van Dick, 2008; Strauss & Connerley, 2003; van Knippenberg et al., 2007). On the one hand, this fits fairly well with the understanding of diversity beliefs as the bridging element between being different and being part of a larger group at the same time. On the other hand, these findings call into question the theoretical rationale for creating double-sided measures or manipulations. At any rate, combining both forms of diversity beliefs in one single measure is likely to produce some form of conceptual ambiguity.

The number of dimensions on which people can differ in a given social entity (e.g., gender, age, professional background) is another aspect in which diversity beliefs/climate measures or manipulations can vary. Some measures, refer to *only one dimension*, others include *more than one dimension*. It is plausible to assume that including more dimensions on which people can differ in one single measure or manipulation renders a greater conceptual scope then asking more specifically. In sum, both sidedness and the number of dimensions can be used to answer the following question:

Question 2: Does the conceptual scope of the particular operationalization of diversity beliefs/climates influence the moderating or main effects of diversity beliefs/climates?

5.3.3 Quality of measurement

Another factor that adds to the conceptual plurality of diversity beliefs research is that there is no set of commonly agreed upon measures that occur in the majority of studies – neither for diversity beliefs, nor for diversity or outcomes. Hence, there is a plurality of different measures to be found in the literature that, among other things, vary in their reliability. Reliability is most often reported as internal consistency of a set of items using Chronbach's α-coefficient. In line with common meta-analytical thinking, quality of measurement was included in the analyses to answer the following question:

Question 3: Does the quality of measurement of diversity beliefs/climates, diversity and outcome influence the moderating or main effects?

5.3.4 Direction of effects

The above hypotheses were stated in a simple correlative style, which is in accordance with the methodology used in this meta-analysis. Nonetheless, diversity beliefs and climates are usually conceptualized as an independent variable which causally influences various outcomes – either directly or as a moderator of the diversity-to-outcome relationship. There are, however, at least two other possible causal directions that could lead to the same associations.

First, diversity beliefs and climates might instead be a *result* of beneficial or detrimental outcomes that are experienced in a diverse setting. This assumption is plausible, as learning from past experiences is one of the basic and most prominent features of the human mind. In fact, it is likely that a positive climate for diversity could be created in this way: by ensuring that diverse groups come to appreciate their diversity through a series of successful experiences, which are then attributed to the group's diversity. Building up the value of diversity in this way, people will become more likely to use their diversity in the future, leading back to the causal direction described above. Therefore, the backward causal direction – from outcomes to diversity beliefs/climates – does not preclude the causal relationship described in the hypotheses; it rather complements it to what resembles closely the normal process of human action and learning (Merrill, 2001; G. A. Miller, Galanter, & Pribram, 1960).

Second, diversity beliefs and relevant organizational and individual level outcomes could also be both determined by third variables. It could be, for example, that the belief about the positive value of diversity is considered a defining feature of certain echelons in society. Much like a taste for classical music or the knowledge of Shakespeare it could constitute a form of "cultural capital" (Bourdieu, 1986). As such, holding pro-diversity beliefs may likely go together with a higher form of educational background and a more powerful position in any organization. It would then be rather co-occurring factors like education and power that will help people to produce favorable outcomes for themselves and their surrounding and not so much what they think about diversity. On the other hand, cultural capital is in principle open to conversion into other forms of capital, i.e. social capital or economic capital, at the expense of extra effort (Bourdieu, 1986). In this way, pro-diversity beliefs might pay off more directly, which would again lead back to the causal relationship described in the hypotheses.

All three causal relationships – the one described in the hypotheses and the two described in this section – would express themselves in a positive correlation between beliefs or climates favoring diversity and beneficial organizational and individual outcomes. A similar case can be made regarding the moderation effects of diversity beliefs/climates. There might even be more plausible causal relationships in this case. However, the key point to notice is that most of the literature on diversity beliefs/climates is based on cross-sectional surveys and that such a design does not allow distinguishing between any causal directions at all.

One possible way to investigate the causal relationships underlying the effects of both hypotheses is to compare results from studies using *experimental manipulations* of diversity beliefs/climates and diversity itself with studies that do not manipulate these variables experimentally. If the results were similar, this could be seen as first evidence of the causality of the proposed effects of diversity beliefs and climates. This led to the following explorative question:

Question 4: Do experimental and non-experimental study designs reveal the same main and moderator effects of diversity beliefs/climates?

5.3.5 Type of outcome

Considering the dependent variables in the primary studies, it seems plausible to assume that different kinds of outcomes are affected differently by diversity and diversity beliefs/climates. For example, Phillips and Lount (2007) proposed a theoretical model in

which diversity is assumed to create unpleasant emotional states, which then trigger better cognitive processing of information and, thus, eventually lead to better performance. Looking at each variable individually, this would imply that diversity leads to detrimental effects regarding affective reactions, but to beneficial effects regarding information processing and performance. However, as noted in chapter 2.2, the accumulated research reveals that diversity can be both positively related to a particular outcome in some studies and negatively related to the same outcome in others. With regard to diversity beliefs/climates, little is known about these issues so far.

For the purpose of the present analyses, *individual* versus *group level* outcomes were distinguished. Furthermore, it was assessed whether the type of outcome considered is *detrimental* (e.g., conflict) or *beneficial* (e.g., identification). In addition, the effects for three different clusters of outcomes used by Jackson, Joshi, and Erhardt (2003) in their review of general diversity research were compared: *affective reactions*, *team processes* and *performance*. In sum, these distinctions are used to answer the final of the explorative research questions:

> *Question 5: Does the type of outcome influence the moderating or main effects of diversity beliefs/climates?*

5.4 Method

5.4.1 Literature search

Research on people's attitudes towards the heterogeneity of their group and corresponding group-level constructs is scattered throughout a variety of scientific disciplines and separate branches of research. Hence, diversity beliefs and diversity climates come under various names. Starting from our own understanding of the term and after having read related papers, we[2] created a pool of relevant search terms. We described our concept to experts in the field and discussed the idea at various conferences. This way we developed our search term pool further. The pool included terms synonymous for the diversity of a group (e.g., diversity, team composition, heterogeneity, demographics, faultlines), and terms that described attitudes or climates (e.g., attitudes, beliefs, orientations, ideology, climate, culture, social norms). This term pool then served as a starting point for a systematic literature search in the following databases: PsycINFO, Sociological Abstracts, and Business Source Premier. By means of this term pool we

[2] I will use the plural personal pronoun "we" in the remainder of the chapter to acknowledge the contribution of my co-author Rolf van Dick, who contributed to the manuscript that this chapter is based on.

searched the controlled vocabulary of each database for relevant search terms (e.g., the APA's thesaurus of psychological index terms (17th ed.), Tuleya, 2007). As this is, to our knowledge, the first meta-analysis dealing with this topic we did not restrict the search to a specific period but rather searched over the whole span of time included in the respective databases.

By means of this search strategy we were able to identify in an initial search 566 entries in PsycINFO, 385 entries in Sociological Abstracts, and 297 entries in Business Source Premier, all of which included some form of diversity and some kind of attitudes or climate in their description. Titles and abstracts of all these entries were manually checked for relevance. Potentially relevant papers were read in full.

In addition to the search in databases, we used several other strategies to identify relevant material. First, we communicated the concept for this meta-analysis at various conferences, which often led to new manuscripts and unpublished work being included. Second, we asked researchers working in the field of diversity research for unpublished manuscripts and work in progress. Third, we checked the reference lists of every paper that was read for possible other publications that might be added to our sample. Fourth, we conducted 'forward-searches' – i.e. we searched for papers that cite the paper in question – whenever we came across scales or items that matched our concept of diversity beliefs/climates. Fifth, we published a call for papers using mailing-lists or websites of the Academy of Management, the European Association of Work and Organizational Psychology, the Society for Industrial and Organizational Psychology, and the European Association of Social Psychology. Sixth, we checked the reference lists of three published (Horwitz & Horwitz, 2007; Joshi & Roh, 2009; Stahl et al., 2010) and one unpublished (van Dijk et al., 2009) meta-analyses on the effects of diversity for publications that we had not detected in previous steps. Seventh, automatic alerts were created for all database-searches so that all manuscripts that appeared in the databases up to the point of the final revision could be included in the calculations. In total, more than 2000 publications were identified and screened for potential inclusion.

5.4.2 Criteria for inclusion

In line with our definition of diversity beliefs, we first and foremost included any scale or experimental manipulation that aimed at ascribing a value to diversity. Diversity was understood as a characteristic of the social entity in question. We did not include scales that assessed the attitudes towards different others without any reference to diversity of a

particular social entity – for example, we excluded all studies that only assessed the attitudes towards equal treatment or discrimination against minorities. All scales had to be filled out by a person who actually belonged to the social entity in question. Moreover, the value of diversity had to be expressed by the person who filled out the questionnaire or by the social entity the person belonged to.

In order to test the moderator hypothesis we included diversity measures that were in line with our broad definition of diversity (i.e. describing the existence or the degree of heterogeneity within a social unit). For some studies, we included personal demographic variables as proxy-variables for the experience of diverse environments. People from a minority group (e.g., women in business contexts or non-white Americans in certain contexts) are more likely to find themselves in diverse settings, simply because they make each homogeneous majority group a little more diverse just by entering. Majority members, however, do not have to encounter diversity just by entering a group. Empirically, there is some evidence that women and people belonging to non-white American minorities have more diverse contacts than is the case for men and white Americans (Strauss & Connerley, 2003). Minority members also seem to perceive the involved social categories as more differentiated (Wolsko, Park, & Judd, 2006).

In order to map our causal theory – diversity beliefs influencing either outcomes directly, or moderating the effects of diversity on these outcomes – we included only dependent variables that qualify plausibly as short- to mid-term outcomes of being in a diverse environment or thinking in a particular way about diversity. For example, it is fairly implausible that people would wish to change their gender or basic personality features as result of thinking about diversity or being in a diverse environment. Therefore, all studies were excluded which descriptively reported the prevalence of diversity beliefs or focused on *predicting* diversity beliefs through for examples variables like gender, personality, or minority status.

5.4.3 Meta-analytic procedures

Meta-analytic standard operating procedure for testing moderator hypotheses usually evolves from finding the source of the heterogeneity within a sample of effects from different primary studies. Characteristics of the primary studies are used as moderators, the variance to be explained occurs *between* the studies and effect sizes analyzed are still simple *relationships between two variables*. This approach is at least as vulnerable to confounding influences as are cross-sectional studies with small sample sizes. Fortunately, with regard to

Hypothesis 1, we can rely on a considerable number of primary studies that have looked at the moderating effect directly, which is preferable, because the overall picture emerging is a true meta-effect. In the present case, therefore, we looked at moderation not at the meta-level (between studies) but rather on the level of primary studies (within studies). The variance to be explained by each moderating effect lies *within* the primary studies and the effect sizes to be summarized resemble *relationships between at least three variables.*

The drawback of this approach is that it was not possible to extract a quantitative effect size estimate for all studies that would be comparable across the whole set of studies. Therefore, we followed a simpler logic in order to address Hypothesis 1: We looked at whether or not the interaction effects were found to be significant in primary studies and at the different patterns of simple slopes for those that were found significant. We included only effects for which a quantitative test of significance has been conducted and reported.

With regard to the main effects of diversity beliefs (Hypothesis 2), we followed classical meta-analytical procedures, using correlation coefficients as effect size measure. They were either directly retrieved from the studies, were calculated, or were requested from the authors. Correlations were converted to the Fisher's-*z*-scale. Random-effects-meta-analysis was applied throughout all levels of analysis. We used the inverse-variance method as method of weighting, and estimated the between studies variance τ^2 following the method of moments ("DerSimonian and Laird"-Method). Analyses were conducted using the statistical package R 2.12.2 (R Development Core Team, 2011) and statistical procedures included in the packages "meta" (Schwarzer, 2010) and "metafor" (Viechtbauer, 2010).

Following common practice we chose to analyze the data on the level of independent samples (Borenstein, Hedges, Higgins, & Rothstein, 2009; Hunter & Schmidt, 2004). In cases where more than one effect size was reported for a particular sample, we averaged the effect sizes and used the single sample-size for weighting the result in the meta-analysis to follow (cf. Hunter & Schmidt, 2004).

Similarly, for studies involving more than one level of analysis or studies that aggregated data from the individual level, the individual level sample size was included in the calculations only for those effect sizes that were based purely on individual-level variables. If at least one of the included variables was an aggregated measure or a genuine group level characteristic, we chose the group level sample size to calculate the weights in the meta-analysis to follow.

All meta-analytical moderators were independently coded by two raters. The agreement between the raters was calculated using Cohen's κ. The initial agreement

between the raters is depicted in Table 5-1. Overall, sufficient initial agreement between the raters existed. Discrepancies could be eliminated through discussion.

Table 5-1. Initial inter-rater agreement for the coding of meta-analytical moderators.

Meta-Analytical Moderator	Cohen's κ
Referent	0.93
Diversity Beliefs on group vs. individual level	0.85
Diversity on group vs. individual level	0.89
Sidedness	0.82
More than one dimension included	0.86
Manipulation of diversity beliefs	1.00
Manipulation of diversity	1.00
Outcome on group vs. individual level	0.98
Beneficial vs. detrimental outcome	0.82
Type of outcome: performance, affective reactions, team processes	0.74

5.4.4 Studies included

In total we were able to include 50 publications in this meta-analysis. Of these, 18 reported moderator effects according to the above hypothesis, whereas all 50 contained main effects. Most of the publications were published journal articles (38), others were book chapters (1), unpublished manuscripts (3), diploma theses (3), doctoral dissertations (3) or conference papers (2).

These publications reported results from 71 independent samples (Main effects: 71, Moderator effects: 23). Within these samples a total number of 299 effect sizes were reported (Main effects: 246, Moderator effects: 53). A cross-sectional design based on questionnaires was the dominant form of enquiry used in 47 of the independent samples (Main effects: 47, Moderator effects: 11). Experimental designs were applied in 19 samples (Main effects: 19, Moderator effects: 9), longitudinal designs in five of the samples (Main effects: 5, Moderator effects: 3).

5.5 Results

5.5.1 The moderator effects of diversity beliefs/climates

The first of the two fundamental hypotheses which guided much of the theoretical and empirical work on diversity beliefs and climates so far is that diversity beliefs/climates are assumed to alter the effects diversity might have within a particular context. According to this moderator hypothesis (Hypothesis 1), we expect that in conditions where diversity is valued, an increase in diversity will lead to an increase in beneficial outcomes. Under conditions where diversity is not valued, an increase in diversity will not lead to an increase in beneficial outcomes. Where diversity is even perceived as detrimental, an increase in

diversity will lead to a decrease in beneficial outcomes. For detrimental outcomes the same relationships apply in the opposite direction. For Hypothesis 1 to be fulfilled, a significant interaction effect between diversity and diversity beliefs on outcome variables should be present in a majority of studies. If this is the case, then the exact pattern of these effects – most often described through simple slopes – should be consistent with the hypothesized pattern. We will now turn to both conditions consecutively.

Significance of the moderator effect

Overall, the moderator effect was tested in 23 independent samples. In most of these samples significant interaction effects between diversity and diversity beliefs on a variety of outcome variables were reported. In fact, there are only five samples in which interaction effects were not significant. In all these five samples, however, significant interaction effects were found alongside the non-significant ones but for different measures.

Publication bias. Whether this speaks in favor of the presence of a tendency for diversity beliefs to moderate the diversity-to-outcome relationship in the general population depends on the presence and impact of publication bias. The basic problem here is that non-significant results are less likely to get published. Interaction effects are notoriously hard to find (McClelland & Judd, 1993). This difficulty is unfortunately combined with the fact that these effects are often presented as the main findings, rendering a publication of non-significant effects even less likely. For the present set of samples, there are at least two reasons why it is nonetheless warranted to interpret the ratio of significant to non-significant effects as evidence for a generalizable moderating effect. First, all five samples in which non-significant results have been detected are published in journal articles (Hobman, Bordia, & Gallois, 2003, 2004; Luijters, van der Zee, & Otten, 2008; van Dick, van Knippenberg, Hägele et al., 2008). With one exception, all non-significant results were reported in these articles. The exception was the second study reported by van Dick et al. (2008). In this study the authors reported evidence for a mediated moderation in which the effect of subjective diversity on the desire to stay in the group and on information elaboration was mediated through identification with the group. These effects were again moderated by the participants' diversity beliefs. We had access to the raw data of this study and, in order to make it more comparable to the simpler relationships reported in the rest of the studies, we calculated the simple moderation models for the main effects of subjective diversity on information elaboration and desire to stay. It is these latter two recalculated

effects that turned out non-significant. The unpublished samples included in the present analysis, in contrast, reported only significant effects.

Second, if a publication bias towards significant results was present, then sample size would most likely be related to the presence of significant results. This cannot be the case for the samples at hand, as in all samples with non-significant results other significant effects have been found, too. To even rule out the possibility of a smaller sample size for non-significant effect sizes – e.g., due to more missing data for one particular measure in a given sample – we calculated a logistic regression predicting the significance of all 53 interaction terms by the sample size (see Table 5-2). No significant relationship was found.

In conclusion, publication bias is not likely to be the major cause for significant interaction effects outweighing the non-significant ones. Moreover, the results suggest that the difference between a significant and a non-significant effect originates within samples – i.e. stemming from different constructs and measures used rather than from sample type or context, etc. Hence, we chose to use the full, non-aggregated set of 53 reported effect sizes – of which only 14 were non-significant – for the following analyses. The results are summarized in Table 5-2.

Diversity beliefs versus climate. To explore the influence of different measures for the three constructs in question, we calculated logistic regressions for a variety of possible moderating factors, each predicting the significance of the interaction term. Regarding the *referent* of diversity beliefs measures and manipulations – i.e. whether it was either the participants themselves who valued diversity or the whole social entity – there were more significant interaction effects found for measures that focused on the individual participant as referent. However, significant and non-significant results occurred in primary studies irrespective of the operationalization of diversity beliefs on either *individual or group level*. Therefore, it can not be established unambiguously whether diversity beliefs or diversity climates are more likely to lead to significant interaction effects.

Conceptual scope of diversity beliefs/climates. *Double-sided* measures and manipulations that combined pro-similarity and pro-diversity aspects yielded a significant interaction term more often than those concentrating on pro-diversity only. With regard to this aspect of diversity beliefs/climate measurement, therefore, a broader conceptual scope seems to lead more often to better predictive power. However, diversity beliefs/climate measures and manipulations that used more than one dimension of differences produced significantly less significant interaction effects than those that focused on one dimension.

Table 5-2. Results from logistic regressions predicting the moderator effects of diversity beliefs.

		Significance of the interaction term [1]			Patterns of moderation [2]		
		b	*SE*	*k*	*b*	*SE*	*k*
Sample size	Intercept	1.35**	0.44	53	-1.50*	0.67	25
	Sample size	0.00	0.00		0.00	0.00	
Referent of diversity beliefs/climates measures [a]	Intercept	0.35	0.38	52	-1.79*	0.76	24
	Person	2.00*	0.83		1.39	1.00	
Diversity beliefs/climates on group vs. individual level [b]	Intercept	0.73*	0.35	53	-1.10†	0.58	25
	Group level	1.21	0.83		-0.15	0.99	
Diversity on group vs. individual level [b]	Intercept	0.66*	0.33	53	-1.10†	0.58	25
	Group level	[h] 17.91	1882.92		-0.15	0.99	
Sidedness of diversity beliefs/climates measure [c]	Intercept	2.48***	0.74	51	-0.81	0.60	23
	Double	2.40**	0.84		-0.58	0.99	
More than one dimension included in the diversity beliefs/climates measure[d]	Intercept	1.69***	0.49	53	-0.69	0.55	25
	More than one	-1.40*	0.66		-1.50	1.19	
Reliability of diversity beliefs/climates measure	Intercept	5.08†	2.91	43	6.32	4.49	16
	R_{db}	-5.35	3.49		-10.07†	5.86	
Reliability of outcome variable	Intercept	-3.56	4.67	36	4.67	8.00	20
	R_{out}	4.95	5.44		-6.58	9.15	
Reliability of diversity measure	Intercept	8.65	6.00	23	-0.39	9.71	10
	R_{div}	-11.07	7.73		-1.35	13.15	
Manipulation of diversity beliefs/climates [e]	Intercept	0.76*	0.32	53	-1.18*	0.57	25
	Manipulated	[h] 17.80	2174.21		0.08	1.00	
Manipulation of diversity [e]	Intercept	0.36	0.35	53	-1.10†	0.58	25
	Manipulated	[h] 19.21	2467.14		-0.15	0.99	
Outcome on group vs. individual level [b]	Intercept	0.66*	0.33	53	-1.10†	0.58	25
	Group	[h] 17.91	1882.92		-0.15	0.99	
Beneficial vs. detrimental outcome [f]	Intercept	0.15	0.56	53	[h] -18.57	2662.86	25
	Beneficial	1.23†	0.68		[h] 17.79	2662.86	
Type of outcome according to Jackson et al. (2003) [g]	Intercept	1.04	0.47	53	-0.92	0.59	25
	Performance	0.90	0.89		-0.18	1.30	
	Team Processes	-0.75	0.72		-0.88	1.23	

[1] dummy coded: 0 = not significant, 1 = significant
[2] levels: Pattern A, Pattern B
[a] levels: group, person
[b] dummy coded: 0 = individual level, 1 = group level
[c] dummy coded: 0 = only pro-diversity formulation, 1 = pro-diversity combined with reverse coded formulations
[d] dummy coded: 0 = only one dimension, 1 = more than one dimension
[e] dummy coded: 0 = not manipulated, 1 = manipulated
[f] dummy coded: 0 = detrimental, 1 = beneficial
[g] levels: affective reactions, performance, team processes
[h] for these variables, the data set is yet too small to allow proper statistical tests. Thus, the coefficients cannot be interpreted.
*** $p < .001$. ** $p < .01$. * $p < .05$. † 0.1

With regard to this aspect, less conceptual breadth leads to more predictive value. Thus, diversity beliefs/climates should probably be assessed as situation-specific constructs focusing on one particular dimension.

Quality of measurement. When entered as a predictor, neither the *reliability* coefficients of the diversity beliefs/climates measures, nor those of the outcome variables, nor the ones of the diversity measures were significantly related to the outcome of the significance tests in the primary studies. In sum, the quality of measurement of the various constructs does not seem to be a major factor influencing the significance of the interaction effects.

Direction of effects. There were only nine interaction effects reported that were based on an *experimental manipulation* of diversity beliefs/climates. In consequence, the resulting frequencies are too small to allow for a reliable statistical test. Therefore, the question of whether experimental manipulation leads to the same number of significant effects remains unanswered. With regard to the experimental manipulation of diversity itself, also no reliable statistical tests could be conducted.

Type of outcome. Turning to the outcome side of the relationship, we addressed first whether the outcome itself is of *beneficial or detrimental* nature. However, this distinction did not predict the occurrence of a significant interaction term in the primary studies. For a more fine-grained analysis, we classified each outcome variable into the categories used by Jackson et al. (2003): *affective reactions, team processes, and performance*. The likelihood of finding a significant interaction term in the primary studies, however, did not differ between these categories. There were only 12 effects based on group level outcomes, which made it impossible to distinguish statistically between *individual and group-level* outcomes.

In conclusion, the above findings suggest that diversity beliefs/climates indeed moderate the relationship between diversity and a variety of outcomes relevant to organizations and their members. These moderator effects have been found across a considerable variety of outcomes and for individually held diversity beliefs as well as for diversity climate constructs. However, measures and manipulations that focused on the individual participant as referent yielded significant interaction effects more often. In addition, the results speak somewhat in favor of utilizing the full range of possible attitudes towards diversity and similarity when trying to examine the moderating effect of such attitudes. Furthermore, diversity beliefs and climates that are specifically focused on one particular dimension of difference more often yield significant interaction results.

Patterns of moderation

For most of the significant results, authors reported simple-slope analyses or contrasts in analyses of variance. For reasons of simplicity we will refer to the regression slope terminology here, although ANOVA analyses have been included, too. For the purpose of this analysis we look at the relationship between diversity and the outcome in question under the condition of high and low pro-diversity beliefs. In a few cases authors did not report the effects in this form. Where possible, contrasts were then calculated based on summary data published together with the effect. For 27 out of the 39 significant interaction effects, slopes were either reported or could be calculated. For each slope three possible outcomes were coded: positive, zero (i.e. non-significant), or negative. In order to compare beneficial outcomes (e.g., identification) with detrimental outcomes (e.g., conflict), we recoded slopes for detrimental outcomes so that a positive slope always means less of a detrimental outcome.

Probably the most important result from this review of moderator effects was that in 26 out of the 27 moderator effects the relationship between diversity and beneficial outcomes was more positive in the high pro-diversity beliefs condition than in the low pro-diversity beliefs condition – i.e. the slope coefficient was larger in the high pro-diversity condition than in the low pro-diversity condition. In other words, with increasing diversity participants holding pro-diversity beliefs – or working in pro-diversity climates – experienced less detrimental outcomes or more beneficial outcomes than people holding either indifferent attitudes towards diversity or those favoring similarity.

Looking at the significance of the simple slopes in more detail, it appeared that 25 of all 27 available slope analyses could be categorized into two distinct patterns of moderation. First, in 19 cases an increase in diversity led to a decrease in beneficial outcomes (or an increase in detrimental ones) in the low pro-diversity beliefs/climates condition, but it had no significant effect in the high pro-diversity beliefs/climates condition. This pattern is perhaps best described as a *buffering effect* of diversity beliefs/ climates (see Figure 5-1).

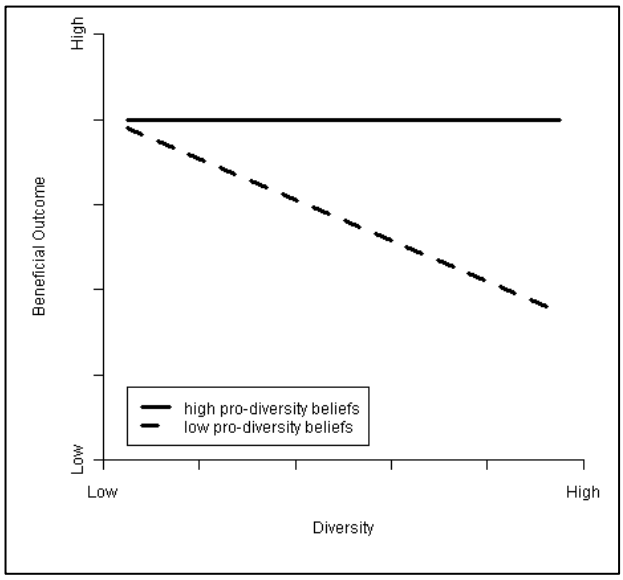

Figure 5-1. Moderation pattern A: Pro-diversity beliefs as a buffer against the detrimental effects of diversity.

Second, in six cases an increase in diversity led to an increase in beneficial outcomes (or a decrease in detrimental ones) in the high pro-diversity condition, but it had no significant effect in the low pro-diversity condition. This pattern is more closely aligned with the notion of *diversity as an asset* in modern organizations (see Figure 5-2).

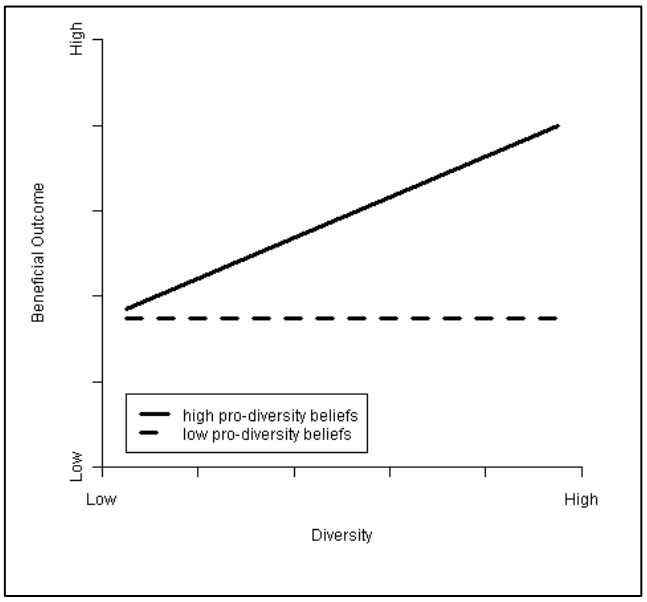

Figure 5-2. Moderation pattern B: Diversity as an asset, given pro-diversity beliefs.

There are two moderator effects for which other than the above moderation patterns have been reported. In one study increasing informational diversity was associated with less involvement under the condition of high pro-diversity beliefs, whereas there was no effect in the condition of low pro-diversity beliefs (Hobman et al., 2003). Interestingly, in this study Hobman and colleagues report eight other effects which were either non-significant or fall into the other moderation patterns described above. The second untypical effect is one for which both slopes were significant. Here increasing informational diversity was associated with better performance in the pro-diversity condition; whereas it was associated with worse performance in the pro-similarity condition (Homan et al., 2007). This second effect is perfectly in line with the present theorizing about diversity beliefs, although, surprisingly, most studies failed to find such an effect in both directions – that is, a pattern where diversity can lead to better or worse performance depending on diversity beliefs. For the same sample, the authors report another significant interaction – here with information elaboration as the outcome – that follows the *diversity as an asset* pattern (B).

We used logistic regression models with intercepts on the basis of non-aggregated effects to predict which of the two main moderation patterns would result from what kind of study and for what kind of construct included within the test (see Table 5-2). Mirroring the above results regarding the significance of the interaction term, whether pattern A or B was reported for a particular moderation effect was not significantly related to *sample size*, the *referent* of diversity beliefs/climates, the operationalization on *group or individual level*, the *quality of measurement* of each of the three involved constructs, the *level* of each of the threes constructs, nor to the fact that either diversity or diversity beliefs were *manipulated*

or measured. Whether the outcome in question was an *individual or group-level outcome* was also not significantly related to the moderation pattern. The same is true for the distinction between the three *categories of outcomes* (affective reactions, team processes, performance). There were only six effects reported that were based on *detrimental* outcome variables, such that the resulting frequencies did not allow for a reliable statistical test of detrimental versus beneficial outcomes.

Whereas the overall significance of the interaction term seemed to depend somewhat on the *sidedness* of the measure and on whether there was *more than one dimension of difference* included, the specific moderation pattern was not significantly related to either aspect.

Overall, the results from the vast majority of the primary studies are in accordance with Hypothesis 1. Pro-diversity beliefs moderate the relationship between diversity and outcomes. The moderation pattern is such that valuing diversity always leads to better outcomes in the face of diversity than in cases where diversity is less valued. The effect is generalizable across a whole range of different study settings and conceptualizations. Almost all effects could be classified into one of two distinct patterns of moderation.

5.5.2 The main effects of diversity beliefs/climates

As outlined above, it is theoretically plausible to assume that diversity beliefs/climates influence various outcome measures directly. Figure 5-3 shows a forest plot depicting the effect sizes for such main effects aggregated on sample-level. We coded each outcome such that higher values mean more beneficial outcomes and each diversity beliefs/climates variable such that higher values mean a tendency in favor of diversity.

Based on all 71 samples, the estimated meta-correlation between diversity beliefs/climates and a variety of outcome variables was r = .24. The 95 % confidence interval for this summary effect size ranged from .19 to .28, excluding zero and therefore demonstrating statistical reliability of this summary effect. This was also corroborated by the fact that the calculated mean z-value was significantly different from zero (estimated mean z-value: 0.24; SD = 0.02; z-test: 10.05, $p < .0001$; CI 95%: 0.19 to 0.29). Therefore, the majority of main effects between diversity beliefs/climates and all included outcome variables were positive – i.e. higher pro-diversity beliefs were associated with more beneficial and less detrimental outcomes, fully supporting Hypothesis 2.

However, the interpretation of summary effects in meta-analysis not only depends on statistical significance but also on the homogeneity of effect sizes of the included studies.

There was, however, a considerable amount of heterogeneity in the present findings, which was indicated by a variety of different indices. First, a simple visual inspection of the forest plot (Figure 5-3) revealed that the central tendencies varied between studies. Second, a simple test for heterogeneity revealed a statistically significant amount of heterogeneity ($Q(df = 70) = 932.35$, $p < .0001$). Third, the proportion of the total variability that was due to the variation in true effects between the studies included was $I^2 = 92\%$ (Higgins & Thompson, 2002). Forth, from the absolute variance of "true" study effects, it is to assume that 95% of all future studies will find a correlation between diversity beliefs and certain outcome variables that falls within the range between $r = -.11$ and $r = .54$ (95% prediction interval, e.g., Borenstein et al., 2009). All in all, the main effects of diversity beliefs on various outcome variables varied to a substantial extent – a result that bears some resemblance to the ambiguous findings in general diversity research.

Publication bias. If a bias in publication existed towards favoring the publication of significant over the non-significant results and if published material was easier to find than unpublished material, this would finally result in meta-analyses overestimating the true population effect size. There are, however, reasons why this is no major concern here. First, a visual inspection of the forest plot revealed that the effect sizes did not "sway" considerably to the positive side the fewer participants were involved. If a bias was present, this would have been the case. Second, the authors of a considerable number of primary studies did not report the main effects of diversity beliefs as the focal relationship in their publications. Rather these effects are often reported in the descriptive correlation tables only – rendering a rejection of the respective publication on the basis of insignificance less likely. Third, a visual inspection of the funnel plot (Figure 5-4) revealed a slight impression of asymmetry favoring positive outcomes for studies with larger standard errors. To further explore this asymmetry we applied a trim-and-fill analysis of the funnel plot (Duval & Tweedie, 2000). This analysis iteratively removes all non-symmetrical effect sizes and re-computes the effect size until symmetry is achieved. All studies are then entered again, plus a mirror image for each, to avoid the reduction of variance of effects that would otherwise result from cutting out studies. The trim-and-fill-adjusted summary correlation was $r = .19$ (95% CI: .13 to .24). The estimate was close to the originally estimated effect size, the confidence intervals were overlapping, the two corresponding Fisher's z estimates could not be distinguished significantly ($Q(df = 1) = 1.88$; $p > .05$). Finally, we computed Rosenthal's Fail-safe N (Rosenthal, 1979) revealing that 26397 studies with non-significant effects would be needed to render the meta-analytic summary effect insignificant on a 5%-level.

