CHAPTER 6

GENERAL DISCUSSION
In an attempt to synergistically integrate two of the most vividly discussed and examined levers of team success, I have investigated the question of how the potential inherent in leadership and the potential inherent in diversity can be meaningfully combined to promote the effectiveness of teams in the present dissertation. Below, I briefly summarize the key findings of the four empirical papers that were designed to answer this overarching question. This is followed by a discussion of how these key findings relate to each other, and how these insights inform our understanding of the role of leadership and diversity in enhancing team success, both in terms of their scientific and managerial relevance. More specifically, these findings shed light on potential reasons for why prior research has not always been able to produce consistent predictions of team effectiveness, deliver alternative insights with respect to long-held assumptions, and focus on previously neglected areas of research in the framework of leadership and diversity. This dissertation’s findings, implications, and limitations provide important directions for future research in the fields of leadership, diversity, and team effectiveness.

SUMMARY OF THE MAIN FINDINGS

Before integrating the major findings across the four empirical papers, I will shortly summarize the empirical findings of each of these papers.

CHAPTER 2: LEADERSHIP AND TEAM DIVERSITY: CAN HIGH-HIGH LEADERS HELP LEVERAGE THE POTENTIAL OF EDUCATION LEVEL DIVERSITY?

The first empirical study revealed that the effect of team education level diversity on team performance was influenced by the interplay of directive and participative leadership. Education level diversity negatively affected team performance, when directive leadership was high, but participative leadership was low, whereas diversity positively affected team performance, when both directive and participative leadership were high (i.e., the “High-High leader” constellation). The other two constellations did not significantly influence this link, indicating that low levels of both behaviors or only of directive leadership neither helped nor harmed these diverse teams’ performance. These findings hint at the importance of combining complementary leader behaviors to leverage the potential of team diversity.
CHAPTER 3: RECONSIDERING THE INTERPLAY BETWEEN LEADERSHIP AND GROUP DIVERSITY

The second empirical study focused on an in-depth examination of both the dual-level effects of transformational leadership and the effects of different diversity conceptualizations. As hypothesized, the individual-focused transformational facet of intellectual stimulation enhanced individual autonomy and subsequently individual performance. Differentiation in the individual-focused facet of individualized support provoked team members’ divergent satisfaction with their leader, which increased absenteeism and ultimately harmed team performance. Group-focused transformational leadership promoted team knowledge sharing which then increased team performance. Furthermore, organizational tenure diversity only enhanced group-focused transformational leadership’s positive effect on team performance when conceptualized as disparity rather than variety. This study reveals the relevance of a conceptual and empirical integration of leadership and diversity for the consistent prediction of team performance.

CHAPTER 4: TRAIN THE LEADER OR THE TEAM? HOW LEADER LEARNING GOAL ORIENTATION INFLUENCES TRAINING TARGET’S EFFECT ON THE PERFORMANCE OF EDUCATIONALLY DIVERSE TEAMS

The third empirical study examined a leader’s role, a leader’s trait, and a team’s diversity as interactive factors influencing the outcome of training aimed at enhancing team performance. Results showed that a leader’s trait learning goal orientation determined whether providing diversity training to a team’s leader or its members was more conducive to the performance quality of educationally diverse teams. Whereas training the leader increased the performance of educationally diverse teams when leader learning goal orientation was high, training the team stimulated team performance more when its leader scored low on this trait. The salience and utilization of intrateam differences mediated this interactive effect. These results clarify the need to carefully examine the interplay of a leader trait and team diversity when deciding upon selecting the leader or the team as a target of training aimed at enhancing team performance.

CHAPTER 5: HOW LEADERS CAN COMPENSATE FOR YOUNGER AGE: CONTINGENT REWARD AND PARTICIPATIVE LEADERSHIP AS MODERATORS OF THE LEADER AGE-TURNOVER LINK

In the fourth empirical study, a leader’s age as status-related characteristic and a leader’s behaviors were interactively combined to predict team effectiveness. Results showed that younger (as opposed to older) leaders’ effects on voluntary (i.e., decisions to leave) and
involuntary (i.e., dismissals) turnover in their teams were differentially influenced by their leadership behaviors. Assuming that younger leaders’ successful influence on team effectiveness is reflected in decreasing voluntary turnover, but assuring team functioning by involuntary turnover, contingent reward helped younger leaders attain this modulation of both turnover forms, whereas participative leadership hindered younger leaders’ success in this regard. When younger leaders displayed low levels of contingent reward or high levels of participative leadership, team members were more likely to leave voluntarily. Involuntary turnover was increased, when younger leaders showed high levels of contingent reward or low levels of participative leadership. This study reveals the importance of age as status-related leader characteristic and of status-adequate leader behavior to compensate for younger leaders’ lack of age-related status. This research also takes a more general view on diversity, as it focuses on younger leaders’ influence on teams within an increasingly aging workforce.

**THEORETICAL CONTRIBUTIONS AND IMPLICATIONS**

The findings outlined above provide several contributions to the literatures of leadership, team diversity, and team effectiveness. In the following, I will connect the major findings of the four research papers and discuss the broader implications of these findings. Throughout the section, and more explicitly when concluding this section, I will revisit the ways in which the potential reasons underlying prior research’s difficulty to clearly predict team success from leadership and team diversity have been addressed in the present dissertation.

**RELEVANCE OF LEADERSHIP**

Leadership is one of the most important, if not the most important, drivers of team success (Zaccaro et al., 2001), and together with diversity, it is the main focus of this dissertation. Hence, each of the four papers refers to one or several constructs of leadership, either in form of a leader’s behaviors (Chapter 2, 3, 5) or a leader’s characteristics in terms of a trait (Chapter 4) or demographics (Chapter 5). More generally, the dissertation also refers to a leader’s specific role in promoting team effectiveness, which is most explicitly apparent in Chapter 4 and 5 but present throughout all empirical chapters of this dissertation. In the following, I will delineate how the findings with respect to these different approaches to understanding leaders’ impact on teams contribute to specific areas in the field of leadership.

