International Experience Diversity: Insights from the Experiential Composition of Professional Football Teams

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St.Gallen, May 2013 Martin
Abstract

Organizations increasingly rely on teams to take advantage of individuals’ experiences, knowledge and competences flexibly. At the same time, international experience has become a characteristic element of contemporary careers with developmental effects on individuals’ knowledge and competences. Driven by dynamic, globalized and competitive conditions, both organizations’ reliance on teams, and individuals’ movements across team, organizational, and national borders, emerge as fundamental elements of today’s organizational environment. This dissertation focuses on the intersection of these elements. It examines how the international backgrounds of team members influence team performance and specifically aims to understand how teams can take advantage of a diverse international experience base. To that end, a dual data set drawn from the context of professional football was analyzed, which enabled a unique grasp of international experience as the key study concept. Specifically, the experience backgrounds and performances of teams and players engaged in the German Bundesliga (2005–2012) and the FIFA World Cup 2010 were analyzed by using ordinary least squares regression and hierarchical linear modeling techniques. Generally, the findings suggest that team members’ international experiences positively influence team performance as they combine into a diverse pool of knowledge and information available to a team. Three empirical chapters further identify conditions under which teams are able to capitalize on these benefits. First, teams profit more from greater diversity of international experience if they are composed of members with relatively narrow and specialized backgrounds from high quality settings, and are led by managers with longer tenure in the team. Second, teams allocating their experiential composition with arising task requirements at a subteam level further optimize these benefits. Whereas diversity in the international experiences of the subteam members primarily responsible for seeking a team’s win (promotion oriented) benefits overall team performance, diverse experiential composition of subteams responsible for avoiding a team’s loss (prevention oriented) hinders overall team performance. Third, teams with a homogeneous international experience base and longer duration of average team membership benefit the most from newcomers with broad international backgrounds. The main conclusion drawn from these findings is that teams benefit from diversity of international experience and should pay careful attention to other elements of experiential team composition in order to profit most from these advantages.
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1 General introduction

1.1 Introduction

Organizations’ increasing reliance on teams has become evident, whereby today’s globalized environment has put international aspects of team composition at the center of attention. Imagine the case of a consulting company putting together a project team responsible for an internationally operating client. Composed from a global talent base of consultants, such a team is very likely to consist of members from a multitude of national and cultural origins. Beyond that, team members pursuing dynamic and internationally mobile careers bring their individual experience backgrounds to the team, thereby adding another, experiential, dimension to such a consulting team’s internationality. Similarly, football clubs competing at the highest levels compose their teams drawing on an international labor market for professional athletes (the term football is used throughout this dissertation to denote the sport that in some parts of the world is also known as soccer). The verdict of the European Court of Justice in the case of the Belgian player Jean-Marc Bosman in 1995 and the ensuing liberalization of the football player market have facilitated an increasing internationalization of professional footballers’ careers (Frick, 2007). As a result, the highest-level football teams are composed of internationally experienced members.

The examples above illustrate how the international career backgrounds of a dynamic and mobile workforce form a salient experiential dimension of a teams’ international composition. The current thesis builds on prior studies examining the experiential composition of teams, where the primary focus has been on functional or educational backgrounds (e.g. Bunderson & Sutcliffe, 2002). How the international experience backgrounds of team members influence team performance, however, has not been systematically examined so far. This is the aim of the present thesis.

Parallels between business and sport teams exceed the labor market phenomenon illustrated above. As Keidel (1987: 591) argues, “the world of sports mirrors the world of work” where “play structures parallel work structures.” Such a conception is fostered by the view that as sport has become institutionalized, it has evolved to become more like work than play (Frey & Eitzen, 1991). The current thesis accords with this view as professional football teams are maintained by more and more commercially oriented clubs, and financial and commercial goals, typically attributable to the world of work, become increasingly important also in the world of sports. At the same time, the availability of complete and objective data makes sport teams a promising subject of study (Wolfe et al., 2005). For these
reasons, the context of professional football teams serves as a real-world laboratory in this thesis.

1.2 Background

The primary aim of this thesis is to examine international experiences in teams. There are several reasons why this is a worthwhile endeavor. The following paragraphs detail the three most important reasons for the chosen research focus.

1.2.1 Reason 1, contemporary careers

International career moves are becoming more and more common among a globally oriented workforce (Gregersen, Morrison, & Black, 1998; Suutari & Mäkelä, 2007). The nature of contemporary careers has been described as characterized by nonlinear, discontinuous paths (Sullivan, 1999) resulting in “a sequence of job opportunities that go beyond the boundaries of a single employment setting” (DeFillippi & Arthur, 1996: 116). Individuals’ mobility across settings may manifest in physical movements between levels, jobs, employers, occupations, industries or international contexts. Focusing on the international dimension of present-day careers, recent research has examined how single and multiple international assignments lead to extensive acquisition of skills and experiences (Cappellen & Janssens, 2005; Eby, Butts, & Lockwood, 2003; Jokinen, 2010; Roberts, Kossek, & Ozeki, 1998; Suutari, 2003). This previous research on international experience has predominantly been performed at the level of the individual.

At the same time, organizations increasingly rely on teams as a way to organize work (Ilgen, 1999). As organizations use teams to approach some of their most difficult and pressing challenges (Tannenbaum, Mathieu, Salas, & Cohen, 2012), many individual workers find themselves embedded in a team context. Understanding the consequences of individual team members’ international experiences for team functioning and performance thus emerges as a highly relevant topic within the context of contemporary work arrangements.

1.2.2 Reason 2, international dimensions of teams

The rise of multinational teams is a key characteristic of the age of globalization. Not surprisingly, the dynamics of multinational teams has become a major research topic (e.g. Earley & Mosakowski, 2000; Hambrick, Davison, Snell, & Snow, 1998; Lazear, 1999).
Predominantly, such research has analyzed the costs and benefits of diversity in group members’ characteristics as a reflection of their nationality, race, or ethnicity (Stahl, Maznevski, Voigt, & Jonsen, 2010). Where differences in attributes of team members give rise to processes of social categorization and associated in-group out-group judgements (Tajfel, 1981), multinational team composition may come at a cost. At the same time, as people from different origins bring very different perspectives and cognitive frameworks to a team, information-processing advantages (Hinsz, Tindale, & Vollrath, 1997) might benefit multinational teams.

Existing research on multinational teams has in large part neglected the importance of members’ international experience backgrounds. However, international experience as an underlying rather than readily detected attribute of individuals (Jackson & Joshi, 2011) may function as an important variable in team composition from an information-processing perspective. International careers as accumulations of information and knowledge (Bird, 1984) form a more finely nuanced and dynamic pattern of team members’ informational backgrounds than the rather one-dimensional and static concepts of national or cultural origin. Where movement across national contexts characterizes individuals’ careers, the place of birth or national origin as registered in official passport documents may be of limited relevance for the information and knowledge inputs that individuals bring to a team. This thesis’s focus on international experiences thus adds an experiential dimension to the study of teams’ internationality.

1.2.3 Reason 3, experiential team composition

When studying teams with a focus on experiential composition, researchers have predominantly examined team members’ experiences in terms of educational or functional backgrounds (Jehn, Northcraft, & Neale, 1999; Milliken & Martins, 1996; Simons, Pelled, & Smith, 1999). Team members who have completed dissimilar types of educational curricula, it has been argued, may bring differing perspectives and knowledge bases to a team (Bantel & Jackson, 1989). Functional background refers to the “distribution of work history across the different functional specializations that exist within an organization” (Bell, Vilado, Lukasik, Belau, & Briggs, 2011: 7). Such function-specific work experiences are likely to shape individuals’ knowledge and perspectives in addition to the impact of their educational backgrounds (Bantel & Jackson, 1989).

During individuals’ careers, different experiences might exert different developmental influences on their knowledge and perspectives. International experience as a focal background dimension has been described as a “mind-stretching” experience, which
influences individuals’ competences (Jokinen, 2010: 327), and even identities (Kohonen, 2005, 2008). During international assignments people encounter more discontinuities, critical incidents and occasions for reflection than in a home country context, leading to opportunities for self-examination and self-renewal (Kohonen, 2005). International experiences thus enable individuals to immerse in foreign contexts and thereby experience developmental effects on skills and competencies (Suutari & Mäkelä, 2007). Studying the relationship between international experiences and team functioning thus enables a focus on an influential dimension of experiential team composition, going beyond educational and functional backgrounds.

1.3 Theoretical perspective

The most basic theoretical perspective applied in this thesis is the information processing perspective. Hinsz and colleagues (1997) describe an emerging view of groups as information processors, which is historically rooted in cognitive psychology, and emphasizes the role of knowledge, skills, and expertise that individual members bring to a team. Elaboration of task-relevant information is conceptualized as the primary mechanism relating team members’ informational inputs to team outcomes, where elaboration 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, DeDreu, & Homan, 2004). In summary, teams able to draw on a broader information base may improve their performance through a broader search for relevant information, the development and consideration of more alternative solutions, or more vigorous debates (Jackson, 1992; Jackson & Joshi, 2011).

The information processing perspective underlies many team studies with a focus on team members’ experience backgrounds (e.g. Bantel & Jackson, 1989; Jehn & Mannix, 2001; Jehn et al., 1999), and also serves to inform the central arguments of this dissertation. The logic of the information processing perspective generally implies positive effects of diverse team composition. A social categorization perspective, to the contrary, would imply negative effects of diverse composition due to the disrupting effects of stereotyped perceptions of dissimilar others, subgroup formation, or intergroup biases on team functioning (Van Knippenberg & Schippers, 2007). While many prior studies have linked either information processing or social categorization processes to specific dimensions of team composition (e.g. diversity in functional experiences was in many cases linked to the positive effects of information processing), Van Knippenberg and colleagues (2004) suggest
that any dimension can elicit both effects associated with either the information processing or the social categorization perspective, depending on the contingencies of elaboration and categorization. Following Van Knippenberg and colleagues’ (2004) propositions, the positive effects resulting from information elaboration in diverse teams rather than categorization processes are expected to be prevalent when team tasks require information processing and creative, innovative solutions, when the task motivation of group members is high rather than low, and when task ability of group members is high rather than low. Professional football teams face the complex task of competing against opponents under highly competitive conditions, and are composed of both intrinsically and extrinsically motivated, professional, i.e. highly-skilled, members. These considerations underpin the choice of the information processing perspective as the guiding theoretical perspective within this dissertation.

## 1.4 Empirical setting

The context of professional football teams forms the basis of the empirical investigations in this thesis. The thesis thus follows an emerging tradition of studies examining organizational research questions within the empirical context of sports (e.g. Berman, Down, and Hill, 2002; Humphrey, Morgeson, & Mannor, 2009; Wolfe et al., 2005). Many studies examine the world of sports empirically to take advantage of complete and objective data sources, or the possibility to test hypotheses in a relatively controlled field environment.

For the purposes of the current thesis, the chosen setting further enables a unique grasp of the key study concept of international experiences. The setting of highest-level professional football is a field where international experience forms a valuable and widely spread asset. As football is a physical as well as cultural experience (Szymanski & Zymbalist, 2005) the international backgrounds of professional footballers shape the acquired knowledge of the game, a player’s style of play and the relative emphasis on the countless skills of the game (McNamara & Peck, 2010).

The empirical sample is based on data from professional club football in the German Bundesliga, as well as from national association football teams from the FIFA World Cup 2010 in South Africa. Detailed individual player career profiles collected from official Bundesliga, club, and FIFA World Cup websites form the basis of the empirical analyses. The German Bundesliga sample is based on all individual players, teams, and seasonal team performances from seven consecutive seasons (2005/06 to 2011/12) and consists of a total of 3’360 seasonal player profiles composed into 126 season specific
teams. Most of the clubs regularly compete at the highest level of the German Bundesliga, as a maximum of three out of eighteen clubs are exchanged between seasons in a relegation and promotion procedure. As a result, many clubs appear as repeated seasonal team observations in the sample. Appropriate statistical procedures are applied in the empirical analyses to account for this issue. The World Cup 2010 sample is based on 736 individual players composed into 32 participating teams. Within the World Cup sample, a total of 128 team specific game-level performances are analyzed. Similar to the Bundesliga setting, individual teams appear as repeated game-level performance observations in the sample. Again, statistical procedures allow controlling for this issue in the empirical analyses.