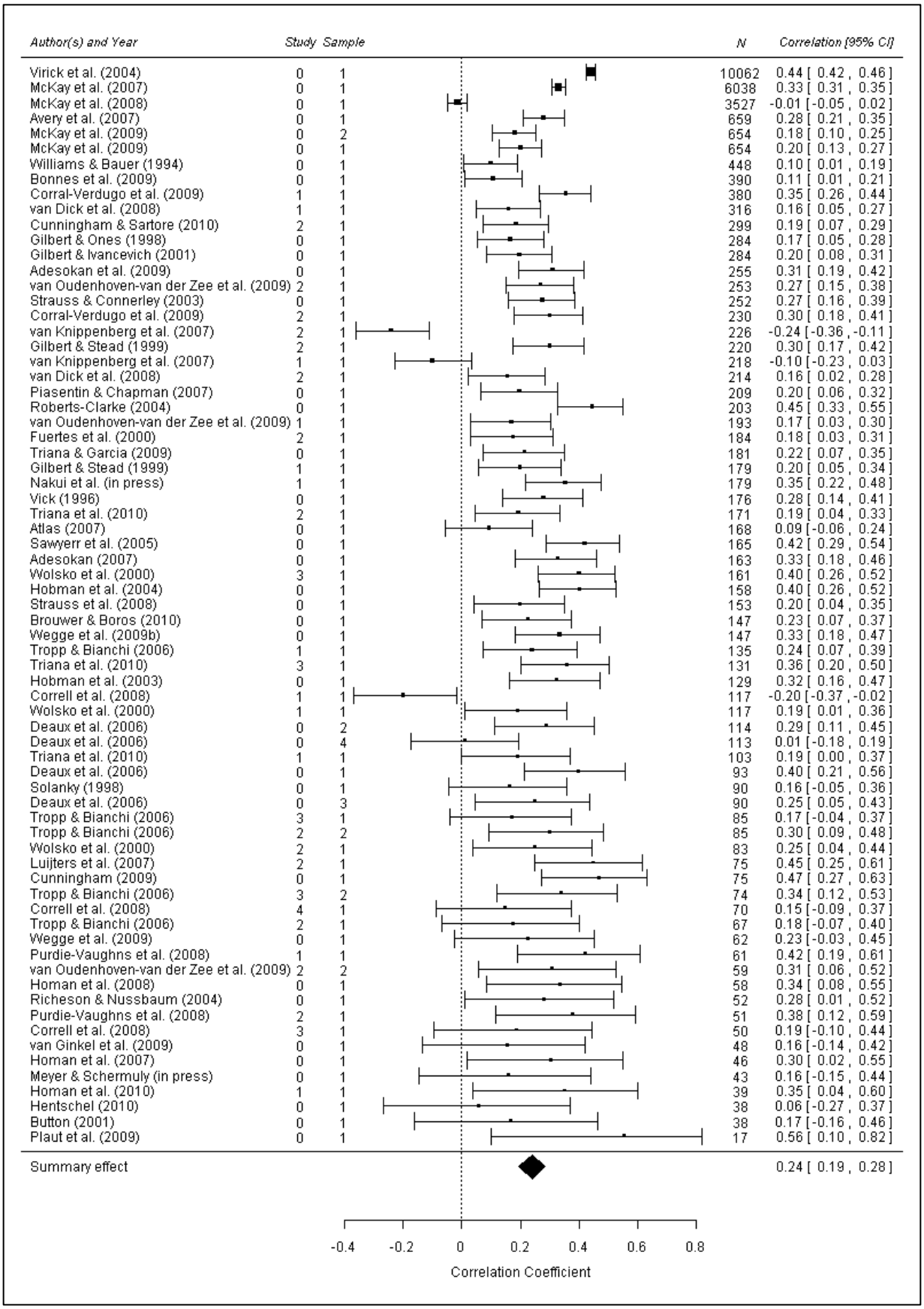

Figure 5-3. Forest plot of the main effects of diversity beliefs on beneficial outcomes.

For these reasons, it seems that the current analysis does not suffer from the most prominently discussed publication bias to a large extent.

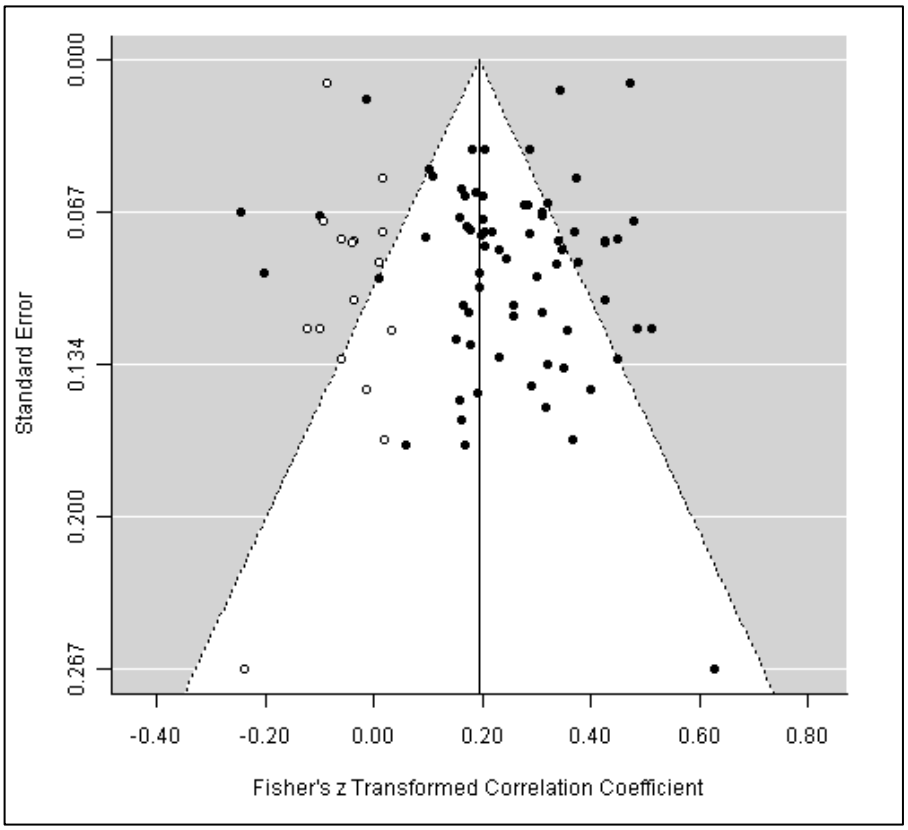

Figure 5-4. Funnel plot of diversity beliefs' main effects on beneficial outcomes. Black dots mark the empirical data. White dots mark the results entered throughout the Trim-and-Fill analysis.

In sum, the results of an analysis across all possible differences between the studies included speak in favor of the hypothesized positive relationship between pro-diversity beliefs/climates and beneficial outcomes. On the other hand, the analysis also reveals a considerable amount of heterogeneity between the "true" effects estimated for each sample. Therefore, interpreting the summary effect as the one underlying true effect size in the population of past and future studies is not recommended (Borenstein et al., 2009). Bearing in mind that diversity research in general does not warrant many really universal predictions with regard to simple two-variable-relationships and considering the conceptual variety of the studies included, it is not expedient to assume that the effects could be homogeneous. In the paragraphs to follow, meta-analytical analyses of moderation will be presented that were designed to test whether the heterogeneity of effects can reasonably be attributed to differences in the setup of studies and differences in operationalization of the focal constructs (see Table 5-3).

Table 5-3. Meta-analyses for each level of the categorical moderators explaining the heterogeneity of diversity beliefs' main effects.

	b	*k*	τ^2	I^2	*Q(df)*	*r*	CI 95%		PI 95%		$Q_{between}(df)$
General results											1.88(1); $p = .17$
Across all samples	0.24***	71	0.03	92.49	932.35(70)***	0.24	0.19	0.28	-0.11	0.54	
Trim-and-Fill-Analysis	0.19***	87	0.06	96.06	2181.71(86)***	0.19	0.14	0.24	-0.27	0.58	
Referent											1.42(1); $p = .23$
Group	0.28***	32	0.04	95.69	719.32(31)***	0.27	0.20	0.34	-0.10	0.57	
Personal	0.22***	43	0.02	75.88	174.16(42)***	0.22	0.17	0.27	-0.08	0.48	
Diversity Beliefs on group vs. individual level											0.47(1); $p = .49$
Individual	0.24***	57	0.05	95.70	1301.74(56)***	0.24	0.18	0.30	-0.19	0.59	
Group	0.21***	17	0.00	55.80	36.20(16) *	0.21	0.15	0.27	0.03	0.38	
Sidedness											2.02(1); $p = .16$
Single	0.27***	36	0.03	90.07	352.42(35)***	0.26	0.21	0.32	-0.05	0.53	
Double	0.21***	34	0.02	77.22	144.87(33)***	0.21	0.15	0.26	-0.08	0.46	
Number of diversity dimensions included											2.49(1); $p = .11$
Only one dimension	0.22***	50	0.03	89.00	445.47(49)***	0.22	0.16	0.27	-0.11	0.50	
More than one dimension	0.29***	21	0.02	88.54	174.56(20)***	0.28	0.22	0.35	-0.01	0.53	
Manipulation of diversity beliefs											0.90(1); $p = .34$
Measured	0.26***	57	0.03	93.06	807.31(56)***	0.25	0.20	0.30	-0.09	0.54	
Manipulated	0.19**	14	0.04	83.61	79.31(13)***	0.19	0.07	0.30	-0.22	0.54	
Beneficial vs. detrimental outcome											3.08(1); $p = .08$
Detrimental	0.21***	36	0.01	63.92	97.01(35)***	0.20	0.17	0.24	0.04	0.36	
Beneficial	0.27***	62	0.04	93.88	996.11(61)***	0.26	0.21	0.31	-0.11	0.57	
Type of outcome											0.29(2); $p = .86$
Affective Reactions	0.25***	59	0.02	88.50	504.56(58)***	0.25	0.20	0.29	-0.05	0.50	
Performance	0.23***	18	0.02	85.34	115.98(17)***	0.23	0.15	0.30	-0.06	0.48	
Team Processes	0.23***	26	0.01	69.33	81.51(25)***	0.23	0.17	0.28	-0.01	0.44	
Outcome on group vs. individual level											0.20(1); $p = .65$
Individual	0.24***	61	0.04	93.40	908.46(60)***	0.24	0.19	0.29	-0.13	0.55	
Group	0.22***	10	0.00	13.87	10.45(9) n.s.	0.22	0.16	0.28	0.13	0.31	

b = mean Fisher's-z-transformed correlation, *r* = predicted correlation, *** $p < .001$. ** $p < .01$. * $p < .05$. † 0.1

Diversity beliefs or climate. As a first moderator, we looked at the *referent* of the diversity beliefs/climates – i.e. whether diversity was valued by the individual participants or the whole social entity. For this purpose, we conducted a two-step meta-analysis for categorical moderators – i.e. calculating a single meta-analysis for each level of the moderator, succeeded by a second order meta-analysis of calculated summary effects and their corresponding standard errors (Borenstein et al., 2009). According to *Q*-tests conducted within each subset, both subsets of samples were significantly heterogeneous, although the absolute amount of variance to be attributed to real between-study variance of true effect sizes (τ^2) was rather small in both cases. Nonetheless, this small but significant heterogeneity accounted for a considerable percentage of the overall variability of effect sizes in both samples (I^2). Testing whether the referent of diversity beliefs moderates the size of the effect, however, yielded no significant result ($Q_{\text{between}}(df=1) = 1.42$; $p > .05$).

To further corroborate the difference between diversity climate constructs versus individually held diversity beliefs, we tested the moderating effect of the *level of aggregation*. For diversity beliefs assessed or manipulated at the individual level, we found a small, but statistically significant, heterogeneity in effect sizes, which accounted for a considerable amount of the overall observed variability. For group-level constructs, however, the heterogeneity in the set of $k = 17$ samples appeared to be lower than for individual-level constructs. However, this heterogeneity was also significant. The difference in effect estimates between the two subsets of samples was not significant. Therefore, also from this point of view, there is some evidence that diversity beliefs held at an individual level and more climate-type variables have similar effect sizes.

Conceptual scope of diversity beliefs. Dwelling further on the nature of the diversity beliefs assessed in the various samples, we compared a set of samples in which diversity beliefs/climates have been operationalized *single-sided* (i.e. only pro-diversity) with those samples utilizing *double-sided* diversity beliefs measures. The results indicated a small but significant amount of true heterogeneity in both single- and double-sided effect sizes, with this heterogeneity accounting for a considerable amount of the total variability in each case. The amount of true heterogeneity in samples using double-sided measures was somewhat larger, which could be interpreted as a tentative indication of conceptual ambiguity. However, the difference between the estimated effect sizes from each subset of samples was not statistically significant.

Next, we distinguished between effect sizes derived with operationalizations of diversity beliefs/climates that included *more than one dimension* of difference, as compared to those focusing on *only one dimension*. The results again revealed a pattern similar to the other issues of diversity beliefs/climates operationalization. The difference between the effect size estimates was not statistically significant, while there was at the same time a small but significant amount of true heterogeneity in each subset of samples.

Reliability of measurement. We assessed whether reliability of the diversity beliefs measures influenced the effect sizes of the respective studies, using reliability as single predictor in a meta-regression. Manipulations and single-item measures were excluded, resulting in $k = 53$ samples. Reliability of diversity beliefs significantly predicted the size of the outcome effect with more reliable measures to be found in association with larger effect sizes ($b = 0.51$, $p < .05$). This influence was further underlined by a significant Q-test of this moderating influence ($Q(df = 1) = 4.67$, $p < .05$). Nonetheless, there was still a significant amount of residual variance in effect sizes left after taking into account the reliability of diversity beliefs measures ($Q(df = 51) = 513.32$, $p < .01$). In a second analysis, reliability coefficients for the outcome variables were used to predict effect sizes ($k = 47$). In this case, no significant effect could be found ($b = -0.01$; $p > .05$; $Q(df = 1) = 0.02$, $p > .05$). Using this meta-regression approach to attenuation effects, we can conclude that there is something to gain from developing better measurements for diversity beliefs constructs, although this does not fully explain the heterogeneity in effect sizes.

Direction of effects. To further investigate the influence of research design on the heterogeneity of effects, we again conducted two-step meta-analyses for categorical moderators (see Table 5-3). First, we conducted two separate analyses for those studies in which diversity beliefs/climates were either *manipulated experimentally* or assessed using a survey design. Both subsets of samples yielded a significant medium sized estimate for the correlation between diversity beliefs/climates and the outcome measures. In both subsets of samples, the amount of true between-sample variance accounted for a considerable percentage of the overall observed variance. The second order meta-analytic test for the moderation yielded an insignificant result, suggesting that whether diversity beliefs/climates were manipulated or measured did not account for the heterogeneity observed in effect sizes.

Type of outcome. Looking at the outcome side of the relationship, the mean effect sizes of *beneficial* and *detrimental* outcomes did not differ significantly. Using the categorization of outcomes into *affective reactions, team processes, and performance* also

revealed no difference in the estimated mean effect sizes. Whether the outcome was assessed as a *group or individual level construct* also did not alter the estimated meta-effect significantly.

All in all, the results from the meta-analysis suggest that the hypothesized positive relationship between pro-diversity beliefs/climates and beneficial outcomes is generalizable across all known varieties of operationalizations of diversity beliefs, study designs and kinds of outcomes. This is not to say that there is no need to distinguish carefully between various types of diversity beliefs (e.g., distinguishing between individual beliefs and climate constructs), but it should rather be taken as evidence that various forms of pro-diversity beliefs/climates can lead to similar beneficial results. Notwithstanding this optimistic finding, there is still a considerable amount of heterogeneity in effects left to be explained.

5.6 Discussion

The aim of the present chapter was to provide a meta-analytical overview on the effects of diversity beliefs and climates. In light of the ambiguous findings regarding the effects of diversity in organizations, diversity beliefs and climates might be one possible answer to the recent call for moderating factors that explain under what circumstances diversity will have either beneficial or detrimental effects. Utilizing theoretical approaches derived from a social identity and self-categorization perspective, we have argued that this potential of diversity beliefs and climates is based on the role these beliefs play in reconciling conflicting perceptions of self-categorization – i.e. being different and similar at the same time. Through this reconciliation, detrimental effects (e.g., stemming from tensions between subgroups within a social entity) are avoided and a motivating potential is created to use the existing diversity for creating beneficial effects (e.g., through information elaboration processes). This potential of diversity beliefs and climates can theoretically manifest itself in both moderating effects on the relationship between diversity and outcome variables, or in main effects on these outcome variables.

With regard to the *Moderator Hypothesis*, the present analysis showed that the majority of studies indeed found significant moderating effects of diversity beliefs on the relationship between diversity and outcome variables – this significance is the first condition necessary to support Hypothesis 1. At the same time, a variety of factors imply that this is not likely to be due to publication bias. The general pattern of moderation was such that increasing diversity was associated more positively with beneficial outcomes under the condition of high pro-diversity beliefs/climates than under the condition of low

pro-diversity beliefs/climates – which is the second condition necessary to support Hypothesis 1. Interestingly, further analysis revealed that two patterns of moderation were most commonly found. In the *buffering effect* pattern, the slope for high pro-diversity beliefs/climates was non-significant whereas increasing diversity led to detrimental effects for those low in pro-diversity beliefs/climates. In the *diversity as an asset* pattern, the slope for low pro-diversity beliefs/climates was non-significant, whereas increasing diversity led to beneficial effects for those high in pro-diversity beliefs/climates.

Both the overall significance of the interaction effects and the pattern of moderation existed largely independent of (a) whether diversity beliefs were conceptualized as individual beliefs or as climate-type constructs, (b) the conceptual scope of the construct, (c) the quality of measurement, (d) the experimental manipulation of the variables and (e), perhaps most surprising, the type of outcome in question.

There are only a few exceptions to this rule. First, diversity beliefs measures and manipulations that referred to individually held diversity beliefs more often yielded significant interaction terms. However, the level of measurement of these constructs did not predict the significance of the interaction term. Therefore, the question of the differential effects of diversity beliefs versus diversity climates can still not be answered unambiguously. Second, measures and manipulations that used pro-diversity as well as pro-similarity, contra-diversity, or contra-similarity statements led to significant interaction effects more often. Third, diversity beliefs/climates that referred to more than one dimension of difference led to significant interaction effect less often. These later two exceptions speak somewhat in favor of conceptualizing diversity beliefs and climates specific with regard to the particular kind of diversity at hand, but also in favor of acknowledging that people can value diversity as well as similarity. However, neither of the included meta-analytical moderators predicted the pattern of effects. Furthermore, these results have to be interpreted cautiously because they are based on a small set of samples. As a result, statistical tests could not be derived for all meta-analytical moderators.

With regard to the *Main Effect Hypothesis*, the above meta-analysis revealed a significant average effect of $r = .24$ between pro-diversity beliefs and beneficial outcomes. Again, a variety of indicators rendered it unlikely that this effect is largely a consequence of publication bias. Therefore, Hypothesis 2 is fully supported. Further analysis revealed, however, that there is considerable variation in effect sizes between the studies. Nonetheless, the main effects of diversity beliefs were found largely independent of (a) the conceptualization of diversity beliefs as individual beliefs or climate, (b) the conceptual

scope of the construct, (c) the quality of measurement, (d) the experimental manipulation of the variables, and also (e) independent of the type of outcome in question.

This evidence for the important role that diversity beliefs can play in modern organizations is completely in line with evidence from an influential qualitative study. In this study, Ely and Thomas (2001) compared three different firms and were able to extract and describe in detail three distinct organizational perspectives towards diversity (see chapter 3.5). One of these perspectives towards diversity was superior to both others with regard to individual and organizational outcomes. Interestingly here, all three perspectives could have been understood, from a superficial point of view, as a positive stance towards diversity. Nonetheless, it was only the one using diversity in an integrative sense as an asset for organizational learning that triggered supreme beneficial outcomes (see also Kochan et al., 2003). This perspective fits well with the social identity based arguments presented in the theoretical part of the present dissertation.

All in all, the above analyses underline the potential of diversity beliefs and climates. Valuing diversity seems to be beneficial for organizations, teams and individuals. Across a variety of different conceptualizations, study contexts, and settings, holding pro-diversity beliefs leads to beneficial outcomes and reduces or at least buffers against detrimental ones. However, there is a considerable amount of heterogeneity in significance and pattern of moderation effects, as well as in the effect sizes related to the main effects. This heterogeneity obfuscates the generally promising picture and poses the most obvious challenge for future diversity beliefs/climates research.

One possible reason for the heterogeneity of main effects could be the moderating influence of the amount of diversity present in a given sample. For example, van Knippenberg et al. (2007, Study 1) found a significant interaction effect between diversity beliefs and diversity on identification. The results presented in the paper can be interpreted such that in homogeneous groups more pro-diversity beliefs lead to less identification with the group. In diverse groups more pro-diversity beliefs lead to more identification. According to the authors, gender diversity was generally rather low in this sample, so that on the whole more homogeneous groups existed. Homogeneity being the modal setting, it follows from the interaction pattern that, overall, pro-diversity beliefs had a negative effect on identification. If one assumes, therefore, that a possible cause for negative effects of diversity beliefs might be a lack of diversity in the sample and if we further assume that diversity is a rather ubiquitous feature of most modern workplaces, then this could explain why there are far fewer negative main effects to be found in the current literature. Moreover,

given that differences in the various operationalizations of diversity beliefs and differences in outcome variables did not explain the heterogeneity in the main effects, the accumulated evidence seems to be in favor of this moderation-explanation.

When seen in this light, it can be argued that the evidence presented above for the moderating effect of diversity beliefs on the relationship between diversity and its outcomes should actually be better interpreted the other way around. In most of the meta-analyses and reviews on the relationship between diversity and various outcomes, no consistent and reasonably sized effect has been found. In the present meta-analysis, however, a significant and positive mean effect size between diversity beliefs/climates and various outcomes emerged; qualified by a considerable amount of heterogeneity that might eventually be accounted for by moderators. Just as diversity beliefs/climates have been found to explain some heterogeneity in the effects of diversity on outcomes, it is also justified to assume that some of the heterogeneity in effects of diversity beliefs/climates can be explained by the amount of diversity given in a particular situation, as statistically both arguments are at the core based on the same test. Unfortunately, though, the moderator effects of diversity beliefs/climates themselves are marked by heterogeneity. In particular, the type of moderation pattern that emerged in primary studies is difficult to predict. There are, however, a few promising starting points.

One of these starting points is the kind of task a diverse team or group is attempting. Homan, Greer, Jehn and Koning (2009) found that teams holding beliefs in favor of diversity will tend to construe their perception of diversity in terms of individual differences (interpreted as a basis for beneficial information elaboration processes) and less in terms of subgroup differences (usually held accountable for the negative effects of diversity). This effect of diversity beliefs on the construal of diversity was again contingent upon the type of task: only for intellectual (i.e. complex) tasks that involve some degree of information exchange would the effect exist, and not, or to a lower degree, for simple or monotonous tasks. Together these findings lead to the conclusion that diversity beliefs bring about their effect through the perception of different kinds of diversity and, most importantly, that this effect is contingent on task complexity.

Related to this idea, another possible explanation for the heterogeneity in moderation effects could be that different types of diversity are more prone to be seen as enriching the work, whereas others might be seen as disturbing the common ground. Hobman et al. (2004) found moderator effects only for visible and informational diversity, whereas there was no significant moderation for diversity in values. This opens up the possibility that different

types of diversity might play a role in creating different patterns of moderation – or no moderation at all.

Following this line of thought, exploring the heterogeneity of diversity beliefs effects necessarily requires acknowledging that diversity is a construct with a tremendous conceptual breadth and complexity (see chapter 2.1). However, up to now this conceptual richness of the construct has not yet been used to its full extent in empirical research. Rather, diversity researchers have often restricted themselves a priori to a few prominent forms and content dimensions of diversity – most prominently race or ethnical background, gender, and age – without paying much attention to other possible differences that might be as much or even more meaningful to the people in the particular context under study. However, according to the social identity approach to diversity, diversity beliefs/climates might only make a difference in circumstances where the perceived differences are relevant – as for example in a study that found that diversity beliefs made a difference for women when hired for a typically male position but not when appointed to a more gender neutral position (Gilbert & Stead, 1999). Furthermore, even where people are exposed to the same objective differences within a team, they can come to very different conclusions about the relative importance of these differences, leading to more or less homogeneous ideas within the team regarding the salience of these differences – an effect that can be detrimental to work group performance and is accelerated in the presence of an organizational culture that emphasizes respect (Randel & Earley, 2009). In spite of these influencing factors, in most publications on diversity beliefs only scant attention is given to the exact reason of why a particular kind of diversity has been chosen to study. Descriptions of the subjective importance for the people participating or the instrumental relationships to the tasks they perform are largely absent. However, if the exact role a particular kind of diversity plays in a given social entity and for the people therein was understood, some of the heterogeneity of effects to be found in diversity research in general as well as in the present analyses could probably be explained. Assessing diversity beliefs regarding a particular form of diversity might indirectly be a step in the right direction.

Another factor influencing the heterogeneity of moderation effects might be the interpretation of diversity policies or climates. A company policy could, for example, (a) promote equal treatment of all employees, (b) emphasize the existing similarities between employees, or (c) require that all employees *must* "fit into the mould". All three approaches could either be interpreted as fair and equal treatment or as ignoring the "challenges that come with a stigmatized identity" (Purdie-Vaughns, Steele, Davies, Ditlmann, & Crosby,

2008, p. 617). Similarly, a policy which not only acknowledges the existence of differences but also emphasizes their value for the organization can come across as either acknowledging and welcoming or as a signal that minority group members are valued *only* for their "otherness" (Purdie-Vaughns et al., 2008). Furthermore, each diversity policy is bound to be interpreted in light of the actual diversity perceived in the organization at hand (Purdie-Vaughns et al., 2008). These interpretations of enacted diversity beliefs could potentially explain some of the variance in the present findings (for a similar line of argument see McKay et al., 2008).

The nature of diversity beliefs/climates themselves also bears some potential sources for heterogeneity. Apart from the fact that these beliefs/climates can be defined more or less specifically with respect to a certain kind of diversity, the value of this diversity is usually directed at a certain aim – i.e. diversity is seen not only as a good thing in itself but rather as a good thing *for something*. For example, the fact that some group members are different from other group members with regard to educational background can be expected to lead to more group creativity. It might also be expected to cause misunderstandings and feelings of loneliness. There is a rich pool of possible outcomes which diversity can be related to. Some measures of diversity beliefs have been designed to capture some of them, some are less specific and assess only the extent to which diversity is valued in general. Unfortunately, this aspect has often been neglected in the existing literature, which is why it could not be taken into account in the present analysis.

Heterogeneity of effects could also be caused by the fact that valuing diversity is necessary but not sufficient for bringing about beneficial processes and outcomes. Thinking positively will not necessarily lead to adequate plans on how to use that diversity for the good of both the individual and the workgroup. Therefore one can easily see what other concepts might come into play if the good intentions are to be translated into beneficial outcomes. Some researchers have already proposed broadening the pure diversity beliefs concept to a broader *diversity mindsets* concept – including, for example, abilities, competencies, behavioral schemes, and habits (van Knippenberg & Schippers, 2007). Whether trying to conceptualize such broader syndromes or not is the way to go, further research is certainly warranted that looks closer at processes that causally translate people's and organizations' good intentions into beneficial outcomes for organizations and the people who work in them.

Apart from these very specific increments to the diversity beliefs/climates constructs, the nature of diversity beliefs and climates could also vary in other aspects and create

further sources for heterogeneity. One possible way to shed light on such issues would be to juxtapose diversity beliefs with various similar constructs used in other branches of research. For example, diversity beliefs bear some resemblance to acculturation strategies (e.g., Berry, Kim, Power, & Young, 1989), dual-identity-representations (e.g., Dovidio et al., 2007), or complex prototypes (Mummendey & Wenzel, 1999; Waldzus et al., 2003; Wenzel et al., 2007). Other, more distinct constructs have been shown to lead to similar processes like the ones we outlined above for diversity beliefs: need-for-cognition (Kearney, Gebert, & Voelpel, 2009), expectancies (Rink & Ellemers, 2006, 2007), and openness to experience (Homan et al., 2008). Investigating further the parallels and differences between these constructs and diversity beliefs/climates could shed some light on the way in which diversity beliefs/climates bring about the effects described in the main part of this chapter.

In addition, such comparisons would also reveal the unique theoretical contribution of diversity beliefs and climates as theoretical constructs. Particularly important in that respect, it has occasionally been argued that diversity beliefs might have a lot in common with concepts such as modern racism or prejudice. There is a considerable theoretical and operational overlap in constructs like workplace discrimination and diversity beliefs. For example, there are elaborate scales available under such titles as "attitudes towards diversity", which include items that tap more into the disliking of minorities, subtle forms of discrimination and intergroup anxiety (Larkey, 1996; Montei, Adams, & Eggers, 1996). On the contrary, the construct of diversity beliefs, as we define it here, focuses on the value of diversity for a social entity or its members. Diversity beliefs are formed with regard to a common shared social entity including people that are different; whereas prejudice and racism reflect attitudes towards outgroups. Empirically, what people think about the diversity of their group can be shown to causally influence the differentiation of social categories, biases favoring the ingroup, and collective self-esteem, even when modern racism, social dominance orientation and conservatism are controlled (Wolsko et al., 2006). For these reasons it seems implausible that diversity beliefs can simply be substituted through concepts like prejudice. However, a closer comparison of these constructs could produce fruitful insights especially as to the incremental predictive power of diversity beliefs over more established constructs.

Another source for heterogeneity is the particular formulation of diversity beliefs/climates items or manipulations. The sidedness of operationalization as we defined it in the present analysis did not significantly explain a large part of the heterogeneity in effects between the primary studies. However, distinguishing between single- and double-

sided conceptualizations is not sufficient to capture all possible ways of measuring and manipulating diversity beliefs and climates. Psychometric analysis of various scales designed to tap into the vast pool of diversity related attitudes, tends to show that such attitudes are rather complex. People can hold various beliefs toward diversity and dissimilar others at the same time. Specifically, they can hold different beliefs about different dimensions of difference (e.g., age, gender, ethnicity) and they can also simultaneously hold beliefs about the benefits of diversity and the benefits of similarity (Stegmann & van Dick, 2008; see also van Knippenberg et al., 2007). Especially the assumption that the benefits of diversity might flourish only under the condition of a common ground of similarity that helps to orchestrate the various differences towards the achievement of a common purpose, renders independent pro-diversity and pro-similarity beliefs highly likely (compare for example Durkheim, 1893/1933; Haslam, 2001; Miville et al., 1999; van Knippenberg & Haslam, 2003). However, in most studies pro-similarity, contra-diversity, or contra-similarity beliefs were either ignored, or the first two were reverse-coded and then all three added to the pro-diversity attitudes. A full empirical investigation regarding all four possible combinations would certainly contribute to our understanding of diversity beliefs/climates and their effects.

As can be seen from the above suggestions, the intention behind the present review and meta-analyses on diversity beliefs/climates research was not to close the case on the topic. More studies dealing with more fine-grained analyses of the attitudes and climates towards diversity are needed. Nonetheless, the studies available at the moment regarding moderating and main effects of diversity beliefs and climates underline the considerable theoretical potential of diversity beliefs across a whole range of different settings.

From a theoretical point of view, diversity beliefs and climates close a gap often overlooked within the social identity literature. They describe the social identity of a group from a qualitative point of view; that is they describe what the particular group in question is about. Alternatively, the focus has often been on how much people identify with a particular group – identification or salience (i.e. a more quantitative perspective on social identity). Preferably, one should rely on both these perspectives when describing how groups and their members deal with diversity. Diversity beliefs/climates tell us whether people will try to make use of or rather minimize the impact of diversity – i.e. the potential behavior's direction. Identification with the overall group, however, will tell us something about the amount of effort and energy that will be spent in either direction. If people think positively about diversity but lack the momentum that inspires them to make creative use of

this diversity and to overcome obstacles in the way, success will be at stake. Identification with the sub-units, on the other hand, will tell us something about the energy that lies behind the differences within the overall group. For example, one could easily imagine that even the most innovative and creative ideas coming from a person with a diverse perspective are bound to be lost in a group discussion if the person lacks the motivation to surface the differences and stand his or her ground against the other members so that the innovative ideas get heard. In this way, it seems fruitful to combine quantitative concepts of identification at both the group and subgroup level with qualitative concepts depicting the group's value on diversity when predicting relevant processes and outcomes (e.g., Haslam, 2001). These issues will be further elaborated on in the following chapter.

6 Organic and Mechanic Forms of Solidarity and Their Relationship to Intergroup Collaboration[3]

As outlined in chapter 2, diversity is a ubiquitous feature of modern organizations that usually describes the degree to which a particular unit (e.g., organization, department, workteam) is comprised of sub-units (e.g., employees, sub-teams) that differ from one another in certain aspects. The effects of this exceptionally broad construct on various individual and organizational outcomes have attracted attention in a range of scientific disciplines for more than half a century. Unfortunately though, most of the reviews of this literature (e.g., Jackson & Joshi, 2011; van Knippenberg & Schippers, 2007) conclude that so far there is no simple way to predict what kinds of effects a particular form of diversity will have in a particular setting. In consequence, more recent theoretical and empirical research work seeks to elucidate diversity's effects through the study of contingency factors and mediating processes.

The basic tenet of the present dissertation is that people are likely to have an understanding of what role diversity plays in the societies, organizations, work groups or other social units they are part of and that such an understanding provides a vantage point from which they will engage with diversity in the future. In the previous chapter, it was shown that such an understanding – framed as individual-level diversity beliefs or group-level diversity climates – has been found to shape the effects of diversity in the majority of studies that addressed this topic. Therefore, whether people and groups value diversity is one contingency factor that could help in explaining when diversity will have what kinds of effects.

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[3] **This chapter is based on the following manuscript:**

Stegmann, S., Wu, T., Egold, N., & van Dick, R. (2010). *Birds of a feather flock together and opposites attract - Organic and mechanic forms of solidarity and their relationship to intergroup collaboration.* Unpublished Manuscript, Goethe University. Frankfurt, Germany.

and the following conference presentations:

Stegmann, S., Wu, T., Egold, N., & van Dick, R. (2010). *Birds of a feather flock together and opposites attract - Organic and mechanic forms of solidarity and their relationship to intergroup collaboration.* Paper presented at the small group meeting on diversity research and practice of the European Association of Work and Organizational Psychology (EAWOP), Birmingham, UK, 23 - 24 September.

Stegmann, S., Wu, T., Egold, N., & van Dick, R. (2010). *Birds of a feather flock together and opposites attract - Organic and mechanic forms of solidarity and their relationship to intergroup collaboration.* In S. Sobiraj & J. Wegge, Team diversity – The role of attitudes and social processes. Symposium conducted at the 47. Kongress der Deutschen Gesellschaft für Psychologie (DGPs), Bremen, Germany, 26 - 30 September.

While the meta-analysis in the previous chapter focused on the question of whether the role that diversity plays in a particular context does indeed have effects on groups and their members, the present chapter is more concerned with the second aim of this dissertation – to wit, to examine the processes and mechanisms these effects are based on. The meta-analysis revealed that across primary studies the effects of diversity beliefs and diversity can vary considerably. Exploring how these effects come about could help in understanding this heterogeneity of effects.

In the present chapter I draw on the social identity approach and on a sociological theory on the division of labor to explore three important aspects that have often been overlooked in the previous literature on the vantage points from which people engage with diversity. First, I make the case that identification with a diverse social unit is the driving force behind the effects of diversity beliefs and climates. Second, I argue that both similarity and diversity can each be valued parts of a particular social identity and that, therefore, identifying with a group can lead to two distinct forms of solidarity. Third, I propose that identification with a group indirectly influences the quality of collaboration within the group through both forms of solidarity (Figure 6-1). This theoretical model was tested in two different contexts, focusing on collaboration between teams within an organization.

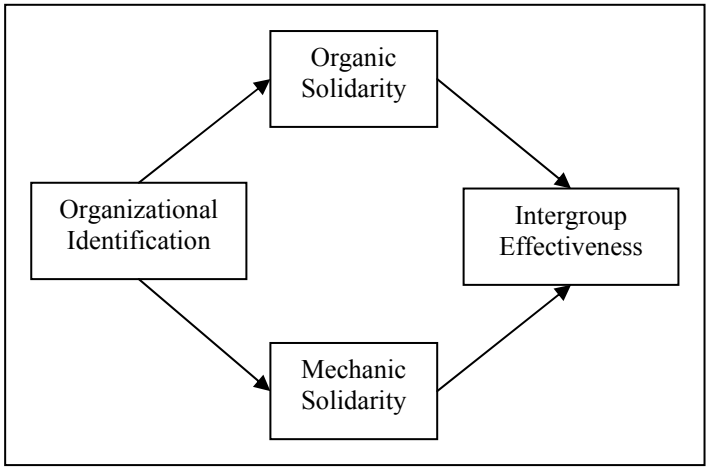

Figure 6-1. The general model underlying chapter 6: The effects of organizational identification on intergroup effectiveness, mediated through organic and mechanic solidarity.