**Leadership and team effectiveness.** The dissertation contributes to the leadership literature by confirming that leadership, in its various facets, indeed is crucial for team effectiveness. Leadership is needed to turn a neutral diversity-team performance link into a
positive association (Chapter 2), and it enhances team interaction and performance unless the latter is undermined by the harmful effects of leadership differentiation (Chapter 3). Moreover, leadership is especially beneficial for team performance when provided to teams whose diversity engenders status differentials and that are therefore more in need of leadership (Chapter 3). Leadership also helps establish team performance by fully harnessing diversity training’s strategies for improving the perception and use of differences in diverse teams (Chapter 4). Lastly, when appropriately selected, leadership enables younger leaders to balance a lack of status when leading their teams (Chapter 5). Having shown leadership’s important role as lever of team success, this finding nevertheless also supports this dissertation’s basic argument: The relationship between leadership and team effectiveness is a complex (i.e., moderated) one. In the following, I will discuss this finding in more detail and account for the variety of leadership constructs that characterize the present dissertation.

**Contingencies of the leadership-team effectiveness link.** Opposing the early attempts to delineate singular leadership style’s or trait’s universal effectiveness, more recent leadership research assumes and shows that the impact of leadership on (team) outcomes is not universal, but varies considerably across studies and levels of analysis (e.g., Gebert & Kearney, 2011; Judge & Piccolo, 2004; Lowe et al., 1996; Yammarino et al., 2005). This advocates the presence of powerful moderators (Judge & Piccolo, 2004; Judge et al., 2004) which is underlined by the dissertation’s finding. In fact, except for group-focused transformational leadership’s positive relation with team performance in Chapter 3, leadership – viewed in isolation – is not significantly related to the effectiveness of teams (e.g., directive leadership in Chapter 2, contingent reward in Chapter 5, leader learning goal orientation in Chapter 4). As revealed in the present dissertation, leadership’s effectiveness rather depends on the team context in which leadership is established (Chapter 3, 4, 5) and onto which leadership is applied (Chapter 2, 4, 5). However, this dissertation also shows that the effectiveness of the examined leadership constructs is also determined by factors within the realm of leadership itself, such as the presence of other leadership constructs (Chapter 2, 4, 5), or more indirectly the existence of different foci within one leadership construct (Chapter 3).

This insight also importantly informs our understanding of singular leadership theories: For instance, the dissertation’s findings speak to a refinement of transformational leadership theory towards more clearly delineating this leadership style’s different foci and their multifaceted influences on individual and team outcomes (Chapter 3). Hence, when considering transformational leadership in a team setting, the simultaneously occurring differential effects of individual-focused and group-focused transformational facets at the individual and the team level
need to be taken into account. Moreover, the reason for why contingent reward is sometimes even more effective than transformational leadership (Judge & Piccolo, 2004) may be understandable when simultaneously considering a leader’s status-related characteristics: As with participative leadership (Sauer, 2011), transformational leadership also relies on personal power and may thus be less appropriate for younger leaders (cf. Kearney, 2008) whereas contingent reward seems to be specifically effective for such low-status leaders (see Chapter 5). Moreover, the dearth of research examining the “High-High leadership” model in an interactive way (Yukl, 2006) and the assumption of this concept’s universal (i.e., context-independent) effectiveness are important explanations for why prior research has mostly produced mixed findings and abandoned this stream of research. Our finding (Chapter 2) therefore clearly advocates an interactive integration of Consideration and Initiating Structure that may add knowledge over and above the purely additive examination of both constructs (cf. Judge et al., 2004). In sum, the presented findings disclose another contribution of the present research, namely the theoretical and empirical clarification that leadership itself is a boundary condition of leadership’s effectiveness in enhancing team success. I will further discuss this in the following.

Integration of multiple leadership constructs. Connecting and meaningfully integrating this dissertation’s studies and underlying this dissertation’s basic argument is a functional approach to team leadership. On the basis of this rationale, the dissertation aims to predict and explain when leadership can leverage a team’s performance, and when it cannot, or even be a detriment to team success. The central tenet of such functional view on the leadership of teams (Burke et al., 2006; Morgeson et al., 2010; Zaccaro et al., 2001) is that a leader’s “main job is to do, or get done, whatever is not being adequately handled for group needs” (McGrath, 1962, p. 5). Without prescribing one specific leadership construct to most effectively influence teams, the value and eligibility of singular constructs or several constructs in combination merely depend on their functionality for facilitating the effectiveness of the teams under consideration. For instance, the dissertation suggests that diverse teams are in need of more concerted or more specific forms of leadership, such as specific leadership combinations (see Chapter 2 and prior notions of open and closed action strategies or ambidextrous leadership; Gebert et al., 2010; Gebert & Kearney, 2011; Janz, Buengeler, Eckhoff, Homan, & Voelpel, 2012), specific dispositions combined with the right strategies (Chapter 4), and specific team-focused leadership actions (Chapter 3). Whereas individualizing leadership toward followers may be effective at the individual level, the varied emotional support of members in a team setting is highly dysfunctional (Chapter 3). Applying participative strategies seems to further diminish younger leaders’ status, but drawing on available position power bases by using contingent reward is
functional to obtain teams’ approval and to be capable to lead (Chapter 5). Hence, by understanding the success of leadership as a function of how well it is able to complement a team’s needs, the empirical studies of this dissertation – either explicitly or implicitly – are all grounded in a functional approach to team leadership.

In sum, the dissertation contributes to the leadership literature by revealing that one leadership construct or focus is not always enough to effectively influence (diverse) teams’ performance. It rather takes a boundary-spanning approach across leadership traditions and paradigms to determine how leaders – by means of their behaviors, traits, demographics, or role – can best affect teams and their performance (cf. DeRue et al., 2011). Different leadership forms can occur at the same time (e.g., directive and participative leadership, see Chapter 2; cf. Judge et al., 2004), and integrating these constructs by considering their additive or even interactive relations (cf. Yukl, 2006) helps shed light on leadership’s real potential for stimulating team effectiveness. The insight that a reductionist focus on a single leadership approach only allows for capturing a fragment of the full picture of leadership’s contribution to team success, is also in line with recent efforts to promote integration in leadership research (Avolio, 2007; Avolio et al., 2009; DeRue et al., 2011; Piccolo et al., 2012a). This endeavor also becomes apparent in the statement that “future studies should investigate how the different types of constructs jointly explain leader influence on work unit performance and other outcomes” (Yukl, 2012, p. 80).

This research’s insight further contributes to answering the question of the relevance of “classical” leadership theories that were predominantly designed in view of individual followers when it comes to the leadership of team. Indeed, these classical theories can be valuable for effectively leading teams – whether they are valuable depends on their singular or combined capability “to ensure that all functions critical to both task accomplishment and group maintenance are adequately taken care of” (Hackman & Walton, 1986, p. 75).