Data advantages, laboratory-like environmental conditions, and a unique grasp of the study’s most central concept associated with the chosen sport context, also come at a cost. Findings may be idiosyncratic to the specific context of football teams, thereby limiting the transferability and applicability to other teams and contexts. Clearly, parallels between sport teams and other organizational teams still need to be firmly established in the literature in order to address the usefulness of drawing conclusions between contexts. While not making any claim to solve this issue fully for future research, a first step towards systematically addressing the peculiarities of prominent sport teams from a broader organizational perspective is offered in the review chapter (chapter 2).

1.5 Expected contributions

The research focus of this thesis has been developed from a phenomenon-driven point of view, highlighting the two topics of teamwork and international careers. Consequently, the findings of this dissertation are expected to contribute first and foremost to research on team composition and on international experience.

In the clear majority of cases, researchers interested in teams and team composition have neglected the role of individual team members’ international experience backgrounds. The exception is a number of studies focusing on top management teams and CEOs, where international experience has been framed as a resource that is rare, valuable, and hard to imitate, having the potential to create competitive advantage and performance for a firm (Carpenter, Sanders, & Gregersen, 2000, 2001), or has been associated with international diversification strategies (Sambharya, 1996). The current thesis builds on these prior studies and contributes a focused analysis of an experiential dimension that has received limited attention so far. In order to develop a detailed picture of international experiences in teams, this thesis further examines the conditions under which teams benefit the most from team members’ international backgrounds. With this, the thesis contributes to
a better understanding of experiential team composition, with a focus on the international experience dimension.

Research focusing on international experiences has primarily been conducted at an individual level where the selection, cross-cultural adjustment, pre-departure training and development, repatriation adjustment and other issues have been investigated along an “expatriate cycle” (Bonache, Brewster, & Suutari, 2001; Suutari & Mäkelä, 2007). Although a general conception holds that international experiences are an effective way to develop the competencies needed in today’s dynamic and globalized environment (Gregersen et al., 1998), individuals as well as organizations do not always manage to translate acquired experiences into future success as lessons learned may be difficult to transfer to new contexts (Selmer, 2002). As many individuals are members of teams in their day-to-day work environments, this thesis contributes to a better understanding of the factors facilitating the exploitation of team members’ international experience backgrounds.

Further, several practical implications are expected to result from the current thesis. Insights on the relationships between individuals’ international experience backgrounds and team functioning and performance may endow team managers with an additional dimension to consider in team composition and may help groups and leaders improve the effectiveness of teams (Pelled, 1996). For individuals, the results of this study may enable informed career choices at critical stages of their international careers.

1.6 Overview of the chapters

This thesis consists of four main chapters. Chapters 2 to 5 of this dissertation contain freestanding papers that cumulatively contribute to the overall research question about the influence of international experiences on team performance. To that end, each of these main chapters addresses distinguishable research questions, highlighting specific aspects of how international experiences as an experiential dimension of team composition relate to team performance.

Table 1 presents the current status per chapter, as of May 2013, the following paragraphs then outline the main issues addressed per chapter:
Table 1: Status per chapter as of May 2013

<table>
<thead>
<tr>
<th>Title</th>
<th>Status</th>
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<tr>
<td>Chapter 2: Studying teams within the context of sports</td>
<td>In preparation for conference submission</td>
</tr>
<tr>
<td>Chapter 3: Composing teams to optimize the benefits of international experience diversity</td>
<td>Accepted for presentation at the AIB 2013 Annual Meeting in Istanbul</td>
</tr>
<tr>
<td>Chapter 4: Gaining the victory and avoiding defeat</td>
<td>In preparation for conference submission</td>
</tr>
<tr>
<td>Chapter 5: Newcomers’ international experiences and contributions to team performance</td>
<td>Accepted for presentation at the AOM 2013 Annual Meeting in Lake Buena Vista</td>
</tr>
</tbody>
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Chapter 2 focuses on the sport team setting as an empirical context for the examination of organizational phenomena, addressing the main question of what we can learn of teams in general from studies conducted in the context of sports. To that end, the existing corpus of team studies conducted within the context of sport teams is reviewed, and the five most prominent types of sport teams studied are discussed along the lines of four dimensions of team description. In summary, the review chapter sets the stage for the following empirical studies in that the sport context is described as a fruitful and well-established setting for investigating organizational research questions.

Chapter 3 carefully develops the main argument of this thesis, according to which diversity of international experience constitutes a performance-relevant resource in teams, where individuals’ international backgrounds combine into a pool of available knowledge and perspectives available to the overall team. Beyond establishing this basic relationship, chapter 3 examines the conditions under which the potential benefits of diversity of international experience will manifest, highlighting the role of two further experiential composition variables and managerial tenure as conditional factors at overall team level. An interest in the conditions under which the beneficial effects of team members’ international experiences can be optimized then also characterizes the further empirical chapters.

Chapter 4 focuses on the importance of a team’s task environment. Based on a notion that teams rarely face single task types, the two basic subtasks of “seeking a team’s win” and “avoiding a team’s loss” are introduced as components of a team’s general aim to perform. Specifically, chapter 4 addresses the impact of members’ experience at a subgroup level, and illustrates how diversity of international experience relates differently to overall team performance within subteams facing different subtasks.
Chapter 5 then applies a more dynamic perspective and addresses international experience backgrounds at the level of individual newcomers, and examines which new team members contribute the most to the performance of their new team. More specifically, chapter 5 examines how internationally experienced newcomers are a valuable source of new knowledge inputs in experientially homogeneous teams and teams consisting of members of longer tenure, and how broad international backgrounds may help overcome potential difficulties associated with newcomers’ contributions in new team settings.

Finally, chapter 6 summarizes and elaborates on the results of the different studies and discusses implications for academic and practitioner audiences.
2  Studying teams within the context of sports

A framework of sport team description and insights into managing teams, composing teams, and allocating resources
Abstract

A notable stream of literature has begun to examine a wide range of organizational research questions within the world of sports. This chapter asks the specific question of what we can learn about teams from research conducted within the sports context. To that aim, forty studies guided by a broader organizational interest in teams but conducted within the context of sports are reviewed. The chapter discusses the substantive nature of the most prominent sport teams studied in the literature, and illustrates the contents covered by this stream of research by focusing on the issues of managing teams, composing teams, and allocating resources. Further, areas where future research on sport teams may contribute to an accumulating knowledge base on teams are outlined.
2.1 Introduction

Organizations increasingly rely on teams to organize their work (Cross, Ehrlich, Dawson, & Helferich, 2008; Ilgen, 1999). Scholars have thus sought to improve our understanding of teams and the determining factors of team effectiveness whereby an enormous amount of research has accumulated. Large amounts of research focusing on the team phenomenon may raise the impression that conducting studies in this field is relatively straightforward. The reality of studying teams in context, however, can be challenging. As Day, Gordon, and Fink (2012: 2) describe this matter in general terms for the study of people and groups in organizational settings, “there are issues of organizational boundaries, environmental contingencies, difficulties with measuring performance and other outcomes soundly, and the fluid nature of organizational roles and expectations, among many other considerations, that contribute to the complexities of conducting rigorous organizational research.” These challenges may well be amongst the reasons why a notable stream of research has begun to examine organizational research questions in alternative contexts, such as the context of professional sports.

The world of sports offers opportunities to observe, measure, and compare key variables such as performance metrics, and to test hypotheses under quasi-laboratory conditions (Wolfe et al., 2005), providing researchers with favorable environments to empirically examine their theoretical arguments. Sport has thus appeared to be an effective setting for studying a wide array of organizational phenomena, and initial review pieces by Wolfe and colleagues (2005) as well as Day and colleagues (2012) have already sought to summarize this stream of literature. Both reviews share an interest in research conducted at the intersection of organizational research questions and the empirical setting of professional sports. Wolfe and colleagues (2005) present a general overview of the rationales for studying organizational phenomena within sports, and provide a discussion of 18 selected exemplary studies from 1972 to 2002, published in five leading general management journals. Their review is deliberately open in terms of contents addressed, and draws a picture of the chosen studies as covering a wide range of phenomena. More recently, Day et al. (2012) structure their review along the lines of competition (getting ahead) and cooperation (getting along), as two fundamental themes at the core of organizational life. Including selected studies from the sport science literature, Day and colleagues’ (2012) review covers more than forty studies ranging from 1963 to 2011 and is not limited to a certain set of journals.

To date, no review has exclusively focused on the specific topic of team research conducted within the context of professional sports. This is surprising in light of
the prominent role that team sports hold in the wider field of sports. Team sport represents an interesting environment for empirical investigations because it enables researchers to study large populations of teams. As these teams often compete within the boundaries of sport- and nation-specific leagues, they share the same contextual conditions and compete under accepted and enforced rules (Day et al., 2012). The present review thus advocates the sport team setting as an advantageous empirical context for organizational research. To this end, this chapter addresses the following main question: What can we learn about teams from research conducted on sport teams?

2.1.1 Aim and structure of the review

Cohen and Bailey’s (1997) seminal review of the literature on organizational teams has proved to be one of the most influential articles in the team literature, summarizing and preparing much of the substantial knowledge about teams that had accumulated at that time, and setting the stage for a plethora of research on teams in the years after (Mathieu, Maynard, Rapp, & Gilson, 2008). As a consequence, a diverse empirical research base has emerged, including laboratory experiments, cross-sectional field studies, and longitudinal case studies in a variety of industries and contexts (Hollenbeck, Beersma, & Schouten, 2012). Clearly, most of the scientific literature on teams is based on work teams in organizational settings (Cannon-Bowers & Bowers, 2006). Team research, however, also embraces the study of teams in many other contexts than the private industry or public organizations (e.g. governmental), such as military teams (e.g. Cannon-Bowers & Salas, 1998), student teams (e.g. Rulke & Galaskiewicz, 2000), or sport teams (e.g. Timmerman, 2000). Several influential reviews exist of the team literature conducted predominantly within traditional organizational work contexts (e.g. Cohen & Bailey, 1997; Guzzo & Dickson, 1996; Ilgen, Hollenbeck, Johnson, & Jundt, 2005; Mathieu et al., 2008), or of research in some of the non-traditional contexts such as the military setting (e.g. Salas, Bowers, & Cannon-Bowers, 1995). Research conducted within the specific setting of team sports, however, has not yet been subject to a systematic review. This chapter thus provides an overview of team research findings derived in the context of professional sports.

Moreover, this review addresses the question of how the findings derived in the sports context can be interpreted from a broader organizational perspective. This relates to one of the central challenges arising in the overall field of team research: As the field is characterized by a high degree of diversity in terms of its empirical research base, problems arise for meaningfully integrating and aggregating results across studies to generate a cumulative knowledge base (Hollenbeck et al., 2012). Teams may differ in terms of the
context in which they operate (e.g. organizational vs. sports context), and this might be an intuitive concern with studies motivated by organizational research questions but conducted in the empirical context of sports. Findings might be idiosyncratic to the specific sport setting, thereby limiting the transferability of such findings to teams in other contexts. Even beyond the importance of context, the type or kind of team studied may differ substantially (e.g. top management teams vs. production teams in the organizational context, baseball teams vs. basketball teams in the sports context). In fact, scholars have argued that the substantive nature of teams, such as in terms of the structural dependence linking individual team members, is an informative way to characterize teams (Cannon-Bowers & Bowers, 2006; Hollenbeck et al., 2012; Mathieu et al., 2008). For that reason, and relying on recent conceptual work trying to identify the essential characteristics of teams across various contexts and team types (Hollenbeck et al., 2012), this review further describes carefully the sport teams examined in the reviewed studies. Such a description may later enable researchers to identify the similarities and differences between a sports team and another (potentially organizational) team under investigation, thereby assessing the transferability of findings between different teams.

2.1.2 Structure of the review

This chapter unfolds as follows: At the outset, an overview of relevant studies at the intersection of organizational team research and the sports context is presented. For this purpose, the exact procedure of how the relevant studies have been identified and collected is explained, followed by an initial descriptive assessment of the field. Therein, the types of sport teams studied are identified. Next, and as one of the key contributions of this review, characteristics of the most prominent sport team types are described along the lines of four dimensions of structural dependence. These dimensions are skill differentiation, authority differentiation, temporal stability, and task interdependence, and these have been perceived as critical in earlier attempts to compare different teams (Hollenbeck et al., 2012). The discussion then turns to the specific contents covered, and identifies the issues of managing teams, composing teams, and allocating resources as three fundamental content categories. The review discusses key insights gained from the study of sport teams and identifies opportunities where the context of team sports may be leveraged for further contributions.
2.2 Overview of relevant research

2.2.1 Procedure

A number of choices were made to define the studies to be included in this review. Many of these choices followed from the preceding more general discussion of the interest of teams for organizational scholars, and some of the benefits and challenges associated with doing research in non-traditional contexts.