6.1 Organizational Identification as the Driving Force behind the Effects of Valuing Diversity and Similarity

Probably the most basic tenet of social identity theory is that part of our identity is derived from our sense of being a part of a variety of social categories (see chapter 3). This social identity is an integrated part of our self that provides not only a basis for evaluating our self-worth, but also a source for orientation. This is why, in turn, the knowledge of being part of a particular social category motivates all sorts of actions directed at presuming a positive self-worth. In this way social identity becomes an important source for

motivation. Toward what goal this motivation is directed is largely determined by the content of the respective social category.

Research in the tradition of the social identity approach, however, has often focused not on qualitative descriptions of identities, but rather on the degree to which they become salient in a given situation (van Dick, Wagner, Stellmacher, & Christ, 2005) or, in a similar vein, on the degree to which a person has internalized a particular self-categorization in his or her self-concept – i.e. their identification with the particular category (van Dick, Wagner, Stellmacher, & Christ, 2004). Identification is a rather stable factor that plays an important role in shaping the accessibility of a particular category. It comes as no surprise then, that identification with an organization, as one possible social category, has been proven to influence a range of desirable outcomes for organizations, work-groups and individuals (Riketta, 2005; Riketta & van Dick, 2005), including financial benefits (Millward & Postmes, 2010). One has to bear in mind, though, that identification will motivate people towards the goals of the particular social category in question, whatever they may be. This does not always imply that the motivated actions are beneficial when seen from an outsider's perspective (Haslam, 2004; Haslam et al., 2006). In this way, identification is best interpreted as a driving force; the content of the social category, however, determines the direction this force is aimed at (see also Livingstone & Haslam, 2008).

As outlined in chapter 3, diverse groups or organizations can be understood as a set of nested social categories. Hence, there are at least two foci of identification potentially relevant to the members of such organizations: (a) the overall organization and (b) their distinct sub-unit within that organization – the latter being, for example, their specific department or, less formally, their specific age group. According to the social identity approach to diversity, for diversity to be subjectively salient in any organization, the different sub-units have to be salient parts of the employees' self-concepts. Identification with these sub-units is likely to make people more inclined to define themselves in a particular situation through their sub-unit-memberships – making sub-units more salient. In much of the diversity literature, the emergence of such salient sub-units has been condemned to be a necessary cause for negative relationships between these sub-units. However, as described in chapter 3, the relationships between these sub-units necessarily depend on the contents of the sub-units' identities. Only if these identities threaten or challenge each other, will negative relationships occur.

Inspired by the social identity approach, two basic models have been proposed to foster harmonious relationships between sub-units. The first model is the common ingroup

identity model. The basic tenet of this model is to foster positive intergroup contact through extending the benefits of a shared group membership to former outgroup members. This is supposed to happen through the creation of a common overarching identity that entails an emphasis on similarity between the members of the sub-units. This model received some empirical support (see chapter 3.4.1). Nonetheless, it also has its drawbacks. Among its most serious flaws is that emphasizing similarity might amount to downplaying the importance of valid and valued sub-unit differences.

These difficulties led to the development of a second model aimed at fostering harmonious sub-unit relationships – the dual identity model. According to this model, the sub-unit's identity shall be preserved and acknowledged, while at the same time an overarching identity is installed. As pointed out in chapter 3.5, for this simultaneous salience of self-categorizations on two levels of abstraction to be possible, it is necessary that the overarching social identity is informed by and builds upon the differences between sub-units. Thus, a central quality of the overarching identity has to be that it emphasizes differences and diversity. As described in the previous chapters, this quality of overarching identities can manifest itself in pro-diversity beliefs and climates. As mentioned in chapter 3.4.2, there is good empirical support for the dual identity model (see also Richter, West, van Dick, & Dawson, 2006) and the important role of diversity beliefs/climates in shaping the effects of diversity in organizational contexts (see chapter 5).

Summarizing the main propositions from both models, positive relationships between sub-units within a diverse organization can either be cultivated through the creation of an overarching organizational identity that is based on similarities between employees or through developing an overarching organizational identity that is based on diversity. However, along the lines mentioned at the beginning of this section, these different organizational identities will only influence sub-unit relationships *if* the employees perceive them as valid and valued aspects of their self-concept. In this way, the dual identity model and the common ingroup identity model describe the content of the overarching social identity, however, the salience of or the identification with this identity will determine how much this content will guide employees' behavior. Therefore, a strong identification with an organization in which members of the sub-units perceive members from other sub-units as playing on the same team, belonging to the same organization, and being very similar to them can foster positive sub-unit relationships – as outlined in the original common ingroup identity model. Identification with an organizational identity that is based on an

understanding that differences between sub-units lie at the heart of what the organization is about can also foster positive sub-unit relationships – as outlined in the dual identity model.

Indirect support for this motivating role of identification is provided by Meyer and Schermuly (in press), who showed that the moderating influence of diversity beliefs on the relationship between diversity and performance was again contingent on another factor: task motivation. Only if task motivation was high could the hypothesized moderation be found, otherwise diversity was negatively related to performance, irrespective of diversity beliefs. In this study, groups were defined experimentally via tasks, just as this is probably true for many groups in organizational contexts. To a certain degree it is therefore conceivable that task motivation captured how important the group was to the individual participants. However, in other contexts, identification might be a better measure to assess the importance of the particular identity for the individual members, indicating also how much energy they are willing to spend on the realization of what the group is essentially about, including diversity beliefs.

6.2 Mechanic and Organic Solidarity

The dual identity model and the common ingroup identity model have predominantly been tested as alternative and mutually exclusive approaches to fostering positive relationships between groups (e.g., Dovidio et al., 2007; Gonzalez & Brown, 2006; Guerra et al., 2010). Similarly in most of the diversity beliefs/climates literature summarized in chapter 5 people's beliefs regarding diversity and similarity were conceived as two sides of the same coin. In consequence, pro-diversity beliefs/climates and pro-similarity beliefs/climates have mostly been conceptualized as two poles of one underlying continuum. However, as outlined in the previous chapter, there is empirical evidence that people can value similarity and diversity at the same time. This is intuitively appealing since there might be both aspects in which similarity is beneficial for a group – as for example the similarity in the mental representations of the common task (e.g., van Ginkel & van Knippenberg, 2008) – and aspects where diversity is beneficial – as for example with regard to enhanced information elaboration through multiple perspectives on the task (e.g., Homan et al., 2008). Although it has been neglected by the majority of the diversity literature, this idea that diversity in some aspects and similarity with regard to other aspects can simultaneously be valued parts of one single social identity is by far not a new one.

In 1893, French sociologist Emil Durkheim published his seminal book "de la division du travail social". This was at a time when sociology had not yet been established

as a separate scientific discipline and when modern experimental psychology was still in its infancy. Durkheim's book provides a comprehensive and elaborate theory of the function of division of labor in societies, the types of solidarity present in these societies and the way to describe societies on the basis of these types of solidarity. He begins his analysis by pointing out that the function of division of labor in society is to bring about a specific type of solidarity between people. At the core of Durkheim's further argument lies the distinction between two types of solidarity. Mechanic solidarity is thought to originate in similarity and homogeneity of the people involved. Organic solidarity, in contrast, is based on people's differences. It is important to note that in the latter case the differences have to be related in a meaningful way, by, for example, creating interdependence between the people involved. Even at that time, these ideas were not new. Durkheim cites sources dating back to Aristotle, who describes an ancient debate about whether friendships are based upon similarity or diversity.

Durkheim's analysis, however, is unique in that he relates these solidarities to the societal norms and the set of rules that are installed to uphold them. Consequently, in his analysis on a societal level Durkheim relates both forms of solidarity to different parts of the legal system. Mechanic solidarity is thought to be that type of social bond whose breach is punished through repressive sanctions. The nature of these sanctions is that of expiation; the rules to follow in this case are laid out in criminal law. In contrast, organic solidarity is the social bond whose breach is followed by restitutional sanctions. The rules to follow in this case are to be found in, for example, civil or commercial law. Hence, the important point to note is that both types of solidarity can exist simultaneously within one particular social entity. They address different aspects of social life and fulfill different functions, albeit both have a potential to foster positive relationships between the sub-entities within a social entity.

I propose that both mechanic and organic solidarity can be conceived as stemming from defining features of a particular social category's content, to wit, those features alluding to the value and functional role of similarity and diversity within the category. They describe the binding forces which uphold the relationships within the category. The extent to which similarities in certain aspects of the social identity content are endorsed does not necessarily imply the disaffirmation of diversity in other aspects of identity content. Therefore, both forms of solidarity are independent constructs. To the extent a person incorporates the category membership into the self-concept – i.e. the identification with the social category – she or he will also incorporate the content with regard to the value of

particular similarities and differences. In the context of the present analysis I concentrate on the organization as focal social category, therefore, I hypothesize:

H1: Both organic and mechanic solidarity are positively related to identification with the organization.

Both forms of solidarity are valuable when dealing with particular forms of diversity and can, both in their own way, help to overcome obstacles in the way of productive and harmonic intergroup relations. Organic solidarity emphasizes the value of differences, their interrelated instrumental contributions and so on. It is through this perspective that organic solidarity will help to unravel the full potential of a particular kind of diversity within any organization. At the same time, mechanic solidarity will provide a common ground for action, common rules to abide by and the secure ground of firm rules which everyone can rely on. It is in this way that mechanic solidarity will foster positive intergroup relations.

H2: Both organic solidarity and mechanic solidarity lead to positive intergroup relations.

As outlined above, there are two ways in which identification with an overarching category can foster positive relations between sub-units. First, derived from the original common ingroup identity model, the identification with a common ingroup identity can result in positive sub-unit relationships through the perception of similarities between former outgroup members and oneself. This effect can be achieved through the common ingroup identity's content implying mechanic solidarity between the members. Second, as outlined in the enhanced dual identity model, identification with of a common ingroup identity can foster positive subgroup relationships if the content of that identity implies the meaningful orchestration of subgroup differences. This effect can be achieved through the common identity content implying organic solidarity between the members. With regard to the organizational context, I therefore predict:

H3: Organizational identification has a positive effect on intergroup relations.

H4: Both organic and mechanic solidarity mediate the positive effect of organizational identification on intergroup relations.

Organic and mechanic forms of solidarity are expressions of the organizational identity that are related to the meaning of differences within the organization. Both forms can coexist and influence the way that people will deal with differences within their organization. Durkheim proposed that both forms of solidarity are to be found in any developed society and that their relative weight is a particularly interesting characteristic of the society under study. It is therefore advisable to study both forms of solidarity as

independent constructs, as the ratio of organic and mechanic indirect effects will vary from one organizational context to another. To illustrate this point the above hypothesis were tested in two very different contexts.

6.3 Study 1

Organic and mechanic kinds of solidarity arise from those parts of the social identity that address the role diversity and similarity have to play within a particular social category. We[4] chose to test our hypothesis in a context in which a certain type of diversity is indeed a defining feature of the category: a German university. Universities are prototypical for fairly sub-divided organizations. Within universities, departments from different scientific disciplines as well as administrative departments work relatively autonomously. Decision structures are often coined in a democratic way, such that idiosyncratic interests of sub-categories have the potential to be aired. At the same time, there is usually ample cooperation between various sub-units regarding teaching, research and administration. The overarching organizational identity is often made salient through logos, or public relations.

6.3.1 Method

Participants

The university has about 3600 employees. We collected data at three times (2007, 2008, and 2009). We based our scale development on the data from 2007 and used this sample to initially test our hypotheses. In order to map the causal direction inherent in our mediation hypothesis, we used two follow-up waves in 2008 and 2009 to provide a replication and stricter test of our hypotheses. Data collection lasted four weeks in each year and participants were offered the opportunity to fill out the questionnaires online or as a paper-pencil questionnaire. Participation was completely voluntary and anonymous.

For the cross sectional analysis we obtained data from 699 employees in 2007. The participants were 53% female. Thirty-five percent of respondents were between 26 and 35 years old, 26% between 36 and 45 years old, 20% between 46 and 55 years and 12% between 56 and 65 years old. The sample comprised 44% employees with part time jobs and 49% with fixed term contracts. Average tenure was 8 years (*SD*: 8.7). Most respondents (79%) work in an academic department, 14% in the central administration. Questionnaires were obtained from all of the 16 academic departments. Research and teaching is the main

[4] I use the plural personal pronoun „we“ in the remainder of this chapter to acknowledge the contributions of my co-authors Tina Tai-Chi Wu, Nikolai Egold and Rolf van Dick who contributed to the manuscript on which the present chapter is based.

activity for 64% of the respondents, 23% had their main activities in the administration, 14% had other main activities.

For testing the hypotheses in a longitudinal design a dataset of matched samples of the years 2008 and 2009 was used. Data from 174 participants could be matched. Eighty-five percent of these participants were female, 35% between 26 and 35 years old, 30% between 36 and 45, 27% between 46 and 55 years old. Working part-time were 38% and with a short term contract were 44% employees. Eighty percent of the employees worked in academic departments, 11% in the central administration of the university and 19% in other departments. The main activity for 50% of the respondents was in research and teaching, 35% had their main activities in administration, and 16% had other main activities.

Measures

With the exception of the scales for organic and mechanic solidarity, established measures were employed. All scales were assessed using a five-point Likert-scale ranging from "totally agree" to "totally disagree". All constructs were assessed on the individual level; nonetheless, the items were phrased to tap into cognitions and feelings regarding the university, sub-units and interrelations of sub-units.

Organic and mechanic solidarity. One starting point for the development of the scales for organic and mechanic solidarity was one item that had been created to measure a dual identity representation within the original dual identity model context (Gaertner et al., 1996). This item was chosen based on the experiences of the original creators of the organic pluralism concept (R. A. Eggins, personal communication, 2004). Based on this item and the understanding of the organic nature of social categories as outlined in chapter 3.5, an instrument designed to depict the original notion of organic pluralism was created and used successfully in an earlier study (Stegmann, 2004, 2007). Using the insights from the development and testing of this earlier scale, we created a more complete set of items depicting both organic and mechanic forms of solidarity. We intentionally phrased the items very generally, such as to be applicable to a wide range of organizational settings and types of teams.

The final set of items consisted of 4 items (see Table 6-1). Two items were each meant to measure organic and mechanic solidarity, respectively. In accordance with two popular perspectives on work groups, within both sets of items the first item should assess the role of diversity/similarity for the perception of the common identity, whereas the second item was to tap into the task-related, instrumental roles of diversity/similarity.

Theoretically, we assumed that organic and mechanic solidarity should exist independent of each other, although both describe some form of solidarity and should therefore be correlated positively to some degree.

Table 6-1. Items measuring organic and mechanic solidarity.

Organic solidarity
Although there are different teams at this university, it feels like we are playing on the same team.*
Although the different teams within the university work on different tasks, they all work towards a common goal.
Mechanic solidarity
Despite the different teams at this university, there is frequently the sense that we are just one big group.*
The different teams within the university all have similar tasks and work together towards a common goal.

* Items adapted from Gaertner, Dovidio, & Bachman (1996)

Intergroup effectiveness. The quality of the relations between sub-units were operationalized using four established scales measuring different facets of intergroup effectiveness which were developed to measure relations between organizational sub-units (Richter, Scully, & West, 2005). From each of the four established scales we used two items, including marker items reported in Richter et al. (2005). *System responsiveness* measures the degree to which sub-units "interact in order to respond to system problems, emerging opportunities, or mandates within the groups' organizational environment" (Richter et al., 2005, p. 184). This scale yielded an internal consistency of α_{2007} = .77 and α_{2008} = .76. *Resource exchange* measures "the extent of resource provision and utilization between groups" (Richter et al., 2005, p. 184) and yielded consistencies of α_{2007} = .59 and α_{2008} = .69. *Transaction costs* measures the ratio of resources invested in intergroup cooperation to the quality of outcomes. The scale yielded consistencies of α_{2007} = .72 and α_{2008} = .77. *Viability* measures the degree to which the sub-units honor their relationship as reliable in that each sub-unit carries out its responsibilities regarding the other sub-units. Consistencies for this scale were again acceptable in 2007 (α = .63), but low in 2008 (α = .47).

Identification. Organizational identification was measured using six established items (Mael & Ashforth, 1992), yielding high internal consistencies (α_{2007} = .86, α_{2008} = .88).

6.3.2 Results

We used the complete set of data from the 2007 survey to establish the psychometric properties of the new scales for organic and mechanic solidarity. Both scales yielded good internal consistencies (organic solidarity: α_{2007} = .85; mechanic solidarity: α_{2008} = .74). The intercorrelation between both scale means was significant and positive (r_{2007} = .64, p <.01). Confirmatory factor analyses revealed a significantly worse model fit for a one factor model ($\chi^2(df)$ = 60.8 (2); SRMR = .05; CFI = .94; AIC = 4676) when compared to a model with organic and mechanic solidarity as two separate factors ($\chi^2(df)$ = 6.9 (1); SRMR = .01; CFI = .99; AIC = 4624; $\Delta\chi^2$ (Δdf) =53.86 (1), p < .01). The two latent factors from the latter model were correlated significantly positive (r = .39, p < .01). Therefore, the hypothesized two-factor-structure fits the data best. The assumed positive correlation between both forms of solidarity was also observed.

According to Hypothesis 1, all solidarity scales should correlate positively with organizational identification. As can be seen in Table 6-2, this is clearly the case. Therefore, Hypotheses 1 is fully supported.

We predicted that both organic and mechanic solidarity should foster positive intergroup relations (Hypothesis 2). In 2007, both forms were significantly related to system responsiveness and resource exchange (see Table 6-2). For these two constructs the correlations for organic solidarity were higher than for mechanic solidarity. Transaction costs and viability were related to organic solidarity only. In sum, Hypothesis 2 receives partial support. Organic solidarity is clearly related to intergroup effectiveness, whereas mechanic solidarity seems to play a minor role, shaping only specific aspects of intergroup effectiveness.

We expected organizational identification to have beneficial effects on intergroup effectiveness (Hypothesis 3). However, there were only small, albeit significant, relationships with system responsiveness and resource exchange. Organizational identification was to a small degree associated with higher transaction costs. However, it had no effect on viability. To test whether both organic and mechanic solidarity have the potential to mediate the relationship between organizational identification and intergroup effectiveness (Hypothesis 4), we calculated separate path-analytic mediation models for both forms of solidarity and each of the four indicators of intergroup effectiveness. In order to avoid problems relating to the assumption of standard normal deviation of the product term inherent in the classic Sobel-Test (Sobel, 1982) and in order to optimize power while

Table 6-2. Scale descriptive statistics and intercorrelations (Study 1).

	2007			2008			2009									
	M	*SD*	*N*	*M*	*SD*	*N*	*M*	*SD*	*N*	Organic Solidarity	Mechanic Solidarity	Organizational Identification	System Responsiveness	Resource Exchange	Transaction Costs	Viability
Organic Solidarity	2.28	0.92	560	2.45	0.94	161	2.63	0.84	168	.50***	.63***	.38***	.37***	.35***	-.14***	.14***
Mechanic Solidarity	1.91	0.78	547	2.07	0.80	155	2.19	0.80	165	.42***	.47***	.34***	.22***	.22***	-.09	.09
Organizational Identification	2.53	0.87	658	2.72	0.87	171	2.77	0.89	169	.33***	.23***	.74***	.20***	.16***	.09**	.04
System Responsiveness	3.38	0.88	528	3.13	0.88	159	3.24	0.77	163	.26***	.14	.04	.44***	.57***	-.36***	.35***
Resource Exchange	3.11	0.85	522	2.98	0.90	157	3.11	0.88	163	.33***	.27***	.02	.32***	.47***	-.39***	.37***
Transaction Costs	3.47	0.99	491	3.35	0.94	148	3.30	0.89	162	-.20**	-.13	.00	-.07	-.19**	.37***	-.30***
Viability	3.90	0.67	486	3.83	0.60	147	3.76	0.56	161	.19**	.08	-.05	.20**	.25***	-.20**	.44***

Longitudinal correlations below the diagonal. Columns show variables from 2008, rows variables from 2009. Values in the diagonal are stability coefficients, i.e. correlations of a variable in 2008 with the same variable in 2009. *** $p < .01$, two-sided. ** $p < .05$, two-sided.

maintaining reasonable Type I error rates we used bootstrapping to approximate the sampling distribution of indirect effects empirically (MacKinnon, Lockwood, Hoffman, West, & Sheets, 2002; MacKinnon, Lockwood, & Williams, 2004). Bootstrapping was applied based on 5000 draws with replacement; bias-corrected confidence intervals were estimated for all indirect effects (Preacher & Hayes, 2004, 2008). The standardized results are displayed in Table 6-3.

The total effects of organizational identification on system responsiveness and resource exchange were significant and positive, regardless of which form of solidarity was included in the model. The direct effects of organizational identification on system responsiveness and resource exchange - after taking into account either organic or mechanic solidarity as mediator – were considerably reduced, resulting in full and partial mediations. The directions of all effects were in line with the theory.

The total effect of organizational identification on transaction costs revealed that more identification was associated with more transaction costs, but only significantly so in the model including organic solidarity. The direct effects, in turn, indicated an even stronger association between organizational identification and heightened transaction costs – i.e. once either organic or mechanic solidarity were taken into account as third variables. The signs of the paths involved revealed that organizational identification is associated with more organic and mechanic solidarity, which in turn are associated with lower transaction costs. The remaining variance in organizational identification, however, is associated with higher transaction costs.

The total effects of organizational identification on viability were not significant, neither were the direct effects, irrespective of the type of solidarity included in the model. Nonetheless, the indirect effects were significant, although only marginally so in the case of mechanic solidarity. The signs of the corresponding path coefficients are in line with the proposed theory: Organizational identification was positively associated with both forms of solidarity, which in turn were positively related to viability.

Overall, the indirect effects calculated in this first analysis were significant – with the exception of the effect on viability via mechanic solidarity. Again it is interesting to note that for all outcomes the indirect effects of organic solidarity were considerably larger than the indirect effects of mechanic solidarity – mirroring the results from the simple relationships between both forms of solidarity and the measures of intergroup effectiveness.

Table 6-3. Simple indirect effects of organizational identification on intergroup effectiveness (Study 1, cross-sectional).

Independent Variable (IV)	Effect of IV on M (*a*)	Mediating Variable (M)	Effect of M on DV (*b*)	Dependent variable (DV)	Direct effect (*c′*)	Indirect effect (*ab*)	Indirect effect CI 95%	Total effect (*c*)	*N*
Organizational Identification	.34 ***	Mechanic Solidarity	.17 ***	System Responsiveness	.13 ***	.06 ***	.03 .10	.19 ***	660
Organizational Identification	.34 ***	Mechanic Solidarity	.18 ***	Resource Exchange	.09	.06 ***	.03 .10	.16 ***	660
Organizational Identification	.34 ***	Mechanic Solidarity	-.12 ***	Transaction Costs	.13 ***	-.04 ***	-.01 -.09	.09	660
Organizational Identification	.34 ***	Mechanic Solidarity	.10 *	Viability	.01	.03 *	.00 .06	.04	660
Organizational Identification	.38 ***	Organic Solidarity	.34 ***	System Responsiveness	.06	.13 ***	.09 .18	.19 ***	661
Organizational Identification	.37 ***	Organic Solidarity	.32 ***	Resource Exchange	.03	.12 ***	.08 .16	.15 ***	660
Organizational Identification	.38 ***	Organic Solidarity	-.20 ***	Transaction Costs	.17 ***	-.07 ***	-.04 -.13	.10 **	661
Organizational Identification	.38 ***	Organic Solidarity	.15 ***	Viability	-.02	.06 ***	.02 .08	.04	660

SDXY-standardization, 5000 bootstrap-draws, bias-corrected confidence intervals. *** $p < .01$. ** $p < .05$. * $p < .10$.

Nonetheless, both forms of solidarity had their role to play in these indirect effects. Therefore, Hypothesis 4 receives support.

To juxtapose the relative explanatory power of the two forms of solidarity, we calculated four multiple mediation models for the effect of organizational identification on all four measures of intergroup effectiveness via both forms of solidarity simultaneously (Figure 6-2). The pattern of effects is fully in accordance with the above analysis. The effects of organizational identification on system responsiveness and resource exchange were fully mediated by the two forms of solidarity, the effects of organizational identification on transaction costs revealed a suppression pattern. Viability was linked to organizational identification only indirectly. Most importantly, though, all indirect effects via organic solidarity turned out significant, whereas, none of the indirect effects via mechanic solidarity was significant. This again highlights the relatively higher explanatory power of organic solidarity in this particular setting.

As outlined above, some employees completed follow-up questionnaires in 2008 and 2009. We used this data to get a first impression on how the mediated effects would hold over time. Paralleling the above analysis we first conducted separate simple mediation analysis with organizational identification at 2008 as predictor, organic or mechanic solidarity at 2008, as mediator, and the four measures of intergroup effectiveness at 2009 (Table 6-4). In a second step we included both forms of solidarity in multiple mediation models (Table 6-5). From both analyses, a similar picture emerged, which, furthermore, was consistent with the cross-sectional results: All indirect effects of identification on intergroup effectiveness via organic solidarity turned out significant. The indirect effects via mechanic solidarity were considerably smaller and turned out to be non-significant in most cases. In sum, therefore, the results can be seen as first evidence in favor of a causal relationship in the sense of Hypothesis 4. They also underline the importance of distinguishing between organic and mechanic forms of solidarity and illustrate the relative importance of organic over mechanic solidarity in this particular setting.

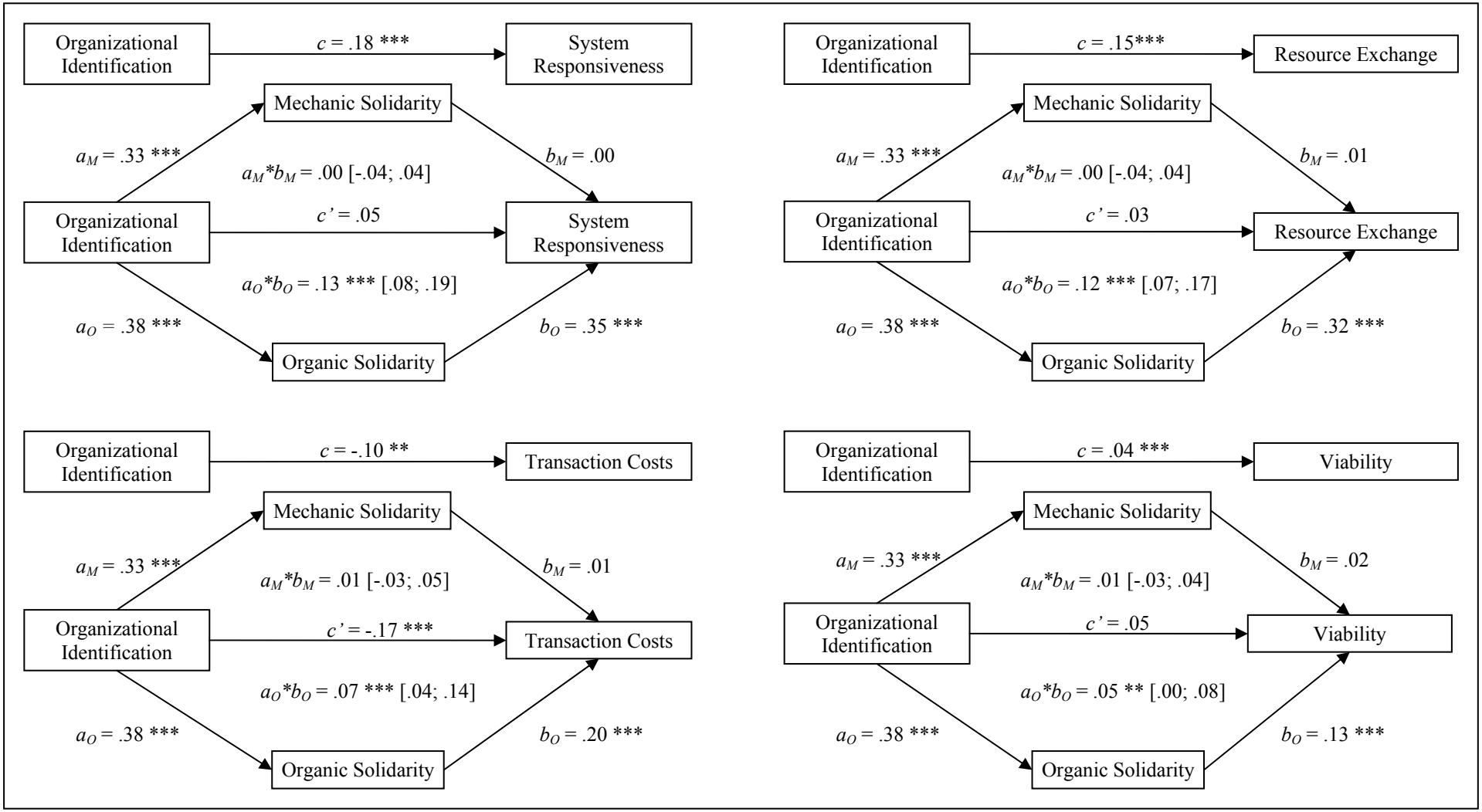

Figure 6-2. Multiple indirect effects of organizational identification on intergroup effectiveness (Study 1, cross-sectional). SDXY-standardization, 5000 bootstrap-draws, bias-corrected confidence intervals; N = 661; *** $p < .01$. ** $p < .05$. * $p < .10$.

Table 6-4. Simple indirect effects of organizational identification on intergroup effectiveness (Study 1, longitudinal).

Independent Variable (IV)	Effect of IV on M (*a*)	Mediating Variable (M)	Effect of M on DV (*b*)	Dependent variable (DV)	Direct effect (*c′*)	Indirect effect (*ab*)	Indirect effect CI 95%		Total effect (*c*)	*N*
Organizational Identification	.33 ***	Mechanic Solidarity	.14	System Responsiveness	-.01	.05	-.01	.11	.04	173
Organizational Identification	.32 ***	Mechanic Solidarity	.28 ***	Resource Exchange	-.07	.09 ***	.04	.18	.03	173
Organizational Identification	.33 ***	Mechanic Solidarity	-.15 *	Transaction Costs	.04	-.05	.00	-.12	-.01	173
Organizational Identification	.33 ***	Mechanic Solidarity	.11	Viability	-.08	.04	-.01	.07	-.05	173
Organizational Identification	.37 ***	Organic Solidarity	.29 ***	System Responsiveness	-.07	.11 ***	.04	.18	.04	173
Organizational Identification	.37 ***	Organic Solidarity	.37 ***	Resource Exchange	-.11	.14 ***	.07	.23	.03	173
Organizational Identification	.38 ***	Organic Solidarity	-.24 ***	Transaction Costs	.08	-.09 **	-.03	-.18	-.01	173
Organizational Identification	.37 ***	Organic Solidarity	.24 ***	Viability	-.13	.09 **	.01	.12	-.04	173

SDXY-standardization, 5000 bootstrap-draws, bias-corrected confidence intervals. *** $p < .01$. ** $p < .05$. * $p < .10$.

Table 6-5. Multiple indirect effects of organizational identification on intergroup effectiveness (Study 1, longitudinal).

Independent Variable (IV)	Effect of IV on M (*a*)	Mediating Variable (M)	Effect of M on DV (*b*)	Dependent variable (DV)	Direct effect (*c′*)	Indirect effect (*ab*)	Indirect effect CI 95%		Total indirect effect	Total effect (*c*)	*N*
Organizational Identification	.34 ***	Mechanic Solidarity	-.17	System Responsiveness	-.06	-.06	-.13	.01	.10 **	.04	173
	.37 ***	Organic Solidarity	.42 ***			.16 ***	.06	.24			
Organizational Identification	.33 ***	Mechanic Solidarity	.03	Resource Exchange	-.11	.01	-.07	.08	.14 ***	.03	173
	.37 ***	Organic Solidarity	.35 ***			.13 ***	.05	.24			
Organizational Identification	.34 ***	Mechanic Solidarity	.04	Transaction Costs	.08	.01	.12	-.08	-.09 **	-.01	173
	.38 ***	Organic Solidarity	-.27 *			-.10 *	.00	-.23			
Organizational Identification	.33 ***	Mechanic Solidarity	-.11	Viability	-.13	-.04	-.09	-.03	.08 **	-.04	173
	.37 ***	Organic Solidarity	.31 **			.12 *	.01	.17			

SDXY-standardization, 5000 bootstrap-draws, bias-corrected confidence intervals, mediators allowed to correlate within each model. *** $p < .01$. ** $p < .05$. * $p < .10$.

6.3.3 Discussion

The results from Study 1 are generally in line with our theoretical model. Organic and mechanic solidarity were conformed to be separate constructs with a medium-sized, positive intercorrelation. Hence, it can be assumed that indeed both forms are not exclusive mechanisms in organizations but rather work simultaneously. This is further corroborated through the relationships of both forms of solidarity to intergroup effectiveness, and the presence of significant indirect effects of organizational identification on intergroup effectiveness via both forms of solidarity.

Throughout the analyses we found that organic solidarity had stronger relationships with the criterion variables than mechanic solidarity. We proposed that both organic and mechanic forms of solidarity are expressions of an organizational identity. As such they are driven by the motivational forces tied to the internalization of the identity in the self-concept of employees and directed by the specific instrumental role and value that is given to diversity or similarity within the content of that organizational identity. The particular organization under study was characterized by a lower level of organizational identification (M_{2007} = 2.53; SD = 0.87) than identification with the sub-units (M_{2007} = 3.77; SD = 0.80; t = -35.01, $p < .01$). It is perhaps through this stronger importance of the sub-units for employees' self-concepts that the organic part of the organizational identity played out its potential more than the mechanic content. In line with Durkheim's original idea for characterizing societies – or, in our case, smaller social units – by the relative weight of both forms of solidarity, it remains to be tested, whether the relative weight of each form of solidarity can be different in other contexts.

In order to ensure anonymity for participants, we were not able to take into account the objective hierarchical structure of superordinate and subordinate nested categories within the university. All participants filled out the questionnaire having in mind the informally defined set of co-workers they interacted with the most. The intergroup relations were measured without reference to specific other teams. Although we are convinced to have succeeded in capturing the actual informal team structure within the university, it is conceivable that identification with the university as a whole was too distal to the intergroup relations at hand. Indeed many sub-units within the university are nested within faculties, institutes or, even smaller, departments.

6.4 Study 2

Study 2 was designed to test the basic theoretical assumptions again but in a very different cultural and occupational context, namely a Taiwanese hospital. Following the idea that organizations can be distinguished on the basis of the relative importance of organic and mechanic forms of solidarity, another goal of Study 2 was to explore whether there will be a different relative explanatory power of both forms of solidarity when compared with Study 1. Moreover, Study 2 complements Study 1 because we were able to match employees to sub-units and also because we could identify for each sub-unit the specific other sub-unit with which it cooperated the most.