**Leadership at the team level of analysis, and multiple foci of leadership.** This dissertation’s focus on leading teams toward superior effectiveness is clearly reflected in its “bottom-up” approach to examine leadership styles at the team level that were formerly mostly studied at the individual level (cf. Hiller et al., 2011; Judge & Piccolo, 2004). At the same time, this dissertation predicts and makes sense of this approach’s notions by means of an overarching “top-down” framework of specific team leadership models (see Chapter 1 and functional leadership approach outlined above). This and other explicit conceptualizations of team leadership (e.g., Hackman, 2002; Kozlowski et al., 1996; McGrath, 1962; Morgeson et al., 2010; Yukl, 2012; Zaccaro et al., 2001) help understand and thus potentially also better fulfill the unique requirements of leading teams rather than just an assembly of individuals. By
simultaneously considering these two approaches, the dissertation contributes to building knowledge on how classical leadership theories and specific team leadership models can be meaningfully intertwined to better predict team success.

In fact, leadership research is only in the beginning of carving out the effects of leadership constructs at the team-level of analysis. Investigating the effects of leadership styles that were specifically designed in view of individual followers or the dyadic relations with them in a team setting seems especially crucial. For instance, researchers examining the dyadic relation with followers (i.e., Leader-Member-Exchange [LMX]) started with (overly) optimistic propositions regarding the value of differentiated relations between leader and followers in a group context (i.e., vertical dyad linkage approach; Dansereau et al., 1975). This was replaced by a more refined view of the potential (e.g., the efficient use of a leader’s resources by focusing on only a few selected members) and endangerment (e.g., the formation of an in-group and out-group) arising from different relation qualities in a team (Graen & Uhl-Bien, 1995; Liden et al., 2006). Transformational leadership’s dual-level nature and subsequent dual-level effects (Kark & Shamir, 2002) have only recently come to the fore of transformational leadership research (Wang & Howell, 2010, 2012; Wu et al., 2010). The fact that this notion has mostly remained unacknowledged may partly explain why – although transformational leadership is intuitively assumed to be especially effective at the team level (cf. Lim & Ployhart, 2004; Yammarino, Spangler, & Dubinsky, 1998) – this leadership style’s validities at the team level appear to be smaller and less consistent than at the individual level (e.g., Judge & Piccolo, 2004).

The dissertation importantly contributes to the emerging field of differentiated leadership in teams: Its findings suggest that for estimating the effects of leadership at the team-level, one may also need to account for the effects of its individual-focused proportion at the team level. Specifically, the dissertation reveals that whereas transformational leaders’ genuinely team-oriented behaviors positively affect team performance, the degree to which these leaders’ individualized support is perceived to be differentiated in a team powerfully co-determines how well transformational leadership can stimulate the team as a whole and deplore the benefits of teams. This notion of the relevance of disentangling the effects of differentiation of an individually relevant transformational facet from the effects of group-focused transformational facets further adds to a refinement of transformational leadership theory at the team level.
RELEVANCE OF TEAM DIVERSITY

In addition to leadership, team diversity as a means to promote team success is another main focus of the dissertation. According to the complex nature and multidimensional effects of team diversity (e.g., Jackson et al., 2003), diversity may either constitute a key driver of team success, a crucial boundary condition of other drivers’ effects on team success (e.g., leadership), or be confounded with other drivers’ effects on team success. Consequently, this research treats team diversity as an independent variable in Chapter 2, a moderating variable in Chapter 3 and 4, and controls for it in Chapter 5.

Diversity and team effectiveness. Albeit investigating different diversity dimensions (education, education level, and organizational tenure diversity as focal variables; age, team tenure, sex, and nationality diversity as control variables) and diversity clusters (e.g., more or less job-related diversity, informational versus demographic diversity), the dissertation revealed rather consistent results with respect to the value and role of diversity across the empirical studies. Except for the significant main effects of organizational tenure disparity and variety on team performance in Chapter 3, none of the diversity variables as such significantly predicted or correlated with team effectiveness. The finding of the in general neutral diversity-effectiveness link is consistent with 60% of the studies considered in a recent meta-analysis (Joshi & Roh, 2009). This, however, does not necessarily mean that diversity does not influence team outcomes, but again hints at the presence of powerful moderators that help reveal when diversity successfully influences teams (Joshi & Roh, 2009; Van Knippenberg & Schippers, 2007). In fact, the dissertation shows that only by diversity’s joint effect with leadership or leadership combinations, diversity favorably (or more favorably; see Chapter 3) affects team performance. This is in line with Van Knippenberg et al.’s (2004) call to abandon main-effects research on diversity and further supports these authors’ notion that, depending on the favorability of the respective conditions, all kinds of diversity may entail beneficial (or harmful) effects. Hence, not only from a leadership perspective, but also from a diversity perspective, the dissertation reveals that an integration of diversity and leadership is needed for a valid empirical prediction of team effectiveness.

Diversity conceptualizations. The dissertation’s findings further contribute to the diversity literature by providing empirical support for the crucial role of appropriately conceptualizing and pertinently measuring diversity, as advocated by Harrison and Klein (2007). As the different concepts and measures of diversity differ with respect to the information conveyed on the configuration of a team, they may also entail differential relations with outcomes (Bell et al., 2011; Carton & Cummings, 2012). This might lead to distorted results on
the basis of misspecification, or even inherit the potential for misuse. Bell et al. (2011) disentangled how various diversity dimensions have been conceptualized in prior research, and how these conceptualizations relate to team performance. However, this study is limited by the fact that the different concepts of a specific diversity dimension (e.g., tenure) had not been measured on the grounds of the same empirical data, and that not enough primary studies were available for validly comparing these different concepts per diversity dimension (e.g., only two studies on organizational tenure variety). Consistent with these authors’ findings, conceptualizing organizational tenure diversity as either disparity or as variety in the present dissertation did not yield differential relations to team performance. In Chapter 3, the associations of both diversity concepts with team performance were positive (when accounting for organizational tenure mean as control and including group-focused transformational leadership as main effect variable). Only by focusing on the interaction of organizational tenure diversity with group-focused transformational leadership, differences between the two conceptualizations of diversity became apparent. Whereas there was no interactive effect between group-focused transformational leadership and organizational tenure variety, group-focused transformational leadership and organizational tenure disparity interacted to predict team performance. As with the study of the effects of diversity dimensions, a main-effects approach may thus also not be sufficient to reveal differential effects of diversity conceptualizations. The findings presented here rather hint at the previously neglected possibility that the implications of different diversity conceptualizations for team effectiveness may only become evident when studied conjointly with a crucial contingency factor, such as leadership.