First, potential studies for this review should have a focus on team design or input factors as captured by team effectiveness frameworks (Mathieu et al., 2008; McGrath, 1964, 1984). These include team-level factors, such as the influence of leaders or tasks, individual-level factors, such as competencies or demographics of team members, and organizational- or contextual-level factors, such as rewards or resources. These factors structured the main review along the topics of managing teams, composing teams, and allocating resources. This decision to concentrate on input factors instead of the intervening and transmitting processes or emergent states was based on a notion that inputs or design factors clearly influence team performance (Guzzo & Dickson, 1996), and can be directly influenced by managers to create beneficial conditions (Cohen & Bailey, 1997). Second, for studies to be included in this review they had to examine team performance as the focal outcome variable. This choice was based on the notion that one of the most prominent rationales for choosing the sport context as an empirical setting is that “performance is clearly observable and measured with great accuracy” (Franck & Nüesch, 2011: 3040). It was therefore expected to find that many team studies conducted within the context of sports actually employ team performance as a dependent variable. A similar rationale led to the third selection criterion, which was to include only studies of an empirical nature. While there are conceptual articles (e.g. Sonnenfeld & Peiperl, 1988) as well as review pieces (Day et al., 2012; Wolfe et al., 2005) at the intersection of organizational and sports research, this field is clearly dominated by empirical studies. A reason for this tendency might again be researchers’ aim to exploit the data advantages offered by the sports context. Fourth, studies were only included in the review if they were conducted at the intersection of organizational research and empirical investigations within the sport team context. This choice was based on the review’s central aim to examine the sport setting as a promising field for the study of organizational phenomena. This meant that only journals that concentrate on organizational issues, or with an explicit interest in the intersection of organizational research and sports, were included in the literature search. Exclusively sports-specific journals were not included in the search. With this choice, the present review covers a stream of literature that aims to leverage the
Studying teams within the context of sports

sport team context to contribute to an accumulating knowledge base on teams in general, rather than studies that pursue an inherent interest in sport teams per se. Finally, the time horizon for relevant articles was not limited to certain publication years.

A total of forty empirical studies that matched the selection criteria were identified. This sample is more than double that reported in Wolfe and colleagues’ (2005) review. While the review by Day et al. (2012) presents a slightly larger number of studies (“more than 40 empirical studies”, p. 6), this can be explained by the fact that the present review is focusing on a much more specific content area compared with the relatively open field of topics covered by Day and colleagues. Similar to their approach, this review is not limited to a certain set of journals, as described above.

The search for relevant articles started without any restrictions in terms of journals or publication years, but only included scholarly (peer reviewed) journals. It was decided to narrow down the set of relevant articles by applying a content-driven approach. A search in Ebscohost comprising the Business Source Premier, EconLit, and PsychINFO databases was conducted, where abstracts were searched for the following terms: “team”, “performance”, plus at least one of a variety of sports-relevant search terms such as “sport, baseball, basketball, hockey, football, soccer, rugby, handball, NBA, MLB, etc.” As of June 2012, this search resulted in a total of almost 980 records matching these criteria on Ebscohost. This search was extended by using several combinations of the keywords on scholar.google.com, searching especially for very recent publications. In a next step, all the abstracts of the set of potential studies were read in search of those relevant to this review, thereby also deleting duplicate records. Studies not focusing on team input factors or not concentrating on team performance as the outcome variable were excluded. Consequently, the sample of reviewed studies does not include such focusing on statistical or methodological issues (e.g. Timmerman, 2005), on emergent states such as team cohesion (e.g. Dirks, 2000; Rovio, Eskola, Kozub, Duda, & Lintunen, 2009; Ryska & Cooley, 1999), trust (e.g. Mach, Dolan, & Tzafrir, 2010), or team atmosphere (e.g. van Breukelen, van der Leeden, Wesselius, & Hoes, 2012), or studies using outcome variables at levels other than team performance, such as individual performance (e.g. Lee & Harris, 2012; Totterdell, 2000), or financial performance of sport clubs (e.g. Szymanski & Smith, 1997). The resulting sample of forty studies enabled to gain an overview of team research conducted in the sport context.
2.2.2 Describing the field

Clearly, one can expect certain overlaps with the two earlier reviews on similar content areas. A one-by-one comparison of the articles in this review with the reference lists of Wolfe and colleagues’ (2005) and Day and colleagues’ (2012) pieces, however, revealed that this overlap can be considered a minor issue. With a total of nine studies (in Wolfe et al., 2005) and ten studies (in Day et al., 2012) that are also covered in earlier reviews, the present chapter entails a large proportion of studies not reviewed in earlier pieces. Further examination revealed that all the overlapping papers had been published up until 2005. As half of the studies reviewed in this chapter appeared after 2005, this review is especially able to draw a picture of very recent publications.

So what were the common themes with regard to scholars’ motivation to choose the sports team context over another organizational setting? Interestingly, a similar pattern to that evident in the earlier review by Wolfe and colleagues (2005) emerged. It seems that scholars decided to study teams in a sports context for four main reasons: First and foremost, a majority of studies refer to taking advantage of favorable data conditions as the crucial factor for this choice. Some appreciate the completeness (e.g. Aime, Johnson, Ridge, & Hill, 2010) or objectivity of the available data (e.g. Rowe, Cannella, Rankin, & Gorman, 2005), while others point to the reliability with which key study constructs such as team performances can be measured (e.g. Bloom, 1999). Second, and closely related to these data advantages, the sports context enables many researchers to observe the focal phenomenon of interest much more directly than is often possible in organizational settings. As an example, Humphrey and colleagues (2009) develop a theory of the strategic core of teams by utilizing a role composition approach to team composition. By drawing on a data set from Major League Baseball (MLB), these authors are able to test their theoretical argument empirically and operationalize the study’s key construct as “there is a clear difference between core and non-core role holders” in baseball teams (53). Kahane, Longley, and Simmons’ (2012) examination of the relationship between cultural diversity and firm-level performance may serve as a second example. Similarly to Humphrey and colleagues’ (2009) approach, their data set from the National Hockey League (NHL) allowed a focused empirical analysis of key study constructs. As the NHL employs a relatively high proportion of foreign players, and these foreign players come from a wide range of countries, NHL teams are characterized by a “mix of many cultures and languages” (Kahane et al., 2012: 3). NHL teams are thus considered as a highly suitable sample to investigate culturally diverse work teams empirically. As a third type of rationale, and again related to general data advantages, the sports setting is often described as a relatively controlled field environment (e.g. Berman
et al., 2002; De La Torre-Ruiz, Aragon-Correa, & Ferron-Vilchez, 2011) which provides an “ideal laboratory” (Mondello & Maxcy, 2009: 112) for a focused analysis. Or as Holcomb, Holmes, & Connelly (2009: 459) put it: Sport teams are “comparable across such dimensions as size, structure, and goals”, “share a common factor market and general environment”, and “conform to a common set of normative rules, procedures, and policies”. Hence, the influence of environmental factors is minimal, allowing for an isolated investigation of the focal phenomena. Fourth, several studies were found not to refer explicitly to any of the three rationales explained above. In many cases, such studies contribute to a specific line of research that has historically developed in the context of sport teams, although the primary interest is in the broader organizational phenomenon. This is the case for many studies on managerial succession and associated topics (e.g. Eitzen & Yetman, 1972; Pfeffer & Davis-Blake, 1986).

When it comes to the types of sport teams studied, a clear emphasis on the North American major league sports becomes evident. Baseball teams are the team type studied most often (15 studies), followed by basketball teams (11 studies). American football teams (7 studies) and ice-hockey teams (3 studies) complete the group of the most prominent American team sports studied. Additionally, football (i.e. soccer) attracts increasing scholarly attention, and is reported as the empirical context in seven of the studies in this review. This dominant group of five major team sports is only complemented by a single study drawing on a data set from Australian Rules football (Borland & Lye, 1996). The clear majority of researchers focus their study on a single type of team. Only two studies employ data from multiple team sports (Frick, Prinz, & Winkelmann, 2003; Timmerman, 2000).

The clear focus on the big four North American team sports is also a result of the national contexts in which the reviewed studies have been conducted. Thirty studies employ data from the North American context. As the major league baseball (MLB), the national basketball association (NBA), the national football league (NFL), and the national hockey league (NHL) are renowned to be meticulous data collectors this focus is not surprising. England (3 studies) and Germany (2 studies) as two European contexts are especially important when it comes to studies focusing on football. Furthermore, two studies (Gelade & Dobson, 2007; Ruigrok, Greve, & Engeler, 2011) focus on international contexts (i.e. international football competitions), and single studies have been conducted by drawing on data from Australia, China, or Taiwan.

Table 2 presents a summary of the reviewed studies in chronological order. In summarizing the review within this framework, attention is given to the most relevant dimensions for this chapter’s purposes. Each study’s topic, type of sport team examined, and key constructs are reported. Further, Table 2 reports the extent to which studies have
addressed the essential characteristics of the sport teams examined. A number of studies identify specific similarities to and differences from organizational teams, or rely on existing team typologies. In many cases, however, such discussions are offered only to a limited extent or are even missing. This is consistent with an observation by Wolfe and colleagues (2005: 194), who were “struck by the number of studies […] that did not, or only minimally, address the issue of generalizability”.