6.4.1 Methods

The organization

The sample was collected from the clinical workforce of a large university hospital in Taiwan. The clinical division of the hospital consists of 10 centres (e.g., oncology). These centres are again sub-divided into departments. For example, internal medicine consists of departments such as cardiology or infectious diseases. In total there are 64 departments. Each department has its assigned doctors and nursing staff, who work on the ward and, if applicable, in the operation room. In 2007, the total number of employees was 3207, including 1486 nursing staff and 252 residential doctors. The number of hospital beds was 1626.

Participants

With support from human resources and a social psychology professor from an associated university we were able to identify 30 pairs of teams who had a meaningful cooperative relationship and shared similar working conditions. In total, 591 employees were working in these 60 teams. The nature of cooperation varied between pairs, due to the nature of department and team. One type of cooperation occurred between ward nursing teams and operation theatre teams – for example, with regard to scheduling operations and preparation of patients before surgery. Another type of cooperation concerned the team of resident doctors at a particular ward, who have to coordinate their actions with the ward nurses in order to deliver services and treatment for the patients. On average 87% of the members of a team participated in our study (*SD*: 19%, Min: 23%, Max: 100%). Average team size was 10 members (*SD*: 6). Nursing teams are generally larger (from 12 up to 23 individuals) as compared to teams of residential doctors (around five individuals). Among

the 591 team members, 9.6% are male, 86.1% are female, and 25 did not indicate their gender. Only 24% have worked in their own team for less than a year, 43% have worked in the team between 1 and 5 years.

Measures

A native Taiwanese researcher translated the items from English to traditional Chinese in the first step. Next, both Chinese and English versions of items were sent to the social psychology professor who had assisted in the sample selection for further revision. The revised versions of items were pilot tested for clarity and comprehensibility, and revised a second time. Items of all scales were answered on five point scales (ranging from "strongly disagree" to "strongly agree").

Organic and mechanic solidarity. A main goal of this study was to achieve a high response rate and therefore a more representative sample than in the first study. Pretesting during the development of our instrument indicated that our items for organic and mechanic solidarity are relatively complex and long. For the sake of test-economy we refrained from assessing all four items again and used only the first item for each organic and mechanic solidarity (see Table 6-1). The items were positively correlated ($r = .58$, $p < .01$).

Intergroup effectiveness. The items measuring the quality of intergroup relationships were again taken from the instrument developed by Richter et al. (2005). *System responsiveness* was measured using two items (e.g., "To what extent did both teams work effectively together in order to provide better service to the patients?", $\alpha = .81$). *Resource exchange* was measured using two items (e.g., "To what extent did both teams effectively help each other out when resources (e.g., time to invest, people or staff, support, etc.) were needed?", $\alpha = .79$). *Transactional cost* were measured through 4 items (e.g., "To what extent did working with this other team results in too many constraints (e.g., time/staff shortage) on your team's everyday activities?", $\alpha = .86$). Higher values on transaction costs indicate more costs in this study. Richter's scale for *viability* consists of two content facets. We chose to explore the relationships for both facets separately using one item for each facet: "To what extent did your team carry out its responsibilities and commitments in regard to this other team?" (own team's viability); "To what extent did this other team carry out its responsibilities and commitments in regard to your team?" (viability of the other team).

Organizational identification was measured using four items developed by Doosje, Ellemers and Spears (1995), with excellent scale reliability ($\alpha = .90$).

6.4.2 Results

In order to test the theoretical model we conducted a similar set of analyses as in Study 1, with the exemption that clustering of individuals within work teams had to be taken into account. The proposed relationships rest on processes within individuals: Individual organizational identification leads to feelings of solidarity – both of the mechanic and organic type. This, in turn, will influence the way individuals will approach interactions with others from different subgroups, resulting in individual experiences that accumulate to an individual's perception of intergroup effectiveness. Consequentially, our data was assessed and analyzed at the individual level – i.e. in the form of a 1-1-1 mediation (Krull & MacKinnon, 2001). Our data is nested within 60 teams. To account for this interdependence we applied a method implemented in Mplus that adjusts standard errors for the clustering of individual responses within teams (ANALYSIS: TYPE = COMPLEX, Muthén & Muthén, 1998-2007). For the present analyses this method is preferable to other methods involving random-coefficient modelling (e.g., Preacher, Zyphur, & Zhang, 2010), because it allows for the standardization of coefficients and, therefore, for the comparison of effects within and across studies.

The relationships between both forms of solidarity and organizational identification were significant, supporting Hypothesis 1 (see Table 6-6). In this particular setting, organizational identification was slightly more strongly linked to mechanic than to organic solidarity. Both forms of solidarity were significantly related to three of the four measures of intergroup effectiveness, with higher levels of solidarity being associated with more beneficial intergroup relations. Transaction costs were only significantly related to mechanic solidarity. Nonetheless, the overall pattern of results supports Hypothesis 2.

Table 6-6. Scale descriptive statistics and intercorrelations (Study 2).

	M	*SD*	1	2	3	4	5	6	7
1. Organizational Identification	3.97	.63							
2. Organic Solidarity	3.75	.69	.39 ***						
3. Mechanic Solidarity	3.80	.77	.49 ***	.58 ***					
4. System Responsiveness	3.56	.67	.21 ***	.24 ***	.28 ***				
5. Resource Exchange	3.17	.74	.17 ***	.18 ***	.18 ***	.54 ***			
6. Transaction Costs	2.83	.71	-.13 **	-.09	-.12 ***	.00	.01		
7. Viability (own team)	3.66	.70	.21 ***	.20 ***	.24 ***	.49 ***	.35 ***	.04	
8. Viability (other team)	3.35	.73	.20 ***	.18 ***	.16 ***	.45 ***	.46 ***	-.15 ***	.56 ***

*** $p < .01$. ** $p < .05$. * $p < .10$.

Organizational identification in itself was also significantly related to all four measures of intergroup effectiveness, with more identification being associated with more beneficial intergroup relations. Thus, Hypothesis 3 was also supported.

To test the potential of both forms of solidarity to mediate the effects of organizational identification and intergroup effectiveness, we again calculated simple mediation models for both organic and mechanic solidarity separately (Table 6-7). The results revealed that all total effects of organizational identification on the four intergroup effectiveness measures were significant. Furthermore, all direct effects were significant, indicating that both forms of solidarity alone cannot account for the effect of organizational identification on intergroup effectiveness. However, with the exception of transaction costs, all indirect effects via both forms of solidarity were significant, implying that both forms of solidarity have the potential to partially mediate the effects of organizational identification on intergroup effectiveness. All path coefficients were in the expected direction. Therefore, Hypothesis 4 was supported.

To compare the relative predictive power of both types of solidarity, we again calculated multiple mediation models including both forms of solidarity simultaneously (Figure 6-3). The significant total effect of organizational identification on system responsiveness was fully mediated through both forms of solidarity – indicated by a non-significant direct effect and a significant total indirect effect ($a_M b_M + a_O b_O = 0.12$, $p < .01$). In this case the indirect effect via mechanic solidarity was considerably larger than the indirect effect via organic solidarity, with the latter being only marginally significant, anyway. Hence, the mediation is mainly driven by the effects of mechanic solidarity. The effect of identification on resource exchange was also fully mediated through both forms of solidarity – again indicated through a non-significant direct effect and a significant total indirect effect ($a_M b_M + a_O b_O = 0.08$, $p < .01$). In this case, however, neither of the two indirect effects was significant. The effect of organizational identification on transaction costs was not mediated through any of the two forms of solidarity – neither the two single indirect effects nor the combined total indirect effect were significant ($a_M b_M + a_O b_O = -.04$, n.s.). The effect of identification on the viability of one's own team was partially mediated through perceptions of solidarity ($a_M b_M + a_O b_O = 0.10$, $p < .01$). This mediation was predominantly driven by the indirect effect via mechanic solidarity. The effect of identification on the viability of the cooperating team was also partially mediated through perceptions of solidarity ($a_M b_M + a_O b_O = 0.06$, $p < .01$). However, this mediation was predominantly driven by the indirect effect via organic solidarity.

Table 6-7. Simple indirect effects of organizational identification on intergroup effectiveness (Study 2).

Independent Variable (IV)	Effect of IV on M (*a*)	Mediating Variable (M)	Effect of M on DV (*b*)	Dependent variable (DV)	Direct effect (*c'*)	Indirect effect (*ab*)	Indirect effect CI 95%	Total effect (*c*)	*N*
Organizational Identification	.49 ***	Mechanic Solidarity	.23 ***	System Responsiveness	.10 *	.11 ***	.08 .16	.21 ***	591
Organizational Identification	.49 ***	Mechanic Solidarity	.13 ***	Resource Exchange	.11 *	.06 ***	.03 .12	.17 ***	591
Organizational Identification	.49 ***	Mechanic Solidarity	-.07	Transaction Costs	-.10 *	-.03	-.09 .01	-.13 **	591
Organizational Identification	.49 **	Mechanic Solidarity	.18 ***	Viability (own team)	.13 **	.09 ***	.06 .14	.21 ***	591
Organizational Identification	.49 ***	Mechanic Solidarity	.09 *	Viability (other team)	.16 ***	.04 *	.00 .10	.20 ***	591
Organizational Identification	.39 ***	Organic Solidarity	.18 ***	System Responsiveness	.14 ***	.07 ***	.04 .11	.21 ***	591
Organizational Identification	.39 ***	Organic Solidarity	.13 ***	Resource Exchange	.12 **	.05 ***	.02 .10	.17 ***	591
Organizational Identification	.39 ***	Organic Solidarity	-.04	Transaction Costs	-.12 **	-.02	-.05 .02	-.13 **	591
Organizational Identification	.39 ***	Organic Solidarity	.14 ***	Viability (own team)	.16 ***	.05 ***	.02 .10	.21 ***	591
Organizational Identification	.39 ***	Organic Solidarity	.12 ***	Viability (other team)	.15 ***	.05 ***	.02 .09	.20 ***	591

ANALYSIS = TYPE IS COMPLEX, 60 clusters, SDXY-standardization. *** $p < .01$. ** $p < .05$. * $p < .10$

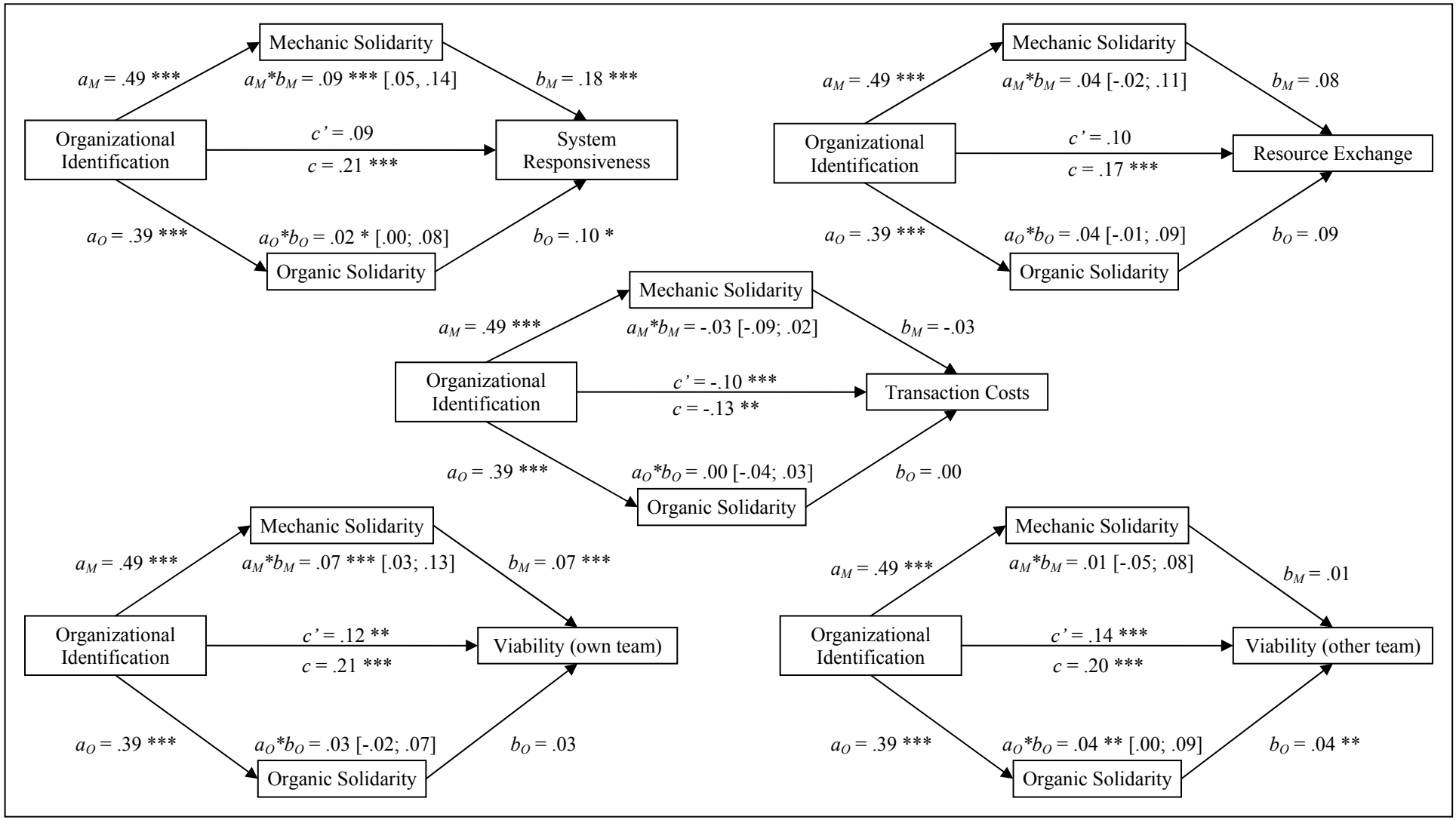

Figure 6-3. Multiple indirect effects of organizational identification on intergroup effectiveness (Study 2). ANALYSIS : TYPE IS COMPLEX, N = 591, 60 clusters; SDXY-standardization. *** $p < .01$. ** $p < .05$. * $p < .10$.

6.4.3 Discussion

In sum, the results from Study 2 are in line with the theoretical model. The correlation between both forms of solidarity was small enough to justify treating both forms of solidarity as separate constructs. This was further corroborated through the differential effects we found for both forms of solidarity. In line with our prediction that both forms of solidarity depict specific aspects of the organizational identity, organic as well as mechanic solidarity were significantly related to organizational identification. The proposition was that both forms of solidarity are valuable when dealing with particular forms of diversity and can, both in their own way, help overcome obstacles in the way of productive and harmonious intergroup relations. This proposition was supported by the significant relations between both forms of solidarity and intergroup effectiveness.

The only exception to this positive picture was that the influence on transaction costs was negligible. With the benefit of hindsight, this could perhaps be attributed to the differences between the productivity and the efficiency of a particular relationship. The two forms of solidarity as operationalized in the present studies depict the subjective sense and value of similarity and diversity within an organization. They do not, however, depict the effective management of these relationships. In this way, working together with another professional group might make perfect sense, it can, however, be more exertive than sticking to one's own flock. In other cases it might help in saving time and effort, as, for example, when knowledge not available in one professional group is readily deployable in the other.

The results of the second study showed a clear relationship between organizational identification and all forms of intergroup effectiveness. These effects were in almost all cases mediated by one of the two forms of solidarity or even by both. This is perfectly in line with our general model. Even more interesting, the relative weight of each form of solidarity was different for different measures of intergroup effectiveness, further highlighting the importance of both constructs for the understanding of intergroup relations.

In Study 1, the effects of organizational identification on intergroup effectiveness were predominantly driven by organic solidarity. In contrast, the results from Study 2 showed a more balanced picture, both forms of solidarity seem to matter. In Study 1 employees' identification with the organization was relatively low, especially when compared to their identification with their teams. We have argued that this predominance of sub-unit identification might have caused the relatively stronger effects for organic

solidarity in Study 1. In Study 2, however, employees identified with their teams ($M = 4.09$; $SD = 0.63$) to a similar degree as with the overall organization ($M = 3.97$; $SD = 0.63$), although the difference was still significant ($t = 4.81$, $p < .01$). This more balanced pattern of identification could be interpreted such that employees place generally as much importance on their distinct sub-units as on their overall organizational membership. Therefore, in this organization the aspects of the organizational identity that value similarity and those that value differences might be more balanced, leading to equal influence for both organic and mechanic solidarity.

In order to achieve higher rates of return than in the first study and in order to comply with organizational requirements, we had to shorten our questionnaire. For this reason we also were not able to use the full set of items again in the second study. This limitation, however, might be conceived as less severe, given that we based our item-selection on the scale analysis from Study 1 and chose those items which already stood the test of empirical investigation in the context of the general common ingroup and dual identity models.

6.5 General Discussion

The aim of the present studies was to explore the mechanisms through which identification with an organization can foster positive relationships between different subgroups within this organization. Identification with different nested social categories and its relationship to intergroup cooperation and conflict has inspired many researchers for several decades. Two alternative models of intergroup contact have been proposed in this area. The common ingroup identity model underscores the importance of fostering the identification with a common, overarching social category. The dual identity model acknowledges the importance of additionally validating the separate sub-categories within the overarching category and maintaining some degree of identification with both. Often, these models have been treated as alternatives and, consequently, were tested against each other – an endeavor which can prove difficult, since the distinct operationalization of both models equals walking a tight rope (e.g., Gonzalez & Brown, 2003). However, research in this area showed that both alternative models bring their respective challenges with them. The common ingroup identity model has to face the difficulty of bridging existing trenches between subgroups, which grew over longer periods of sometimes heated interactions. The dual identity model, on the other hand, has to tackle the difficulty of making both similarity of all members and their distinctiveness simultaneously salient.

Deviating from this either-or-approach to intergroup relations we proposed that both models reveal important contents of social identities, which both in their own way foster positive subgroup relationships. In line with Durkheim's seminal work on the division of labor in society, we proposed that the two kinds of solidarity can be present simultaneously within every social unit – albeit to varying degrees depending on, for example, the type of social unit. Organic solidarity refers to a social bond that is based on mutual complementation of sub-units – a qualitative division of labor. Mechanic solidarity refers to the social bond between sub-units that arises from common rules, norms and standards. Durkheim proposed that both forms of solidarity are represented in different sub-systems of a society's legal system. Much in the way that every civilized state has both civil and criminal law, we argue that both forms of solidarity are at work creating the relationships within every social unit.

Brought back into the realm of contemporary social identity and self-categorization theories, these forms of solidarity can be related to special content included in the definition of the social category at hand, which refers in essence to the value of particular forms of diversity and similarity. This content gives a particular direction to all sub-units' actions when dealing with diversity within the greater social unit. The momentum for theses actions, in turn, can be derived from the identification with the social category at large. It is the product of both the particular content of the respective identity and its importance to the self that brings about solidarity – both organic and mechanic in nature.

We tested this theoretical model in two different contexts. Like the German university in Study 1, the Taiwanese hospital in Study 2 was diverse with regard to the functional background of employees. In both studies we looked at interactions of different teams within a common organization. In both studies, both forms of solidarity could be distinguished empirically, although they were positively related – in contrast to the classical either-or-approach described above. Both forms of solidarity were related to organizational identification and intergroup effectiveness. Both organic and mechanic forms of solidarity had the potential to mediate the effects of organizational identification on intergroup effectiveness. In addition, we gained first evidence that these relationships look the same when studied in a longitudinal design.

Most importantly, however, through all analyses in both studies we found that it is useful to always assess both constructs simultaneously. One important reason for this was that organizations seem to be different with regard to the relative weight each form of solidarity receives. In the German university, organic solidarity was the major factor in

shaping inter-team cooperation. In the Taiwanese hospital, the picture was more balanced, with both forms of solidarity influencing intergroup collaboration – although there was a tendency in favor of mechanic solidarity. Furthermore, the results revealed that both forms of solidarity had different effects on different facets of intergroup collaboration. This underscores the importance of considering both types of solidarity, even in cases where a particular context seemingly implies a superior impact of one over the other. The major theoretical implication to be drawn from our findings should therefore be that both similarity- and diversity-related identity contents each have the potential to foster their specific form of solidarity, which, in turn, shape the subgroup relationships within diverse organizations – simultaneously or alone.

The differences between the results from the Study 1 and 2 are interesting in their own right, too. In line with Durkheim's theory, we proposed that the relative importance of organic and mechanic forms of solidarity can differ between organizations. As outlined above, one reason for this variation could have been the differences in relative identification with the sub-unit as compared to the overall organization. In Study 1, organizational identification was considerably lower than the identification with the sub-unit. Organizations in which this is the case are sometimes called "ideographic" organizations, as opposed to "holographic" organizations in which the overall organizational identity is more important than the sub-units' identities (Albert & Whetten, 1985; Ashforth & Johnson, 2001; Richter et al., 2006; Riketta & van Dick, 2005). In Study 2, both identification with sub-units and overall organization were more balanced. This difference could be interpreted such that differences between sub-units are more important in the German university than in the Taiwanese hospital – leading to a relatively more pronounced organic nature of the German university's organizational identity.

A similar interpretation of the findings can be derived from the fact that the organizations in Study 1 and 2 also differed with regard to culture (Germany vs. Taiwan). It is intuitively plausible that differences in the importance of organic or mechanic solidarity could be related to the distinction between individualistic and collectivistic cultures (e.g., Triandis, Bontempo, Villareal, Asai, & Lucca, 1988). Taiwan is a comparatively collectivistic country, whereas Germany is more individualistic (Hofstede, 2001). Collective cultures are marked by an appreciation of conformity and unity. This could explain why valuing similarity and, hence, mechanic solidarity did have a greater impact in Taiwan than in Germany. Nonetheless, organic solidarity was also important in Taiwan, indicating that the forms of solidarity do not map the individualism-collectivism-distinction one on one.

This deviation could probably be explained by the fact that the organizations in both studies did vary also with regard to their specific tasks (university vs. hospital). In general diversity research, task characteristics – such as task complexity or interdependence – have been proven to shape the effects of diversity (see chapter 2.2.3). Task characteristics have also been used to manipulate diversity beliefs (van Knippenberg et al., 2007) and they have been shown to moderate the effects of diversity beliefs/climates (Homan et al., 2010). Thus, differences in the kind of work that is done in the two organizations might have led to different opinions about what kind of diversity and what kind of similarity might be important to the organization and to what degree. This line of argument could also help to illuminate the differences in the relative importance of organic and mechanic solidarity in regard to different facets of intergroup effectiveness. Unfortunately, the present studies offer but a first glance at the differences between both organizations. We looked only at two organizations that differed in both culture and type of tasks. Thus, the relative effects of both factors cannot be distinguished so far. Future research that looks more closely at these distinctions is certainly warranted.

Another, more methodological, limitation of both studies is the potential confounding through common method variance. In both studies we assessed all variables in a single questionnaire. However, in both studies more than the described scales were included for the purpose of other research projects. The scales addressed in this chapter were distributed throughout the whole questionnaire such that it is highly unlikely that participants could have remembered their answers once they got to the next set of items. Moreover, the converging overall conclusions derived from both Study 1 and Study 2 warrant at least some confidence in the validity of our findings. Nonetheless, it would certainly be in order to conduct further experimental research on the influences of both forms of solidarity, this way eliminating threats to validity from common method variance and systematic drop-out. Such studies could also bolster the first evidence on causality we retrieved for parts of the model from the small longitudinal dataset from the German university.

From a theoretical perspective, our findings are perfectly in line with contemporary research on diversity beliefs that shows how beliefs about the value of diversity for a particular social unit can shape both individual and higher-level outcomes. The meta-analysis on diversity beliefs and climates presented in the previous chapter revealed the large heterogeneity of these effects. Similar to the sometimes contra-intuitively small effects in diversity beliefs research, the effects in both our studies were far from all-encompassing.

In line with the argument we made with regard to the unexpected findings for transactional costs in Study 2, it can be assumed that both mechanic and organic solidarity do not always have to lead to beneficial outcomes. The nature of the task at hand has recently been proposed to moderate the effects of diversity beliefs (Homan et al., 2010). It is conceivable that similar contingency factors play a role in shaping the effects of both mechanic and organic solidarity.

It is certainly true that our operationalization of both organic and mechanic solidarity is but the beginning of a full empirical capture of the underlying theoretical concept. A more specific description of the nature of the similarities and the diversity within the overarching category, the exact nature of orchestration of differences between sub-units to achieve complex tasks, or the strength of solidarity measured via potential sanctions for rule violations would be possible venues to extend the construct further. Nonetheless, even in the light of the rather simple measurement, the insights from the present study certainly warrant further research that looks more closely on processes that causally translate people's and organizations attempts to install organic and mechanic forms of solidarity into beneficial outcomes for organizations and the people who work in them.

From a practical perspective, our results point to the possibility of integrating the value of diversity and, at the same time, the value of similarity within one organizational identity. In fact, both conceptions of diversity and similarity can each contribute to a specific form of solidarity and, in turn, foster positive collaboration. Therefore, organizational development aimed at creating a common identity based on similarity, for example, can be an apt approach if certain diversity dimensions (e.g., gender) do not lend themselves readily for the use as an organizational asset – i.e. given the specific circumstances and the tasks at hand. In such a case the main focus could be on non-discrimination and equality. Similarly, a lack of common rules and of a firm shared understanding regarding appropriate behavior could also be amended through creating an identity on the basis of similarities. On the other hand, organizational development aimed at creating an organic overarching organizational identity is in order whenever there is a potential benefit to be gained from being different – for organizations or individual employees. Based on the present findings it is likely that both kinds of interventions will create specific forms of solidarity and, even more important, that both kinds of interventions do not exclude one another. Ideally, we would be able to predict what kind of intervention would be apt for what kind of organization in what kind of situation. The present results on the relative impact of both forms of solidarity are only illustrative in that respect. Further

studies examining potential moderating factors across specific applied settings and aimed at determining which form of solidarity has the most impact – or if there are even synergistic effects – would certainly be warranted.

As outlined above, both forms of solidarity can be conceived as expressions of the value that diversity or similarity is given in a particular social unit. In other words, they result from the particular vantage points from which people in organizations engage with the diversity and similarity in their organization. As shown in both studies, both forms of solidarity are positively related to the quality of inter-team collaboration within organizations. Therefore, the present results add further, albeit indirect, evidence that the vantage points from which people engage with diversity, or similarity, can indeed have effects on organizations and their members – thereby providing an answer to the first research question underling the present dissertation.

However, the major aim behind both studies was not to corroborate the results from the meta-analyses, but rather to provide answers to the second general research question of this dissertation. Thus, they were meant to examine the processes underlying the effects that differences in vantage points on diversity might have. With regard to these processes, three implications can be derived from the present studies. First, organic and mechanic forms of solidarity can be understood as expressions of the vantage points from which people engage with diversity and similarity. Therefore, it is plausible to assume that they can be conceived as proximal mediators of the effects that these different vantage points might entail. However, although the results were in line with the theory outlined at the beginning of the chapter, the present studies did not address these vantage points directly. Therefore, the mediating role of organic and mechanic solidarity remains a theoretically driven suggestion.

As a second implication regarding the processes underlying the effects of different vantage points on diversity, the results of both studies provided evidence for the role of identification as the driving force behind the emergence of both organic and mechanic solidarity. Thus, the present results suggest that the value that is placed on diversity in a particular social unit will only entail any effects if the members indentify with this social unit. This can be seen as one possibility to explain the heterogeneity in results from the meta-analyses on diversity beliefs and climates described in the previous chapter. The meta-analyses revealed that valuing diversity does not lead to beneficial outcomes in all cases. In light of the present results, this heterogeneity in effects could be attributed to varying degrees of identification within and across the primary studies included in the meta-analyses.

As a third insight regarding the processes underlying the effects of the vantage points from which people engage with diversity, the present results imply that both diversity and similarity can simultaneously be valued in a given social unit, and that both can influence *the same outcomes in the same direction*. Therefore, the effects of diversity beliefs and climates summarized in the meta-analyses might have been blurred by ignoring the simultaneous effects of valuing diversity and of valuing similarity. In previous studies, the value of similarity has most often been seen as the opposite side of diversity beliefs. In contrast, the present results suggest that, for example, the common practice to recode pro-similarity items and adding them to pro-diversity beliefs items as if measuring the same thing is questionable at best.

In sum, therefore, the possible role of organic and mechanic solidarity as proximal mediators, the simultaneous effects of pro-similarity and pro-diversity values, and the role of identification as a driving force contribute further to the understanding of how the effects of diversity beliefs and climates come about – the second general research question of this dissertation. The next chapter is also predominantly concerned with this second research question, yet from a different angle.

7 The Role of State Affective Empathy as Mediator between Work Group Diversity and Performance[5]

The reasons why modern-day organizations become increasingly diverse at various levels are manifold (Jackson & Joshi, 2011; Kochan et al., 2003). For example, organizations may actively strive to be diverse in order to increase their innovative potential, to access new markets, to attract the most qualified employees, or to be prepared for future challenges of a dynamic market environment. As described in chapter 2.1, there is also a multitude of different ways in which this diversity can manifest itself in organizations. These rich variations on the diversity theme in combination with its importance for organizations have rendered diversity research both fascinating and challenging. But until now, it is difficult to predict under what conditions what kind of diversity will have positive or negative effects. As part of this problem, reviews of the area reveal that the underlying mechanisms which translate the mere presence of diversity into individual and organizational outcomes, as well as the factors that moderate these relationships, are not yet sufficiently understood.

In this regard, the understanding that people have about the role that diversity plays in a particular social unit has been proposed to be one important factor that determines the effects of diversity. The meta-analysis in chapter 5 provided evidence in support of this proposition. Both diversity beliefs of individuals and diversity climates of groups significantly shaped the effects of diversity and had also direct effects on a variety of relevant outcomes. However, mirroring the effects of diversity itself, the effects of diversity beliefs and climates varied considerably across studies. This underlines the importance of understanding more about the mechanisms that these effects are based on – the second general research question of the present dissertation. The aims of this chapter are, first, to contribute to the understanding of mechanisms that mediate the effects of diversity in organizations and of the contingency factors that shape these effects. Second, it is aimed at explaining an alternative way in which diversity beliefs and climates can influence the effects of diversity – thereby contributing another answer to the second main research question underlying this dissertation.

[5] **This chapter is based on the following manuscript:**
Stegmann, S., Roberge, M.-E., & van Dick, R. (conditionally accepted). Getting tuned in to those who are different: The role of state affective empathy as mediator between work group diversity and performance. *Zeitschrift für Betriebswirtschaft.* Special issue: Managing diversity in organizations.

To that avail, a theoretical model will be developed that focuses on *emotional processes* in diverse groups. At the core of the model lies the proposition that diversity can not only draw group members' cognitive attention to the various differences between the group members, but that it also can stimulate them to get involved with each other emotionally through the experience of state affective empathy. State affective empathy, in turn, is proposed to have a beneficial effect on individual and group performance. Whether diversity will indeed stimulate empathy or not is proposed to be contingent on a number of first-order contingency factors. Diversity beliefs and climates are considered second-order contingency factors that shape the relationship between diversity and empathy through their influence on the first-order contingency factors. The model is schematically depicted in Figure 7-1.

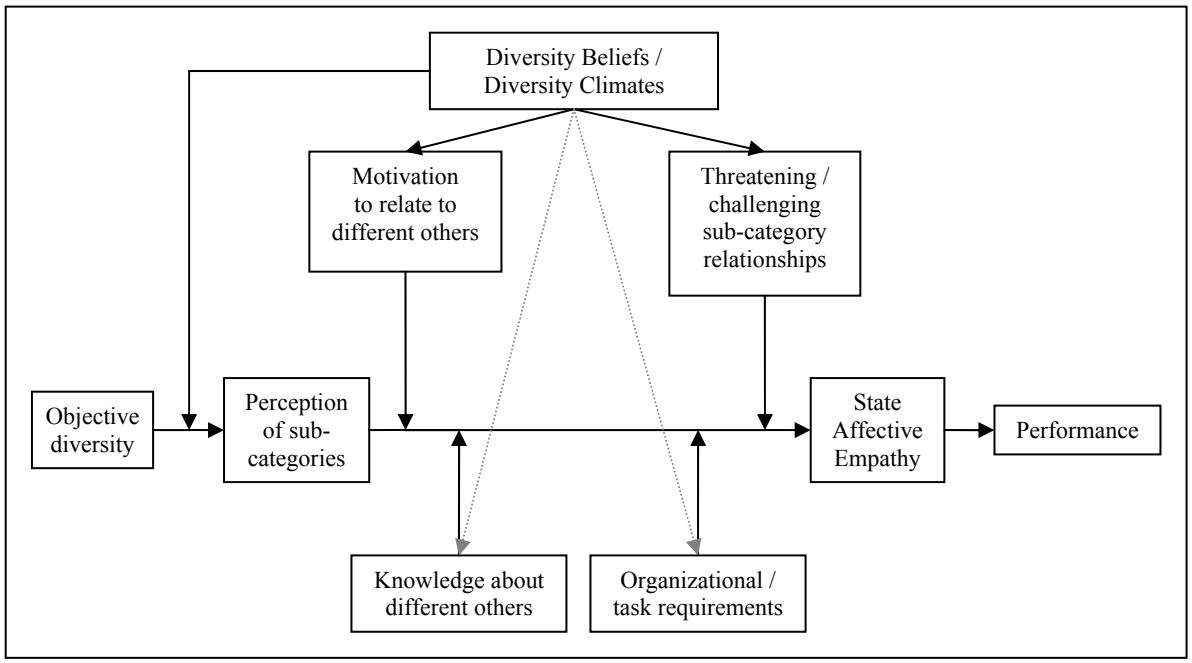

Figure 7-1. The general model developed in this chapter. Multilevel-relationships were omitted for easier interpretation (see Figure 7-2).

The concept of state affective empathy is central to the model. It can been defined as "a state of emotional arousal that stems from the apprehension or comprehension of another's affective state" (Losoya & Eisenberg, 2001, p. 22). This affective understanding is an expression of people's current motivation to relate to others. Its importance for diversity research can be derived, among other things, from its potential to reduce stereotyping and the likelihood of behaving in a discriminatory manner towards others who are different (Batson, Polycarpou et al., 1997; Galinsky & Moskowitz, 2000). Empathy has been studied by psychologists since the beginning of the last century (Batson, 1991, 2010; Davis, 1994;

Dovidio et al., 2010; Duan & Hill, 1996; Hoffman, 1981; McDougall, 1908). However, only recently have researchers from the field of organizational behavior gained interest in empathy as a construct (Roberge & van Dick, 2010). Studies that focused on empathy as a stable construct, found that empathy is positively associated with organizational citizenship behavior (Kamdar, McAllister, & Turban, 2006; Settoon & Mossholder, 2002). Trait empathy also plays a role in resolving workplace conflicts and diversity-related problems such as sexual harassment or other forms of discrimination (Reiter-Palmon et al., 2008). In contrast to these developments, the present model includes empathy as an affective *state* which opens up the possibility of examining its mediating role in the relationship between diversity and performance (see also Ensari & Miller, 2006; Roberge, 2009; Roberge & van Dick, 2010).

The model expands existing theory on diversity and diversity beliefs/climates in three ways. First, it explicitly addresses emotional mechanisms behind the effects of diversity. These effects have often been studied focusing on cognitive processes, such as, for example, information elaboration (van Knippenberg et al., 2004). By emphasizing the importance of affective empathy as an emotional process, the model broadens the theoretical understanding of how diversity may increase group performance. Second, the model acknowledges that the processes translating group-level diversity into individual and group performance are necessarily multilevel in nature. Third, the model provides an alternative way in which diversity beliefs and climates can influence how people in work groups will engage with diversity and how this can determine whether diversity will lead to better or worse performance.