This finding also clarifies the importance of transparency with respect to how the decision for one or another conceptualization has been made. There may be cases in which it is uncertain whether the concept used for a specific diversity dimension best represents the meaning of diversity in a specific sample and organizational setting (cf. Harrison & Klein, 2007). Drawing on the dissertation’s finding, it may even be advisable to use a direct measure of the team members’ perception of the meaning of a particular diversity dimension, or to include the respective other diversity concepts as control variables in future studies on team diversity.
CHAPTER 6

LEADERSHIP AND TEAM DIVERSITY AS JOINT PREDICTORS OF TEAM EFFECTIVENESS

In the following, I will delineate how the present research has pursued the joint study of leadership and diversity for predicting team success, and which mediators have been studied. This is concluded by a recapitulation of how the dissertation has addressed potential reasons for inconsistencies in the linkages among leadership, diversity, and team effectiveness.

Conceptual perspective on leadership and diversity. There are two different approaches to study leadership’s and diversity’s interactive effect on teams. Both variables may either constitute an independent or a moderating variable. Despite their algebraic equivalence, these two conceptualizations nevertheless yield differential implications. Focusing on diversity as an independent variable (Chapter 2) allows for identifying means (in this case, leadership) to translate diversity into its envisioned positive effects (Van Knippenberg et al., 2004). Conceptualizing leadership as independent variable (Chapter 3) illuminates its effectiveness for enhancing team success, and whether this link is independent of (i.e., universal), or strengthened or weakened under certain boundary conditions (in this case, team diversity). Chapter 4 even conceptualizes both leadership and diversity as moderators of a leader’s versus a team’s role in enhancing team performance on the basis of training. By contrast, prior research linking leadership and diversity draws a rather “diversity-centered” picture by examining diversity as the independent variable (Greer et al., 2012; Homan & Greer, 2013; Kearney & Gebert, 2009; Klein et al., 2011; Kunze & Bruch, 2010; Mohammed & Nadkarni, 2011; Nishii & Mayer, 2009; Shin & Zhou, 2007; Somech, 2006; Stewart & Johnson, 2009).

This dissertation provides evidence that both views are meaningful for a more complete picture of leadership’s and diversity’s joint effects: Leadership enhances diversity’s effect on team performance (Chapter 2), but diversity is also an important contextual factor determining leadership’s success in influencing team effectiveness (Chapter 3 and 4). The lack of research regarding leadership as independent variable of this interactive relation is thus surprising and stands in sharp contrast with the knowledge of leadership’s crucial influence on team processes and outcomes (Zaccaro et al., 2001). To better carve out the potential, but also boundary conditions of successful leadership in light of an increasing diversity in teams (Van Knippenberg & Schippers, 2007), an in-depth study of leadership’s effects on team performance as contingent upon diversity is required.

As an important contribution to the fields of leadership and diversity, this dissertation’s approach enables a more integrative thinking about both phenomena by viewing the interplay of leadership and diversity from both perspectives. Going beyond prior research’s attempts to
conjoin both phenomena, it also incorporates a more complex (interactive or specifically group-focused) view of leadership necessary to make diverse teams work (Chapter 2, 3, 4), and a more complex (conceptual) view of diversity as a boundary condition of successful team leadership (Chapter 3). This research also takes a more complex view of both leadership and diversity as interactive boundary conditions of a leader’s capability to use diversity training for enabling team success (Chapter 4). Understanding the constellation of young leaders that are confronted with an increasingly aging workforce (Leibold & Voelpel, 2006) as a specific form of diversity (e.g., relational demography; Tsui et al., 1996), one may even add that the dissertation also takes a more complex (societal-level) view of leadership and diversity (Chapter 5).

**Mediation mechanisms.** The present dissertation also contributes to the leadership and diversity literatures by providing important insights into how leadership as such (Chapter 3) or the match between leaders’ learning-relevant trait and educationally diverse teams in a training stimulation provided to the leader (Chapter 4) provoke intensified collaboration among the members of the teams. In Chapter 3, this mechanism constitutes increased knowledge sharing among the members that is stimulated by a leader’s communication of an inspiring vision and clarification of the relevance of the team goals. In Chapter 4, these mechanisms are the perception and exploitation of a diverse team’s informational differences when promoted by leaders who – by means of their high learning goal orientation – fully apply the provided diversity-related training strategies. These mechanisms capture important aspects of how (diverse) teams can make active use of whatever resources and knowledge the members have to offer, thus deepening our understanding of how team effectiveness can be enhanced.

**Addressing potential reasons for inconsistencies.** Concluding the delineation of theoretical implications and contributions, this research consistently pursued the outlined approach to address and thereby reduce or remove reasons for inconsistent predictions of team effectiveness in the fields of leadership and diversity (see Chapter 1, Table 1.1). With respect to leadership, the dissertation clearly focused on leadership at the team-level, studied the relative impact of different behaviors from different leadership taxonomies (Chapter 5), and interactively combined leadership behaviors (Chapter 2). This research also interactively combined a leader characteristic with leadership behaviors (Chapter 5), or with a leader’s role in diversity training (Chapter 4). Incorporating an important contextual factor, it investigated interactions between leadership or leadership combinations and team diversity (Chapter 2, 3, 4), and zoomed in on mediators of this moderated effect (Chapter 4). Moreover, it focused on differential foci within one leadership behavior, and specified the indirect effects by which these foci influence outcomes (Chapter 3). The team effectiveness measures underlying these studies were obtained
either experimentally (Chapter 4) or in a time-lagged manner (Chapter 2, 3, 5), and based on other-source (Chapter 2, 3, 4) or objective (Chapter 3, 5) measures.

To account for potential reasons underlying inconsistencies in diversity research, the dissertation comprised the study of leadership and leadership combinations as relevant boundary conditions of the diversity-effectiveness link (Chapter 2, 3, 4), and focused on mediators of this interactive relation (Chapter 4). This research included the study of the differential interactive relations of two conceptualizations of the same diversity dimension with leadership (Chapter 3), and was based on objective information on the whole team as basis for measuring diversity in the field studies (Chapter 2, 3). Effectiveness measures were obtained either experimentally (Chapter 4), or based on other-source, time-lagged information (Chapter 2, 3).