Table 2: Team studies conducted within sports

<table>
<thead>
<tr>
<th>Study</th>
<th>Topic</th>
<th>Key Constructs</th>
<th>Team Type</th>
<th>Essential Sport Team Characteristics Addressed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grusky (1963)</td>
<td>(m) Managerial succession and organizational effectiveness.</td>
<td>Rates of managerial succession, change in succession rate; team standing</td>
<td>Baseball USA</td>
<td>(o) Player as entrepreneur, manager as bureaucrat</td>
</tr>
<tr>
<td></td>
<td>(c) Mid-season managerial change; comparisons of team win-loss records</td>
<td></td>
<td>Basketball USA</td>
<td>(s) Managers as responsible for results</td>
</tr>
<tr>
<td></td>
<td>(a) Frequency of managerial succession (inside vs. outside succession, during vs. between season succession), rate of personnel turnover; winning percentage</td>
<td></td>
<td>Administrative Science Quarterly</td>
<td>(d) Changing measures of managerial effectiveness</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Basketball USA</td>
<td>(d) Players' major sources of reward are external to managerial control</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(d) Highly committed and informed clientele</td>
</tr>
<tr>
<td>Gamson &amp; Scotch (1964)</td>
<td>(m) Managerial succession and organizational effectiveness.</td>
<td>Mid-season managerial change; comparisons of team win-loss records</td>
<td>Baseball USA</td>
<td>Not addressed</td>
</tr>
<tr>
<td>Eitzen &amp; Yetman (1972)</td>
<td>(m) Effects of coaching changes and length of tenure on team effectiveness.</td>
<td>Turnover rate, coach tenure; winning percentage</td>
<td>Basketball USA</td>
<td>Not addressed</td>
</tr>
<tr>
<td>Allen, Panian, &amp; Lotz (1979)</td>
<td>(m) Effects of different types of managerial succession on organizational performance.</td>
<td>Frequency of managerial succession (inside vs. outside succession, during vs. between season succession), rate of personnel turnover; winning percentage</td>
<td>Baseball USA</td>
<td>(o) Field manager as a foreman or supervisor</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(s) Number of team members</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(s) Hierarchical structure of the group</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(d) Performance heavily dependent on individual members' performances</td>
</tr>
</tbody>
</table>
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<p>| Brown (1982) | Administrative Science Quarterly | (m) Testing two hypotheses of the relationship between leader succession and team performance. | Head coach succession (dummy), presence of new general manager or president, number of new assistant coaches, personnel turnover; winning percentage | American Football USA | (o) American football teams as small organizations with two operating divisions (d) Role and importance of the planning and production processes (d) Environment (league) has a motive to promote competition (d) Importance of random factors |
| Pfeffer &amp; Davis-Blake (1986) | Academy of Management Journal | (m) The importance of the competence of new coaches for the succession effect on team performance. | Coach ability (cumulative past winning record, previous professional coaching experience, improvement or decline of previous teams); winning percentage | Basketball USA | Not addressed |
| Ghosh &amp; Steckel (1993) | Interfaces | (c) Importance of specific role structures for the success of teams. | Role structure; number of games won | Basketball USA | Not addressed |
| Kahn (1993) | Industrial and Labour Relations Review | (m) Impact of managerial quality on team winning and individual player performance. | Managerial quality (salary); winning percentage | Baseball USA | (s) Manager's strategic decisions concerning the allocation of employees (s) Manager's responsibility for training and motivation of employees |
| Singell (1993) | Atlantic Economic Journal | (m) Linking the experience of managers with team and individual player performance. | Managerial quality (experience as player, experience as manager, critical length of highest league coaching experience, minor league coaching experience); winning percentage | Baseball USA | Not addressed |
| Wright, Smart, &amp; McMahan (1995) | Academy of Management Journal | (c / m) Relationship between organizational strategy, human resources, and performance. | Preferred strategy, actual strategy, importance of recruited players' skills, team's skills; ranking, coaches assessment | Basketball USA | (o) Southwest Airline (s) Highly competitive environment (s) Decision makers with responsibility for strategy and implementation (s) Significant length of organizational persistence (d) Different strategy typologies (d) Relevance of different skills for team performance (d) Different performance measures relevant |
| Cannella &amp; Rowe (1995) | Leadership Quarterly | (m) The importance of the ability and prior experience of new team leaders. | Succession, prior experience of new manager, ability of new manager (cumulative winning percentage), competitive rivalry; winning percentage | Baseball USA | (s) Leaders’ attempt to optimize outputs within constraints (s) Importance of leaders' reputations (s) Leader succession as key response to environmental pressures |</p>
<table>
<thead>
<tr>
<th>Author &amp; Year</th>
<th>Title</th>
<th>Summary</th>
<th>Other Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Borland &amp; Lye (1996)</td>
<td>Industrial and Labour Relations Review</td>
<td>Matching effects as a determinant of mobility in the market for Australian Rules football coaches.</td>
<td>(m) Duration of coaches’ employment; winning percentage (o) Top management employees in oligopolistic markets (d) Market for football coaches as a thin market with limited jobs available (d) Firms mainly control separation decisions (instead of workers)</td>
</tr>
<tr>
<td>Bloom (1999)</td>
<td>Academy of Management Journal</td>
<td>Relationship between pay dispersion and performance.</td>
<td>(a) Player compensation, pay dispersion; winning percentage, fan attendance, ranking position, financial performance (s) Owners and managers face a need to optimize performance (s) Managers motivate workers to exert effort on the owner's behalf (s) Compensation system as a strategic decision (d) Different pay systems in sports and business context (d) Career characteristics of team members (shortness, restricted mobility)</td>
</tr>
<tr>
<td>Depken (2000)</td>
<td>Economic Letters</td>
<td>Relationship between wage disparity and team productivity.</td>
<td>(a) Team salary expenditure, intrateam salary dispersion; winning percentage (o) Baseball as a generic pooled interdependence team (o) Basketball as a generic reciprocal interdependence team (d) Importance of in-group/out-group distinction between or within teams</td>
</tr>
<tr>
<td>Timmerman (2000)</td>
<td>Small Group Research</td>
<td>Relationship between age diversity, racial diversity, and team performance in two settings with very different requirements for member interaction.</td>
<td>(c) Age diversity, racial diversity, task interdependence; winning percentage (o) Baseball as a generic pooled interdependence team (o) Basketball as a generic reciprocal interdependence team (d) Importance of in-group/out-group distinction between or within teams</td>
</tr>
<tr>
<td>Berman, Down, &amp; Hill (2002)</td>
<td>Academy of Management Journal</td>
<td>Tacit knowledge as a source of sustainable competitive advantage.</td>
<td>(c / m) Shared team experience, team experience heterogeneity, coaching experience; number of wins, total number of assists (s) Mutual concern for competing externally (s) Managing human resources strategically (s) Developing appropriate systems and structures</td>
</tr>
<tr>
<td>Audas, Dobson, &amp; Goddard (2002)</td>
<td>Journal of Economics and Business</td>
<td>The effect of managerial change on team performance.</td>
<td>(m) Within season managerial change; match results (s) Football England (o) Not addressed</td>
</tr>
<tr>
<td>Frick, Prinz, &amp; Winkelmann (2003)</td>
<td>International Journal of Manpower</td>
<td>Relationship between wage disparities and performance across different professional sport leagues.</td>
<td>(a) Annual team wage bill, salary distribution; winning percentage (s) Baseball Basketball American Football Ice-Hockey USA (o) Not addressed</td>
</tr>
<tr>
<td>Study Title</td>
<td>Journal Details</td>
<td>Methodology</td>
<td>Sport</td>
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<tr>
<td>Rowe, Cannella, Rankin, &amp; Gorman (2005)</td>
<td>Leadership Quarterly</td>
<td>(m) The timing of leader succession and its effects on organizational performance.</td>
<td>Coach and general manager succession (within previous season succession, within current season succession, between season succession); current and subsequent seasons’ percentage of points won</td>
</tr>
<tr>
<td>Gelade &amp; Dobson (2007)</td>
<td>Social Science Quarterly</td>
<td>(c) Factors predicting the strength of national association football (i.e. soccer) teams.</td>
<td>Size of the talent pool, expatriate players; FIFA world ranking</td>
</tr>
<tr>
<td>Brown, Farrell, &amp; Zorn (2007)</td>
<td>Quarterly Journal of Business and Economics</td>
<td>(c / m) Testing the hypothesis that the matching of employees and firms rather than employee qualifications alone affect team performance.</td>
<td>Coach-team match (dummy); winning percentage</td>
</tr>
<tr>
<td>Borghesi (2008)</td>
<td>Journal of Economics and Business</td>
<td>(a) Effects of variations in player compensation on NFL franchise performance under salary cap conditions.</td>
<td>Justified (explained by individual performance) and unjustified compensation levels, justified and unjustified dispersions in pay; number of team wins</td>
</tr>
<tr>
<td>Gee &amp; When-Jhan (2008)</td>
<td>Applied Economic Letters</td>
<td>(a) Relationship between inter- and intrateam wage dispersion and organizational performance.</td>
<td>Total salary expenditure, intra-team wage disparity, adjusted wage disparity (including relative ranks in league-wide wage dispersion); winning percentage</td>
</tr>
<tr>
<td>Brandes, Franck, &amp; Theiler (2009)</td>
<td>Schmalenbach Business Review</td>
<td>(c) Effect of nationality diversity on sports team performance.</td>
<td>Nationality diversity; final league ranking</td>
</tr>
<tr>
<td>Author(s)</td>
<td>Journal/Publication</td>
<td>Research Focus</td>
<td>Key Findings/Variables</td>
</tr>
<tr>
<td>-----------</td>
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<td>------------------------</td>
</tr>
<tr>
<td>Holcomb, Holmes, &amp; Connelly (2009)</td>
<td>Strategic Management Journal</td>
<td>(m) Managers as a potential source of value creation for the firm.</td>
<td>Managerial ability (weighted career winning percentage), resource quality (league awards), resource productivity (ratio of net productive output to payroll dollar for offensive and defensive subteam), resource synchronization (ratio of net combined productive output to total overall payroll dollars); winning percentage</td>
</tr>
<tr>
<td>Humphrey, Morgeson, &amp; Mannor (2009)</td>
<td>Journal of Applied Psychology</td>
<td>(c) Developing a theory of the strategic core of teams, by utilizing a role composition approach, which investigates how the characteristics of a set of role holders impact team effectiveness.</td>
<td>Strategic core of teams, career experience, team experience, team experience heterogeneity, job-related skill, core resource allocation; winning percentage</td>
</tr>
<tr>
<td>Mondello &amp; Maxcy (2009)</td>
<td>Management Decision</td>
<td>(c / a) Effects of salary dispersion and incentive pay on team performance.</td>
<td>Payroll, incentive bonus payments, salary dispersion; winning percentage, revenue production</td>
</tr>
<tr>
<td>Weiss &amp; Sommers (2009)</td>
<td>Atlantic Economic Journal</td>
<td>(c) Racial team diversity and performance in a setting characterized by high degrees of necessary cooperation in teams.</td>
<td>Racial diversity; winning percentage</td>
</tr>
<tr>
<td>Aime, Johnson, Ridge, &amp; Hill (2010)</td>
<td>Strategic Management Journal</td>
<td>(c / m) Effect of key employee mobility on organizational performance.</td>
<td>Key employee mobility (specifications with respect to opponents’ experience with a team’s advantageous set of routines creating sustained competitive advantage); point margin (number of own points scored minus number of points scored by the opponent), win/lose, points scored, points conceded</td>
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</tr>
</tbody>
</table>

(o) Similar organizational structures (M-form)  
(s) Performance depends heavily on human capital and the way it is used  
(s) Managers face complexities and constraints in managing human resources  
(d) Manager in the sport context with additional functions (e.g. strategy, tactics)  
(d) Football teams reflect a more specialized division of labor (narrow tasks)  
(d) More frequent and direct performance feedback, thus increased rate of adjustments  
(o) Action team (Sundstrom et al., 1990) with high differentiation (i.e. high specialization and exclusive membership) and brief performance episodes  
(s) Teams with long life spans  
(s) Individual members are rewarded on the basis of own and team's performance  
(o) Accounting, consulting, advertising, TV broadcasting, or airline, where head-to-head competition takes the form of competitive bidding
<table>
<thead>
<tr>
<th>Authors</th>
<th>Journal/Conference</th>
<th>(a / c / m) Focus</th>
<th>Team Sport/Industry/Context</th>
<th>Country/Region</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wen-Jhan (2010)</td>
<td>Economic Letters</td>
<td>(a) Relating salary structures to corresponding performance.</td>
<td>Total salary payments, salary dispersion; winning percentage</td>
<td>Baseball USA</td>
</tr>
<tr>
<td>Bridgewater, Kahn, &amp; Goodall (2011)</td>
<td>Labour Economics</td>
<td>(c / m) The substitution and complementarity between managers and subordinates.</td>
<td>Manager's playing expertise (series of dummies), amount of managerial experience, payroll (as a proxy for players' skills); team's finishing position (ranking)</td>
<td>Football England</td>
</tr>
<tr>
<td>Carmichael, McHale, &amp; Thomas (2011)</td>
<td>Bulletin of Economic Research</td>
<td>(c / m) Relationship between on-field success and players' skills and abilities.</td>
<td>Managerial tenure, managerial change, players' skills and abilities; clubs percentage share of total points achieved by all clubs during a season, percentage of total points</td>
<td>Football England</td>
</tr>
<tr>
<td>Chang (2011)</td>
<td>International Journal of Human Resource Management</td>
<td>(c) Associations across membership stability, group boundary and group performance.</td>
<td>Number of players, membership turnover (specified by joining and leaving members); annual rank, winning percentage</td>
<td>Baseball China</td>
</tr>
<tr>
<td>De La Torre-Ruiz, Aragon-Correa, &amp; Ferron-Vilchez (2011)</td>
<td>Management Decision</td>
<td>(c) Relationship between job-related skill heterogeneity and action team performance.</td>
<td>Average job-skill level, job-skill level diversity, specialization of members, coaching experience; winning percentage</td>
<td>Basketball USA</td>
</tr>
<tr>
<td>Franck &amp; Nuesch (2011)</td>
<td>Applied Economics</td>
<td>(a) Impact of intra-team wage dispersion on team productivity.</td>
<td>Wage inequality, intra-team talent inequality, wage expenditures; winning percentage, league standing</td>
<td>Football Germany</td>
</tr>
</tbody>
</table>

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- Baseball teams may be special with respect to power distribution and organizational structure
- Action teams (Sundstrom et al., 1990) characterized by high interdependence and unpredictable situations
- Long life spans of teams
- Time-intense cooperation on daily basis
- Performance oriented production teams, defined as producing the primary output of an organization (Crown, 2000), characterized by a focus on exploitation (rather than exploration) and high levels of interdependence
- Performances readily observed by spectators
- High salaries in a pay for performance context
2.3 Description of sport teams

Traditionally, teams consist of a collection of individuals (Cohen & Bailey, 1997) and are often defined by certain characteristics of such a collective. In a frequently employed definition, Salas, Dickinson, Converse, and Tannenbaum (1992: 4) define a team as “a distinguishable set of two or more people who interact, dynamically, interdependently, and adaptively toward a common and valued goal/objective/mission, who have each been assigned specific roles or functions to perform, and who have a limited life-span of membership.” Notably, some of the key elements of this definition apply to the case of sport teams. The five most prominent types of sport team consist of at least five individuals, as in the case of basketball where a team is allowed to field five players at a time. Players are put
together to attain a clear goal, which is in the most cases winning individual games and striving for a favorable league ranking at the end of a season. Also, team members are normally assigned specific roles to perform. As an example, imagine the role of a goalkeeper versus the role of a striker in football: both contribute in different ways to a team’s overall goal of winning games. Finally, sport teams operate within time limitations, such as individual games or specific seasons.