In the sections to follow, I will develop the model from the core to the more proximal variables adding more detail successively. Thus, I first define diversity and performance, emphasizing the multilevel-nature of each construct and, hence, of their relationship. Second, I describe the informational potential of diverse groups and the elaboration of information as the currently most prominently discussed mediating process underlying diversity's effects on performance. Third, taking this rather cognitive perspective as point of departure, I introduce an emotional perspective on diversity and describe that diverse organizational units have more to offer than just a wide range of different informational resources – to wit, the emotional potential of diverse groups. Fourth, taking a similar view on the processes in diverse groups, I outline how state affective empathy can mediate the diversity-performance link. Fifth, moderating factors influencing whether state affective empathy will occur in diverse settings are introduced. Sixth, the relationship

between social categorization and the processes described in the model is addressed in more detail. Finally, diversity beliefs and climates are introduced as second-order moderators of the relationship between diversity and empathy.

7.1 The Relationship between Diversity and Performance

Diversity can be defined as "the collective amount of differences among members within a social unit" (Harrison & Sin, 2006, p. 196). As such, diversity is a group-level construct. However, following Kozlowski and Klein (2000), it is not describing a "global unit property" (i.e. it does not originate at the unit level) but describes a "configural unit property" that emerges from lower level elements which are essentially different in nature (e.g., different members of a work group; see Figure 7-2).

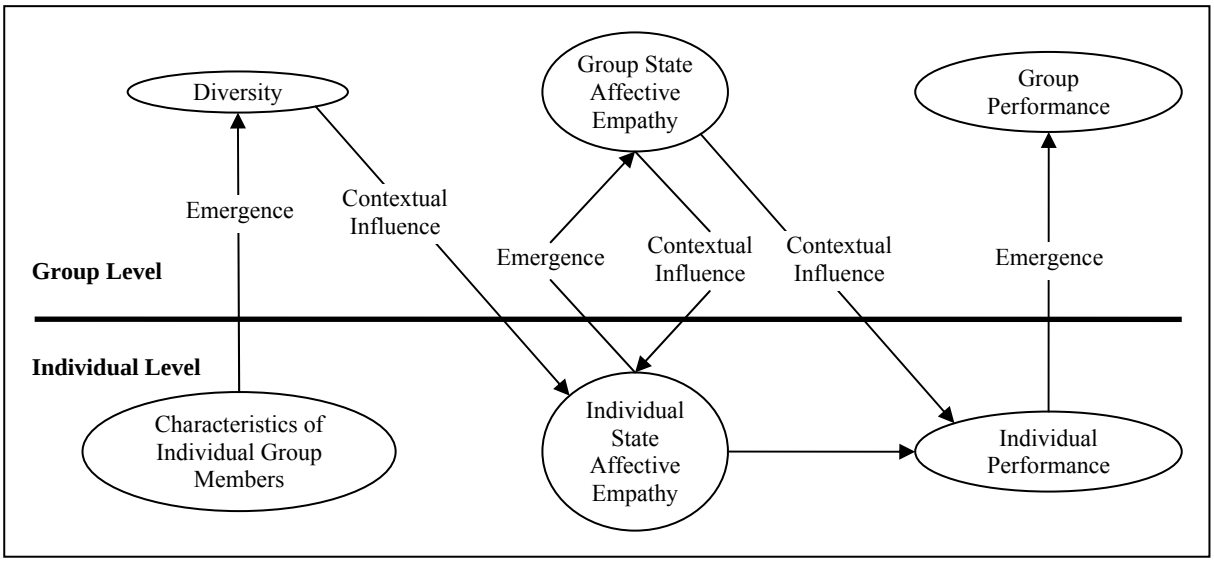

Figure 7-2. Multilevel relationships underlying the central mediating process proposed in the Model.

As described in chapter 2.1, diversity is a conceptually broad and complex construct. Nonetheless, it is also an important aspect of organizational life. First and foremost this has been argued to be the case due to ethical, legal, or moral reasons. However, during the last decades it has become more prominent in the scientific discussion that there are good reasons to assume that diversity is affecting performance within organizations (Jackson & Joshi, 2011). Thus, the primary outcome variable of interest in the present model is performance, which can refer to organizational performance (e.g., Kochan et al., 2003), team performance (e.g., van der Vegt & Bunderson, 2005) or individual performance (e.g., Lount & Phillips, 2007). On the individual level, performance has been defined as "the total expected value to the organization of the discrete behavioral episodes that an individual carries out over a standard period of time" (Motowidlo, 2003, p. 39). This definition could

theoretically be expanded to group and organizational-level performance by replacing "individual" with "group" or "organization"[6]. This would mean conceptualizing group-level performance as a quasi-"global unit property" (Kozlowski & Klein, 2000). Unfortunately, although such a conceptualization might be convenient from a measurement perspective, it neglects the fact that performance at a higher level necessarily emerges from lower level elements' performance. Groups do not have the ability to behave and perform independently of their members. Rather, group performance emerges through the combination of individual group members' contributions (see Figure 7-2). Depending on the nature of emergence, group performance can be seen as shared unit property – in cases where individual performance contributions are similar in nature (e.g., in a tug of war). It can also be seen as configural unit property – in cases where individual contributions are dissimilar in nature (e.g., in interdisciplinary projects). Adding further to the complexity of the construct, group performance can be conceptualized with a wide range of dimensions or criteria in mind.

Partly stemming from this complex nature of the constructs, the relationship between diversity and individual or group performance is also of some complexity. As diversity is a group-level construct, its effects on individual performance are "contextual" or "top-down" processes (Kozlowski & Klein, 2000). Group performance, in turn, is a construct that comes into existence through "bottom-up" processes or "emergence" (Kozlowski & Klein, 2000), that is, individual efforts are combined according to a specific "compositional model" (Chan, 1998) and form a super-ordinate, group-level construct. Hence, the effect of diversity on group performance involves both contextual effects of diversity on individual group members and emergent processes.

It is not surprising – given the numerous manifestations of diversity and performance, the multilevel-nature of their relationship, and the fact that each kind of diversity is embedded into a specific organizational context – that reviews (Shore et al., 2009; van Knippenberg & Schippers, 2007; K. Y. Williams & O'Reilly, 1998) and meta-analyses (Bowers et al., 2000; Horwitz & Horwitz, 2007; Joshi & Roh, 2009; Stahl et al., 2010; Webber & Donahue, 2001) revealed no consistent effects of diversity on performance. In some cases, positive relationships were reported, in some negative and in yet others the relationship reported was not significantly different from zero.

[6] Throughout the text I refer to group and individual level constructs for ease of reading. The model is not necessarily restricted to these particular levels, though.

During the last years, as outlined in chapter 2.2.3, promising results have been found regarding moderators that determine when diversity will affect performance positively or negatively. For example, the meta-analysis in chapter 5 provided evidence that diversity beliefs and climates can indeed have such moderator effects. However, the meta-analysis also revealed that these effects do not occur under all circumstances. Hence, there is need to clarify further how and when these effects occur. Any understanding of how these moderating factors work, and of the effects of diversity on performance in general, necessarily hinges on the very processes that mediate the relationship between group-level diversity and individual- and group-level performance (cf. van Knippenberg & Schippers, 2007).

7.2 Information Elaboration as Mediator of the Relationship between Diversity and Performance

From the beginning, two theoretical perspectives have dominated the discussion around these mediating processes: the information/decision making perspective and the social categorization/similarity attraction perspective (K. Y. Williams & O'Reilly, 1998, see also chapter 2.2.1). When seen from the social categorization and similarity-attraction perspective, diverse groups are assumed to be prone to the formation of subgroups. This, in turn, has often been doomed to be the cause of all the downsides of diversity, because such social categorization is supposed to lead to conflicts, misunderstandings, and lack of cooperation between subgroups. On the other hand, when seen from the information/decision-making perspective, diverse groups are assumed to bear a unique *informational potential*: The different group members are supposed to contribute different perspectives, opinions, abilities, knowledge, skills and the like. This way the group can utilize a larger pool of resources. Moreover, through contradicting perspectives, all members are required to process task relevant information more deeply. In other words, diverse groups are thought to be cognitively stimulating social environments. This informational potential of diverse groups has often been seen as the driving force behind the beneficial effects of diversity.

For a long time, these perspectives coexisted as alternative theoretical approaches, with often conflicting theoretical derivations and predictions. Recently, van Knippenberg, De Dreu and Homan (2004) combined both perspectives in their categorization elaboration model (CEM, see chapter 2.2.4). In their view, diverse groups come to use their unique cognitive advantage over homogenous groups through a process of *elaboration of*

information, which is defined as "the exchange of information and perspectives, individual-level processing of the information and perspectives, the process of feeding back the results of this individual-level processing into the group, and discussion and integration of its implications" (van Knippenberg et al., 2004, p. 1011) – a complex group phenomenon comprising contextual, within-person, and emergent processes. Consequentially, the CEM is based on the proposition that "the primary process underlying the positive effects of diversity on group performance is elaboration of task-relevant information" (Proposition 1, van Knippenberg et al., 2004, p. 1012). Social categorization processes, in turn, are supposed to disrupt and hinder this elaboration under certain circumstances.

Thus, according to the CEM, the main potential of diverse groups is their capacity to orchestrate a rich pool of different informational and cognitive resources. The process through which this potential is transformed into superior performance is assumed to be the elaboration of information. In principle, this could be conceived as a moderating process. However, the CEM – as well as past theorizing following the information elaboration perspective – includes the assumption that diversity directly stimulates the elaboration of information. Therefore, information elaboration is thought to mediate the effect of diversity on performance. This cognitive perspective currently dominates the discussion around the processes mediating the relationship between diversity and performance.

However, during the last years, other mediating mechanisms have been proposed to exist alongside this cognitive process of elaboration, such as self-disclosure (Phillips, Rothbard, & Dumas, 2009), or identity confirmation (Milton & Westphal, 2005). Contributing to this line of research, the goal of the present chapter is to illuminate the processes in diverse teams from an emotional perspective. We[7] postulate that diverse groups possess a unique emotional potential that can enable them to superior performance. Independent of this, we also postulate that diverse groups stimulate emotional responses in their members which can enable them to superior performance. We will attend to both these assumptions in the following sections.

7.3 The Emotional Potential of Diverse Groups

The more group members differ from each other, the more likely they will be to engage differently in any given situation – both from a cognitive, as well as from an emotional perspective. In other words, members of diverse groups are not only prone to

[7] I use the personal pronoun "we" in this chapter to acknowledge the contributions of my co-authors – Marie-Élène Roberge and Rolf van Dick – who contributed to the manuscript on which this chapter is based.

think differently, they are likely to *feel* differently, too. As described above, the cognitive side of this effect has been discussed widely. Through the pooling of unshared information and differing perspectives, innovation is fostered and the team is better prepared to meet complex demands from dynamic environments. In addition to the pooling of this cognitive content, we propose that diverse groups can also pool a variety of different emotional states in any given situation.

On the group-level of analysis, one straightforward benefit of this emotional potential of diversity is – similar to the cognitive benefits of diversity – that the group as a whole is less likely to become caught up in one particular emotion – that is, members do not feel the same all the time. In contrast, if members of a group share the same affective reactions there will be a homogeneous group-level emotional state or *group affective tone* (George, 1990). A positive group affective tone is related to more prosocial behavior, less absenteeism, less conflict, more cooperation, and higher task performance (Barsade, 2002; George, 1990). Unfortunately, a positive mood is also associated with a tendency to use heuristic processing of information (i.e., fast processing, low effort), whereas negative affect leads to systematic processing (i.e., detailed processing, high effort) (Bohner & Apostolidou, 1994; Bohner, Chaiken, & Hunyadi, 1994; Forgas, 1995). Consequently, Phillips and Lount (2007) propose that the negative feelings often elicited by being in a diverse group stimulate information elaboration, which is then assumed to lead to better group performance. Similarly, George and King (2007) propose that groups with a negative group affective tone, rather than a positive one, elaborate more, pay more attention to detail, and consider multiple perspectives. When seen from this angle, it is plausible to assume that both positive and negative affective tones have their benefits and pitfalls. In diverse groups these feelings are likely to be more balanced. Similarly, extreme optimistic or pessimistic moods of individual group members are likely to become balanced through group members who feel different. As a result, for example, the group may be less likely to bask in alleged achievements too early and, on the other hand, will also not be paralyzed by the shock of a severe backlash.

Similar benefits can be conceived on the individual-level of analysis. Through exposure to other group members who feel different, one's own emotional states might become more salient and a reflection of these states is stimulated – a contextual effect of group-level diversity on individual members' emotional experiences and their reflections on these. In this way, negative drawbacks of individual emotional states could be inhibited. Similarly, from an interpersonal perspective, it is more likely in diverse groups that there are

members who are in an emotional state optimal to support other members emotionally, since, for example, not all members will react to the same negative situation with the same amount of paralyzing negative affective states.

Research on these and other emotional processes in diverse groups is still in its infancy, with only little empirical results available (for an exception see Shemla, Wegge, Kearney, & Schraub, 2010). Nonetheless, we propose the following:

> *Proposition 1: Diverse groups are more likely than homogeneous groups to be able to pool a rich set of individual members' emotional states in a particular setting. This emotional potential can enable individual members and the group as a whole to perform better.*

Whether or not future research will underscore the existence of such emotional synergy effects in diverse work groups, the thoughts outlined above draw attention to the fact that group members can relate to each other not only through cognitive understanding, but also on an emotional level. Indeed, if an emotional potential exists, it is likely to influence any group or individual process *only* if members become aware and appreciate each other's emotions – i.e. through empathy. Such empathy can also be helpful in harvesting the group's informational potential. We will now turn to these processes in more detail.

7.4 State Affective Empathy as Mediator of the Relationship between Diversity and Performance

As outlined above, the informational potential of diverse groups is often assumed to stimulate processes of information elaboration, which then transform the informational potential into beneficial performance outcomes for individual members and the group. Essential here is the pooling and exchange of information among group members. In other words, diversity only exerts its full potential through communication and sharing of "who-knows-what" among the members – in the sense of a team mental model (DeChurch & Mesmer-Magnus, 2010). This effect is based on interaction between group members. It is in part contextual, because through it individual group members are able to integrate group-level diversity in cognitive content (e.g., different knowledge originating from different functional backgrounds) into their individual mental representation of the group. It can also be emergent, because these individual mental representations, again, can be subject to group communication and thus emerge as group-level constructs of various forms (DeChurch &

Mesmer-Magnus, 2010; Mesmer-Magnus & DeChurch, 2009). Taking into account that group members are also able to get involved with each other on an emotional level, a similar process can be assumed.

This is probably most obvious in the case of the emotional potential of diverse groups. It is plausible that this potential will affect group members' behavior through their awareness that such a potential exists. Analogous to the information elaboration construct and the "who-knows-what"-aspect of a team mental model, it is therefore necessary that group members learn how the other group members feel. In principle, this could be a purely cognitive realization. Such a process would then be well within the scope of the categorization elaboration model and, indeed, some degree of such a cognitive realization is certainly a necessary condition for the emotional potential of diverse groups to have any effect at all.

However, we suggest that both the informational and the emotional potential of diverse teams can stimulate a more holistic, enriching and deeper process of engagement. Generally, diverse groups stimulate the perception of differences between the self and other group members. Unique aspects of the self and of other group members become especially salient and attention is drawn to these aspects. They are experienced and members are stimulated to engage with each other on the basis of these unique aspects. Here we want to point out that this process of engagement can involve more than a mere cognitive realization of differences. Rather, group members engage with these differences by using the full range of human capacities, including emotional forms of engagement.

In this sense, just as the informational potential of diverse groups is enriched and complemented through the acknowledgement of group members' diverse emotional experiences, so can the cognitive process of information elaboration be enriched and complemented through a more emotional way of engaging with a diverse work environment. In other words, we want to stress that people are not only able to understand each other cognitively, but also respond to each other emotionally. In particular, we are interested here in *affective empathy,* a term that refers to "feeling for" a person by being concerned for that person and that has sometimes also been referred to as "empathic concern" (Batson, 2010). Implicitly included in this definition is that the person feeling for someone has to have at least some cognitive understanding of the emotional experience of the other person. Even more importantly, it also implies that the other person's feelings are accepted and valued at least to some degree. Empathizing with or "having empathy" for someone describes the extent to which one's feeling is congruent with the other's feeling

(i.e. feeling positive when the other's state is positive or feeling negative when the other's state is negative). However, it is important to stress that affective empathy does not imply feeling the same emotion and is not to be confused with emotional convergence, which refers to two (or more) people coming to feel more similar (C. Anderson, Keltner, & John, 2003). As pointed out by Batson and Ahmad (2009), "you might, for example, feel sad or sorry for someone who is scared and upset" (p. 146). Thus, affective empathy is about "feeling for" someone and not about "feeling as" someone. Researchers from the field of organizational behavior have mostly studied "feeling as" or feeling similarity instead of studying "feeling for." Research from social psychology suggests that it is "feeling for" someone that directly affects prosocial behavior and not "feeling as" (Batson, Early, & Salvarani, 1997). Interestingly, with regard to this distinction, research suggests that "feeling as" is neither a necessary nor sufficient precondition for "feeling for" someone (Batson & Ahmad, 2009; Batson, Early et al., 1997). Moreover, despite the fact that most studies from social psychology have examined empathy as a negative state affect (e.g., "I feel for your pain"), empathy can also refer to positive state affects (e.g., "I am happy for you"). In the present model, we conceptualize affective empathy as an emotional state that can be both negative and positive. We propose that the stimulating nature of diverse groups exceeds mere cognitive elaboration of information, but also includes group members' emotional responses to their experience of their fellow members' emotions – i.e. state affective empathy.

Evidence in favor of this proposition comes from a set of experiments in which participants were either primed to focus on differences or similarities between themselves and others (Todd, Hanko, Galinsky, & Mussweiler, 2011). When focusing on differences, rather than similarities, people were more likely to adopt others' visual perspectives, were less likely to impute their own privileged knowledge to others, and communicated more efficiently with others. These results occurred when participants were directly primed to focus on differences/similarities. However, they also occurred when this focus was indirectly implied through the salience of group memberships – i.e. if the other person was either German (similar to participants) or Turkish (different from participants). The results even occurred under minimal-group conditions – that is even if the group membership had no real meaning. In sum, these findings illustrate that diversity can indeed stimulate taking the perspective of another person.

While no one would question that the elaboration of information is beneficial for problem solving and task performance, the specific benefits of empathy might be less

obvious. However, in addition to the mere cognitive realization of another person's emotional state, affective empathy can influence interpersonal encounters in a variety of important ways. For example, state affective empathy is beneficial for interpersonal encounters in work groups because it evokes altruistic motivation (Batson, 1991, 2010; Hoffman, 2000). Similarly, experimental research shows that induced empathy increases concern for the welfare of a different other and the group as a whole (Batson, Sager et al., 1997). Such altruism is likely to produce organizational citizenship behaviors directed at colleagues, which has been empirically proven to foster work group performance and is often seen as one form of individual performance (Podsakoff, Whiting, Podsakoff, & Blume, 2009). Moreover, empathy also makes it difficult for people to use derogation of dissimilar others as a means of maintaining the belief in a just world (Batson, 2009). Empathy increases moral judgment and helps to resolve conflicts between individuals or between people belonging to different groups or having different identities (Gibbs, 2003). As mentioned by Batson, Polycarpou, et al. (1997) "[empathy] should encourage prosocial action to remove the injustice instead" (p. 106). Meta-analytically, empathy has been shown to mediate the positive effect of intergroup contact on prejudice (Pettigrew & Tropp, 2008). In other words, empathy is likely to help work groups to prevent or handle conflicts. This is likely to help work groups to perform better because conflicts are by and large detrimental to work group performance (De Dreu, 2011). This is particularly relevant for diverse groups, because they are especially prone to conflict which can be detrimental to their performance (cf. Jehn & Mannix, 2001; Pelled et al., 1999; Vodosek, 2007). Empathy increases the likelihood of mutual identity confirmation between team members, which in turn fosters cooperation (Milton & Westphal, 2005). Empathy also increases the likelihood of self-disclosure (Phillips et al., 2009) and, on the receiving end, the feeling of being understood by others may lead people to open up themselves and disclose valuable information (Marci, Ham, Moran, & Orr, 2007). Among other things, both could lead to a better use of unshared information – a critical issue identified to determine the performance of decision making groups (Brodbeck, Kerschreiter, Mojzisch, & Schulz-Hardt, 2007) – and are, therefore, important for utilizing diversity's informational potential. Empathy is also likely to foster team-learning behaviors, which have been proven to foster team performance (Gibson & Vermeulen, 2003; van der Vegt & Bunderson, 2005). Especially the latter two effects illustrate nicely that affective empathy, in turn, can also lead to cognitive processes, which then lead to better performance. Thus, emotional and cognitive processes in diverse groups can be intertwined in various ways.

For diverse work groups it is particularly interesting to note that employees' empathy toward specific social groups can positively influence their attitudes on organizational policies and programs aimed at reducing discrimination and on improving relationships between members of different social categories within the organization (Harrison, Kravitz, Mayer, Leslie, & Lev-Arey, 2006; Schur, Kruse, & Blanck, 2005). In fact, empathy can be among the core processes that such policies and programs try to influence in order to improve intergroup relationships (Batson & Ahmad, 2009). There are certainly many ways in which not being discriminated against might improve individual performance, and how positive intergroup relations in organizations might foster cooperation, which is very often necessary for a group to perform well. This might be one of the reasons why implementing diversity practices has become increasingly popular among today's organizations.

Even more directly related to the negative sides of diversity, affective empathy helps people to relate to others by reducing stereotyping and the likelihood of discrimination. For example, there is empirical evidence that having empathy for a member of a stigmatized group (e.g., people suffering from AIDS, or the homeless) can improve individuals' attitudes toward the group as a whole by reducing stereotyping and increasing supportive behavior (Batson, Chang, Orr, & Rowland, 2002; Batson, Polycarpou et al., 1997). Similarly, Galinsky and Moskowitz (2000) found that when individuals take another's perspective, they are more likely to feel for others and better understand others' feelings. Galinsky and Moskowitz' results suggest that perspective-taking can induce affective empathy, decrease stereotyping and increase overlap between representations of the self and representations of the other. This self-and-other psychological merger, further increases the likelihood of empathy and therefore prosocial behavior (Dovidio et al., 1997). There is a multitude of reasons for why discrimination is bad for performance throughout the organization. Discrimination can damage an organization's reputation, limit the potential pool of qualified personnel to hire from, produce costs due to legal prosecution, lead to loss of organization-specific human capital, and, finally, discrimination decreases the job satisfaction of those being discriminated against (Ensher, Grant-Vallone, & Donaldson, 2001), which is likely to decrease their job performance (Judge, Thoresen, Bono, & Patton, 2001).

In sum, these studies provide evidence that empathy can have important effects on cognitive, motivational, and behavioral processes of both the person feeling for someone and the other person. Ultimately, these effects place both persons and therefore the whole

group in an optimal position to perform well. In combination with the classic information-elaboration perspective, state affective empathy opens up a richer and more complete way to engage with fellow group members. We propose that it is also through this emotional process of state affective empathy that members of diverse groups come to realize the unique potential of diverse groups. This is plausible in the case of the above discussed emotional potential. In addition, through the processes described above, state affective empathy provides a sound basis for interpersonal relationships marked not only by understanding but also by mutual acceptance. Based on such positive relationships, the various informational resources can be pooled and elaborated effectively. Therefore, empathy also helps to utilize the informational potential of diverse groups.

As with the classic information elaboration approach, the processes here are multilevel in nature (see Figure 7-2). So far, we have argued that state affective empathy is a process through which group members of diverse groups come to realize each other's feelings and, therefore, gain a complete and emotionally enriched understanding of the group, together with a felt acceptance of other group members. It is through this process and its cognitive and motivational consequences that group members are in an optimal position to use both the group's informational and emotional potential to foster individual and group performance. Empathy has mostly been studied as an individual emotional phenomenon (Batson, 2010). As we have argued above, empathy is the process through which people relate to their fellow group members in a specific and holistic way. It is by this process, that the emotional states of all the group members resonate in every individual group member – a contextual process linking group level diversity with what might be called an emotional resonance of the emotional setup of the group within every single group member. Nonetheless, this kind of empathy is still a construct on the individual level (i.e. individual-level state affective empathy).

This contextual process can be complemented by emergent processes. Much as in the information elaboration construct, members can communicate their empathic experiences, learn where others' experiences might be similar or different and, as a consequence, develop an understanding of the level of empathy of the group as a whole. Therefore, empathy may also be considered at the group level. There are many ways and patterns of emergence that might be of relevance to group-level state affective empathy. For the present purpose, we restrict ourselves to the simplest version. Thus, *group-level state affective empathy* can be defined as the collective amount of empathy existing between the members of a group in a particular situation. According to multilevel theory such a process is best described as

compositional emergence through pooling elements that are similar in nature (Kozlowski & Klein, 2000). As such it describes an emotional state of the group which designates the total availability of empathic relationships within a group. Individual- and group-level state affective empathy each can be used to describe a distinct set of mediating processes within diverse groups.

Individual-level state affective empathy is of importance whenever effects of empathy occur *within* a single group member. Emotionally relating to other group members is a vital part of familiarizing oneself with the colleagues one has to work with in order to fulfill one's tasks. This emotional familiarity with other group members bears valuable input which can be used to adapt one's own actions accordingly and, hence, increase their effectiveness. For example, we have argued above that empathy is likely to reduce prejudice towards dissimilar others. Without these negative sentiments, a particular group member might be more likely to approach a dissimilar other member and use this other's knowledge to fulfill his or her own task in the group (i.e. to foster his or her individual performance and, through this, the performance of the group). To depict these processes, individually felt empathy would be the mediator of choice.

> *Proposition 2: The relationship between group-level diversity and (individual and group) performance is mediated through individual-level state affective empathy.*

Group-level state affective empathy is of importance wherever effects of empathy do occur *between* group members. Reminiscent of our above arguments, it is plausible that empathy can mediate the diversity-to-outcome relationships through processes occurring between group members – that is one group member feels empathy and another group member is affected through this. For example, we have argued that state affective empathy will increase the likelihood of support for fellow group members, leading in turn to better performance of these latter group members. In this case the degree of state affective empathy experienced by all other group members is the mediator between the group's diversity and the performance of the group member in question, because it describes the availability of such supportive relationships.

Moreover, the group members' knowledge that their personal experience of state affective empathy for the other group members is likely to be reciprocated by other members' experiencing empathy for them is likely to create additional effects. Such knowledge – reflected in a perceived high level of empathy within the group – is, for example, likely to create interpersonal affiliation (cf. Haslam, O'Brien, Jetten, Vormedal, &

Penna, 2005). It could also encourage members to voice deviating concerns or ideas, contributing to a "participative safety climate" (N. R. Anderson & West, 1998; Edmondson, 1999). In turn, it is plausible that both affiliation and psychological safety climate will be beneficial for group functioning and performance.

Despite these promising relationships, the fact that empathy can be shared within work groups and its role in diverse environments have rarely been studied (Roberge, 2009). Milton and Westphal (2005) suggest that in diverse groups, “mutual empathy should provide the basis for a high level of social cohesion and cooperation with others in the group” (p. 194). In accordance with this reasoning, Ensari and Miller (2006) applied the personalization model (Brewer & Miller, 1984) to diverse organizations and conclude that it is through empathy that intergroup relations in organizations can improve, and thereby increase effectiveness and productivity. In their study on group emotional intelligence, Druskat and Wolff (2001a) describe both confrontation and caring as optimal norms for successful collaborative work. They suggest that when these norms are in place, confrontations can be seen in a positive light and interpreted as positive criticism. They propose that caring might be shown by “displaying positive regard, appreciation and respect for group members through behavior such as support, validation, and compassion” (p.84). In sum, these studies suggest that caring for others as an emotional state shared by group members could be a mechanism that explains how diverse groups may increase performance. By sharing or having mutual affective empathy toward one another, the group members are more likely to act prosocially, and, as a result, group performance may increase.

However, it is important to emphasize that these positive mediating effects of group empathy are not simply due to the group members experiencing the same positive or negative feelings. Sharing similar positive or negative emotions at a group level may sometimes facilitate interpersonal interactions and group functioning (C. Anderson et al., 2003; George, 1990, 1996). However, the process described above is slightly different. It is by sharing mutual affective empathy that people working in diverse groups may be able to overcome conflicts, avoid becoming deadlocked in unproductive group affective states, provide effective social support to each other and, as a result, may collaborate efficiently with others, which then increases group performance. In this way, it is not feeling similarity that directly affects collaboration and prosocial behaviors; it is rather people’s mutual care and concern for one another.

Consistent with this reasoning, the literature on group emotional intelligence stresses that group effectiveness does not necessarily increase by sharing similar positive or negative feelings, but more importantly, that group effectiveness increases when groups regulate their emotions (Druskat & Wolff, 2001a, 2001b). Group self-regulation has been defined as a "group's ability to manage its emotional states and create desirable responses" (Druskat & Wolff, 2001b, p. 146). We propose that it is through group empathy that a group's ability to manage its emotional state may become possible within a diverse group. If different people do not mutually care for one another, they will not necessarily be able to increase group performance (at a group level of analysis) - even though they may share positive or negative emotions.

Proposition 3: The relationship between diversity and (individual and group) performance is mediated through group-level state affective empathy.

The emergence of group-level state affective empathy from individual members' empathy can theoretically occur in various ways. Probably the most basic way is one in which simply the exposure to the group's diversity heightens each member's individual empathy, which then sums up to a higher average degree of empathy in the group. None of the members have to be aware of this higher average empathy, and still it can express itself, for example, in a greater number of available supportive relationships. Another way of emergence would be an open communication of individual empathic experiences, as described above. In this case, group members would know, for example, about higher group-level of empathy. This latter way of emergence would create a slightly different form of group-level empathy, in that it is subjectively represented. Irrespective of these differences in emergence, though, it is a logical consequence of the configural nature of group-level state affective empathy that it emerges from individual-level empathy.

Proposition 4: Group-level state affective empathy emerges from individual-level state affective empathy.

In addition to this emergence, the opposite direction of influence is plausible as well, especially in cases where group members are aware of being in an empathic group. Here, empathy might become something like a group norm. In line with the general principles from self-categorization theory (Turner et al., 1987, see also chapter 3.2), members will be motivated to feel for their fellow group members to the degree that empathy is seen as a

defining aspect of the group. With such a norm in place, it is also more likely that empathic behavior will be rewarded by other group members. Moreover, from a social learning perspective (Bandura, 1977), a group with a high average degree of empathy is likely to contain more positive role models of empathic behavior. Therefore, it is quite plausible to link the two levels of state affective empathy not only through emergent processes, but also through contextual processes flowing from the group to the individual.

Proposition 5: Group-level state affective empathy can lead to individual-level state affective empathy.

7.5 Moderators of the Relationship between Diversity and State Affective Empathy

So far, we have suggested that individual and group state affective empathy mediate the effect of diversity on group and individual level performance. However, state affective empathy does not necessarily and automatically occur within all diverse teams. Rather, it depends on a number of moderating factors, whether group members will feel for each other.

According to the categorization elaboration model, diversity should be related to information elaboration if the task requirements imply that the informational potential of diverse groups can be of use – that is, if the task requires a certain level of information elaboration (see chapter 2.2.4, CEM proposition 2). In case of state affective empathy, a similar argument is readily conceivable for work environments in which emotions play a key role. For example, many workplaces in the service sector require employees to monitor their emotions and to follow certain display rules with regard to emotional intensive service encounters (i.e. emotional labor, see Hochschild, 1983; Zapf, 2002). In such environments, it is certainly obvious for employees that emotions are an important aspect to consider. Given this attention, feeling for co-workers might occur more easily and naturally in these settings.

However, as discussed above, also purely intellectual, creative and innovative tasks – such as those addressed in the categorization elaboration model – can benefit from state affective empathy. It is certainly not the rule to have empathy enforcing instructions, regulations or task settings in jobs involving these kinds of tasks. Nonetheless, we believe that an organizational requirement in the form of task settings that emphasize the

importance of empathy for the performance of the group can help to realize the unique potential of diverse groups.

> *Proposition 6: Empathy enhancing task requirements moderate the relationship between diversity and (individual- or group-level) state affective empathy. If the importance and usefulness of empathy is highlighted through these requirements, diversity will be more positively related to state affective empathy.*

The categorization elaboration model includes two more factors moderating diversity's positive or negative effects on group functioning: the members' motivation to fulfill their task and their ability to do so (see chapter 2.2.4, CEM propositions 3 and 4). The authors of the model pointed out that both factors have been largely neglected in diversity research up to that point. However, they argue that both motivation and ability were shown to lead to deeper processing of information (cf. Chaiken & Trope, 1999). As information elaboration is the central mediating process in the categorization elaboration model, proposing motivation and ability as moderators of the diversity-information elaboration-performance relationship makes perfect sense. However, the central mediator in the present model is state affective empathy, rather than information elaboration.

Nonetheless, group members' motivation is likely to play an important role. In the case of state affective empathy, however, it is group members' motivation to relate to different others, rather than their motivation to do the task at hand, that is more likely to influence the relationship between diversity and state affective empathy – except maybe for those cases in which the task itself requires empathy.

Indirect evidence for the role of motivation in this respect comes from an experimental study that assessed the effects of cognitive fatigue and interpersonal dissimilarity on empathy (Nelson, Klein, & Irvin, 2003). In that study, fatigue lead to increased need for cognitive closure – i.e. a desire for cognitive clarity or certainty. This need for cognitive closure can be interpreted as a lack of motivation to elaborate information. The authors argue that such motivation is necessary to generate the cognitive effort that is needed to take another person's perspective and, thus, to empathize with this person. Furthermore, they argue, that this effort will be greater the more dissimilar the other person is. In line with these ideas, they found that fatigue reduced empathy for another person if the other person was dissimilar. It had no effect if the other person was similar to the participant. In a second study this effect of fatigue – and hence the lack of motivation to engage in cognitive effort – was compensated through a manipulation that increased the

motivation to process information about the other person. While these results are based on motivation to engage with others in a cognitive way, they nonetheless illustrate the important role of motivation on the emergence of empathy towards different others.

Looking at this motivation from a slightly more emotional side, it is plausible that if group members are not motivated to emotionally relate to other group members who are different from themselves, diversity will not have the above outlined empathy-stimulating effect. Moreover, a lack of motivation to empathize with different others also makes it unlikely that group members will communicate about empathic experiences within the group, thereby undermining the processes necessary to create certain forms of group-level state affective empathy. Therefore, we propose:

> *Proposition 7: Lack of motivation to relate emotionally to members of different subgroups is disruptive to the individual group members' experience of state affective empathy. Therefore, low motivation to relate emotionally to different others will lead to a negative relationship between diversity and individual state affective empathy. High motivation to relate emotionally to different others will lead to a positive relationship between diversity and individual state affective empathy.*

> *Proposition 8: Lack of motivation to relate emotionally to members of different subgroups is disruptive to the emergent processes necessary to create group-level state affective empathy. Therefore, low motivation to relate emotionally to different others will lead to a negative relationship between diversity and group-level state affective empathy. High motivation to relate emotionally to different others will lead to a positive relationship between diversity and group-level state affective empathy.*

With regard to group members' abilities, a similar argument can be made. Again, group members' ability to accomplish the tasks given is probably only indirectly related to the emergence of state affective empathy – e.g., in those cases where the tasks require empathy. However, the ability to relate to different others is likely to have a more direct influence. This is fairly intuitive, if one considers the case of very homogeneous teams. In such teams, the congruence between the team members in values, norms, goals and other cognitive contents makes it easier for group members to comprehend and apprehend each other's emotional states, simply because they know exactly from their own experience "how it must feel". In this way the shared cognitive content provides knowledge about other group members, on the basis of which empathy will be easier to experience.