Lastly, this dissertation’s approach to systematically integrate both leadership and diversity as key drivers of team effectiveness allows for addressing a number of reasons for inconsistency in both fields at once. This clearly shows the relevance of such approach for providing a clearer picture of how leadership and diversity relate to team effectiveness.

After having reviewed this dissertation’s contribution with respect to the ability to draw a clearer picture of leadership, diversity, and their conjoint effects as means to leverage team effectiveness, this research’s managerial implications, limitations as well as important directions for future research are introduced in the following sections.

**MANAGERIAL CONTRIBUTIONS AND IMPLICATIONS**

This dissertation offers practically relevant knowledge on how the powerful interplay of leadership and team diversity can enhance teams’ and thus an organization’s success. Specifically, these insights may be used for adapting established or designing new Human Resource Management practices and tools for composing and training teams, for selecting, training, and developing leaders, and lastly, for optimally matching leaders and teams.

With respect to teams, the results of this dissertation suggest that diversity as such will only rarely be sufficient to enhance team performance, and that the mere establishment of high team diversity is not an appropriate means to bail out the specific benefits of diverse teams. Whether high team diversity yields the envisioned effects depends on whether these teams’ leaders simultaneously apply leadership strategies that are functional for leveraging a team’s differential resources. The dissertation also shows that when aiming to improve diverse teams’ performance by means of diversity training, it does not necessarily have to be the team as such that receives the intervention. This decision should rather be made contingent upon the aptitude that these teams’ leaders have for promoting specific learning experiences in their teams.
With respect to team leaders, the dissertation reveals that there is not a single most effective approach to leading teams. Preparing leaders to only apply one particular leadership strategy may thus not be enough to fully use the potential of diverse teams. Whereas specifically team-centered aspects of transformational leadership are an important candidate for promoting diverse teams’ success, a combined use of directive and participative leadership may also provide specific benefits to diverse teams. Hence, organizations are well-advised to select leaders who are willing and able to flexibly adapt their leadership strategies to constantly meet their teams’ (continually changing) needs. Organizations may also systematically develop their team leaders in their capacity to learn which strategies or combinations of strategies may work best for more or less diverse teams, and to subsequently apply these strategies. Moreover, leaders should also learn to carefully select strategies that are successful in light of their own particular leader characteristics and the status associated with these characteristics (e.g., their age).

Lastly, leaders who are already able to promote collaboration in teams and to unleash superior team performance may be purposefully matched to diverse teams, especially when these teams’ differences may engender disruptive status gaps among the members. In sum, organizations are well-advised to provide team leaders with all the strategies, knowledge, and capabilities needed to promote diverse teams’ effectiveness.

LIMITATIONS

Besides acknowledging the strengths of this dissertation, addressing its limitations is equally important for a full interpretation of the results, and may help delineate areas for future research. The findings of the presented field studies (Chapter 2, 3, 5) are grounded in sound theoretical reasoning, rely on multiple sources (information on objective team composition, employee ratings, supervisor ratings or objective outcomes), and use time-lagged effectiveness measures. This increases the possibility to draw inferences about the relationships between the investigated constructs and outcomes (Hiller et al., 2011; Podsakoff et al., 2003). Nevertheless, as the underlying design is correlational and does not allow for establishing causal links between the study variables, additional research may test these studies’ hypotheses using experimental as well as fully longitudinal designs.

Relatedly, the presented field studies used team effectiveness measures collected two (Chapter 2, 5) or three months (Chapter 3) after the team member ratings. Albeit already small time lags considerably diminish the established relations between leadership and criteria (Hiller et al., 2011), future survey studies may rely on even longer time lags (e.g., six or twelve months) between the focal variables and effectiveness criteria. Moreover, the experimental study (Chapter
4) allows drawing inferences on causal relations, but the external validity of the findings may be limited. Future research may investigate boundary conditions of these findings’ external validity by conducting a field experiment with real work teams.

This dissertation already took an expanded view of outcome criteria (Hiller et al., 2011) by incorporating turnover, absenteeism, and various performance quality and quantity measures as team effectiveness outcomes of leadership and diversity. Given the important linkages between leadership and well-being (Piccolo, Greenbaum, & Eissa, 2012b) and between diversity and well-being (Van Knippenberg & Schippers, 2007), an even broader approach to better predict a team’s multi-faceted success (Yukl, 2012) may be valuable (e.g., by incorporating measures of subjective and objective health and well-being). Linking the specific leadership and diversity phenomena investigated in this dissertation to multiple measures of team effectiveness may further contribute to an even more holistic understanding of leadership’s and diversity’s potential to enhance team success.

Whereas the studies presented here included various diversity dimensions and various leadership constructs, the dissertation did not systematically study one diversity dimension and one leadership construct across all studies. This limits the possibility to draw inferences on the generalizability of the obtained findings across samples and effectiveness measures. As this dissertation’s aim was to reveal how leadership (in terms of various leader behaviors and characteristics) and diversity (in terms of various dimensions and conceptualizations) relate to each other in predicting team success, I chose a rather broad view of leadership and diversity (rather than an in-depth study of one specific leadership and diversity concept). The presented findings, although not directly comparable with respect to diversity dimensions and leadership constructs, show a consistent picture in terms of the need to study leadership and diversity in an integrated manner.

Starting from the dissertation’s goal of addressing the potential reasons for inconsistencies in prior research on diversity and leadership (see Chapter 1), it might have been desirable to address all of these reasons at once in each of the empirical chapters. Whereas each empirical chapter tackled a considerable number of these critical issues, addressing all of the delineated reasons for inconsistency at the same time was not possible due to restrictions in data collections and the different emphases of the four empirical studies. As a result, each of the studies investigated a specific area within the overarching fields of leadership and diversity. Whereas this procedure allows drawing specific inferences on the respective phenomena, and this dissertation’s empirical studies thereby importantly contribute to the broader picture of how
leadership and diversity interplay to promote team success, future research may aim to tackle even more of these reasons for inconsistency simultaneously.