Beyond such a rather general definition, research on teams has prompted the development of many alternative team types, taking tasks, samples, contexts, or other elements into account. The intended purpose of such taxonomic structures in team research has been to classify the nature of studied teams by creating superordinate categories that are similar on certain dimensions (Hollenbeck et al., 2012). Several of the reviewed sport team studies rely on team taxonomies to increase the comparability between the specific sport teams under investigation, and broader categories of similar organizational teams. De La Torre-Ruiz et al. (2011), as well as Humphrey et al. (2009), describe sport teams as action teams, thereby relying on Sundstrom, De Meuse, and Futrell’s (1990) categorization system. Franck and Nüesch (2011) frame sport teams as performance oriented production teams by drawing on Crown’s (2000) classification. Importantly, De La Torre-Ruiz et al. (2011) and Humphrey et al. (2009), as opposed to Franck and Nüesch (2011), rely on different taxonomic structures emphasizing different dimensions to classify sport teams into prescribed categories. This hints at one of the central problems arising from the multitude of team typologies available in the field of team research. As Hollenbeck and colleagues’ (2012) analysis of team research illustrates, a lack of consensus on the critical dimensions to describe the essential characteristics of teams and how these dimensions should combine to form meaningful categories has led to a “confusing plethora” of team taxonomies that has in fact hindered the creation of a cumulative knowledge base across team studies (82). Given this confusion and lack of agreement on the comparability between team types based on taxonomies, simply referring to these taxonomies does not help a lot in facilitating the comparability of teams between sports and other contexts. Limitations to integrate and aggregate results across studies clearly remain.

As an alternative to relying on team taxonomies, and in order to enable an informed and structured discussion, integration, and accumulation of findings across team studies, Hollenbeck and colleagues (2012) suggest a descriptive approach relying on a set of well-established dimensions suitable to capture the essential nature of teams under investigation. Based on an in-depth review of the team literature, Hollenbeck and colleagues (2012) identify three constructs underlying many of the existing team taxonomies. These are skill differentiation, authority differentiation, and temporal stability as elements of structural
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dependence linking individual team members. Discussing and assessing a specific team studied along the lines of these dimensions serves to depict, compare, and contrast alternative teams (Hollenbeck et al., 2012), and helps to understand the substantive nature of a team. There are good reasons to expect such a descriptive approach, rather than a reliance on team taxonomies, to meaningfully inform a comparison of teams across sports and other contexts. These are the following: Assigning sport teams to predefined categories is hindered by the fact that most team taxonomies have been developed within an organizational context, and only very rarely include sport teams as an explicit example in one of their categories (e.g. Sundstrom et al., 1990). Moreover, many different types of sport teams exist, and might exhibit very different characteristics. Therefore, summarizing sport teams per se into one category of team type, as in Sundstrom and colleagues’ taxonomy (1990), might be an overly simplistic approach that fails to capture nuanced differences between sport team types.

The following sections discuss the five most prominent sport team types studied along four dimensions of structural dependence linking individual team members, i.e. skill differentiation, authority differentiation, temporal stability, and task interdependence. Three of these dimensions refer to the ones proposed by Hollenbeck et al. (2012), i.e. who performs various tasks (skill differentiation), who has authority to make decisions (authority differentiation), and the short- versus long-term nature of structural linkages (temporal stability). Additionally, the factor of task interdependence as referring to the manner in which team members interact is included as a well-established dimension for distinguishing between different sport team types (Cannon-Bowers & Bowers, 2006; Keidel, 1984, 1987). Importantly, task interdependence has also been suggested as an informative dimension to characterize the substantive nature of teams in contexts other than sports (Saavedra, Earley, & Van Dyne, 1993; Stewart & Barrick, 2000). Kozlowski and Bell (2003) even state that research that fails to consider interdependence has little value for developing knowledge about organizational teams. Baseball, basketball, American football, ice-hockey, and football teams are thus assessed in terms of their degree of structural dependence along these four dimensions on continua from high to low.

2.3.1 Skill differentiation

Skill differentiation, as a first element of structural dependence in teams identified by Hollenbeck et al. (2012), refers to the degree to which individual team members have unique skill sets. A broad take on the term skill includes “differences in experience, education, culture, gender, or any other factor where differentiation is likely to have an
impact on the ability of the team to perform work” (Hollenbeck et al., 2012: 93-94). In teams with high skill differentiation, individuals are typically bound to relatively narrow roles for which they have developed specific skills. Because of this match between team members’ roles and skills, they are usually not easily interchangeable (Hollenbeck et al., 2012). The more individual team members are able to take over other members’ roles, the lower the degree of skill differentiation in a team.

Generally, sport teams are characterized by elements of both high and low skill differentiation, and thus cluster around moderate levels of skill differentiation. Over the course of their careers individual athletes develop the skills necessary to fulfill specific roles in a sports team, such as the role of a goalkeeper in football or ice-hockey, or the role of a pitcher in baseball. In order to meet the challenges of the highest levels of competition in professional sports, such a focused career is necessary to develop the required level and specialization of skills. Not surprisingly, changes in sport specific roles (e.g. from goalkeeper to striker in professional football) are the clear exception, especially in later career stages. Hence, professional sport teams such as those examined in the sample of studies in the present review are able to perform at high levels of competition because of the highly specialized skills of their members, independent of the specific type of sport. These considerations would imply a tendency towards high levels of skill differentiation in sport teams. At the same time, team sports differ in the degree to which individual team members are generally thought to be able to take over other team members’ roles. Different roles in a team sport are more or less similar on certain core skills, thereby facilitating or hindering the exchange of individuals between roles. In addition, the structure of a team sport may bring along certain core roles, i.e. a situation where specific roles are of significantly higher relevance for the performance of the overall team than other non-core roles. The importance of such core roles requiring highly specialized and thus differentiated skills may be more or less salient in different team sports, and serves as a further indicator of high degrees of skill differentiation.

Amongst the five sport team types analyzed here, skill differentiation is highest in professional baseball and placed as “moderate to high” on the continuum. There are several reasons for this assessment. Humphrey and colleagues (2009) identify the roles of the pitcher and catcher as the strategic core of the team. As pitchers and catchers handle more work than other roles do, considerable variance in team performance occurs as a function of pitchers’ and catchers’ actions, and their role is most central to the work flow (Humphrey et al., 2009). Core roles are thus a structural feature of baseball teams. In other team sports, a similar core role can perhaps be attributed to the quarterback in American football. Quarterbacks serve as a sort of communication hub from the head coach to the team on the
playing field when it comes to the choice of an offensive move, and in a few teams quarterbacks are still allowed to call their own plays as a response to recognized changes in the opposing defense’s alignment (Keidel, 1987). In American football, however, the team surrounding the core role consists of far more players than in baseball, making the structural element of core roles opposed to non-core roles a less salient characteristic. These considerations lead to an assessment of a “moderate” level of skill differentiation in American football teams.

Football and ice-hockey, as well as basketball, are assessed as exhibiting “low to moderate” levels of skill differentiation. The continuous flow of the game in basketball, ice-hockey, and football requires individual players to cope with a wide range of the game’s aspects (e.g. both defensive and offensive actions), as there are limited possibilities to rely on specialized players to fulfill exclusively offensive or defensive roles. The importance of certain core skills that enable players to take over both offensive and defensive tasks is thus considered to be significantly higher in basketball, ice-hockey, and football than in baseball and American football. Within this group, basketball probably holds the lowest degree of skill differentiation. This assessment rests on the observation that all players fulfill offensive and defensive roles, and that individual players are clearly able temporarily to take over other team members’ roles, as in the case of players switching positions in executing a defensive or offensive move. Similar to basketball, ice-hockey teams consist of players taking over both offensive and defensive roles at the same time. As a slight difference, however, the special role of goalkeeper exists in ice-hockey. Therefore one could argue that skill differentiation is slightly higher than in basketball. This is also true for football, where additionally the individual field players are assigned certain roles, ranging from defender to midfielder and striker. These roles of offenders and defenders also exist in ice-hockey, where the higher frequency of changing offensive and defensive orientations, however, makes offensive players even more involved in defensive actions and vice versa. Skill differentiation is therefore assessed as slightly higher in football than in ice-hockey and basketball. Still, the high relevance of sport-specific core skills as a contrast to baseball and American football leads to an equal assessment of “low to moderate” skill differentiation in teams in all three sports.

2.3.2 Authority differentiation

In a team there may be one person who is formally assigned a leadership role, a leader may emerge informally from the team, or no single member may possess an inordinate amount of influence compared with the rest of the group (Hollenbeck et al.,
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Authority differentiation refers to the degree to which a clear distinction is recognizable between leading or decision-making roles and the rest of a team. At the low end of this continuum, such a distinction may be much less evident and decision authority rather lies in the hands of the team members themselves (Hollenbeck et al., 2012).

Cohen and Bailey (1997: 242) state that in many traditional work teams, supervisors “make most of the decisions about what is done, how it is done, and who does it.” Such a traditional leading and decision-making role is also apparent in many team sport settings in the position of a team’s coach or manager. Coaches decide which players are actually fielded, what strategy and tactics are applied in order to win a game, and thereby take many of the important decisions concerning what is actually done in a sport team. Additionally, there is the possibility of a leading role on the playing field, as is evident in the role of the quarterback in American football, or the pitcher and catcher in baseball. Due to the influential position of the team manager or coach, the five sport team types analyzed here cluster at rather high levels of authority differentiation. The salience of these leading roles as well as the possibilities of leaders to actually influence what happens on the playing field may still differ distinctly between various types of sport teams.

In American football, teamwork is most strongly influenced and determined by the official head coach (Keidel, 1987). The role of the quarterback serves as an “extended arm” of the head coach with limited authority to decide as a response to opponents’ unexpected actions. Thus, a clear role allocation and high authority differentiation is observable. Two structural elements of the game of American football allow for such a strong influence of the head coach on teamwork (Cannon-Bowers & Bowers, 2006; Keidel, 1987): First, the discontinuous nature of the game, where teams typically pause between individual plays and use time to plan or adapt their next moves allows the head coach to exert his dominating influence. Second, the head coach and his staff have preferential information at their disposal as “spotters” in the pressbox have a global view of the game and support them with inputs necessary to take top-down decisions. Of the five team sports assessed, only baseball exhibits comparable levels of influence of authority roles. In baseball, the manager’s influence on the critical actions taken by the pitchers, catchers, and, one might argue the batters, is clearly limited and of minor significance (Keidel, 1987). However, as explained above, the dominating roles in baseball are ascribed to the pitcher and catcher as on-field leadership roles. As Humphrey et al. (2009: 53) outline, “a pitcher initiates every action within a game, which is preceded by the catcher calling the specific action to be performed (i.e. which pitch is to be thrown).” Further, “on some plays, the pitcher and the catcher are the only players to act.” Consequently, baseball teams are also classified as showing “high” levels of authority differentiation, acknowledging the head coach’s more limited
possibilities to take influence and emphasizing the central roles of pitchers and catchers in on-field decision-making.

A clearly different situation is present in the three sports of football, basketball, and ice-hockey, where especially the influence and centrality of the coach during a game and certain on-field leadership roles are less pronounced than in baseball and American football. Considering the still important role of coaches and team managers in the pre-game preparation phase, these three sport team types are assessed as “moderate to high” with respect to authority differentiation. Still, there are subtle differences between these sports. During a football game, the head coach has no possibilities to take time-outs for communicating directions. His direct influence is limited to giving directions orally and via gesticulation out of a spatially restricted coaching zone during the game, a fifteen-minute half-time break, and the substitution of a maximum of three players. Coordination of teamwork and decision-making on the field is in large parts left to the interactions between the fielded players. Therefore, authority differentiation in football is probably the lowest among the five sports analyzed here. Coaches’ possibilities to exert influence are marginally higher in ice-hockey and basketball. In NBA basketball, coaches are allowed to (and sometimes even obliged to) take several timeouts during the course of a game, and beyond the five players in the starting line-up, all the remaining seven players nominated for a game may potentially be fielded. Similarly, there is no limit to the number of substitutions in ice-hockey. On the contrary: while the substitution of players in football and basketball is restricted to phases where there is no active play going on, ice-hockey teams frequently change complete lines of five players even when the puck is active in play. Ice-hockey coaches in the NHL are allowed to take a timeout during the course of the game, additionally the game is divided into thirds, rendering the opportunity for coaches to give directions to the team during the breaks.