The conditions for developing state affective empathy are considerably different in diverse groups. The existence of subgroups increases the likelihood of differences in relevant norms, values, goals and other cognitive content between the group members – that is, group members are not familiar with different others' experiences. If one particular group member is experiencing a certain emotional state as a result of any kind of event, it is relatively unlikely that a different other member will experience this event in the same way. This difference in cognitive content also heightens the risk that group members are not able to develop adequate empathy, since they are not able to fully comprehend the experience of the other person. For example, the more a particular fellow group member differs from oneself in norms, values, or goals, the harder it will be to understand why a particular event made this group member angry, anxious, curious, or ashamed. Therefore, the knowledge about different others is likely to affect whether diversity will indeed have the proposed empathy-stimulating effect:

> *Proposition 9: Lack of knowledge about members of different subgroups hinders the experience of individual state affective empathy in diverse groups. With a lack of such knowledge, diversity will be negatively related to individual state affective empathy. Where such knowledge is available, diversity will be positively related to individual state affective empathy.*

While task requirements, motivation, and ability are promising contingency factors of the relationship between diversity and empathy, the remaining contingency mechanism from the categorization elaboration model received superior attention in diversity research. The basic idea behind this mechanism is that, under certain conditions, diversity can lead to social categorization – i.e. the formation of subgroups within the diverse group – and that this can entail negative affective and evaluative reactions, such as, for example, conflict or a decrease in identification. These negative affective and evaluative reactions are proposed to moderate the relationship between diversity and information elaboration. Although relatively intuitive at first glance, the processes at work behind this mechanism are not trivial. Therefore, it is advisable to look at these social categorization processes in diverse groups in more detail.

7.6 Diversity and Social Categorization

The very nature of diversity makes it intuitively plausible, that diversity is negatively related to state affective empathy. It just seems so much easier to relate emotionally to

people who are similar and share the same experiences. Furthermore, it is often assumed that diversity leads to misunderstandings, conflicts, open hostility, ingroup-favoritism, etc. Both these assumptions are in line with the traditional social categorization perspective on diversity (see chapter 2.2.1).

Contrary to this traditional perspective, the social identity approach to diversity that underlies the present dissertation does not imply that social categorization is necessarily detrimental to group functioning. Rather, as outlined in chapter 3, social categorization is conceived as the very core of diversity. This is because diversity is basically defined as the fact that there are differences between members of a social unit. According to self-categorization theory, perceiving subjectively meaningful differences between oneself and other members of a group essentially implies categorizing oneself and these others in different social categories. This principle is valid on all levels of abstraction. Even if there are only two members in a group, they can each belong to a different sub-category. In fact, the process of perceiving diversity is one of social categorization, or, more precisely, self-categorization.

Nonetheless, in the categorization elaboration model social categorization is included as a distinct construct which is separate from diversity itself (see Figure 2-2). In fact, the model can be interpreted such that diversity can have effects without social categorization taking place. This is very much in line with the classic social categorization perspective from general diversity research. Contrary to this approach, we propose that social categorization is the very process through which group members come to realize that other group members are different from themselves.[8]

> *Proposition 10: The perception of diversity occurs through perceiving social categories or subgroups within the overall group.*

It is important to emphasize that the social categories in question are in fact self-categories, that is, they form part of group members' self-concepts. As such they provide a basis on which group members form their knowledge about who they are and, maybe even more important, provide a framework of social comparison to evaluate oneself against the norms and standards of the group and to compare their own group with others (chapter 3.2). Therefore, the more these group memberships are valued parts of the self, the more it

[8] It could be argued that this view is implicitly reminiscent in the categorization elaboration model as well, because one of the three classic conditions for salience taken from the self-categorization theory, to wit comparative fit, is included in the concept of diversity in the main figure depicting the model (van Knippenberg et al., 2004, p. 1010, Figure 1). However, the authors do not stress this link throughout the text.

becomes obvious that these self-categorizations bear a large potential to elicit a range of emotional processes.

In principle, each subgroup in a diverse group can consist of any number of members and there can be any number of such subgroups. However, with any constellation of subgroups being perceived, there will be two possible self-categorizations for each group member: (a) as a member of the overall group or (b) as a member of a particular subgroup. According to self-categorization theory, these different levels of self-categorization are mutually exclusive. The more salient the subgroups, the more the self-categorization as a member of the overall group fades and vice versa (functional antagonism, see chapter 3.2).

Self-categorization theory posits that self-categories tend to be positively valued and that other people are evaluated against the prototype of such positively valued self-categories. As outlined in chapter 3.2, the process of categorizing oneself and other members into the same social category entails perceiving them as more similar to the prototype of the valued self-category. In consequence, they will be liked more and cooperation with them will be fostered.

Combining this with the principle of functional antagonism, the benefits stemming from sharing the same group membership shift accordingly from all (larger group's) members to those of one's own subgroup if subgroups are salient. This preference of ingroup members over outgroup members – often termed ingroup or intergroup bias – is likely to bear consequences for cross-subgroup cooperation within the group as a whole. The traditional social categorization perspective holds such intergroup bias accountable for all sorts of negative subgroup relationships in diverse groups such as conflicts, prejudice, stereotyping, or misunderstandings.

Therefore, given that most members of diverse groups will be aware of that diversity, the traditional social categorization perspective offers only dismal prospects for diverse groups. However, the accumulated empirical evidence does not support such a pessimistic view (e.g., Bantel & Jackson, 1989; Jackson & Joshi, 2011; Kristof-Brown, Barrick, & Stevens, 2005; van Knippenberg & Schippers, 2007). Although it has often been claimed, especially in diversity research, it seems that mere social categorization is *not* a sufficient precondition for negative intergroup phenomena to occur (Park & Judd, 2005). Social identity theory is based on the minimal group experiments (Tajfel et al., 1971) which are often used to argue for the negative effects of mere categorization. However, the theory is far more complex and never included such a minimalistic assumption (cf. McGarty, 2001). Livingstone and Haslam (2008), for example, found that negative intergroup

relations are contingent on the content of the categories in question. In a similar vein, Wolsko et al. (2000) found that acknowledging social categories did not entail negative sentiments towards outgroups.

From a social identity point of view, this is not astonishing (see chapter 3). According to social identity theory, negative intergroup relationships do occur only *if* groups are compared against each other on status relevant dimensions. Following this line of thought, the categorization elaboration model includes the assumption that only when the subgroup-identities implied by diversity are threatening each other – in the sense that the value of one's own subgroup is somehow challenged by the existence of the other subgroups – will this impede the realization of the informational potential of diverse groups through information elaboration (see chapter 2.2.4, CEM propositions 6 and 7). Similarly, we propose that intergroup bias, stemming from threatening subgroup identity relationships, will hinder group members in experiencing empathy towards one another and in communicating this understanding in any way, which is necessary for many forms of group-level state affective empathy:

> *Proposition 11: Intergroup biases elicited by threatening relationships between salient subgroup identities are disruptive to the individual group members' experience of state affective empathy. With threatening or challenging relationships between subgroups in place, diversity will be negatively related to individual state affective empathy.*

> *Proposition 12: Intergroup biases elicited by threatening relationships between salient subgroup identities are disruptive to the emergent processes necessary to create group-level state affective empathy. With threatening or challenging relationships between subgroups in place, diversity will be negatively related to group-level state affective empathy.*

In essence then, if social categories are subjectively salient within a diverse group and if this category salience is paired up with either threatening identity content, lack of motivation to engage with dissimilar others, or simply a lack of knowledge about these dissimilar others, affective empathy may be difficult to experience. Even if it is experienced, the level of affective empathy that the members of the diverse group experience might be too low to lead to the processes necessary to utilize the group's potential. In other words, in diverse group settings, people may not be able to care enough for others to engage in

cooperative behavior. This case is illustrated by a study conducted by Stürmer, Snyder, Kropp and Siem (2006) which confirms that the strength of the relationship between empathy for ingroup members and helping systematically varies as a function of perceived similarities or differences among ingroup members. This study suggests that due to perceived differences, the level of empathy experience by individuals may be reduced in diverse group settings, leading to reduced collaboration among group members and therefore a decrease in group performance. Other empirical studies support this view by showing that as perceived group-based self-other similarity increased, empathy became a significant motivator for helping. Conversely, as perceived group-based self-other dissimilarities increased, empathy became less important as a motivating force (Stürmer & Snyder, 2010; Stürmer et al., 2006).

7.7 The Role of Diversity Beliefs and Diversity Climates as Second Order Contingency Factors

Following a similar line of thought as outlined in the categorization elaboration model, we proposed that diversity will be negatively related to state affective empathy under the condition of threatened identities, when work group members lack the motivation or the knowledge necessary to emotionally relate to different group members, or when the task requirements fail to make the benefits of empathy apparent. In the absence of these adverse conditions, diversity is proposed to stimulate the experience of state affective empathy. However, if group members are motivated to relate to different others, if they command a pool of knowledge about different others, and if task requirements make the benefits of empathy apparent, this empathy-stimulating effect of diversity can even be intensified.

Diversity beliefs and diversity climates can play an important role in bringing about these favorable conditions. In chapter 5, diversity beliefs were defined as individual-level associations between a mental representation of a social entity's diversity and an assessment of this diversity's value for producing certain outcomes. Diversity climates depict such associations on a group-level. Theoretically, both diversity beliefs and climates have the potential to relate the very core of a group's common identity – for instance, its function within the wider organization – to its diversity. In other words, they depict the value that a particular form of diversity is given in a particular social context. The meta-analysis in chapter 5 revealed that diversity beliefs and climates can affect diverse workgroups positively – across a large variety of different conceptualizations of such beliefs/climates and all sorts of beneficial and detrimental group- and individual-level outcomes. For

example, they can enable group members to identify with a particular group not *despite* the fact that all group members are different, but rather *because of* such diversity (van Dick, van Knippenberg, Hägele et al., 2008). More importantly for our present argument, it is likely that, once diversity is valued as an asset of the work group, people have a strong rationale for why relating to each other emotionally might be useful. In terms of the model, motivation to relate to different others is fostered and perceptions of subgroup threat are lessened.

According to the social identity approach to diversity, outlined in chapter 3, and in line with the suggestions made along the categorization elaboration model (chapter 2.2.4), diversity beliefs and climates can play a key role in reducing threatening or challenging relationships between subgroups in diverse groups. To the degree that diversity is a valued aspect of the overall group, differences between members will not be seen as problematic and threatening. Rather, if diversity is deemed necessary for the group, this makes the different group members mutually dependent on each other through exactly the differences between them. In terms of the self-categorization theory, as the overall group prototype becomes more diverse, dissimilar group members can become more prototypical to this overall group prototype precisely because they are dissimilar. As this group prototype is likely to be positively valued, dissimilar group members will like each other more, cohesion will be stronger, and cooperation increased. In consequence, perceptions of threatening or challenging subgroup relationships will be reduced if not nullified.

> *Proposition 13: Diversity beliefs and climates that stress the positive value of diversity will be negatively related to the perception of threatening or challenging relationships between subgroups in diverse groups.*

In a similar vein, if diversity is seen as a valuable and integral part of the group's identity, this could foster group members' motivation to engage with different others – also in an emotional way. In chapter 6, it was proposed that identification with such an organic identity can lead to organic solidarity which was shown to affect collaboration positively. This is plausible when seen from a self-categorization perspective. From this perspective, identification with a group entails taking over the group prototype as ideal self. This implies that identified group members will be motivated to engage with the diversity of their group and to value other members because they are different *if* this diversity is a valued part of the group's identity. In this way diversity is appreciated and becomes a vivid aspect of the group life. Therefore, we propose:

Proposition 14: Diversity beliefs and climates that stress the positive value of diversity will be positively related to group members' motivation to relate emotionally to members of different subgroups.

As mentioned in chapter 5, diversity beliefs and diversity climates can vary in their specificity. For example, they can be more or less specific with regard to the particular kind of diversity in question. If diversity beliefs or climates are very specific in this way, they could even include knowledge about different others that might help relating to diverse others emotionally. Diversity beliefs and climates can also be specific with regard to the outcomes diversity is supposed to be leading to. If such a detailed description of the instrumental roles of a certain kind of diversity includes detailed task knowledge, it is likely that diversity beliefs and climates could influence the way in which task or organizational requirements are conceived. However, most of the studies included in the meta-analysis in chapter 5 did not address such specific diversity beliefs or climates, but rather conceptualized these constructs in a very general way. Therefore, the relationship between diversity beliefs/climates and task/organizational requirements as well as the relationship between diversity beliefs/climates and knowledge about different others are not likely to be found with the present measures and manipulations of diversity beliefs/climates. These relationships might become valid, though, as more fine-grained conceptualizations of diversity beliefs/climates are applied.

The final way in which diversity beliefs and climates influence the proposed relationships in the present model is also pointed out by van Knippenberg, De Dreu, and Homan (2004) alongside the categorization elaboration model. They argue that whether diversity is believed to be beneficial or detrimental for fulfilling the task at hand is likely to influence the normative fit of the social categories this diversity is based on. That is, the more a particular kind of diversity is perceived as meaningful with regard to the present task context, the more it makes sense to categorize people along the lines of this kind of diversity (see also chapter 3.2.2). As we pointed out in chapter 5, This influence on normative fit is one reason why diversity beliefs and climates can also have direct effects on a variety of outcomes irrespective of the objective presence of diversity. The other reason for these direct effects is that valuing diversity will make diversity more accessible to the perceiver across a variety of contexts. Therefore, if people value diversity, they will be more likely to perceive it in a given situation and to actively seek out new forms of diversity in their

groups. The results from the meta-analysis on the main effects of diversity beliefs/climates can be interpreted as first evidence for this relationship.

Therefore, we propose that diversity beliefs can influence whether objectively present group diversity will be perceived by the group members as salient social categories.

> *Proposition 15: Diversity beliefs and climates that stress the positive value of diversity will moderate the relationship between objectively present differences between group members and the perception of these differences in the form of social categories or subgroups within the overall group. In conditions of high pro-diversity belief/climates, this relationship will be more positive than under low pro-diversity beliefs/climates.*

7.8 Discussion

Diversity is both a fascinating and multi-faceted construct as well as an important feature of modern organizations. The accumulated empirical evidence revealed that diversity can affect organizations and the people therein in positive as well as negative ways. Unfortunately, as of today, predictions of what kind of effects a particular type of diversity will have in which situation cannot be grounded on an elaborated understanding of the processes behind these effects. This leaves diversity management with a relatively weak scientific foundation. It has been proposed that part of the problem is the lack of understanding of the mechanisms behind diversity's effects and the conditions moderating these mechanisms. Much of the research surrounding this topic has focused on the cognitive processes elicited by diversity. The first aim of the present chapter was to contribute to the understanding of these mechanisms that mediate the effects of diversity in organizations and of the contingency factors that shape these effects. Second, it was aimed at explaining an alternative way in which diversity beliefs and climates can influence the effects of diversity.

In much of the previous research, diversity's effects on performance were attributed to diversity's potential to stimulate cognitive elaboration of information. The present model complements this cognitive perspective by illuminating the emotional side of diversity. We proposed that diverse groups do not merely provide stimulating cognitive resources, but are also rich in emotional content. There are good reasons to assume that such an emotional potential of diverse groups can in itself foster performance of individuals and whole groups. Furthermore, we proposed that group members, as human beings, are also likely to engage with the cognitive and emotional potential of diverse groups in both ways, cognitively and

emotionally. We proposed that state affective empathy is one such way of emotional engagement, which then will have a range of positive effects within and between group members, ultimately enabling the individual member and the group to better performance. In sum, the present model provides an alternative mediating process that explains in which way diversity can be related to performance.

However, this mediating mechanism does not occur automatically and in every situation. We proposed that it can be fostered to some degree through organizational requirements. Furthermore, we argued that it depends on group members' motivation to engage emotionally with different others and on their knowledge about these others. In line with previous research on the role of social categorization in diverse work groups, we proposed that the relationship also depends on group members' perception that social identities triggered by the differences within the group challenge or threaten each other. However, deviating from traditional conceptualizations of social categorization processes in diverse groups, we place social categorization at the very core of the model. Social categorization is thought to be the very process through which group members subjectively experience their diverse environment. It is *not* in itself a negative side effect that needs to be overcome in order to avoid the negative sides of diversity. In sum, therefore, the model includes also insights about factors moderating the relationship between diversity and performance.

Diversity beliefs and climates have been proposed as contingency factors of this relationship in many other studies. The meta-analysis in chapter 5 provided evidence that they do indeed moderate the effects of diversity on a variety of different outcomes, including performance. However, the meta-analysis also revealed that these effects do not occur all the time. Hence, more is needed to be learned about how the effects of diversity beliefs and climates come about. The present theoretical model described three different ways in which diversity beliefs and climates can influence the effects of diversity. First, pro-diversity beliefs/climates will make it more likely that objectively present diversity will be perceived by the group members. Second, diversity beliefs/climates will make relationships between subgroups in a diverse group less threatening and challenging. Third, they also will contribute to group members' motivation to relate to different others. In sum, therefore, the present model does not only include diversity beliefs and climates as additional contingency factors of the diversity-performance relationship, but also provides a more detailed description of why diversity beliefs and climates can have this moderating effect. In previous work on diversity beliefs and climates, their influence has been predominantly

examined with regard to their effects on information elaboration. The present model complements this view by pointing out their influence on empathy in diverse groups.

Our model advances current theory on diversity in work groups by focusing on an emotional pathway between work group diversity and performance. To make this possible it is necessary to focus on empathy as a state rather than a personal disposition, which has been the focus in much of the empathy research so far. Empathy as a construct is relatively new to the organizational behavior literature and has only rarely been discussed in relation to work group diversity (Ensari & Miller, 2006; Roberge, 2009; Roberge & van Dick, 2010).

Another distinctive feature of the present model is the conceptualization of state affective empathy both on an individual- and on a group-level. Most often, so far, empathy has been assessed as an individual-level construct and related to other individual-level constructs such as the willingness to help different others and to attitudes toward outgroup members. In contrast, group-level empathy and the importance of sharing mutual empathy in diverse group settings has only rarely been discussed before (Ensari & Miller, 2006; Roberge & van Dick, 2010). Following from this, theorizing regarding the inter-relationships between both levels of empathy is yet in its infancy. Whether individual-level empathy and group-level empathy have any interactive effects and how they might affect each other are questions for future research to answer. Furthermore, in the present model, we assumed group- and individual-level empathy to have similar relationships with regard to many of the proposed relationships. However, future research might reveal that there are other processes which are distinct to each level.

By shedding light on the emotional processes that can explain how diversity may increase group performance, the present model helps to broaden the theoretical understanding of the relationship between work group diversity and group performance. It is designed to complement other more cognitively focused models on the effects of work group diversity. However, the proposed emotional processes cannot strictly be separated from the cognitive realm. Rather, it is plausible that the emotional and cognitive processes in diverse work groups are highly interlinked, just as in general there are many intercepts between cognition and emotion in human beings. More specifically, future research might explore the interplay of the two core processes of the informational and the emotional pathways behind the diversity-performance link, to wit, information elaboration and state affective empathy.

Focusing again on the emotional pathway, another avenue for future research might be to explore the different nature of the emotion at a group-level in diverse versus homogeneous groups. As we pointed out above, the emotional relationships in groups can take the form of members experiencing the same emotions ("feeling as") or members experiencing emotions in reaction to what emotions they perceive in others ("feeling for"). With regard to the differences between the members of groups, it is quite plausible to assume that group emotion in homogeneous groups is likely to come in the form of "feeling as". The more diversity exists and, hence, group members are different from each other, the more group emotion will have to take the form of empathy or "feeling for". We have mentioned above that both forms of emotionally relating to others have been shown to have different effects. Therefore, it appears sensible for further research to follow this distinction and explore its implications for diverse organizations.

Our model focuses on work group performance as the main outcome variable. Performance has also been the focus of much of the general research on work group diversity. However, other more proximal constructs are likely to be affected through state affective empathy, too. For example, we have mentioned above that prosocial behavior or social support in general might result from members experiencing empathy for each other. This availability of social support, or just the perception that it might be available when needed, is likely to influence primary and secondary stress appraisals (Lazarus & Folkman, 1984) and, hence, influence group members' well-being and health (Haslam & van Dick, 2011). Our argument has been that these and other outcomes ultimately lead to better individual and group performance. However, further research is needed in this respect to elaborate the exact nature of these relationships.

Another restriction of the current model is that we focused exclusively on effects of diversity which manifest themselves through the conscious perception of differences within a group. On the one hand, this is in line with much of the previous diversity literature. On the other hand – considering that we suggest an alternative, emotional pathway for diversity's effects instead of an exclusively cognitive pathway – it is worthwhile thinking also of more covert, indirect or less conscious processes mediating the effects of diversity. Specifically, the insights gained from research on self-fulfilling prophecies and automatic stereotyping (Bargh et al., 1999) or implicit attitudes (Jost et al., 2009) could potentially be applied to processes in diverse organizational units and provide alternative explanations for diversity's effects on performance.

In conclusion, and despite the limitations outlined above, we believe that the proposed emotional pathway to the effects of work group diversity is a timely and inspiring perspective. It complements other more cognitively oriented approaches and helps exploring so far neglected potentials of diversity in organizations. The model opens up an emotional perspective on work group diversity that has the potential to stimulate a variety of interesting lines of research. We hope that our proposed model will spark further research that ultimately will help to understand the mechanisms behind the effects of work group diversity and, in this way, will contribute to the development of methods for managing diversity in organizations effectively.

In the context of the present dissertation, it is interesting to note that empathy can itself be understood as a way in which people engage with the diversity of their groups. However, the present model also opens up new ways in which the vantage points from which people engage with diversity – captured in diversity beliefs and climates – influence what kind of effects diversity will entail – thus providing another answer to the second general research question of the present dissertation. Therefore, the theoretical propositions made in this chapter complement the insights from the meta-analyses in chapter 5 and the field studies in chapter 6. In the following chapter, the findings from all three main chapters of the present dissertation will be summarized and discussed against the background of the two general research questions underlying the present dissertation.

8 General Discussion

This dissertation has been concerned with the vantage points from which individuals and social units engage with diversity. These vantage points are based on an understanding of what role diversity plays in a particular context. Such an understanding, as well as the subjective reality of diversity itself, can be conceptualized from a social identity perspective. When seen from this angle, diversity of a particular social unit implies that members of that unit perceive themselves as part of the overall social unit and also as part of a sub-unit which is distinct from other sub-units. Therefore, self-categorizations on at least two levels of abstraction become subjectively relevant in diverse groups. Which role diversity is given in the context of a particular social unit is critical for how well these two levels of self-categorization can be reconciled.

Such reconciliation is valuable for using the potentials of diversity and avoiding its negative sides. Based on social identity theory, self-categorization theory, and empirical evidence from research on intergroup relations, derivations for optimal relationships between these self-categories can be made. Thus, in line with previous work by van Knippenberg and Haslam (Haslam, 2001; van Knippenberg & Haslam, 2003), I have argued that diversity can be used for the benefit of groups and individual members if both these levels are salient – that is, if one can distinguish oneself from others within the group and at the same time use this distinctiveness to foster a goal derived from a common group identity. The degree to which this is possible depends on the role that diversity plays within the overall group identity. If this identity is meaningfully built upon the *differences* of its sub-units – a quality that has been termed "organic" – these different levels of self-categorization are interrelated and being different is not a problem but rather lies at the core of what the common group identity is about. Individual diversity beliefs and group-level diversity climates depict this organic nature of the common identity in that they capture the degree to which diversity is valued in a given context. In this way, they contain the individuals' and group's understanding of the role diversity plays in a particular context. Thus, they provide people and groups with a particular vantage point from which they will further engage with diversity.

Whether (1) different vantage points entail different effects for social units and the people therein and (2), if so, how these effects come about, have been the two major research questions behind the present dissertation. These questions have been addressed from different perspectives throughout the three main chapters.

Chapter 5 was based upon the common assumption that the value diversity is given by the people involved shapes the effects of this diversity. In order to address the first main question, all available evidence on such moderating effects was summarized. In addition, the direct effects of such valuing of diversity also have been summarized meta-analytically, offering a slightly unconventional perspective to answer the first research question. In that both types of effects were distinguished, first insights on the second research question were gained, too. Chapter 6 and 7 built upon the findings from this meta-analysis and were predominantly aimed at deepening our understanding of how the effects of diversity beliefs and climates come about.

Hence, chapter 6 was aimed mainly on the second research question. In two field studies, the idea was explored that the vantage point from which people engage with diversity can be a part of an organization's identity. Three main aspects were addressed in this regard. First, the role of identification as driving force behind the effects of valuing diversity has been explored. Second, it was examined whether both diversity and similarity can each be valued parts of a particular social identity and whether they both can shape the collaboration simultaneously. Third, mechanic and organic solidarity were introduced as mediators of the relationship between identification and the quality of collaboration. The proposed relationships were tested concerning the collaboration between teams within an organization, whereas previous research on this topic has mostly looked at individuals working in diverse groups. Thus, the chapter also expands the knowledge regarding the first research question.

Chapter 7 provided another perspective on the second research question. The main line of argument has been that the vantage points from which people engage with diversity can determine how people react to diversity emotionally. A theoretical model was developed that addressed the emotional processes in diverse work teams, complementing the predominantly cognitive account of these processes in the current diversity literature. State affective empathy was proposed to mediate the relationship between group diversity and performance. The value that diversity is given by individual members or the group was proposed to determine whether diversity will indeed stimulate more empathy among the members of diverse groups.

In what follows I will summarize the results and insights from all three chapters and discuss them against the background of the general research questions and their contributions to the field of diversity research.

8.1 Chapter 5: Summarizing the Evidence and Setting the Stage

This meta-analysis was concerned with the effects of diversity beliefs and diversity climates. For the purpose of the analysis, diversity beliefs were broadly defined as individually held mental representations of a particular form of diversity in association with the value that this diversity is given with regard to achieving certain outcomes. Diversity climates were defined as similar associations regarding the role of diversity on a group-level of analysis. Such group-level constructs can be conceptualized in various ways, similar to what has been said above for diversity itself (chapter 2.1). Whether the way in which they are conceptualized matters with regard to the effects was one major research question behind the meta-analysis. However, both diversity beliefs and diversity climates basically describe the value that diversity is given in a particular context and the main predictions regarding both constructs are similar in most of the literature. Therefore, the main analyses in the chapter were conducted taking into account diversity beliefs and climates simultaneously. The distinction between them was considered in the meta-analytical moderator analyses. In line with the majority of the research in this field, diversity beliefs/climates were defined to range from more to less pro-diversity beliefs/climates – i.e. to reflect the degree to which diversity is valued in a particular context or not.

Based on the social identity approach to diversity, as outlined in chapter 3.5, it was assumed that valuing diversity would enable the reconciliation of otherwise contradictory levels of self-categorization – i.e. it makes it possible to be different from others and belong to one group with them, not *in spite of* this difference but rather *because* being different is what this group is essentially about. On grounds of the social identity approach and in line with previous research on this topic we argued that diversity beliefs/climates are likely to moderate the relationship between diversity and relevant outcome variables. To the degree that diversity is a valued aspect of the overall group identity, dissimilar others in the group can be liked because they are different. They come closer to the prototype of the valued self-category. Similarly, such organic social identities provide the opportunity to identify with this category in spite of not being like anyone else in the group. Therefore, the perceptions of different others and the self move closer together under the umbrella of an organic social identity, resulting in positive consequences for cohesion and cooperation within the group. At the same time the differences remain a vivid aspect of the group, such that they can be used, for example, to foster information elaboration.

8.1.1 The moderator effects of diversity beliefs/climates

These processes can express themselves in an interaction between diversity beliefs/climates and the degree to which diversity is present. If high diversity is combined with an appreciation of this diversity, positive results will ensue; just as in the case of low diversity combined with low appreciation for diversity. If high diversity is combined with low appreciation for diversity, then the results will be less positive; just as in the case of low diversity combined with high appreciation for diversity.

These interaction effects have been examined in 23 independent samples that were included in the present meta-analysis. In the majority of these samples significant interaction effects were reported. Only for five samples non-significant interaction effects were reported Interestingly in all five samples, significant effects have been detected alongside the insignificant ones but for different measures. This pointed to within-study differences in conceptualization as moderating factors. Looking more closely at the 53 reported effects – with 14 being non-significant – it became clear that the conceptualization of diversity beliefs/climates, the study characteristics, and the particular type of outcome in question did not play a major role in determining the significance of interaction effects.

In particular, the sample size for each effect – which varied only slightly within samples due to missing data but considerably between samples – was not related to the significance of the interaction term.

The distinction between diversity beliefs and diversity climates yielded mixed results. On the one hand, more significant interaction terms were reported for measures and manipulations that used the person rather than the group as the referent. On the other hand, there was no significant difference between measures that were assessed on the group-level (or aggregated to the group-level) versus those that have been assessed on the individual level. Therefore, it is premature to say whether diversity beliefs or diversity climates lead more reliably to the hypothesised interaction.

Regarding the conceptual scope of diversity beliefs/climates, it could be established that diversity beliefs/climate measures and manipulations that used more than one dimension of differences produced significantly less significant interaction effects than those that focussed on one dimension. Therefore, it is probably apt to recommend that diversity beliefs/climates are best assessed as situation-specific constructs, focussing on one particular dimension or leaving more room for participants to think of the dimensions most relevant to themselves. However, with regard to the sidedness of the measure/manipulation, it appeared that tapping into the full range of pro-diversity and pro-similarity attitudes

brings about more significant interaction effects. In this respect, a little more conceptual breadth seems to be useful.

For the rest of the conceptual characteristics, no significant differences were found. Neither the quality of measurement, nor the type of outcome did matter with regard to the probability that a significant interaction effect was reported in a particular sample.

In the case of 27 out of the 39 significant interaction effects, the exact pattern of the moderation has been tested statistically through, for example, simple-slope analyses. In all but one of these tests, the hypothesised relationships were confirmed. Diversity was more positively related to a beneficial outcome under conditions of high pro-diversity beliefs/climates, than it was under conditions of low pro-diversity beliefs/climates. As an additional explorative result, it appeared that most of the exact patterns of moderation could be clustered into two major patterns according to the significance of the simple slopes (see Figure 5-1 and 5-2). In the "buffering effect"-pattern (19 effects), diversity was not related to beneficial outcomes in the high pro-diversity condition, but was negatively related to these outcomes in the low pro-diversity condition. In the "diversity as an asset"-pattern (6 effects), diversity lead to more positive outcomes in the high pro-diversity condition, but was not related to outcomes in the low pro-diversity condition. These patterns emerged irrespective of the conceptualization of diversity beliefs versus diversity climates, the conceptual scope of diversity beliefs/climates, the quality of measurement, the study design, and the type of outcome in question.

8.1.2 The main effects of diversity beliefs/climates

In addition to these interaction effects between diversity and diversity beliefs/climates, I have pointed out that it makes sense to look at the main effects of diversity beliefs/climates on groups and their members for two reasons. First, diversity is a ubiquitous feature of modern society. This translates the moderation hypothesis into a main effects hypothesis for many people much of the time – i.e. the question remaining is not so much whether diversity is present in the first place, but rather what to do with it. Second, people and groups who value diversity will be more likely to perceive and actively seek out diversity that might elude the attention of less valuing groups or people. This can be understood as the influence of diversity beliefs/climates on the normative fit of the social categories underlying diversity (cf. van Knippenberg et al., 2004). In consequence, diversity beliefs/climates would cause both the perception of diversity and the beneficial circumstances that lead to the optimal use of this diversity.

In a way, this approach offers an increase in validity as compared to the interaction effects. In the studies on the interaction effects, the kind of diversity under study is often set in the beginning. Whether this kind of diversity is perceived by the people involved in the study as relevant at all is often not considered. Implicitly, therefore, interaction effects might fail to capture the beneficial nature of diversity simply because the wrong kind of diversity was chosen to be assessed. Direct effects are theoretically less prone to such influence. Given that distinguishing objectively between different types of diversity has not illuminated the effects of diversity in the past (see chapter 2.2.2), it might be worthwhile thinking about granting participants in future studies more degrees of freedom to indicate the kind of diversity most relevant to them.

In total, 71 independent samples provided evidence for such direct effects of diversity beliefs/climates. The estimated meta-correlation between the value associated with diversity and a variety of outcome variables was $r = .25$ ($p < .0001$; CI 95%: .19 to .28). However, the effect sizes were significantly heterogeneous – in fact 92% of the total variability could be attributed to the variation in true effects between studies. Therefore, it is not warranted to interpret the average effect as *the* one underlying true effect of diversity beliefs/climates.

Significant, medium-sized, positive meta-correlations were found irrespective of whether diversity beliefs or climates were studied, irrespective of the conceptual scope of diversity beliefs/climates studied, irrespective of the study design, and irrespective of the type of outcome under question. None of these moderators explained a significant amount of heterogeneity in effect sizes. Only the reliability of the diversity beliefs scales in the study did significantly predict the size of effects, although it could not explain all of the heterogeneity. Thus there is something to gain from developing better measures for diversity beliefs, but the riddle behind the heterogeneity of effects still remains unsolved. On all levels of all meta-analytical moderators, the heterogeneity in the respective subset of studies remained significant.

8.1.3 Implications and further research

The general picture emerging from the meta-analysis of both interaction and direct effects is by and large promising. The majority of studies showed that diversity beliefs and climates have beneficial effects on groups and the people therein, with regard to a broad array of possible outcome variables (e.g., identification, information elaboration, conflict, turnover, performance). These effects occurred either as moderation of the general diversity-

to-outcome relationship or influenced outcomes directly. Both kinds of effects have been found across a variety of different conceptualizations of diversity beliefs/climates, study designs, and outcome measures. This speaks to a certain extent in favour of the generalizability of the effects. Remarkable in this regard, studies in which diversity beliefs/climates were experimentally manipulated revealed the same effects as studies applying cross-sectional survey designs. This could be interpreted as evidence in favour of the causality implied in both the main effect and moderation hypothesis.

Interestingly, the effect sizes for the direct effects of diversity beliefs and climates are on average stronger than those found previously in meta-analyses on the effects of diversity itself (e.g., Joshi & Roh, 2009). A possible objection to this comparison would be that, other than in much of the diversity research, diversity beliefs and climates were often assessed subjectively together with the respective outcome. This could theoretically inflate the relationship due to common method variance. Moreover, the causality of effects cannot be determined on the grounds of such a design. However, effects from experimentally manipulated diversity beliefs did not differ significantly from those established using cross-sectional survey designs. Moreover, among the outcomes in the present meta-analysis were objectively rated group processes and performance data. Therefore, a simple common-method bias objection does not seem warranted. Thus, taking into account the relative size of main effects of diversity and diversity beliefs/climates, it might be worthwhile to think about reinterpreting the interaction effect of diversity beliefs/climates and diversity on various outcomes such that diversity is moderating the effects of diversity beliefs/climates.