Lastly, all of the studies make suggestions on the mechanisms linking leadership, and leadership together with diversity, to team success, but actually testing these suggested mediators has only been possible in two of the four studies. This research’s predominant focus on establishing the conditions under which leadership and diversity lead to favorable team outcomes, and how both interact to enhance team effectiveness required certain restrictions in the study design. In Chapter 2 and 3, this decision favored a comprehensive measurement of moderators (rather than mediators). This is in line with the call for a stronger focus on contingency factors of diversity and leadership (e.g., Nishii & Mayer, 2009; Schaubroeck et al., 2007), especially in light of the preponderance of diversity studies examining mediators (Nishii & Mayer, 2009). Chapter 4 and 5 capture moderating and mediating mechanisms.

**FUTURE DIRECTIONS**

As raised earlier throughout the chapters and within this general discussion, there are a number of possibilities for further research with respect to the prediction of team success by leadership and its conjoint effect with diversity. In the following, I will highlight future directions in the field of leadership, followed by future research possibilities that link topics in the field of leadership and diversity, and concluded by ideas for future perspectives on methodological approaches to study leadership and diversity.

**LEADERSHIP DIFFERENTIATION**

The powerful effects of leadership differentiation – i.e., a leader’s varied treatment of the members of a team – have already been discussed in Chapter 3 and above. The present research and other studies on LMX and transformational leadership (Erdogan & Bauer, 2010; Liden et al., 2006; Nishii & Mayer, 2009; Wu et al., 2010) have significantly contributed to our understanding of differentiated leadership’s effects on teams. Future research may also study the effects of differentiation in other leadership styles that inherit a certain focus on the individual. For instance, contingent reward reinforces followers on the basis of their individual performance and desirable behaviors (see Chapter 5), which automatically entails certain differentiation in a team setting. Starting from the notion that contingent reward is based on a transactional exchange relation (Bass, 1985), differentiated contingent reward might be less impactful or even positive for team performance: Such differentiation warrants adequate monetary and other rewards contingent upon the efforts of individual members, and the benefits of higher
performance are clearly visible to others. The resulting accountability may minimize phenomena related to process losses in groups (Steiner, 1972), such as social loafing (Karau & Williams, 1993). Emanating from the notion that contingent reward can also be transformational (insofar, as its exchange relation appeals to higher-order needs; e.g., Avolio, Bass, & Jung, 1999) and thus likely has affective value for followers, its differential allocation to the members may detrimentally affect team performance. These presumably diverging effects of differentiation may also result from other styles that either individualize on the basis of a rational (e.g., achievement-oriented leadership; House, 1971) or an affective-emotional (e.g., Consideration, supportive leadership; Fleishman, 1953; House, 1971) interaction between leader and followers. Supporting this reasoning, the harmful effects of differentiated individual-focused leadership on teams in Chapter 3 arose with respect to individualized support (focus on personalized relationships and emotional bonding) whereas intellectual stimulation (focus on individuals’ cognitive styles and abilities) was more predictive of individual-level outcomes (when conceptualizing both individual-focused facets as differentiation in an alternative model, only individualized support significantly predicted detrimental team outcomes).

Considering the mean levels of the respective leadership behavior may help shed more light on the effects that may arise from differentiation. Indeed, the literature on LMX has come to the preliminary conclusion that differentiation is not necessarily good or bad, but inherits the potential for both, for instance depending on the mean (or median) levels of LMX (Henderson et al., 2009; Liden et al., 2006). An important venue for future research is thus to integrate the study of the leadership of teams with the study of leadership differentiation by interactively combining a leadership style’s mean with its dispersion (shared and configural team properties; Klein & Kozlowski, 2000). For instance, high team mean levels of the above introduced emotional-affective forms of individualized leadership (e.g., consideration, or transformational contingent reward) may worsen the effects of differentiation on team outcomes: Those who receive low leader attention, support, or psychological reward may be especially harmfully affected by high differentiation when in general there are high levels of these benefits in a team (cf. Nishii & Mayer, 2009). In case of high mean levels of leadership behaviors that are less indicative of an emotional-affective relation between leader and follower (e.g., transactional contingent reward, achievement-oriented leadership), differentiation may even facilitate team performance as those with low levels of perceived leader attention may be motivated to “close the gap” to the other members.

Turning toward the “dark” side of leadership (Conger, 1990), ineffective, unethical, or destructive leadership styles (e.g., laissez-faire leadership, pseudo-transformational leadership,
abusive supervision; Bass & Steidlmeier, 1999; Judge & Piccolo, 2004; Tepper, 2000, 2007) may be less detrimental or less ineffective when team members’ perceptions of such leadership diverge. High differentiation implies that only part of the team perceives these destructive or ineffective behaviors, whereas the other members may be less detrimentally affected and thus more able to promote team functioning. When this high differentiation is coupled with low mean levels of ineffective or destructive leadership, this may further diminish potentially harmful effects on the team as a whole, as only a few perceive such ineffective or negative forms of leadership, whereas in general, the perception of such leadership is low. For the individual team members that perceive high levels of these negative forms of leadership, however, differentiation may reflect systematically discriminating leader actions (Offermann & Malamut, 2002) towards them (e.g., blunt dislike, specific mobbing activities, or less tangible discrimination forms such as disinterest). Future research may thus specifically focus on the role of a team’s mean or divergence in interactional or procedural justice perceptions to increase understanding of the meaning of perceived differentiation in “bad”, but also in beneficial forms of leadership. Diverging justice perceptions in the interaction with the leader may also underlie differentiated perceptions of ethical leadership. However, ethical leadership (Brown & Treviño, 2006) may only be effective when the perception of such leadership is shared, as ethical leaders may then be able to influence the team as a whole. Studying ethical leadership, its differentiation, and justice perceptions may thus constitute an important venue for further research.