2.3.3 Temporal stability

The structural element of temporal stability introduces the dimension of time in team description. At the high end of the temporal stability dimension, “teams are stable and have a history and future together” (Hollenbeck et al., 2012: 95). At the lower end, teams may work together only for the purpose of a special project, the duration of which might vary dramatically of course. In an extreme case a one-shot laboratory team may work together only for a couple of hours (Hollenbeck et al., 2012).

Clearly, many sport teams fall into the categories of rather stable teams as they are composed and trained to compete in sport-specific leagues (such as the NBA for basketball
Studying teams within the context of sports or the Premier League in England for football) over the course of a complete season. The length of seasons differs slightly between sports. While a regular season (without preparation phase, preseason games, and playoffs) in American football has a length of roughly four months (including 16 regular season games per team), in football, i.e. soccer, seasons usually are composed of 30 to 40 games played over a period of up to ten months (August to May, in the case of German Bundesliga football). Thus the temporal stability in football teams is assessed as “high”, while American football teams are “moderately” stable teams. Seasons in NBA basketball, MLB baseball, and NHL ice-hockey have durations of roughly six months. At the same time, a season in major league baseball involves a total of 162 regular season games, which is almost double the 82 games of NHL or NBA seasons. Based on these numbers, the temporal stability in baseball, ice-hockey and basketball teams is assessed as “moderate to high”.

This assessment of temporal stability in sport teams rests on the observation that the clear majority of studies in this review applies a seasonal and thus rather stable perspective, in that sport teams are examined at club-level. Exceptions to this common theme are the studies of Ruigrok and colleagues (2011), as well as Gelade and Dobson (2007) who make national football teams their objects of observation. National football teams share many similarities with organizational project teams (Ruigrok et al., 2011), one of which is a relatively short-term focus compared with club-level football teams. While football is the only sport that has been analyzed from a more short-term national team perspective, similar studies are conceivable for the four typical American sports of baseball, basketball, American football, and ice-hockey. In the present sample, however, no such studies appear. Thus, the present review assesses football (club) teams as teams with high temporal stability.

2.3.4 Task interdependence

Task interdependence refers to the manner in which team members cooperate and interact in order to get their work done (Keidel, 1984; Stewart & Barrick, 2000). Team members may exchange information or resources (Thompson, 1967), or coordinate their work in other ways such that the outcomes of parts of a team (e.g. individual team member, or subgroup) are influenced by the actions of others (Van de Ven, Delbecq, & Koenig, 1976). Saavedra and colleagues (1993) describe four levels of increasing task interdependence; pooled, sequential, reciprocal and team interdependence. Pooled interdependence refers to a situation where limited interactions between team members is required to produce the overall team outcome, but rather each team member contributes to
the overall task individually. In the case of sequential interdependence, team members’ efforts are dependent in a sequential manner in that one member has to act before another member can complete a task. Although interaction among team members is essential, the sequence flows only in one direction (Saavedra et al., 1993). In the case of reciprocal interdependence, group performance requires coordination among team members. The sequence of steps necessary to perform the group’s task is flexible, and team members need to engage in intense two-way interactions. Individual members perform within the boundaries of predefined and often externally imposed roles. Finally, under the most complex situation of team interdependence, members need to interact constantly in order to “create and execute a course of action” (Cannon-Bowers & Bowers, 2006).

The importance of the task interdependence dimension for describing the nature of sport teams has long been recognized (Keidel, 1984, 1987). In Keidel’s (1984) description of the structures underlying three major American sports (baseball, American football, basketball) interdependence is one of the central distinguishing dimensions. While it is acknowledged that all team sports contain examples of different types of interdependence (e.g. reciprocal interdependence can be found in all sports where offense and defense “feed” each other in an alternating manner), Keidel’s (1984) model suggests that significant differences exist between sports that justify the attribution of varying levels of interdependence. Saavedra and colleagues’ (1993) types of interdependence may thereby serve as anchor points to identify the dominating levels of interdependence.

Of the five sport team types analyzed here, baseball exhibits “low to moderate” degrees of interdependence. Interaction between team members does not occur regularly and if so, usually no more than two or three players are involved (Keidel, 1984). Rather, team members’ contributions to overall team performance are relatively independent of each other (pooled interdependence). Admittedly, scoring in baseball typically requires a certain sequence of actions (e.g. walks and hits), but cumulating contributions of individuals in certain key roles (pitcher and catcher) clearly dominate the production of the overall team’s output (Humphrey et al., 2009; Keidel, 1984). In American football, “moderate” levels of interdependence become most evident in the sequential series of “first downs” required to ultimately score a touch-down (Keidel, 1984). Another characteristic element of the game of American football is the interplay between offensive and defensive subteams (often supported by special teams for the transition game). This exhibits aspects of sequential interdependence in that offensive subteams rely on previous successful work by the defensive subteam. The offensive subteam’s (unsuccessful) work, however, also becomes the input of the defensive subteam, whereby the flow of the game of American football also exhibits elements of reciprocal interdependence. This discussion therefore refrains from
ascribing American football to a specific type of interdependence along Saavedra et al.’s (1993) typology, but rather assesses the level of interdependence as “moderate”. Ice-hockey also shares elements of reciprocal interdependence in that alternating lines of field players (usually three to four lines of 5 players) are constantly exchanged during time-outs or less intense phases of a game. Two-way interactions therefore become evident between different “lines”. Other than in American football, ice-hockey lines fulfill offensive and defensive tasks in an overlapping manner. This becomes evident in the fast and far more frequently changing orientations from offensive to defensive when the puck is lost to the opposing team. Furthermore, the constant back-and-forth flow of the puck between players demonstrates an element of intense and complex interactions, leading to an assessment of “moderate to high” levels of interdependence in ice-hockey. Finally, the games of football and basketball represent the “highest” levels of interdependence. Both share the constant flow of the ball and the frequent and immediate change between offensive and defensive tasks, while the reciprocal element of constantly changing lines (as in ice-hockey) is waived. A slight difference exists between the sports in that the range of individual players’ actions (from an offensive shot on target to a defensive action such as a bloc or rebound) tends to be larger and more frequent in basketball, while in football many actions are limited to the “mid-field”. Individual basketball players thus have to deal with even higher complexity. Highlighting the structural similarities between both games (see also Keidel, 1987), both basketball teams and football teams are assessed as “high” interdependence teams.

2.3.5 Summarizing framework

Table 3 summarizes the preceding discussion of sport team types along the dimensions of skill differentiation, authority differentiation, temporal stability, and task interdependence. A number of insights arise from this discussion. First, each sport team type exhibits an individual configuration of structural dependence with respect to the four dimensions discussed. This indicates that sport teams are not a homogeneous group or generic team type, but rather there are subtle differences between them. Second, the group of sport teams covers a relatively broad array of the spectrum (from low to high) on the dimension of task interdependence. For the other dimensions, there are clearer tendencies observable with relatively high levels of authority differentiation and temporal stability, and moderate levels of skill differentiation.
Table 3: Framework of sport team descriptions

<table>
<thead>
<tr>
<th></th>
<th>Skill differentiation</th>
<th>Authority differentiation</th>
<th>Temporal stability</th>
<th>Task interdependence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basketball</td>
<td>low to moderate</td>
<td>moderate to high</td>
<td>moderate to high</td>
<td>high</td>
</tr>
<tr>
<td>Football</td>
<td>low to moderate</td>
<td>moderate to high</td>
<td>high</td>
<td>high</td>
</tr>
<tr>
<td>Ice-Hockey</td>
<td>low to moderate</td>
<td>moderate to high</td>
<td>moderate to high</td>
<td>moderate to high</td>
</tr>
<tr>
<td>American Football</td>
<td>moderate</td>
<td>high</td>
<td>moderate</td>
<td>moderate</td>
</tr>
<tr>
<td>Baseball</td>
<td>moderate to high</td>
<td>high</td>
<td>moderate to high</td>
<td>low to moderate</td>
</tr>
</tbody>
</table>

Importantly, these dimensions of structural dependence are variables perceived as critical in past attempts to compare and contrast teams (Hollenbeck et al., 2012), and therefore may serve as a basis to assess the applicability of findings from specific sport team studies to other teams and contexts. Where teams share essential characteristics in terms of skill differentiation, authority differentiation, temporal stability, and task interdependence, researchers and practitioners can be confident that lessons learned from sport team studies apply beyond the context of sports. In that sense, the framework presented in Table 3 specifies the boundary conditions within which the findings of sport team studies contribute to the creation of a cumulative knowledge base on teams.

2.4 Review of sport team studies

The following sections review the contents covered by sport team studies with a focus on team input factors. The choice of this focus was based on the notion that managers can directly control such design factors (Cohen & Bailey, 1997), and thereby exert influence on subsequent team performance. Team input or design factors were grouped into three broad categories rooted in basic models of team effectiveness (Mathieu et al., 2008; McGrath, 1964, 1984), which serve as a basic structure to guide the following sections. This review presents key insights on managing teams, composing teams, and allocating resources, and synthesizes these insights to identify areas where future sport team studies can further contribute to our understanding of teams.
2.4.1 Managing teams – key insights

2.4.1.1 Managerial succession

Scholarly interest in the topic of managerial succession dates back to the early 1960s and the study of Grusky (1963) on the relationship between managerial succession and organizational effectiveness. Interestingly, much of the early empirical work on succession and organizational performance has focused on professional sport teams (Allen, Panian, & Lotz, 1979). The rationale for choosing sport teams as the object of analysis was then primarily based on the high comparability between sampled organizations (baseball teams) in terms of size, goals, structures, etc., as well as the availability of detailed quantitative data. In that sense, these early studies on managerial succession in many ways laid the foundation for later studies examining organizational research questions within the empirical context of sports. Historically, scholars have linked managerial succession studies with the fundamental research question whether or not the role of leaders matters when it comes to predicting organizational or team performance (Day et al., 2012; Thomas, 1988). In the broadest sense, the sport team studies described in this section thus examine leaders’ influence on team performance.

In his initial study on managerial succession and team effectiveness in baseball teams, Grusky (1963) tested the two related hypotheses that rates of administrative succession and degrees of organizational effectiveness were negatively correlated, and that a change in the rate of administrative succession was negatively correlated with a change in organizational effectiveness. Both hypotheses would imply a significant influence of leaders on the performance of teams. Grusky’s (1963) results offered support for both his hypotheses, but maybe more importantly set the stage for an intense scholarly debate about possible explanations for the succession-effectiveness relationship. In an immediate and mainly theoretical response to Grusky’s (1963) study, Gamson and Scotch (1964) specified three alternative perspectives on this relationship, each of which had different implications for the core question of whether leadership (operationalized by the role of a team manager) matters for team effectiveness: (1) following the commonsense one-way causality theory, the manager is a major influence on a team’s performance. After a succession, a new manager can correct the mistakes his predecessor has made, and should ultimately lead the team to enhanced performance levels. If a new manager should still lead his team poorly, performance further decreases and the manager, as he is ultimately held responsible, would be fired. From that logic, teams assigned poor leaders will have both poorer performance and higher rates of managerial succession. (2) According to the Grusky two-way causality
theory (later labeled vicious-circle theory), the manager has a major influence on the team’s performance as well. Not imputing any causal priority to either team performance or managerial succession, this explanation holds that poor performance leads to a change of manager (succession). The introduction of a new manager then has several undesirable and dysfunctional consequences, such as disturbing an internal network of interpersonal relationships, which in turn lead to a further decline in team performance. It is important to note that both the commonsense theory and the vicious-circle theory were discussed as possible explanations in Grusky’s (1963) initial study, and both assign a significant and influential role to leadership as a determinant of team effectiveness. In a third theoretical explanation for the relationship between succession rate and team effectiveness, Gamson and Scotch (1964) introduced (3) the ritual-scapegoating no-way causality theory. In contrast to both of Grusky’s (1963) theories, the ritual-scapegoating approach does assume “that the effect of the field manager on team performance is relatively unimportant” (Gamson & Scotch, 1964: 70). According to this theory, managerial succession has no effect on team performance, rather the firing of a manager serves as a sheer act of convenience and anxiety reduction, mostly for the team owners (Gamson & Scotch, 1964). With these three theories as a background, several subsequent studies tried to make sense of the major underlying question about managers’ influence on team effectiveness.