Nonetheless, the heterogeneity of findings with regard to both kinds of effects adds a less optimistic tone to the general picture. There was heterogeneity with regard to the overall significance of the interaction effects, the patterns of moderation, and the direct effects. Furthermore, in most of the cases the introduced conceptual meta-analytical moderators failed to explain this heterogeneity. In short, it is therefore currently hard to predict under what circumstances diversity beliefs and climates will have the hypothesized effects. This state of affairs closely resembles the state of the art regarding the effects of diversity in general (see chapter 2.2). There is a clear need to know more about contingency factors shaping the effects of diversity beliefs/climates, as well as there is the need to understand in more detail the processes that underlie these effects.

In chapter 5, a few promising starting points for future research regarding this heterogeneity have been discussed. In the case of diversity beliefs/climates' direct effects, it is obvious from the analysis of the interaction effects that these direct effects can be

moderated by the amount of diversity present in a given situation. For both kinds of effects, other possible contingency factors discussed were the phrasing of items and manipulations, the task at hand, various types of diversity under study, the subjective relevance and salience of a particular kind of diversity, or variations in how the instrumental nature of diversity beliefs/climates is depicted in the items and manipulations. Furthermore, the multilevel nature of the processes involved brings up the question as to whether individually held diversity beliefs and group-level diversity climates can influence one another. With regard to diversity climates, it has also been argued that individual members can differ in their interpretation of the good will behind, for example, organizational diversity policies, thus creating different responses to such policies. Furthermore, on a more practical note, merely valuing diversity is probably a good start but in many cases not enough to actually take advantage of it. Therefore, skills and knowledge available to the people actually engaging with diversity is probably also influencing how well good intentions regarding diversity can be realized.

These skills and abilities to deal with diversity could potentially be related to the fact that, as a tendency, more "buffer"-type moderation-patterns have been found than "asset"-patterns (see Figures 5-1 and 5-2). It is conceivable that pro-diversity beliefs and climates could cause people to be more understanding and accepting and to show more good will when faced with problems arising from diversity. This could result, for example, in less conflict and more identification than under conditions of low pro-diversity beliefs/climates. Irrespective of this, however, to actually use diversity to gain additional benefits requires not only the motivation to do so but also the methods and resources necessary. Similarly, if task requirements do not allow for diversity to be used in any sensible way, additional benefits of diversity will not appear, as outlined in the categorization elaboration model. On the other hand, both task representations and the ability to deal successfully with diversity could both be influenced by the way in which people engage with diversity to start with (see chapter 7).

Two further aspects that could possibly cause the heterogeneity of diversity beliefs and climates are of special importance to the dissertation at hand. Both of them can be deducted from the social identity approach to diversity as described above, according to which diversity beliefs and climates are thought to be part of the social identity of the overarching diverse social unit at hand. First, identities of social units can contain much more than just a statement of whether a specific kind of diversity is considered good or bad. Rather they can contain, among other things, value-statements with regard to different types

of diversity and similarity simultaneously. In line with this idea, there is evidence that people and groups can value one kind of diversity and simultaneously prefer similarity with regard to other kinds of differences. The present meta-analysis was intended to touch on this aspect through the distinction between single- and double-sided measures of diversity beliefs. Due to the common practise of averaging pro-/contra-diversity/-similarity items into one overall diversity beliefs/climates measure, a more fine-grained analysis was not possible in the meta-analysis. However, the distinction was further elaborated on in chapter 6.

The second aspect of diversity beliefs/climates that could shed further light on the heterogeneity of the meta-analytic results is that these beliefs/climates necessarily derive their importance through identification with the overall social unit. Diversity beliefs/climates can be seen as content of the social unit's identity. This, however, does not necessarily mean that people are motivated by the values that comprise the unit's identity. This will be the case the more they see the unit as a salient self-category, which in turn depends on the degree to which they have internalized this category in their self-concept – that is, to the degree they identify with the unit. It is, therefore, sensible to assume that diversity beliefs/climates mainly provide the direction for respective behaviors and that identification with the social unit in question is necessary to motivate people to act accordingly. This aspect has been elaborated on in more detail in chapter 6.

The heterogeneity in effects is certainly not satisfying from a theoretical point of view. However, most meta-analyses in the field of diversity research have had to deal with such heterogeneity, as we have outlined in chapter 2.2. Given the tremendous plurality of ways in which the diversity topic can manifest itself in organizational contexts, this is probably not surprising. Nonetheless, the heterogeneity in effects poses a challenge that has to be addressed by future research.

8.1.4 Limitations

While the heterogeneity in effects is probably an actual depiction of the phenomena related to diversity beliefs and climates, the present meta-analysis is also not beyond criticism from a more methodological point of view. There are six points, I would like to discuss in this regard. First, the number of publications the meta-analysis is based on is rather small. The idea that what people and groups think about diversity influences what effects diversity will have is intuitively compelling, naturally bringing up the question whether there might be more publications and non-published material on this topic out there somewhere. As outlined in chapter 5 great effort was taken to ensure that all relevant

primary studies regarding diversity beliefs and climates were detected. In addition, based on several indicators and tests, it has been shown that the results are not likely to be influenced by publication bias in favour of significant results.

Second, it might be problematic that not all information required for the present analyses could be retrieved for all studies. For example, for some of the significant interaction effects, statistical tests of simple slopes or contrast were neither reported, could not be calculated based on information contained in the respective publication, nor could they be retrieved from the authors. However, the amount of studies in which such moderation patterns have been reported is rather small in general, and only little is known yet about the origins of these different moderation patterns. Thus, the present meta-analysis is more intended to draw attention to these patterns, rather than to close the case on them. Apart from this, data with regard to the significance of the interaction term and the direct effects of diversity beliefs/climates was complete in all cases.

Third, the results regarding the significance of interaction effects are based on the simple proportion of significant versus non-significant interaction terms reported in the primary studies. Such counting of significant effects is generally not recommended as a meta-analytical procedure, because the combined samples of all primary studies provide a much better ground to test the statistical significance of the overall effect size (Borenstein et al., 2009; Hunter & Schmidt, 2004). However, until today there is no method available to meta-analytically summarize effect sizes derived from such interactions, as pointed out in chapter 5. As an alternative, one could test diversity or diversity beliefs/climates as a meta-analytical moderator. This would imply looking only at the between-study variance of either variable. Thus, it would also mean veering away from the subjective reality of the participants in the study – an aspect that has been central to the present dissertation.

Fourth, it should be mentioned that the there is so far limited theoretical ground on which concrete predictions with regard to the meta-analytical moderators could be based. Therefore, the results can only be interpreted in an explorative way. First and foremost, they are meant to anticipate future discussions around different effects of different kinds of diversity beliefs/climates on different kinds of outcomes. As such, they lead to a similar conclusion than what has been found in general diversity research (see chapter 2.2.2), to wit, that such distinctions alone are not enough to understand the heterogeneity in findings. Nonetheless, the present meta-analytical moderator analyses – like all meta-analytical moderator-analyses – are essentially cross-sectional in nature and are, therefore, probably prone to confounding effects. The results have to be interpreted against this background.

Fifth, just like in any other meta-analysis the present results can be scrutinized on the grounds of what is often termed the "garbage in garbage out"-argument. Yet, the methodological rigor of the studies included in the present analysis was comparatively high. Most of the studies were published after some form of peer review. Those that did not go through such a publishing process, however, did not stick out with regard to methodological rigor. Moreover, the statistical procedures used to calculate the effects that have been included in the present meta-analysis are fairly well known and standardized.

Sixth, due to the overall rather limited number of studies available, the present meta-analysis can be criticized according to what has been termed the "apples and oranges"-argument in the literature on meta-analytical methodology. The kinds of diversity, diversity beliefs/climates, and outcomes investigated in the primary studies differed considerably. Therefore, one could pose the question, whether they are comparable at all and whether summarizing the effects would make sense. With regard to the types of diversity, general diversity research has accumulated enough evidence to conclude that the distinction between these types is of little value. For both other concepts – diversity beliefs/climates and outcomes – a number of potentially distinguishing characteristics were introduced as meta-analytical moderators in the analyses. However, neither the type of diversity beliefs/climates nor the type of outcome did matter much with regard to the results. As pointed out in the chapter, this does not imply that these types could not be distinguished sensibly on a theoretical basis, but rather that they produce very similar effects. Although the results regarding these meta-analytical moderators are not beyond reasonable doubt, they point to the conclusion that distinguishing between types of diversity and types of outcomes is of as similarly little value as in general diversity research.

8.1.5 Main contributions

Despite these limitations, conclusions can be drawn with regard to the three major contributions this meta-analysis was aimed at. Overall it is interesting to note that quite a few people over a long period of time have paid attention to the role diversity beliefs/climates play in shaping the effects of diversity. This is probably understandable given the intuitively plausible nature of the relationships proposed. Nonetheless, only a small part of the overall literature on diversity in the workplace is concerned with the value diversity is given by the people involved. All the more interesting, the effect sizes that come with these values are by and large twice the size of what has been reported for the effects of diversity itself. In addition, the relatively consistent finding that diversity beliefs/climates

shape the effects of diversity fits in with the general trend in diversity research to explore the contingency factors moderating the effects of diversity. For these reasons, increased attention to diversity beliefs and climates could enrich the study of diversity in organizations. To the degree that the present first meta-analytical summary of the effects of diversity beliefs and climates is received in the field of diversity research (as for example in Hentschel, Shemla, Wegge, & Kearney, under review; Meyer & Schermuly, in press; van Knippenberg et al., 2010; Wegge et al., 2009), it is not beyond imagination that it could draw attention to the effects of diversity beliefs and climates and contribute to unifying the field.

The second aim of the meta-analysis was to offer structure for future research regarding the conceptual differences between the constructs and regarding the designs applied in the primary literature. The conceptual characteristics that were used as meta-analytical moderators certainly can provide a starting point for the design of further studies. Furthermore, the results regarding these moderators imply that simply distinguishing between different types of diversity beliefs/climates or different types of outcome variables is unlikely to explain the heterogeneity in findings. While the empirical basis for the present meta-analysis might not be large enough to declare the final bankruptcy of such distinctions, models that take into account further contingencies and mediating processes appear more apt to describe when diversity beliefs/climates will have what kinds of effects. Several promising starting points were identified in this regard.

The third aim of the meta analysis was to draw attention to the fact that often the question is not so much whether diversity is given or not, but rather what to do with it. The evidence regarding the direct effects of diversity beliefs/climates certainly warrants further attention. It should be especially promising in this regard to explore the processes through which these direct effects might occur – as for example through normative fit, as outlined in chapter 2.2.4 and 7.

8.1.6 Relevance of the findings with regard to the general research questions

Regarding the first general research question underlying the present dissertation, the meta-analysis certainly provided evidence that diversity beliefs and climates – understood as particular vantage points from which people engage with diversity – can indeed have effects on groups and the people therein. Furthermore, it is clear from the meta-analysis that these effects can take the form of interaction effects, such that diversity beliefs/climates moderate

the effects of diversity. As such they are one possible contingency factor underlying some of the ambiguity regarding the effects of diversity in general. However, the meta-analysis also provided evidence that diversity beliefs and climates can have direct effects on groups and individuals.

Alluding more to the second general research question, the distinction between these two types of effects also provides first insights about different ways in which diversity beliefs and climates can affect people. Unfortunately, though, both interaction and direct effects were marked by heterogeneity and so far little is certain about when they will occur or take a particular form. In consequence, the present meta-analysis sets the stage for future research that is concerned with the circumstances under which diversity beliefs and climates will have effects and for research that explores in more detail the way in which these effects come about in the first place. Chapter 6 and 7 were meant to take on this challenge.

8.2 Chapter 6: Drawing Benefits from Identifying with both Organic and Mechanic Aspects of a Social Identity

As has been argued throughout this dissertation, the vantage point from which people and groups engage with diversity can be framed using a social identity approach to diversity. When seen from this perspective, the role that a particular form of diversity is playing in a particular social unit can be conceived as part of that unit's identity. The value that diversity is given for achieving certain outcomes – as captured in diversity beliefs or climates – can, therefore, be part of the content of this identity. Based on this assumption, the effects of diversity beliefs and climates reported in much of the previous literature on the topic can be understood. Many of these previous studies have simply distinguished between more or less pro-diversity beliefs/climates. When understood from a social identity perspective, however, it is conceivable that a particular social unit's identity is comprised of more facets.

In particular, the studies presented in chapter 6 have been based on the assumption that groups and individuals can value certain kinds of diversity and simultaneously see the pitfalls associated with certain other kinds of diversity. For example, a group could readily perceive differences in functional background as valuable to achieve the group's goals. At the same time, though, the group could appreciate that all members have the same basic understanding of what the group is trying to achieve in the end. In this way, both similarities and differences can comprise the content of a particular social unit's identity.

As outlined above, group members are evaluated according to the content of self-categories – represented in the prototype of the category. If this prototype comprises certain aspects on which similarities between members are valued, and other aspects on which diversity is valued, group members can at the same time be valued for being different in certain aspects and for being similar with regard to other aspects. According to self-categorization theory, these evaluative processes form the basis for mutual liking, group cohesion and cooperation.

In consequence, it was assumed that both the similarity and the diversity of a social unit can lead each to a specific form of solidarity within that social unit. Following the classic distinction by Durkheim (1893/1999), the form of solidarity that is based on valued differences was called "organic solidarity", whereas the form of solidarity that is based on similarity was called "mechanic solidarity". Contrary to similar concepts in the literatures on diversity and on intergroup relations, but in line with Durkheim's original idea, both forms of solidarity were conceptualized independent of each other in the present studies.

In addition to this elaborated conception of the social unit's identity content, a second aspect was derived from the social identity approach to diversity, which was often overlooked in previous studies. Given that diversity and similarity are indeed aspects of a social unit's identity, it follows that whatever effects they might have, these effects are energized through identification with the organization. In other words, whether similarity or diversity is perceived as beneficial for a particular social unit will only be guiding behaviour of the unit's members if they perceive their membership as a valid and salient self-categorization. This will be more likely to the degree that they have internalized the category membership in their overall self-concept, that is, the more they identify with the particular social unit.

Bringing these aspects together, the model underlying the studies in chapter 6 proposed that identification with a social unit – which can be defined on the basis of similarities and differences of the sub-units – can bring about the two different forms of solidarity within the unit – organic and mechanic solidarity – which each can be beneficial for the collaboration within the unit. In essence, therefore, the model implied multiple mediation. Both forms of solidarity were potential mediators of the relationship between identification and collaboration. Whether the organic, the mechanic, or both forms of solidarity mediate the relationship in a particular case was conceived as depending on the specific content of the social identity in question. Therefore, the relative importance of organic and mechanic solidarity was expected to vary between social units.

The proposed model (see Figure 6-1) was tested in two studies conducted in two different organizations. Contrary to much of the previous diversity research the studies were not concerned with collaboration of individuals within groups but rather with collaboration between teams within organizations.

The first study was conducted in a German university. The results were largely in line with the proposed model. Both forms of solidarity could be distinguished and both were significantly related to identification with the overall organization. Organizational identification had indirect effects through both forms of solidarity, when considered independently, on all measured facets of effectiveness of inter-team collaboration – to wit, system responsiveness, resource exchange, transaction costs, and viability. When looking at both forms of solidarity simultaneously, only the indirect effects based on organic solidarity remained significant.

One and two years after the original survey, follow up surveys were conducted, enabling a first longitudinal test of the model. To that avail, organizational identification and both forms of solidarity in the second survey were related to collaboration effectiveness in the third wave. The results confirm the findings from the cross-sectional study. The indirect effects based on organic solidarity outweighed the effects based on mechanic solidarity with regard to all facets of collaboration effectiveness.

The second study was conducted in a Taiwanese hospital. Using a Chinese translation of the original instruments, the same model as in the first study was tested. The results again confirmed that organizational identification is indeed positively related to both forms of solidarity. The two forms of solidarity, in turn, were both positively related to almost all facets of collaboration effectiveness. Organizational identification was again indirectly related to almost all facets of collaboration effectiveness through both forms of solidarity, when they were considered independently. When entered simultaneously in a multiple mediation analysis, the picture regarding both forms of solidarity was more differentiated than in the first study. For some facets of inter-team collaboration effectiveness, organic solidarity was the sole mediator, for some mechanic solidarity mediated the effects, for one facet both forms of solidarity mediated the relationship, and for one of the facets neither form of solidarity mediated the effect.

8.2.1 Implications and further research

In summary, results from both studies reveal that the distinction between organic and mechanic forms of solidarity is warranted. This conclusion can be drawn from the medium-

sized correlation between them, but even more so from the fact that they have different effects on collaboration in social units. In most of the literature on diversity beliefs and climates, valuing diversity and valuing similarity have been conceived as opposing poles on one underlying continuum. In contrast, the present two studies provide evidence that people can value similarity and diversity at the same time – in fact, both forms of solidarity were positively correlated. Moreover, positive group relationships can ensue both from valuing diversity in certain aspects and from valuing similarity in others.

As pointed out above, this could be one possible cause for the heterogeneity of effects found in the meta-analysis on the effects of diversity beliefs and climates. Diversity beliefs and similarity beliefs could influence each other. For example, based on the dual identity model and the social identity approach to diversity, it could be postulated that even when diversity is seen as a highly valued asset, a certain amount of "common ground" is also necessary for diversity to be used effectively (cf. van Knippenberg & Haslam, 2003). This would imply that in certain aspects of the group life, members should prefer similarity, whereas they should prefer diversity in other aspects.

For instance, similarity in how group members conceive the common task of the group has been shown to be positively related to team viability, coordination processes and goal accomplishment (Lim & Klein, 2006; Resick, Dickson, Mitchelson, Allison, & Clark, 2010; van Ginkel & van Knippenberg, 2008). On the other hand, diversity of perspectives on the task at hand is often seen as a unique potential of diverse groups. In fact, the degree to which such a more synergistic form of group cognition is present has been found to explain more variance in performance and team processes than simple congruence in team cognition (DeChurch & Mesmer-Magnus, 2010). While seemingly contradictory, both similarity and diversity in certain aspects of team cognitions are probably complementing each other. This is most obvious in the construct of transactive memory systems. These systems are formed in part based on the unique expertise of the individual group members and in part on the groups shared understanding of "who-knows-what" (Brandon & Hollingshead, 2004; Peltokorpi, 2008). To the degree to which both are present performance is enhanced (DeChurch & Mesmer-Magnus, 2010; Zhang, Hempel, Han, & Tjosvold, 2007).

It is likely that people who work in a team for a longer period of time do acquire experiences and knowledge about what kinds of knowledge should be shared within the team and where a synergistic mix of individual expertise is more apt – with probably both forms of team cognition being present at the same time. It seems hardly possible to capture the full complexity of these attitudes with standard diversity beliefs items, such as for

example: “For complicated problems, diverse groups will be able to solve the problem more easily” (Nakui et al., in press) or “Diversity is an asset for teams” (Homan et al., 2010). Moreover, the common practice of recoding pro-similarity beliefs and treating them as pro-diversity beliefs thereafter does not help in that respect either.

The present studies also point to another factor that could explain the heterogeneity in the results of the meta-analysis. Based on the social identity approach to diversity, it has been argued that diversity beliefs and climates are parts of the content of a particular social unit’s identity. As such, however, they will only inform any behaviour if the particular unit is a relevant aspect of the members’ self-concept. The present studies provided evidence in favour of this hypothesis. Both forms of solidarity are significantly related to organizational identification. Subject to the condition that mechanic solidarity is indeed based upon the value of similarity and that organic solidarity is based upon the value of diversity, this would imply that identification with the overall social unit is necessary for diversity beliefs/climates to entail respective group processes and outcomes at all. This is intuitively plausible, since the value of diversity for a certain group is not going to affect much, if nobody cares about this group in the first place. Indirect evidence for this assumption comes from a study in which diversity beliefs only led to performance benefits if they were combined with high task motivation and high degrees of diversity (Meyer & Schermuly, in press). Assuming that the task is what the group is essentially about – i.e. part of the group’s identity – these results could also point to the conclusion that identification with the group can shape the effects of diversity beliefs and climates. If this would be the case, variations in effects of diversity beliefs/climates could be attributed to variations in the identification that motivates and energizes these effects of diversity beliefs/climates.

The studies described in chapter 6 also revealed that organic and mechanic forms of solidarity can have different effects with regard to different outcomes and social units. In this present case the pattern of results varied across countries (Germany vs. Taiwan) and types of organizations (university vs. hospital). The influence of organizational context is in line with research showing that task characteristics – such as task complexity or interdependence – can shape the effects of diversity in general (see chapter 2.2.3). Furthermore, task characteristics have been used to manipulate diversity beliefs (van Knippenberg et al., 2007) and they have been shown to moderate the effects of diversity beliefs/climates (Homan et al., 2010). Therefore, it is conceivable that differences in the way the work is organized and tasks are structured between organizations can lead to

different opinions on what kind of diversity and what kind of similarity is apt in a given organization.

The differences between countries could possibly be related to differences in culture. At first glance, differences in the importance of organic or mechanic solidarity seem related to the distinction between individualistic and collectivistic cultures (e.g., Triandis et al., 1988). Taiwan is a comparatively collectivistic country, whereas Germany is individualistic (Hofstede, 2001). Collective cultures show on average more appreciation for conformity and unity, which could imply higher valuing of similarity and therefore lead to a greater importance of mechanic solidarity. In line with this idea, the present results showed indeed that in Taiwan mechanic solidarity had more impact on inter-group collaboration than was the case in Germany. However, organic solidarity was also important in Taiwan, indicating that the forms of solidarity do not map the individualism-collectivism-distinction one on one. Nonetheless, based on the present findings it is plausible that both variations in culture and in the nature of tasks can possibly influence whether people will conceive certain similarities or differences as good or bad.

Unfortunately, the differing patterns in results across both studies only provided an initial glimpse at the moderating influences of country and organizational context. Neither cultural variables, nor organizational context were assessed directly in the study. Hence, it was also not possible to disentangle their effects. Nonetheless, the results clearly suggest that a closer examination of the both forms of solidarity across different cultures and organizations could be an interesting venue for further research.

8.2.2 Limitations

One limitation of the present studies was that the content of the social identity in question was not assessed directly. While it has been argued that such content could include pro-diversity as well as pro-similarity beliefs/climates, these beliefs/climates have not been measured directly. Nonetheless, the existence of two distinct forms of solidarity, which are either based on diversity or on similarity, provides indirect evidence that similarity and diversity can be valued contents of the social identity in question. Future research could more directly test the proposed relationships through directly examining whether the content of a social identity interacts with the identification of the members to create the specific forms of solidarity.

Another limitation of the present studies can be derived from the operationalization of both organic and mechanic solidarity. When examined closely, each item included a part

measuring the degree to which the groups get along well together and another part in which the fact that the groups are different or similar is addressed. From a psychometric point of few this is unfortunate, as both parts could contribute to the overall rating on one particular item, but to different degrees for different people. However, the alternative of measuring each part separately and capturing both forms of solidarity as interaction terms in the overall model would have resulted in a far less parsimonious overall model. In addition, the items chosen for the present study were either adapted from or based on earlier research regarding the dual identity model, such that a certain degree of confidence in their validity is warranted. Nonetheless, trying to create better measures for organic and mechanic solidarity is certainly another venue for future research.

8.2.3 Main contributions

The studies presented in chapter 6 were aimed at examining the motivational role of organizational identification behind the effects of diversity beliefs and climates. In line with the proposed model, the studies revealed that identification with a particular organizational identity leads to solidarity which is based on differences between sub-units and that this solidarity can indeed lead to better inter-team collaboration.

Another aim of the present studies was to draw attention to the fact that both similarity and diversity can be valued aspects of an organizational identity at the same time and should, thus, be assessed independently. The results showed that both similarity- and diversity-based forms of solidarity can affect inter-team collaboration positively, sometimes even at the same time. Therefore, they should be included in future studies simultaneously.

Finally, the studies expanded the scope of diversity research from the cooperation between different individuals to also include the cooperation between different groups. The results provide first evidence that the theoretical deductions from the social identity approach to diversity can also be applied meaningfully on higher levels of analysis.

8.2.4 Relevance of the findings with regard to the general research questions

Both forms of solidarity can be conceived as expression of a particular value that is placed on diversity and similarity. As both forms of solidarity were positively related to the quality of inter-team collaboration within organizations, the present results again illustrate that the vantage point from which people or groups engage with diversity does indeed have effects – providing an answer to the first general research question.

However, organic and mechanic solidarity are not only interesting as indicators for pro-diversity and pro-similarity beliefs/climates. Rather, they provide very proximal outcomes of such beliefs and climates. The present studies point to the conclusion that these forms of solidarity could be mediating the effects of diversity beliefs/climates. As such, the present studies allow for implications regarding the processes through which the effects of diversity beliefs and climates come about.

The present studies also pointed out that both value in similarity and value in diversity can independently lead to positive outcomes. As such they help to illuminate one possible cause behind the heterogeneity in effects of diversity beliefs/climates. Furthermore, the significant relationship between organizational identification and both forms of solidarity corroborate the assumption that simply knowing what role a particular kind of diversity plays in a particular social unit is not likely to produce any effects, unless this particular social unit is a valid and valued aspect of the self-concept. Both the simultaneous effects of pro-similarity and pro-diversity values as well as the role of identification as driving force behind the effects of any value in diversity contribute further to the understanding of how the effects of diversity beliefs and climates come about – the second general research question of this dissertation.

8.3 Chapter 7: The Emotional Side of Diverse Teams

The theoretical model developed in chapter 7 was meant to shed light on the effects of diversity beliefs and climates from yet another perspective. Previous work on diversity beliefs and climates has focused on one particular effect of these beliefs/climates: They clear the way for successful elaboration of information (e.g., Homan et al., 2008; Meyer & Schermuly, in press; van Dick, van Knippenberg, Hägele et al., 2008). The idea behind this focus on information elaboration is derived from the classic information/decision-making paradigm in diversity research, according to which the beneficial effects of diversity will be based on the richer and more stimulating pool of information that diverse groups can command. The model proposed in chapter 7 was designed with the intention of complementing these cognitive processes through an emotional perspective on diverse work groups.

This emotional perspective led to the development of two core propositions in the present model. First, the case was made that, in addition to a richer and more stimulating pool of information, diverse work groups are likely to command a richer pool of members' emotional states in any particular situation. Based on research on group affective tone

(George, 1996; George & King, 2007) and the effects of emotional states on cognitive processes (Bohner & Apostolidou, 1994; Forgas, 1995), it was proposed that this emotional potential can be used to enhance performance of individual group members and the whole group.

The second emotion-oriented proposition in the model concerns the process that mediates the relationship between diversity and performance. In previous research, the most prominent mediating process behind this relationship has been information elaboration. This idea is best depicted in the categorization elaboration model (see chapter 2.2.4). Closely paralleling the categorization elaboration model, the present model proposed state affective empathy as central mediator of the diversity-performance relationship. According to this proposition, the encounter with different people in diverse groups can stimulate group members to engage with this diversity not only cognitively, but also stimulate them to *feel for* these others, in other words to *empathize*. Empathy, in turn, evidentially has positive effects on the interpersonal processes within the group and, therefore, will enable individuals and the whole group to perform better.

The other propositions in the model were meant to describe contingency factors that determine when diversity will indeed lead to more empathy within the group. Again closely paralleling the categorization elaboration model, it was proposed that organizational and task requirements that emphasize the importance of empathy or emotions in general could lead to a more positive relationship between diversity and empathy. Furthermore, it was proposed that the relationship is more positive the more members are motivated to empathically engage with each other and the more they have the knowledge about each other that is necessary to understand each other. Finally, it was proposed that threatening and challenging relationships between the sub-categories implied by diversity lead to a negative relationship between diversity and empathy.

Based on these core propositions, the proposed model extends existing theorizing about the relationship between diversity and performance in two more ways. First, in accordance with the social identity approach outlined at the beginning, social categorization was supposed to be the process underlying the very perception of diversity by the group members. This is contrary to, for example, the categorization elaboration model, which conceptualizes social categorization as a process independent of the effects of diversity on information elaboration (see chapter 2.2.4). Second, the present model explicitly includes diversity beliefs and climates as second order contingency factors.

In particular, diversity beliefs and climates are assumed to moderate the relationship between *objective diversity* and the *perception of this diversity* in the form of sub-categories within the overall group. If diversity is seen as a valued asset of the group, people will be more likely to actively seek out and recognize diversity in their group. This is in line with the suggestions made by van Knippenberg and colleagues (2004) alongside the original categorization elaboration model, and also in accordance with the basic assumption that led to the main effects hypothesis in the meta-analysis described in chapter 5.

Diversity beliefs and climates are also proposed to influence the perceived relationships between sub-categories within the overall group. If diversity is valued, these relationships are less likely to be perceived as threatening or challenging. This is again in line with suggestions made alongside the original categorization elaboration model, but can also be deducted from the above described social identity approach to diversity.

As a third way in which diversity beliefs and climates can act as contingencies, it has been proposed that valuing diversity will lead to a higher motivation to relate to different others. This link has not been made in the previous literature on diversity beliefs and climates. Nonetheless, it could prove useful for further research, because a mere higher awareness of diversity and less threatening relationships between subgroups do not imply that this diversity is necessarily used for more information elaboration or that it stimulates necessarily more empathy. A situation is conceivable that is similar to what has been found in the buffer-pattern of the meta-analysis above: Under conditions of pro-diversity beliefs/climates, diversity simply could not matter with regard to a beneficial outcome. Adding a link between diversity beliefs/climates and motivation to empathize with diverse others, renders it more likely that the link between diversity and empathy follows a diversity-as-asset pattern – that is that the relationship is positive under conditions of high pro-diversity beliefs/climates.

Diversity beliefs and climates are furthermore proposed to be linked to the perception of task and organizational requirements. To the degree that diversity is seen as a valued asset in organizations, the tasks will be oriented towards using this diversity. However, whether diversity beliefs/climates will have this effect, is proposed to depend on the specificity of the instrumental aspects associated with them. If valuing diversity encompasses very specific ideas about what kind of diversity will be beneficial for which kind of task when used in a certain way, the relationship is more apparent, than in cases of more general diversity beliefs/climates. While this is true for basically all kinds of task requirements, it is certainly also true for task requirements that address the importance of

empathy and emotional processes in general. However, the literature included in the meta-analysis in chapter 5 contained no measure of diversity beliefs/climates that would address the value of diversity from such an emotional point of view.

Similarly linked to the specificity of diversity beliefs/climates is their relationship to the knowledge group members have about different others. If valuing diversity includes an elaborated understanding of how group members differ from each other and what consequences these differences will bring about, this will provide members with a certain degree of understanding for each other. This understanding, in turn, will make it easier to empathize with each other even in diverse groups. However, this will not be the case for more general beliefs and climates about the value of any kind of diversity.

At first glance, the assumption that diversity will lead to the perception of social categories within the overall group and, through this, will lead to more empathy may be counterintuitive. This is especially the case, when seen from the traditional social categorization perspective on diversity. When seen in this light, social categorization should rather produce obstacles for empathy than stimulate it. However, in line with the social identity approach to diversity outlined at the beginning of this dissertation, social categorization in itself does not have to be necessarily bad for groups. Rather it can be conceived as a very natural way to structure the social world. When seen from this perspective, and given that all contingencies are set favourably – high motivation to empathize, enough knowledge about different others, corresponding task requirements, and the absence of threatening subgroup relationships – it is indeed conceivable that diversity can stimulate group members to engage with this diversity not only cognitively but also in an emotional way. Diversity beliefs and climates are seen as paving the way for empathy to occur in diverse groups, in that they positively influence the above contingencies.

Probably the biggest limitation of the model is that, so far, it is purely theoretical. Although it is based on previous research and prior established theorizing about diversity in organizations and work groups, the proposed relationships as well as the whole model have not been empirically tested so far.

Given that the model in itself is rather complex, a full test of the model is probably rather difficult. However, even when testing only parts of it, consideration of the remaining model could provide insights under what conditions the part tested will be likely to explain significant amounts of variance. For example, when testing the relationship between diversity and empathy given various levels of diversity beliefs, it could be useful to consider organizational requirements as boundary conditions of these relationships. In job contexts

that discourage emotional engagement in general, it is plausible that little empathy will ensue; no matter how much stimulating diversity might be present or how valued diversity might be in general. On the contrary, in job contexts where a precise and encompassing understanding of fellow team members is critical for success, higher levels of empathy are to be expected; also no matter how much stimulating diversity or pro-diversity beliefs might be present. In job context where emotional engagement is neither discouraged nor especially encouraged, the interactive effect of diversity and diversity beliefs on empathy might be observed more as proposed in the model. In this way, the proposed model also illustrates how such restricting factors might have led to the overall heterogeneous effects found in the meta-analysis on the effects of diversity beliefs and climates.

8.3.1 Main contributions

The model presented in chapter 7 was aimed to contribute to present diversity research in three ways. First, it provides an emotion-oriented perspective on diverse groups. Complementing other more cognitive approaches, it describes state affective empathy as additional mediating factor of the diversity-performance relationship. It also points to the possibility that diverse groups could use the fact that different members are likely to experience different emotional states to achieve their individual and group goals better. Second, the present model was intended to disentangle the group and individual levels of analysis throughout the relationships leading from diversity to performance. Third, the model was intended to highlight an alternative way in which diversity beliefs and climates can contribute to better performance in diverse teams.

8.3.2 Relevance of the findings with regard to the general research questions

In view of the general research questions underlying the present dissertation, it is interesting to point out that empathy in itself can be understood as a way to engage with diversity. Hence, the present model describes a new way of engagement as well as reasons why it will entail positive effects.

In addition, and closer to the focus of the other two empirical chapters of the present dissertation, the vantage point from which people engage with diversity – to wit diversity beliefs and climates – is also included in the model. The basic proposition in that respect is that people who value diversity are not only likely to engage with diversity in a cognitive way, but also will be inclined to do so emotionally by empathizing with other group

members. Therefore, mainly as an answer to the second research question, the current model proposes an alternative way in which diversity beliefs and climates can influence groups and individual members.

8.4 Conclusion & Practical Implications

Diversity is a ubiquitous feature of modern organizations, and bound to become increasingly relevant in the near future. Organizations need to manage this diversity so that its positive effects can be used and its pitfalls are avoided. Unfortunately, up to the present day diversity research has yielded only limited insights into the exact circumstances under which diversity will lead to positive rather than negative effects. The intentions behind the present dissertation were, first, to examine whether the vantage points from which people and groups engage with diversity have effects on organizations and the people therein and, second, to expand our knowledge about the nature of these effects. Given the findings and insights from the three main chapters of this dissertation, progress has been made regarding both intentions.

The most direct evidence regarding the first intention comes from the meta-analysis on the effects of diversity beliefs and climates in chapter 5. The results from the meta-analysis on the interaction effects did reveal that diversity will lead on average to more beneficial effects for groups and individual members *if* it is a valued aspect of the group's identity. In addition, the results from the meta-analysis on the direct effects point to the fact that often valuing diversity is all that is needed to trigger these beneficial outcomes – which might be due to the fact that diversity is all around given that one is willing to pay attention to it. The two field studies described in chapter 6 provided additional evidence that the role diversity plays in a particular social unit does indeed have effects on the collaboration within that unit. Finally, the model developed in chapter 7 provides a new theoretical rationale for why it is plausible that diversity beliefs and climate do have effects on performance. By and large, therefore, there is good evidence that the vantage point from which people and groups engage with diversity does indeed have effects on groups and their members.