In sum, considering the effects of leadership differentiation contributes to understanding leadership’s potential in enhancing team effectiveness over and above the mere consideration of the mean of a leadership construct (Chan, 1998; Klein & Kozlowski, 2000). The phenomenon of leader differentiation also hints at the powerful role of leadership perceptions, implicit leadership theories, and the role of followership (see next section). In fact, the perception of leadership may – independently of actual leadership actions - considerably vary between the team members, and such divergence can powerfully affect the functioning and performance of a team as a whole (see Chapter 3). For instance, albeit only a few members in a team may perceive ineffective, abusive, or unethical forms of leadership, this may already harmfully interfere with a team’s functioning, and even inherit the potential of spill-over effects to the rest of the team, thus powerfully shaping a team’s collective perception.
LEADERSHIP AND FOLLOWERSHIP

As raised in Chapter 5 and the last section, another factor may impact the link between leadership and team effectiveness: followership (Hollander, 1992; Van Vugt et al., 2008). The insight into followers’ active role in the leadership process (Shamir, 2007) has stimulated researchers to take a more holistic view of determinants of leadership effectiveness, and a specific leadership model (inclusive leadership) has been developed that explicitly incorporates the notion of the relevance of earning followership (Hollander, 2012). Nevertheless, there is a lack of empirical research that meaningfully integrates these two crucial perspectives on a successful leadership process: “Perhaps one of the most interesting omissions in theory and research on leadership is the absence of discussions of followership and its impact on leadership” (Avolio et al., 2009, p. 434). An interactive examination of leadership and followership may advance integration in leadership research and shed more light on the conditions under which leadership is beneficial or detrimental to team effectiveness. For instance, following a leader with the knowledge, but low motivation to advance learning in a team may detrimentally affect teams (see Chapter 4). Followership may also be an important antecedent of leadership (Shamir, 2007), and predict perceived or actual differentiation in leadership, thereby exerting powerful effects on leaders’ effectiveness in a team setting.

LEADERSHIP, LEADER STATUS, AND DIVERSITY

Followership also plays an essential role in determining how leaders can balance a lack of powerful status cues by means of appropriate leadership strategies, as shown in Chapter 5. Whereas this dissertation focuses on younger age as cue for low status, further research may also examine how leadership strategies influence the success of leaders with other characteristics that are associated with lower status (Berger et al., 1972; Berger et al., 1977; Bunderson, 2003; Ridgeway, 1991). For instance, non-white or female leaders (Eagly et al., 1992; Ridgeway, 2003; Rosette et al., 2008) may also benefit more from leadership behaviors that are grounded in position rather than personal power (see Chapter 5), but nevertheless allow for establishing reciprocal influence relationships with followers. The latter aspect clarifies that leaders with a lack of powerful status cues (i.e., non-prototypical leaders) may not only be limited to influence their teams on the basis of leadership behaviors that rely on position power, but also limited by restrictions imposed by stereotypic expectations associated with a status-relevant personal characteristic (e.g., low acceptance of female leaders' directive leadership; Eagly & Johannesen-Schmidt, 2001; Eagly & Johnson, 1990).
An additional venue for further research is to complement this notion of leader status, implicit leadership theories (Den Hartog & Koopman, 2005; Eden & Leviatan, 1975), and followership (Hollander, 1992; Van Vugt, 2006) by examining the role of team diversity in this regard. For instance, a team’s diversity with respect to expertise-associated status characteristics (cf. Bunderson, 2003) may affect how leaders with a lack of status cues are perceived by the team, and powerfully determine their capability to lead. The more strongly and homogeneously a team differs from the leader with respect to a certain status characteristic (e.g., group prototypicality of a leader; Hogg et al., 2012), and thus the higher the status differential between them (e.g., female leader, male team members), the less influence a leader may have on the team. This calls for identifying specific leadership behaviors or behavior combinations that help these low-status leaders balance their lack of status cues, and to successfully lead high-status teams.

By contrast, when teams are diverse with respect to a specific status characteristic (e.g., younger leader, but age-diverse teams), the leader’s lack of this powerful status cue may be less salient to the members, and leaders may be more capable of influencing their teams by means of a broader range of leadership behaviors (e.g., participative leadership, transformational leadership).

**Leadership, Diversity Beliefs, and Dispersion in Diversity Beliefs**

Whereas the body of research on the linkages among diversity, leadership, and team effectiveness is increasing and recently also started to incorporate diversity in values and perspectives (Klein et al., 2011; Mohammed & Nadkarni, 2011), the mean and dispersion in team members’ diversity beliefs (i.e., the beliefs about the value of diversity for teams’ functioning) have not been considered in this respect. As beliefs about the value in diversity importantly affect the perception and outcomes of actual diversity (Ely & Thomas, 2001; Homan et al., 2010; Homan et al., 2008; Homan et al., 2007; Van Knippenberg et al., 2007), diversity in these beliefs – and thus a lack of shared understanding of the potential in diversity – may detrimentally affect a team’s capacity to actually use its broadened pool of task-relevant information (cf. Van Knippenberg & Schippers, 2007). Diverse teams with low mean and/or high dispersion with respect to their diversity beliefs may for instance require specific forms of leadership that may counteract this attitudinal diversity’s potentially disruptive effects on team effectiveness. Group-focused transformational leadership that binds team members toward a common goal and mission (see Chapter 3), or inclusive leadership that is characterized by a specific appreciation and promotion of team members’ unique input and diverging views (Nembhard & Edmondson, 2006; Shore et al., 2011) may be important candidates for ensuring these teams’ functioning.
Appropriate team leadership may also help install *shared* diversity climates in a team, i.e. the collective perceptions of a team’s appreciation of diversity (cf. Van Knippenberg et al., 2013). For instance, the dissertation (Chapter 4) has shown the relevance of traits that predispose leaders to promote “learning-and-integration” (cf. Ely & Thomas, 2001). Specific leadership behaviors (e.g., transformational leadership, inclusive leadership) may even more effectively promote shared value-in-diversity beliefs and diversity climates when leaders have such learning-oriented disposition. Lastly, Greer at al. (2012) and Homan and Greer (2013) have provided evidence on the powerful role of a leader’s categorization tendencies and a leader’s tendency to see individuals rather than subgroups in their teams. Hence, future research on leadership, diversity beliefs, and actual diversity may also account for the effects of leader’s own diversity beliefs on team functioning and outcomes.

**Inclusive Leadership and Diversity**

Related to the latter aspect, focusing on leader behaviors that more specifically capture how team leaders can fulfill diverse teams’ specific needs (cf. Morgeson et al., 2010) may further improve understanding of how leadership can leverage the potential of diverse teams. Inclusive leadership comprises “words and deeds exhibited by leaders that invite and appreciate others’ contributions” (Nembhard & Edmondson, 2006, p. 941), and providing a diversity-sensitive form of inclusive leadership to diverse teams may specifically promote team members’ contributions of unique views and insights. Whereas such leader approach has been theoretically related to diversity (Nembhard & Edmondson, 2006; Shore et al., 2011), an empirical test of the relative validity of such diversity-specific form of leadership compared to traditional leadership approaches (e.g., participative leadership) is still missing.