Eitzen and Yetman (1972) examined the effects of a change in the coach’s position on the performance of a basketball team. Change of coach was negatively related to team effectiveness, but this relationship was much weaker than in Grusky’s (1963) findings and depended on the team’s performance prior to the change. Previously successful teams were found to perform worse under a new coach than under the predecessor. This effect was attributed to an effect of regression towards the mean, i.e. that high (low) performing teams would tend to score closer to the population mean in the next year and therefore perform more weakly (strongly), irrespective of the occurrence or non-occurrence of managerial succession. Importantly, these findings supported Gamson and Scotch’s (1964) theory that the manager has only limited influence on team performance.

Allen and colleagues (1979) then examined the relationship between managerial succession and organizational performance by employing a multivariate analysis of time series data, thereby advancing Grusky’s (1963) as well as Eitzen and Yetman’s (1972) analytical approaches, which were mainly built around correlations. The results indicated a negative relationship between past team performance and the frequency of managerial succession. Moreover, teams performing badly in the previous season were more likely to resort to a change of manager during (as opposed to between) seasons, and to outside succession (as opposed to inside succession). Allen et al. (1979) cautioned care in
interpreting their findings with regard to the question of whether or not managers have long-term effects on organizational performance. Still, their findings indicate that deterioration in organizational performance generally antecedes managerial succession, with a higher likelihood of leading to outside succession during the season. Further, while the frequency of managerial succession was negatively related to team effectiveness, only a very small proportion of the variance was explained. Much more dominating was the effect of prior team performance. When controlling for past team performance, different types of succession were differently related to subsequent performance, while still only explaining small proportions of variance: Succession between seasons was associated with an improvement, and outside succession was associated with a deterioration in team performance. All in all, these results suggested that managerial succession had an effect on team performance, although that effect was relatively modest (Allen et al., 1979). The study by Brown (1982) on American football teams in turn offered support for Gamson and Scotch’s (1964) ritual-scapegoating theory, holding that leadership has, if at all, only minimal influence on team performance. Brown (1982) overall found no effect of succession. As teams were more likely to replace their coach as a reaction to a recent performance drop, recoveries after the appointment of a new coach did not exceed those by teams that did not replace their coach after a slide in performance.

Starting with the studies of Eitzen and Yetman (1972) as well as Allen et al. (1979), researchers included additional aspects (such as the types of succession) in their analyses of managerial succession, and started to ask more specific questions about leaders’ influence on team functioning and performance. Rowe and colleagues (2005) asked the question of when leader succession has a positive, negative or no impact, and included time into the study of managerial succession. Overall, their findings from an ice-hockey setting did support the view that leader succession does have an effect on performance and that leaders do matter. Most importantly coming from an organizational learning perspective, Rowe et al. (2005: 215) argued that leaders need to be given time “to become familiar with the organization in order to develop organization-specific skills”. Ultimately, these skills will lead to increased performance, as managers are able to induce individual and group learning. Correspondingly, Rowe et al.’s (2005) findings suggest that the timing of succession, in their study included as a distinction between previous-season, between-season and within-season succession, is an important determinant of the expected effects of succession on performance. Supporting the findings by Allen and colleagues (1979), succession between seasons was more likely to improve team performance than succession within a season. Clearly, these findings hint at the importance of managerial tenure, an aspect that will be addressed in more detail in the next section.
When it comes to the most basic question posed at the beginning of this section, researchers focusing on the phenomenon of managerial succession started to stay more conservative in the interpretation of their findings. Interpreting the effects of managerial succession with the aim of answering the question of whether or not leaders exert significant influence in the organizations under their direction might just be complicated by the fact that the effects of managerial succession appear to be contingent on a host of variables (cf. Thomas, 1988).

### 2.4.1.2 Managerial tenure

Coming from an initial interest in the influence of leaders in a team setting, researchers soon started to examine related aspects of the phenomenon of managerial succession. Very closely connected is the topic of managerial tenure and its effect on team performance. Clearly, if teams refrain from replacing their coaches and avoid frequent succession events, the managers in charge by definition increase their tenure, i.e. continuous time spent with the current organization, over time. However, the early studies on managerial succession developed from a clear interest in the more general question of leaders’ influence in organizations, as illustrated in the previous section. For that reason, the present section focuses more directly on the effects of managerial tenure.

Eitzen and Yetman (1972: 110) examined the effect of duration of tenure of coaching positions on organizational effectiveness in basketball and found a curvilinear relationship: “the longer the coaching tenure, the greater the team success, but after a certain length of time (thirteen years or so) team effectiveness begins to decline.” These findings were framed as an initial test of the relationship between duration of tenure and organizational performance. However, Eitzen and Yetman (1972) did not offer a thorough theoretical explanation for this finding beyond the “folk wisdom” (114) argument that leaders may lose their effectiveness over time “because they are taken for granted, coast on previous laurels, or become complacent”. Berman and colleagues (2002) then presented a more detailed argument. In their study of tacit knowledge in basketball teams, these authors examined the effect of coaching experience on team performance. The length of time a coach had been with a team was positively related to team wins (main effect). While Berman et al. (2002) did not test for a curvilinear effect of coaching experience directly, an interesting insight was derived from testing the interaction of coaching experience with the shared experience of the team’s players. Coaching experience was especially valuable for teams with low levels of shared experience, whereas these positive effects declined as the levels of shared team experience increased. A theoretical explanation for this finding is
based on the notion of team-based tacit knowledge (e.g. Weick & Roberts, 1993), which is accumulated as a result of shared experiences, ultimately leading to increased team performance via having learned the nuances of playing together. As shared experience in teams grows, however, undermining effects such as a lack of infusing new talent and techniques would lead to diminishing and ultimately negative returns. New coaches, i.e. short tenured coaches, could force such teams into new learning by changing an existing set of game plans or strategies (Berman et al., 2002). For teams still lacking a stock of tacit knowledge, longer-tenured coaches who offer a certain amount of stability enable the team to build the necessary group tacit knowledge and improve performance quickly. The role of the coach was thus framed as a balancing element, introducing either new impulses or an element of stability in team settings.

Rowe and colleagues’ study (2005: 202) further suggests that, over time, new leaders have “the potential for making significant institutional changes that will have a positive effect on performance”, occurring through individual and group learning. Their empirical analysis highlights that managers joining a team in a previous-season succession had a greater positive impact on performance than managers joining in a between-season or within-season succession. Basing their argument on organizational learning theory, Rowe and colleagues (2005) explained these findings in that leaders need time (tenure) to accumulate organization-specific knowledge and develop organization-specific human capital for the successful implementation of a strategy.

Focusing on this strategy dimension associated with a team’s head coach, Wright, Smart, and McMahan (1995) found support for the notion that basketball coaches’ preferred strategies influence the characteristics that they look for in recruits. From a resource-based perspective, the congruence or fit between an organization’s strategy and its human resources ultimately affects performance. The team manager could either seek to recruit the individual team members possessing the skills consistent with his preferred strategy or try to adapt existing team members to that strategy. These would be two options leading to a promising fit between preferred strategy and team members’ skills, however, both also require considerable time and would be disrupted by managerial succession. Short-tenured managers, not yet able to recruit or develop the team members possessing the skills matching their preferred strategies, might be forced to adapt their strategy to the available human resources. Teams led by managers that were forced to implement a strategy inconsistent with their own skills and preferences, however, exhibited lower performance. Thus, Wright et al. (1995) offered a theoretical argument for why managerial tenure would lead to enhanced team performance that rests on an underlying notion that a preferable fit or match between a coach and a team is beneficial for performance.
Examining this notion of fit slightly differently, Borland and Lye (1996) analyzed the mobility of Australian Rules football coaches from a matching perspective between workers and organizations. Models of labor market matching rest on the two basic assumptions that workers’ productivity differs between firms, and that there is initially imperfect information regarding the value of a specific worker-firm match prior to the assignment of a new worker (cf. Jovanovic, 1979). Information on the value of a worker-firm match is obtained over time, through the experience of a worker in a job or position (Jovanovic, 1979). With firms and individual workers learning about the precise value and the expected future performance outputs to result from a match (Borland & Lye, 1996), longer-tenured coaches are interpreted as signaling a preferable match between a coach and a specific team. Borland and Lye (1996) tested these theoretical predictions by means of multiple regression equations and found support for the existence of a coach-team match-specific effect on team performance. Further analyses revealed that the probability of managerial turnover decreased with the coach-team match effect on performance and with years of coach tenure. In sum, these results suggest managerial tenure as an indication of a good coach-team match, with beneficial effects for overall team performance. Support for Borland and Lye’s (1996) finding was offered by Brown, Farrell, and Zorn’s (2007) study on matching effects in the American football context. Similarly, their findings revealed a performance improvement associated with a good coach-team match. Together, the findings of Wright et al. (1995), Borland and Lye (1996), as well as Brown and colleagues (2007) suggest a preferable match between coaches and teams as a determinant of team performance, and managerial tenure as an indicator of a manager’s possibilities to influence this match actively via the adaptation of a strategy or the hiring and development of required team members. At the same time, these insights hint at the importance of individual team members’ characteristics, which will be discussed in more detail in a following section on the composition of teams.

Most of the studies described so far looked into the role of a team’s manager or leader by examining the effects of appointing a new leader in a succession event, or retaining leaders to prolong managerial tenure. A slightly different approach was taken by Aime and colleagues (2011) who analyzed the effects of losing members of the coaching staff from an American football team. In an organization with an advantageous competitive position based on a higher-order set of routines (i.e. a strategic innovation in the form of a special offensive strategy called “West Coast Offense”) the loss of key employees was expected to harm the organization because knowledge about the strategic innovation would be diffused throughout the competitive environment. In order to address this question empirically, Aime et al. (2011) analyzed the coaching careers and appointments, as well as
the past and future game schedules of the San Francisco 49ers and their opponents. Competitive advantage was affected as competing organizations developed knowledge about and counteractions against the advantageous set of routines by (1) directly hiring head coaches who had prior experience with the West Coast Offense (first- or second-generation assistants to the originator of this strategic innovation), (2) by being directly exposed to these routines more often (the number of times a head coach had competed against teams lead by direct hires), and (3) by expecting to be exposed to these routines more often in the future. In support of these expectations, results indicated that key employee mobility had competitive implications for an organization possessing a superior strategic innovation. Higher levels of managerial tenure could thus also benefit team performance by avoiding a frequent loss of key employees and the associated diffusion of strategic knowledge.

In summary, the studies reviewed in this section identified a generally positive relationship between managerial tenure and team performance. Theoretical explanations for this positive association have been offered from a matching perspective, or especially from a more strategy-oriented perspective. Along these lines, an important role fulfilled by the manager of a team rests in the implementation of a strategy. Notably, these studies also provide a potentially more elaborate answer to the question posed in the previous section, whether leadership does matter. The next section offers insights into several elements of managerial ability, thereby drawing an even more precise picture of leaders’ influence on teams.

2.4.1.3 Managerial characteristics

In an ongoing effort to understand better the importance of managers in a sport team context, researchers started to examine the influence of managers’ characteristics in more detail, mostly by examining managers’ backgrounds and experiences. Studies provide evidence that managers’ abilities, qualities or experiences are important factors explaining their influence on team performance. Along these lines, the study by Cannella and Rowe (1995) on baseball teams highlighted the importance of leaders’ characteristics for team performance following managerial succession. Results suggested that leaders’ abilities and experience are important drivers of team performance per se, but that the succession context tends to weaken these associations (Cannella & Rowe, 1995). Other studies addressed the issue of the impact of managerial characteristics on team performance more directly and detached from the succession event (e.g. Holcomb et al., 2009).

Pfeffer and Davis-Blake (1986) analyzed an NBA basketball sample and found evidence that teams can in fact profit from managerial succession when the new coach (a)
had a good prior record, (b) had prior experience in high class basketball leagues, or (c) had brought about performance improvements in other teams already. Pfeffer and Davis-Blake (1986) were among the first to include managerial abilities and experiences in examining the effects of succession (for another early example in a different organizational context, see Smith, Carson, & Alexander, 1984), and with this highlighted the need to consider carefully managers’ characteristics that “might be related to their ability to affect organizational performance” (75). Pfeffer and Davis-Blake (1986) thus helped to answer the basic question of whether leadership matters in teams: While the mere occurrence of a managerial succession alone does not allow for a qualified answer, including contextual conditions (such as the type of succession) and managerial characteristics significantly increased the predictive power of succession on subsequent team performance. Beyond such a moderating effect on the relationship between managerial succession and organizational performance, characteristics of managers have been the main subject of many following studies. Kahn (1993), as well as Singell (1993), examined the impact of managerial quality on team winning and individual player performance in baseball teams. With this dual focus, both a direct and an indirect effect of managers on team performance were introduced in studies on sport team coaches. Based on the human resource management literature, Kahn (1993) and Singell (1993) argued that managers are responsible for turning individual players’ inputs into team victories and thereby they exert a direct influence on performance via staffing decisions (e.g. which players should be fielded) and strategic decisions (e.g. which playing move to choose in a critical game situation). Moreover, managers have an indirect influence on team performance that works via the training and motivation of individual players.