Regarding the second intention behind the present dissertation, the meta-analysis on the direct effects of diversity beliefs and climates showed that they can work other than as contingency factors. Moreover, the results from the two field studies point to the conclusion that identification with a particular group is the driving force behind the effects that valuing diversity might have. These results also illustrate that valuing diversity and valuing

similarity do not have to be opposing sides of the same coin, but can both be valid and valued aspects of a given social identity at the same time. Finally, the theoretical model illustrates how the cognitive perspective on the effects of valuing diversity that is underlying much of the present research can be complemented by an emotional perspective, thereby leading to a more holistic overall picture. In sum, these insights lead to an enriched picture of how the vantage points from which people engage with diversity affect groups and their members.

On a less optimistic tone, however, each of the three main chapters in this dissertation also revealed that there is still much to be learned with regard to the ways in which people engage with diversity. One especially promising venue for further research in that respect is to study these issues over time. For example, it is conceivable that the motivation to use diversity – inspired by a positive value of diversity – initially brings about problems that have not existed beforehand. Irrespective of all the potential benefits, communicating with different people, deliberately seeking out variations in perspectives on the task at hand, and the attempt to integrate all this is almost undoubtedly related to more effort. Therefore, it is plausible that, in the short run, valuing diversity will lead to rather negative effects regarding team processes and the speed with which the team is progressing towards its goals. In the longer run, however, once the team members have put in the effort to ponder the various perspectives, they might actually outperform other teams that were not inclined to use their diversity. Unfortunately, so far, studies that addressed such effects of time have been largely absent in the literature on diversity beliefs/climates and on diversity in general.

Another promising venue for further research would be to study diversity beliefs and climates in conjunction with organizational and task requirements. It became repeatedly apparent throughout this dissertation that these requirements could shape the effects of both diversity and diversity beliefs/climates. There is a long tradition of research regarding work design and job characteristics (e.g., Humphrey, Nahrgang, & Morgeson, 2007; Parker et al., 2002; Stegmann et al., 2010). Linking this line of research with the study of diversity in organizations – and especially the study of diversity beliefs and climates – could provide insights into how tasks and organizational environments have to be designed in order to use the full potential of diversity. Several other such potential contingency factors and promising venues for further research have been pointed out throughout the dissertation.

From a practical perspective, the results and insights from this dissertation provide some empirical support for the current trends in organizational diversity management.

Diversity trainings, diversity policies, or the shift from the old anti-discrimination perspective towards the modern business case for diversity can be understood as manifestations of a growing appreciation of diversity in organizational contexts. The present results, especially the ones from the meta-analysis, do indeed suggest that such a value-in-diversity-perspective is not only justified as a measure to foster the beneficial effects of diversity. Rather, as the meta-analysis on direct effects suggests, it might actually be the very reason why diversity can be beneficial for organizations in the first place. Convincing organizations, work groups, and individual employees of the positive sides of diversity might therefore be the right step to take.

A practical implication from the findings of the field-studies is that it might be worthwhile to link organizations' endeavours to manage diversity to the managing of the overall organizational identity. According to the social identity approach to diversity, it can be proposed that for diversity to be a vivid and enriching aspect of the organization, it has to play a central role in what the organization is essentially about. The field studies showed that diversity can indeed be an integral part of the overall organizational identity. When this is the case, identification with such an organizational identity will lead to organic solidarity and, thereby, to the beneficial effects intended in the business case for diversity. However, the filed-studies also revealed that identification with the aspects of the organizational identity that are based on similarity can lead to mechanic solidarity and, thus, to important beneficial effects, too. Therefore, whilst diversity management gains increasing attention, it is probably important to complement all the attention on differences through fostering a firm understanding of the aspects that all members of an organization share. In this way, diversity management, the creation of similarity- and diversity-based aspects of the organizational identity, and the measures intended to create identification with the organization should go hand in hand.

Finally, the theoretical model on the emotional pathway between diversity and performance could justify exploring ways to make use of the emotional potential of diverse work groups. In addition, it could draw attention to the emotional processes that occur in diverse work groups and highlight the role of empathy in utilizing the full potential of diversity. However the model has yet to stand the test of empirical scrutiny.

In general, most of the evidence presented in this dissertation is based on simple, Likert-scaled items that can offer little more than a very rough sketch of the value diversity is given in a particular context. They certainly fall short of capturing the whole meaning of what valuing diversity can comprise in a particular organization or for an individual person.

Such a value in diversity can become manifest, for example, in specific policies, practices, skills of individual work group members, or task requirements. These specific manifestations of valuing diversity were not the focus of the present dissertation. In consequence, knowing that believing in the value of diversity is a good thing does not necessarily inform us as to how exactly organizations and work groups should go about installing such a positive value. Given the present findings, further research in this regard is certainly warranted.

Occasionally, it is argued that the effects of diversity beliefs and climates are trivial. The idea that what people think about diversity influences whether this diversity will have positive or negative effects is indeed intuitively appealing to a degree that makes it hard to argue for the scientific need to prove it. However, given the insights from the present dissertation, the topic is most likely not trivial at all. The meta-analysis revealed that this intuitive relationship is by far not found in all cases and it can come in at least two patterns. Moreover, the effects of diversity beliefs and climates do seem to occur independently of whether there is diversity or not. Critics could again argue that diversity will be apparent for those willing to perceive it and that this is again trivial. However, this seemingly trivial effect does also not occur everywhere and all the time.

Additionally, the field studies suggested that people can hold pro-diversity and pro-similarity beliefs at the same time, which is even contra-intuitive at first glance. Finally, it is intuitively appealing to assume that diversity could make it more difficult to relate to other group members emotionally. However, the model proposed in the last chapter opens up ways in which valuing diversity could lead to exactly the opposite relationship. Given these findings, the effects of diversity beliefs and climates on organizations, work groups, and individuals are far from trivial. Indeed, as pointed out throughout this dissertation, there is still much to be learned about these effects.

9 Zusammenfassung

Diversität bezeichnet das kollektive Ausmaß an Unterschieden zwischen den Mitgliedern einer sozialen Gruppierung (Harrison & Sin, 2006). Diese Unterschiede können sich auf eine Vielzahl von Dimensionen beziehen – wie zum Beispiel die Zugehörigkeit zu einer ethnischen Gruppe, das Alter, die Berufsausbildung oder den sozioökonomischen Status. Welche Effekte diese Unterschiedlichkeit der Mitglieder sozialer Gruppierungen – wie zum Beispiel Nationen, Organisationen oder Arbeitsgruppen – hat, und wie man am besten mit diesen Unterschieden umgeht, beschäftigt Menschen seit Anbeginn der Geschichtsschreibung. Schon in der Antike wurde zum Beispiel diskutiert ob Gegensätzlichkeit und Verschiedenheit die Grundlage für Freundschaften bilden oder ob diese eher auf der Gleichheit der Freunde aufbaut (siehe Aristoteles, Nikomachische Ethik, VIII, 2). In neuerer Zeit sehen sich insbesondere Organisationen und Unternehmen, bedingt durch zum Beispiel demographische Entwicklungen, Globalisierung und das vermehrte Einsetzen von heterogen zusammengesetzten Projektteams, zunehmend mit Diversität konfrontiert. Während in früheren Jahren diese Diversität unter dem Gesichtspunkt von Gleichberechtigung und vor dem Hintergrund der Anti-Diskriminierungs-Gesetzgebung betrachtet wurde, sieht man in neuerer Zeit Diversität in Organisationen als wertvollen Aktivposten, den es sinnvoll zu „managen“ gilt (Bowes, 2007; Kochan et al., 2003; Orenstein, 2005; Robinson & Dechant, 1997). Dies ist allerdings schwierig, da jedwede Art von Diversität nachweislich sowohl positive wie auch negative Effekte haben kann und da, trotz einiger vielversprechender Ansätze, bislang noch unklar ist, unter welchen Bedingungen sich Diversität günstig oder ungünstig auswirkt (für einen Überblick über die Forschung zu diesem Thema siehe Jackson & Joshi, 2011; van Knippenberg & Schippers, 2007). Ein Weg diese unklare Sachlage zu erhellen besteht darin, nach moderierenden Bedingungen zu suchen, die die Auswirkungen von Diversität bestimmen und, im Zusammenhang damit, auch den Prozessen genauere Beachtung zu schenken, welche die Beziehung zwischen Diversität und ihren Auswirkungen mediieren (van Knippenberg & Schippers, 2007). Diesen Weg verfolgt die vorliegende Arbeit.

Die vorliegende Dissertation basiert auf der Annahme, dass Menschen durch die Beschäftigung mit Diversität und ihren Folgen ein Verständnis davon erlangen, welche Bedeutung eine bestimmte Art von Diversität in einer bestimmten sozialen Gruppierung hat. Ausgehend von diesem Verständnis werden sie sich auf Diversität in unterschiedlicher Art und Weise einlassen. Der zentrale Gegenstand der vorliegenden Arbeit ist diese Art und

Weise, in der sich Menschen auf die Diversität der Gruppen, zu denen sie gehören, einlassen. In Hinblick darauf möchte ich mit dieser Dissertation zur Beantwortung zweier Fragen beitragen: Erstens, ob die Art und Weise, in der Menschen und ganze Gruppen der Diversität begegnen, einen Einfluss auf einzelne Gruppenmitglieder und ganze Gruppen hat. Zweitens, sollte dies der Fall sein, welche Mechanismen diesen Effekten zugrunde liegen.

Die zentrale theoretische Grundlage der vorliegenden Arbeit bilden die Theorie der Sozialen Identität (Tajfel & Turner, 1979, 1986) und die Selbstkategorisierungstheorie (Turner et al., 1987). Beide Theorien eignen sich gut um die subjektive Realität der Diversität für die einzelnen Gruppenmitglieder zu beschreiben. Aus diesem Blickwinkel betrachtet, stellt eine Gruppe eine soziale Kategorie dar. Sofern diese Gruppe divers ist, entstehen jedoch innerhalb der Gruppe, weitere Subgruppen, die für sich wiederum als soziale Kategorien aufgefasst werden können. Somit stellt sich Diversität als Verschachtelung sozialer Kategorien auf mindestens zwei Abstraktionsebenen dar. Da es sich hierbei um Selbst-Kategorien handelt, die in unterschiedlichem Ausmaß in Verbindung mit dem Selbstbild und der sozialen Identität der einzelnen Gruppenmitglieder stehen können, lassen sich vielerlei Schlussfolgerungen für die motivationale Orientierung einzelner Gruppenmitglieder oder für das Verhalten von Subgruppen in einer diversen Gruppe ableiten. Diese Perspektive der Sozialen Identität gehört zu den wichtigsten theoretischen Grundlagen der Diversitätsforschung, wenngleich sie in vielen Publikationen nur sehr rudimentär rezipiert wird. In dieser Arbeit wird aufgezeigt, wie mit Hilfe dieser theoretischen Perspektive verstanden werden kann, warum Diversität überhaupt subjektive Relevanz erlangt, wann eine bestimmte Art von Diversität subjektiv bedeutsam wird und unter welchen Bedingungen die unterschiedlichen Mitglieder in diversen Gruppen am besten zusammenarbeiten. Diese Zusammenhänge werden in Kapitel 3 erläutert.

Das 5 Kapitel beschäftigt sich vorwiegend mit der ersten zentralen Forschungsfrage, nämlich ob die Art und Weise wie Menschen sich auf Diversität einlassen einen Effekt auf Gruppen und ihre Mitglieder hat. Hierzu wurde der Forschungsstand zu den Effekten von Diversity Beliefs und Diversity Climates meta-analytisch zusammengefasst. Diversity Beliefs werden definiert als individuelle Assoziation zwischen einer mentalen Repräsentationen einer bestimmten Art von Diversität bezogen auf eine bestimmte Gruppe und deren eingeschätztem Wert in Bezug auf das Erreichen spezifischer Ergebnisse (vgl. van Knippenberg & Haslam, 2003). Das Konstrukt bezeichnet somit eine individuelle Einstellung zur Diversität einer Gruppe. Ein Diversity Climate hingegen bezeichnet eine ähnliche Form von Wertschätzung von Diversität auf Gruppenebene. In Übereinstimmung

mit der Mehrzahl der Primärstudien unterscheide ich in der vorliegenden Arbeit zwischen Beliefs und Climates die mehr oder weniger pro-Diversität gerichtet sind. Die grundlegende Annahme in vielen der Primärstudien ist, dass Diversität mehr vorteilhafte und weniger nachteilige Konsequenzen nach sich ziehen wird, je positiver individuelle Personen oder ganze Gruppen der Diversität gegenüber eingestellt sind (siehe auch van Knippenberg et al., 2010). Dieser Moderationseffekt kann aus der Perspektive der Sozialen Identität dadurch erklärt werden, dass Pro-Diversity Beliefs und Climates den Mitgliedern einer Gruppe die Möglichkeit eröffnen, verschiedene Ebenen der Selbst-Kategorisierung miteinander sinnvoll zu integrieren. Hierdurch wird es möglich sich von anderen Mitgliedern zu unterscheiden und sich dennoch mit diesen zu einer gemeinsamen Gruppe zugehörig zu fühlen – nicht nur trotz dieser Unterschiede, sondern gerade wegen dieser. Da sowohl Diversity Beliefs als auch Climates diesen Effekt bewirken können, werden sie in den Meta-Analysen gemeinsam betrachtet.

Der erste Teil des Kapitels beinhaltet eine Meta-Analyse zu diesem Moderationseffekt von Diversity Beliefs/Climates (k = 23). Die überwiegende Mehrzahl aller Studien, die derartige Effekte berichten, finden signifikante Interaktionseffekte im Sinne der Hypothese, dass Diversität dann zu besseren Ergebnissen führt, wenn sie von entweder einzelnen Personen oder ganzen Gruppen wertgeschätzt wird. Die Ergebnisse sind jedoch heterogen im Bezug auf die unterschiedlichen Muster dieser Moderationen. In einem Teil der Primärstudien hat Diversität unter der Bedingung von Pro-Diversity Beliefs/Climates keinen signifikanten Einfluss auf relevante Ergebnisvariablen. Im Falle von weniger wertschätzenden Diversity Beliefs/Climates geht Diversität jedoch mit mehr unerfreulichen und weniger positiven Ergebnissen einher. In einem anderen Teil der Primärstudien ergeben sich unter dem Einfluss von Pro-Diversity Beliefs/Climates mit zunehmender Diversität mehr positive und weniger negative Effekte, wohingegen bei weniger wertschätzenden Diversity Beliefs/Climates keine signifikanten Zusammenhänge zu beobachten sind.

Der zweite Teil dieses Kapitels beinhaltet eine Meta-Analyse zu den Haupteffekten von Diversity Beliefs und Climates auf verschiedenen Ergebnisvariablen (k = 71). Diese Haupteffekte werden nur selten in den Primärstudien in Betracht gezogen. Geht man allerdings davon aus, dass Diversität in modernen Organisationen allgegenwärtig ist und dass Personen und Gruppen die Diversität wertschätzen diese auch aktiv suchen werden, so macht es durchaus Sinn, diese Effekte zu betrachten. Meta-analytisch zeigt sich ein mittelgroßer, signifikanter Zusammenhang zwischen der Wertschätzung von Diversität und vorteilhaften Ergebnissen für Individuen und Gruppen (r = .25; p < .0001; CI 95%: .19 bis

.28). Es zeigt sich jedoch auch ein beträchtliches Ausmaß an Heterogenität in den Effektstärken.

Sowohl die statistische Signifikanz der Moderationseffekte und deren Muster, wie auch die Stärke der Haupteffekte waren weitestgehend unabhängig von der Art der Ergebnisvariablen, den Studiendesigns, den Analyseebenen und den Operationalisierungen der beteiligten Konstrukte. Beide Formen von Effekten fanden sich in gleicher Ausprägung sowohl für Diversity Beliefs wie auch für Diversity Climates. Während dies für die Generalisierbarkeit der Befunde spricht, so ist es doch unbefriedigend dass die Heterogenität der Haupt- und Moderationseffekte bislang ungeklärt bleibt. Dennoch zeigen beide Meta-Analysen insgesamt, dass die Wertschätzung von Diversität durch Personen oder Gruppen einen beträchtlichen Einfluss auf individuelle Gruppenmitglieder und Gruppen haben kann – im Sinne der ersten Forschungsfragestellung dieser Arbeit. Allerdings deutet die Heterogenität der Befunde darauf hin, dass noch wenig darüber bekannt ist, durch welche Prozesse diese Effekte verursacht, beziehungsweise vermittelt, werden.

Das Kapitel 6 befasst sich daher genauer mit der zweiten Forschungsfragestellung, nämlich der Frage nach den Prozessen, die beschreiben wann und wie genau die Art und Weise, in der Menschen und ganze Gruppen Diversität begegnen, einen Einfluss auf Gruppen und ihre Mitglieder hat. Während die Mehrheit der Primärstudien in der Meta-Analyse aus Kapitel 5 Wertschätzung von Diversität und die Wertschätzung von Similarität als Pole eines Kontinuums angesehen haben, gibt es einige Anzeichen dafür, dass sowohl Unterschiede als auch Ähnlichkeiten wertgeschätzte Bestandteile einer Gruppe sein können. In Kapitel 6 wird daher postuliert, dass beide Aspekte *gemeinsam* Bestandteile einer organisationalen Identität sein können und auf unterschiedliche Art und Weise Solidarität zwischen den verschieden Gruppen innerhalb einer Organisation schaffen können.

Aufbauend auf dem Verständnis von Diversität aus der Perspektive der Theorie der Sozialen Identität und der Selbstkategorisierungstheorie wurde postuliert, dass die Identifikation mit den Teilen einer organisationalen Identität, die die Wertschätzung von Diversität betonen, zu einer Solidarität zwischen den Mitgliedern dieser Organisation führen kann, die auf genau dieser Diversität aufbaut (zum Beispiel indem den Mitgliedern bewusst wird, dass sich verschiedene Abteilungen aufgrund ihrer komplementären Kompetenzen optimal ergänzen). Identifikation mit den Teilen einer Identität, die die Werstschätzung von Similarität betonen, führt hingegen zu einer Solidarität die auf Gemeinsamkeiten beruht (zum Beispiel indem den Mitgliedern bewusst wird, dass sie alle hinter einem gemeinsamen

Leitbild stehen). In Anlehnung an die klassische Unterscheidung von Durkheim (1893/1999), wurde die erste Form der Solidarität „organische Solidarität“ und die zweite „mechanische Solidarität“ genannt. Es wurde postuliert, dass beide Formen von Solidarität die Kooperation in einem Unternehmen positiv beeinflussen. Somit werden beide Formen von Solidarität von der Identifikation der Mitarbeiter getragen, können beide unabhängig voneinander auftreten und beide die Zusammenarbeit beeinflussen. Letztlich ergibt sich daher ein theoretisches Modell, in dem die organisationale Identifikation indirekt über organische wie auch mechanische Solidarität die Zusammenarbeit in einer Organisation beeinflusst.

In einer ersten Studie wurde das Modell in Hinblick auf die Qualität der Zusammenarbeit von Teams innerhalb einer deutschen Universität geprüft (N = 699). In separaten Analysen bestätigte sich dass organisationale Identifikation vermittelt sowohl über organische wie auch über mechanische Solidarität einen signifikanten indirekten Einfluss auf alle vier gemessenen Merkmale der Qualität der Zusammenarbeit zwischen den Teams hat. Bei anschließender simultaner Betrachtung beider Formen von Solidarität in multiplen Mediationsmodellen überwogen die durch organische Solidarität vermittelten indirekten Effekte. Die durch mechanische Solidarität vermittelten indirekten Effekte waren nicht signifikant.

Im Rahmen von weiteren Befragungen, die ein und zwei Jahre nach der ersten Befragungswelle stattfanden, konnten die postulierten Beziehungen einem ersten längsschnittlichen Test unterzogen werden (N = 174), wobei die Identifikation und die Formen der Solidarität zum zweiten und die Qualität der Intergruppen-Zusammenarbeit zum dritten Messzeitpunkt erfasst wurden. Die Ergebnisse bestätigen die Resultate aus der querschnittlichen Untersuchung. Die indirekten Effekte welche über organische Solidarität vermittelt wurden, sind größer als die für die mechanische Solidarität. Letztere erreichten überwiegend nicht das übliche Signifikanzniveau.

In einer zweiten Studie wurde das gleiche Modell in einem völlig anderen Kontext getestet und zwar anhand der Zusammenarbeit verschiedener Teams in einer Universitätsklinik in Taiwan (N = 591, in 60 Teams). Für sich betrachtet mediierten in dieser Stichprobe sowohl organische wie auch mechanische Solidarität den Einfluss von organisationaler Identifikation auf nahezu alle Maße der Qualität der Zusammenarbeit. Simultan betrachtet ergab sich in diesem Kontext im Vergleich zur Stichprobe aus der deutschen Universität ein weitaus differenzierteres Bild. Für beide Formen der Solidarität fanden sich signifikante indirekte Effekte, die jedoch in Bezug auf die verschiedenen

gemessenen Facetten der Qualität der Zusammenarbeit zum Teil recht unterschiedlich ausfielen. Für manche dieser Facetten war organische Solidarität der vermittelnde Faktor, für andere hingegen die mechanische Solidarität, für wiederum andere waren es beide Formen der Solidarität.

Insgesamt unterstreichen die Ergebnisse aus beiden Studien, dass sowohl organische wie auch mechanische Solidarität durch die organisationale Identifikation angeregt werden und beide selbst wiederum positive Auswirkungen auf die Qualität der Zusammenarbeit innerhalb einer Organisation haben. Der relative Einfluss von organischer und mechanischer Solidarität auf die Zusammenarbeit variierte jedoch zwischen den untersuchten Organisationen und zwischen den verschiedenen erfassten Facetten der Qualität der Zusammenarbeit. Dies unterstreicht, dass die Unterscheidung zwischen organischen und mechanischen Formen der Solidarität in zukünftigen Studien beibehalten und deren differentielle Effekte genauer ergründet werden sollten.

Beide Formen der Solidarität können verstanden werden als Ausdruck einer Werthaltung gegenüber Diversität, respektive Similarität. Da beide Formen von Solidarität positiv mit der Qualität der Zusammenarbeit zwischen Teams verbunden waren, bestätigen die Befunde, dass die Art und Weise in der Menschen Diversität begegnen, in der Tat einen Einfluss haben kann – im Sinne der ersten Forschungsfragestellung dieser Dissertation.

In Hinblick auf die Mechanismen, die diesem Einfluss zugrunde liegen – und damit in Hinblick auf die zweite Fragestellung der Dissertation – legen die Ergebnisse drei Schlussfolgerungen nahe. Erstens erscheint es angebracht, mechanische und organische Solidarität in zukünftigen Studien als proximale Mediatoren der Effekte von Pro-Diversity und Pro-Similarity Beliefs/Climates zu untersuchen. Zweitens zeigen die Befunde, dass Unterschiedlichkeiten und Ähnlichkeiten gleichzeitig wertgeschätzte Bestandteile einer organisationalen Identität sein können. Dies spricht gegen die gängige Praxis, die Wertschätzung von Diversität und die Wertschätzung von Ähnlichkeit in einem gemeinsamen Konstrukt zusammenzufassen. Dieser Umstand könnte auch mit zur Heterogenität der Effekte in den Meta-Analysen aus Kapitel 5 beigetragen haben. Drittens legen die Ergebnisse nahe, dass allein das Wissen, dass Diversität oder Similarität wichtige Bestandteile einer organisationalen Identität sind, an sich keine Effekte haben wird, es sei denn, dass sich die betroffenen Personen mit dieser Identität auch identifizieren. Identifikation wird somit zur treibenden Kraft hinter den Effekten von Diversity Beliefs oder Climates.

Gleichermaßen aufbauend auf der Heterogenität in den Ergebnissen der Meta-Analyse, befasst sich auch Kapitel 7 in erster Linie mit den Prozessen, die hinter den Effekten von Diversity Beliefs und Climates stehen. Bislang wurden diese zumeist in Hinblick auf die Vorteile der Diversität für tiefere und reichere Informationsverarbeitung in Gruppen untersucht (Homan et al., 2008; Meyer & Schermuly, in press; van Dick, van Knippenberg, Hägele et al., 2008). In Kapitel 7 wird ein theoretisches Modell dargestellt, das zusätzlich zu diesen kognitiven Prozessen auf die emotionalen Prozesse in heterogenen Gruppen eingeht. Zentral für das Modell ist die Annahme, dass sich Menschen die Diversität schätzen oder einer Gruppe angehören in der Diversität wertgeschätzt wird nicht nur kognitiv mit dieser Diversität auseinandersetzen werden, sondern sich auch auf einer emotionalen Ebene auf die Diversität der Gruppe einlassen werden.

In der bisherigen Forschung wurde immer wieder darauf verwiesen, dass heterogene Gruppen über eine größere Auswahl an Informationen, Perspektiven, Ansichten, Wissen, Herangehensweisen und ähnlichen informationalen Ressourcen verfügen. Dieses informationale Potenzial soll die Mitglieder der Gruppe dazu anregen, mehr nachzudenken und bessere und innovative Ergebnisse zu erzielen. In Anlehnung hierzu ist die erste Proposition des dargestellten Modells, dass die verschiedenen Mitglieder einer diversen Gruppe zusätzlich zu etwaigen unterschiedlichen Informationen auch unterschiedliche emotionale Zustände in die Interaktion in der Gruppe einbringen, und dass auch dieses emotionale Potenzial zu besseren Leistungen einzelner Gruppenmitglieder und der Gruppe als Ganzes führen kann. Dies lässt sich ableiten aus Erkenntnissen zum Einfluss von geteilten Emotionen in Gruppen (George, 1996; George & King, 2007) und insbesondere auch zum Einfluss emotionaler Zustände auf die Informationsverarbeitung (Bohner & Apostolidou, 1994; Forgas, 1995).

Des Weiteren postuliert das entwickelte Modell einen genuin emotionalen Wirkmechanismus hinter den Effekten von Diversität auf die Leistung einzelner Gruppenmitglieder und der Gruppe als Ganzes. Bisherige Arbeiten zu diesem Thema haben sich weitestgehend auf kognitive Prozesse bezogen. Ein prominentes Beispiel ist das Categorization Elaboration Model (van Knippenberg et al., 2004), demzufolge die gemeinsame Elaboration von relevanter Information der zentrale mediierende Prozess ist, über den der positive Effekt von Diversität auf die Gruppenleistung zustande kommt. Das Ziel des vorliegenden Modells ist es, diesen Blickwinkel zu erweitern und ergänzend auch affektive Prozesse und Faktoren mit in die Betrachtung aufzunehmen.

Grundlegend hierfür ist die Annahme, dass der Kontakt mit unterschiedlichen anderen Gruppenmitgliedern nicht nur auf einer rein kognitiven Ebene stattfindet, sondern in einem ganzheitlichen Sinn auch emotionale Prozesse mit einschließt. Daher kann die Begegnung mit unterschiedlichen Menschen in diversen Gruppen insbesondere zu vermehrter Empathie anregen – kann gerade die Vielfalt dazu inspirieren sich in andere Menschen einzufühlen (Todd et al., 2011). Empathie hat nachweislich einige positive Auswirkungen auf das Miteinander in der Gruppe, was wiederum der Leistung Einzelner und der gesamten Gruppe zugutekommen kann. Das Modell enthält daher als zweites Postulat, dass Empathie den Zusammenhang zwischen Diversität und Leistung mediiert.

Es wird allerdings nicht angenommen, dass dieser positive Zusammenhang zwischen Diversität und Empathie immer und unter allen Umständen auftritt. Aufbauend auf dem Categorization Elaboration Model, werden in weiteren Postulaten moderierende Faktoren erster Ordnung bestimmt. Konkret wird Diversität dem Modell zufolge dann zu erhöhter Empathie führen, wenn die Aufgaben und der Kontext der Gruppe dies nahe legen oder fördern, wenn die Mitglieder die nötige Motivation hierzu aufbringen und wenn die Mitglieder hinreichend genug miteinander vertraut sind, um sich verstehen zu können. Ferner ist es wichtig, dass die durch die Diversität implizierten sozialen Kategorien nicht in einem antagonistischen, feindseligen Verhältnis zueinander stehen (vgl. van Knippenberg et al., 2004).

Diversity Beliefs und Diversity Climates nehmen im entwickelten Modell den Platz von Moderatoren zweiter Ordnung ein. Sie wirken in erster Linie indirekt, indem sie die Motivation der Gruppenmitglieder stärken, sich empathisch auf unterschiedliche Menschen einzulassen, und indem sie antagonistischen und feindseligen Verhältnissen zwischen den durch Diversität implizierten sozialen Kategorien entgegenwirken.

In Hinblick auf den Gegenstand dieser Arbeit ist es interessant anzumerken, dass Empathie für sich selbst genommen eine Art und Weise sich auf die Diversität einer Gruppe einzulassen darstellt. Darüber hinaus eröffnet das Modell jedoch auch einen neuen, emotionalen Weg auf dem Diverstiy Beliefs und Diversity Climates die Beziehung zwischen Diversität und Leistung beeinflussen können. Diese moderierende Wirkung wird durch die Einführung der Moderatoren erster Ordnung weiter spezifiziert.

Insgesamt legen die Ergebnisse aus den Meta-Analysen in Kapitel 5 und den beiden Feldstudien in Kapitel 6, sowie die theoretischen Argumente aus Kapitel 7 nahe, dass die Art und Weise wie sich Menschen auf Diversität einlassen in der Tat deutliche Auswirkungen auf Gruppen und ihre Mitglieder haben kann. Insofern erweist sich dieses

Forschungsfeld als fruchtbar um die insgesamt eher uneinheitliche Sachlage zu den Effekten von Diversität in Organisationen zu erhellen. Allerdings haben alle drei Kapitel auch gezeigt, dass hinsichtlich der Auswirkungen unterschiedlicher Arten sich auf Diversität einzulassen noch vieles unklar ist. In Bezug auf die Prozesse, die diesen Auswirkungen zugrunde liegen, konnten jedoch ebenfalls Erkenntnisse gewonnen werden.

Die Idee dass Diversität unterschiedliche Auswirkungen haben kann, je nachdem wie man an die Sache herangeht, grenzt in ihrer Einfachheit an Trivialität. Die Meta-Analyse zu den Moderatoreffekten von Diversity Beliefs und Climates legt jedoch nahe, dass diese Effekte bei weitem nicht immer und unter allen Umständen auftauchen und dass sie insbesondere verschiedene Muster annehmen können, für die es bislang noch keine Erklärung gibt. Außerdem scheinen die Effekte von Diversity Beliefs/Climates nicht auf das tatsächliche Vorhandensein von Diversität angewiesen zu sein, wie die Analyse zu den Haupteffekten nahelegt. Des Weiteren zeigen die beiden Feldstudien, dass Menschen gleichzeitig vom Wert der Diversität und vom Wert der Similarität überzeugt sein können, und dass sich beides, zuweilen sogar gleichzeitig, positiv auf die Zusammenarbeit auswirken kann. Zu guter Letzt wäre es eigentlich intuitiv plausibel, wenn Diversität dazu führen würde, dass Gruppenmitglieder mehr Schwierigkeiten haben, sich emotional aufeinander einzulassen. Das theoretische Modell aus Kapitel 7 erläutert, wie die Wertschätzung von Diversität zu genau dem umgekehrten Zusammenhang führen kann. Insgesamt zeigt sich damit, dass die Effekte der Art und Weise in der sich Menschen auf Diversität einlassen keineswegs trivial sind.

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* Publication contains main effects (included in the analysis on main effects).
** Publication contains main effects (included in the analysis on main effects) and moderator effects (included in the analysis of moderator effects).

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Curriculum Vitae

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Education

1984 – 1986	Grundschule Balingen-Endingen/Erzingen
1986 – 1991	Freie Waldorfschule Frommern
1991 – 1994	Realschule Balingen, Mittlere Reife
1994 – 1997	Technisches Gymnasium Balingen, Allgemeine Hochschulreife

Academic Education

1997 – 1999	Friedrich-Schiller-Universität Jena (Thüringen, Germany), Vordiplom
1999 – 2005	Albert-Ludwigs-Universität Freiburg im Breisgau (Baden-Württemberg, Germany), Diplom
2003	Exchange Year at the Australian National University in Canberra (ACT, Australia)
since 2006	enrolled as Ph.D.-Student at the Johann Wolfgang Goethe University Frankfurt am Main (Hessen, Germany)

Internship

10/2000 – 04/2001	PSYCHO_LOGIK - Team für angewandte Psychologie an organizational consultancy based in Freiburg (Baden-Württemberg, Germany)

Academic Work Experience

1998	Interviewer for the second German roadside survey on driving and alcohol consumption conducted in cooperation between the universities of Jena and Würzburg
10/2002 – 01/2003	Student research assistant in a joint project between the Deutsche BA and the University of Freiburg: „Organizational commitment in times of change: A resource-oriented perspective" (translated title)
2004 – 2006	Student research assistant in the department of work & organizational psychology at the University of Freiburg (Prof. Dr. Heinz Schüpbach)
2004 – 2006	Student research assistant in the department of social psychology at the University of Freiburg (Prof. Dr. Christoph Klauer)
2006 – 2010	Managing Editor British Journal of Management
since 2006	Research assistant/Lecturer at the department of social psychology at the Johann Wolfgang Goethe University Frankfurt am Main (Prof. Dr. Rolf van Dick)

Teaching

Diploma- and B.Sc.-seminars on intergroup relations, group processes, and diversity in organizations

(since winter-semester 2006/7, one seminar per semester)

Editorial Contributions

Reviewer for the British Journal of Management and the Journal of Personnel Psychology

Publications

Diploma Thesis

Stegmann, S. (2004). *Abbildung sozialer Arbeitsbedingungen an Schulen - kollektives Handeln im System sozialer Kategorien* [Measuring social conditions of work in schools – collective acting in systems of social categories] (Unpublished diploma thesis). Albert-Ludwigs Universität, Freiburg, Germany.

Supervisor: Dr. Andreas Krause, University of Freiburg, department of work & organizational psychology.

Papers in Peer Reviewed Journals

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Conference Presentations

Stegmann, S., Wu, T., Egold, N., & van Dick, R. (2010). *Birds of a feather flock together and opposites attract - Organic and mechanic forms of solidarity and their relationship to intergroup collaboration*. 27. Kongress der Deutschen Gesellschaft für Psychologie (DGPs), Bremen, Germany, 26 - 30 September.

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Stegmann, S. (2010). *Social Work Characteristics in Schools – Theory, Reality, and Relationships to Strain*. 22. Kongress der Deutschen Gesellschaft für Erziehungswissenschaft (DGfE), Mainz, Germany, 15 - 17 March.

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Stegmann, S. & van Dick, R. (2009). *Does it matter what we think about diversity? A meta-analysis on the effects of diversity beliefs*. 14th European Congress of Work and Organizational Psychology (EAWOP), Santiago de Compostela, Spain, 13 - 16 May.

Stegmann, S. (2009). *Does it matter what we think about diversity? A meta-analysis on the effects of diversity beliefs*. 6. Nachwuchsworkshop der Fachgruppe Arbeits- & Organisationspsychologie der Deutschen Gesellschaft für Psychologie, Mainz, Germany, 4 - 6 March.

Stegmann, S., & van Dick, R. (2008). *What do we think about being different? – Measuring Diversity Beliefs*. 15th General Meeting of the European Association of Experimental Social Psychology (EAESP), Opatija, Croatia, 10 - 14 June.

Stegmann, S. (2007). *Drei Mann in einem Boot - Die Auswirkungen von Diversität in Organisationen in Abhängigkeit von qualitativen und quantitativen Aspekten sozialer Identitäten*. 11. Tagung der Fachgruppe Sozialpsychologie der Deutschen Gesellschaft für Psychologie, Freiburg, Germany, 17 - 19 September.

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