**Leadership, Leadership Differentiation, and Diversity**

Incorporating leadership differentiation into the study of leadership and diversity may contribute to delineating the boundaries of leadership’s effectiveness for diverse teams. Especially diverse teams are endangered to suffer from detrimental intergroup biases, conflicts, and lowered cohesion (Polzer et al., 2002; Williams & O’Reilly, 1998). Leaders who differentiate among the members may further nurture this predisposition to subgroup formation and lowered team functioning, thereby undermining positive effects of high mean levels of leadership on diverse teams. For instance, high levels of inclusive leadership may help utilize the performance potential of diverse teams, but followers’ perception of different degrees of inclusiveness (i.e.,
differentiation) may undermine this leadership approach’s positive effects, or even detrimentally affect teams as this “inclusion” is perceived to be reserved for selected members. Future research might thus account for leadership mean and dispersion as joint moderators of the diversity-team effectiveness link.

LEADERSHIP, DIVERSITY, AND MEDIATING MECHANISMS

The present dissertation has already provided important insights into mechanisms linking leadership, or leadership and diversity, to team effectiveness. These mechanisms reflect aspects of how (diverse) teams share their knowledge (Chapter 3) or how they perceive and use their differential informational resources (Chapter 4), thus clearly hinting at the elaboration of task-relevant information path of the Categorization-Elaboration Model (Van Knippenberg et al., 2004). Whereas this path describes how diversity can lead to favorable team performance, the social categorization path of this model describes how this elaboration of information (and its favorable effects on team performance) may be undermined by detrimental social categorization processes, conflicts, and lowered cohesion. Future research linking leadership and diversity may examine both the categorization and the elaboration perspective, either in sequenced order (Kearney & Gebert, 2009) or by understanding categorization as moderator of the elaboration path (Van Knippenberg et al., 2004). For fully capturing how the unique conjunction of leadership or leadership differentiation and team diversity fosters or impairs team performance, searching for even more specific mechanisms may be required that lie between leadership actions and diverse teams’ sharing and use of knowledge, such as team members’ shared perceptions/climate of inclusion and justice or perceptions of subgroup formation in a team. This may help tailor leadership to the specific needs of diverse teams and improve the conditions for effective team leadership.

LEADERSHIP, DIVERSITY, AND TASK INTERDEPENDENCE

Besides the important role of compositional characteristics (e.g., diversity) and contextual characteristics (e.g., leadership), theoretical models and empirical findings have also shown task characteristics (e.g., task interdependence, job autonomy) to importantly influence team effectiveness (e.g., Cohen & Bailey, 1997; Stewart, 2006). In line with this notion, this dissertation has focused on job autonomy as intervening mechanism of how intellectual stimulation affects individual performance (Chapter 3), but has also considered task interdependence as control variable. Task interdependence indicates the degree of intrateam
coordination necessary to pursue the team’s goal (Stewart, 2006), and is thus important for understanding collaboration in teams. Indeed, the dissertation shows that task interdependence is significantly positively related to team effectiveness (e.g., positive effect on performance in Chapter 2, negative effect on voluntary turnover in Chapter 5). Hinting at the important role of incorporating task characteristics in studies on leadership (Liden et al., 2006) and diversity (Van der Vegt & Janssen, 2003), future research may thus also test for interactive effects between diversity, leadership, and task interdependence in the prediction of team effectiveness, and may even account for task interdependence’s potentially (u-shaped) curvilinear relation with performance (cf. Stewart, 2006) in this regard.

**Leadership, Diversity, and Multiple Study Designs and Meta-Analysis**

Whereas this dissertation relies on both experimental and field survey design to capture the joint effects of leadership and diversity on team effectiveness, future research may pursue an even more combined approach by linking survey and (quasi-)experimental research. For instance, extending the presented experimental training study to an applied organizational setting would allow for delineating boundary conditions of the established relationships in a field setting. Conversely, experimentally manipulating leader behaviors and team diversity may provide deepened insights into the relationship strengths between the manipulated characteristics and team effectiveness in a controlled setting. Moreover, a meta-analytical review on leadership and diversity may meaningfully integrate the already existent body of knowledge on these phenomena as joint predictors of team success and help guide and structure future research, such as a heightened focus on deep-level rather than demographic or informational diversity, more measures of sustainable team success (e.g., team member well-being), and the need for incorporating boundary conditions in the study of leadership, diversity, and team effectiveness.

**Leadership, Diversity, and Multiple Levels**

Contrasting the vast majority of leadership research focusing on the individual level (Hiller et al., 2011; Judge et al., 2004), this dissertation studied leadership and diversity as two important antecedents of team processes and performance. Consequently, all studies and analyses were conducted at the team level, or also incorporated an individual level to disentangle variance explained by individual-focused leadership at the individual level from variance explained by group-focused transformational leadership at the team level. Further extending the scope of research from a micro-(individual) level to multiple levels (Klein & Kozlowski, 2000),
future studies may also incorporate an organizational or even societal level to delineate the multifaceted influences on and outcomes of leadership and diversity. Specifically, studying the generalizability of the presented findings (e.g., role of leadership differentiation, relevance of diversity dimensions or conceptualizations, role of leader demographics) across countries and cultures may constitute an important venue for further research. Furthermore, linking multi-level research with a social network approach in future research on leadership differentiation (cf. Sparrowe & Liden, 1997) may shed more light on how individual-focused leadership in a team setting exerts its powerful effects on (diverse) teams and its members.

**CONCLUDING REMARKS**

In the pursuit of a clearer picture of leadership’s and team diversity’s capacity to enhance team success, the dissertation has examined leadership, diversity, and their conjoint effects as drivers of team effectiveness. To this aim, the presented research has addressed a number of critical challenges that may have hindered the ability of prior research to unequivocally delineate leadership’s and diversity’s impact on team success in an integrated approach. Revealing the value of examining different styles, characteristics, and foci of leadership together with different dimensions and conceptualizations of team diversity, the dissertation has shown that both leadership and diversity can powerfully strengthen each other’s effects on teams. Hence, this dissertation’s findings give a first answer to how a clearer picture of leadership’s and diversity’s influence on team success may look like: Whereas only one of these factors may not be sufficient to enhance team effectiveness, leadership’s and diversity’s combined influence can attain the envisioned goal: To unlock the potential of teams.