Pfeffer and Davis-Blake (1986) operationalized managerial ability via a coach’s cumulative past winning record, a dummy variable capturing coaching experience in the NBA or ABA, and a comparative measure capturing the degree to which a coach’s past winning records were better or worse than the predecessor’s record over the entire coaching career, i.e. the extent to which a coach has brought about performance improvements in earlier teams. Kahn (1993) employed managerial quality as predicted pay based on salary regression, and with this took advantage of market-based measures. Pfeffer and Davis-Blake (1986) as well as Kahn (1993) thereby relied on a manager’s coaching career to calculate measures. Singell (1993) introduced an additional aspect of managers’ career backgrounds by including previous experience as a player as a component of baseball-specific human capital. As Singell (1993) outlines, “baseball mythology contends that ‘good’ players make ‘good’ major league managers largely due to innate ability” (52). In a more specific analysis of the effects of prior experience as a player on later coaching abilities, Goodall, Kahn, and Oswald (2011) found further empirical support for this general conjecture in the NBA.
basketball context. Whether a team’s coach had prior experience as a player in the NBA or not, and whether during that career as a player the present coach was nominated for an NBA all-star team, were used as indicators for leaders’ “expert knowledge”. Brilliance as a player translated into much later team success in the role of an NBA coach, a finding that suggested that the leader’s effects on team performance “are substantial” (Goodall et al., 2011: 265). In their theoretical argument, Goodall and colleagues (2011) again took up the two general ways in which coaches contribute to their team’s performance and argued that expert knowledge enables coaches to develop winning strategies better, since that knowledge allows good coaches to “see the game in ways that others cannot” (281). Further, former brilliance as a player may enable a coach to provide “more credible leadership than coaches who were not great players” (281), leading to a stronger developmental and motivational influence on individual players.

Focusing on managerial experience characteristics such as weighted career winning percentages, the study of Holcomb and colleagues (2009) on American football teams found that the influence of managerial ability was contingent on the quality of a team’s resources, i.e. the quality of individual players (measured by league awards earned). Arguing from a resource-perspective, managerial actions in the American football context involve two critical tasks (Holcomb et al., 2009): (1) bundling players into offensive and defensive combinations, and (2) deploying these bundles based on the requirements of a given competitive context. In fulfilling these tasks, managerial actions are constrained by the total payroll allowed for teams (salary cap). As such, managerial actions include an efficiency component, as productivity increases when greater output is produced with the same input (salaries) or the same output is produced with fewer inputs. In Holcomb et al.’s (2009) study, managerial ability was found to have an impact on team performance by affecting resource productivity in both offensive and defensive “resource bundles”, as well as by synchronizing between resource bundles. Effects were less pronounced with the increasing quality of a team’s players, pointing to a special importance of highly competent managers in teams with less valuable resource endowments (lower quality players).

Bridgewater, Kahn, and Goodall (2011) presented a similar study by drawing on a British football sample, focusing on the manager’s function to influence individual team members’ performances via training and motivation. More precisely, the authors distinguished between a manager’s functions to communicate to subordinates the skills needed to succeed (teaching function), and to manage the egos of highly-skilled elite workers (ego management function). Depending on the skill level of team members (proxied by the team’s payroll), one of the two functions appeared to be of higher relevance for team performance. Managers who themselves had played at the highest levels (manager’s playing
expertise captured by dummy variables) raised the productivity of less-skilled teams to a greater extent than highly skilled teams. The amount of managerial experience (in years), which was assumed to correlate with managerial quality (because high quality coaches are hired repeatedly), raised the productivity of highly skilled teams by more than that of less skilled teams. Bridgewater et al. (2011) concluded from these disparate effects of managers’ experience backgrounds that there are multiple dimensions of managerial ability influencing team performance. The matching of leaders and subordinates, in this case of the coach’s experience as a player and as a manager with the team’s skill level, thus emerged as a factor influencing sport team performance.

2.4.2 Managing teams – synthesis and areas for future research

Sport team studies interested in the role of leaders or managers as a source of team performance have developed from posing generic and basic questions, like whether leaders matter at all, to more detailed questions considering the importance of different contingency factors such as types of succession (e.g. Allen et al., 1979), managerial quality, experience, or expertise (e.g. Kahn, 1993; Pfeffer & Davis-Blake, 1986; Singell, 1993). In parallel, and initiated by examinations of the effects of managerial tenure, researchers started giving more attention to questions of how leaders actually have an influence on team effectiveness (e.g. Berman et al., 2002; Rowe et al., 2005; Wright et al., 1995), and began to examine how leaders’ influence depends on characteristics of the team (e.g. Bridgewater et al., 2011; Holcomb et al., 2009). A key insight from the reviewed set of sport team studies is that leaders do play an influential role for team effectiveness. Further, the role of managers appears to be dependent on the characteristics of the team, as this influences how managerial characteristics or tenure affect team effectiveness.

Generally speaking, managerial characteristics associated with ability, quality, or experience relate positively to overall team performance (e.g. Kahn, 1993; Pfeffer & Davis-Blake, 1986; Singell, 1993). Research further indicates that the manager’s influence may vary with the quality of a team’s players. Whether highly competent and experienced managers thereby have a stronger influence in teams consisting of high or low quality players, however, appears to be a question that is not fully answered yet. Holcomb and colleagues (2009) find that the effects of managerial ability are stronger in teams with low human capital endowments, but the findings of Bridgewater et al. (2011) indicate that this effect may again be dependent on the operationalization of managerial ability. Future research should therefore examine how managers’ backgrounds, such as experiences as player or coach, lead to the development of abilities that are valuable in teams consisting of
low quality or high quality players. Beyond the effects of managerial ability, the reviewed studies indicate that a leaders’ influence on team effectiveness develops over time, as teams profit from stability in the manager’s position. In acquiring experience with a new team, a manager develops the team-specific knowledge necessary to implement changes and induce individual and group learning (Rowe et al., 2005; Wright et al., 1995). In doing so, managers optimize the performance potentials inherent in a given team constellation. Over the course of their tenure, however, managers face increasing difficulties in creating additional value, and the benefits of a specific coach-team combination begin to decline (Eitzen & Yetman, 1972). Sport team research further suggests that the beneficial effects of stability in the manager’s position are especially valuable where a team consists of members with little in the way of shared experiences (Berman et al., 2002). Research has not yet addressed whether the importance of managerial tenure varies with a team’s composition of high or low quality players. With managerial ability being an important determinant of leaders’ influence in teams, further questions linked to managerial tenure arise: Does the importance of managerial ability change over the course of a manager’s tenure? And, are highly experienced and competent managers able to enhance team effectiveness faster and for longer than their less experienced and competent counterparts? Future research should address these questions in order to draw a more complete picture of the influence of stability of managerial tenure on team effectiveness.

When trying to understand the role of leaders in teams, a preponderance of approaches considers leadership as an input to team performance (Burke, Stagl, Klein, Goodwin, Salas, & Halpin, 2006). From such a traditional perspective, leadership has been conceptualized mainly in terms of individual leaders’ skills, abilities, behaviors or other attributes that are thought to directly affect team processes and performance (Day, Gronn, & Salas, 2004). Clearly, the sport team studies described in the present review have in large parts applied such a traditional perspective of leadership in teams. At the same time, researchers have called for closer examinations of the conditions under which leadership in teams matters the most (Burke et al., 2006). Sport teams appear to be a promising field to examine such questions empirically in ways not yet evident in this literature. As an example, the meta-analysis by Burke and colleagues (2006) on leadership in teams reports initial evidence that levels of task interdependence might act as a moderator in the relationship of leadership to team effectiveness. Given the variety of levels of task interdependence prevalent in the sport team setting, future studies could explicitly include the role of task interdependence in the study of sport team coaches, and potentially also take advantage of comparative studies across sport team types (cf. Frick et al., 2003). Furthermore, recent theory building has considered leadership in teams as an outcome of team processes,
whereby teams influence leader effectiveness (Day et al., 2004). From such a perspective, leadership and team processes become intertwined to influence team performance (Zaccaro & Klimoski, 2002). Studies on sport team managers and coaches have already demonstrated the importance of the interplay between managerial characteristics and team characteristics, for example with a focus on managerial ability and managerial tenure (Berman et al., 2002; Holcomb et al., 2009). Future studies should thus examine in more detail how team characteristics interact with the influence of coaches on sport teams’ performance.

2.4.3 Composing teams – key insights

2.4.3.1 Role composition

Individual members of a sport team usually have a specific role to fulfill. Each is supposed to perform a specific set of tasks directed by the structure of a game or the strategy chosen by a team’s manager. The completion and synchronization of roles are generally thought of as a necessary condition for effective team performance (Steiner, 1972). Ghosh and Steckel (1993) analyzed role structures in NBA basketball teams. Most importantly, they asked whether certain role combinations were better than others for structuring an NBA basketball team. They derived six different player role profiles by applying cluster analysis to common player statistics. In doing so, they did not primarily consider the formal positions usually ascribed to players (such as center, guard, or forward). Rather, they applied a more practically-oriented perspective to identifying prevailing role profiles, as the actual tasks fulfilled by individual players formed the basis for their role identifications rather than predefined and conventional formal playing positions. Further, Ghosh and Steckel (1993) examined teams as a function of their players’ roles in order to identify the most promising role structures. Again relying on cluster analysis, they found that teams were able to improve their performance by having a more balanced role structure, on the condition that players were “good” in fulfilling their roles. An important conclusion of this finding is that teams should develop or acquire players in such a way that individuals are allowed to specialize in their specific roles. Specialized and competent individual members, which at an overall team level fit into a balanced role structure, were thus found to be more beneficial than an unbalanced team containing one or two “superstars” who are required to take over multiple tasks.

Approaching the importance of roles in teams from a more theoretical angle, Humphrey and colleagues (2009) developed a theory of the strategic core of teams. Their role composition model highlights the disproportionate importance of certain roles for team
performance, as the strategic core of a team is described as consisting of the holders of those roles who encounter more of the problems that need to be overcome, have greater exposure to the tasks a team is performing, and are most central to the workflow of a team (Humphrey et al., 2009). Relying on this distinction between core and non-core roles, Humphrey et al. (2009) analyzed major league baseball teams to examine how the characteristics of a set of role holders influenced team performance. Their findings indicated that high levels of experience and job-related skills are more important predictors of overall team performance when core-role holders possess them. In addition to the study by Ghosh and Steckel (1993), Humphrey and colleagues (2009) thus find support for the notion that certain roles might be of higher importance for overall team performance than others. This has implications for the allocation of resources, as their findings also suggested that teams who are willing to invest more of their resources into strategic core roles are able to leverage these investments to a larger extent than when investing in non-core roles (Humphrey et al., 2009).

2.4.3.2 Demographic composition

Building on a rich tradition of research on demographic composition in organizational work group contexts (e.g. Milliken & Martins, 1996; Williams & O’Reilly, 1998), a number of studies have contributed to this line of research by examining similar research questions in the sport team context. Timmerman (2000) examined the relationship between age diversity, racial diversity and team performance in two team settings characterized by very different levels of interdependence. This dual setting approach enabled the researcher to examine the moderating role of interdependence on the relationship of diversity to team performance. Despite the large number of studies examining age diversity, racial diversity, or both, within an organizational context, firm conclusions have been difficult to draw. Timmerman (2000) highlights the lack of consideration given to moderators of the diversity-performance relationship and thus aims to contribute to broader organizational research with an investigation of an important moderating relationship. His findings support the contention that the effects of demographic diversity are moderated by a team’s level of task interdependence. In highly interdependent basketball teams, diversity of both age and race were found to have a negative impact on team performance. In baseball teams, however, where relatively less interaction is required between team members, diversity in both demographic variables was found to have no effect on team performance. As argued by Timmerman (2000), the higher amounts of interaction required among team members in basketball teams strengthened the salience and negative influence of social categorization resulting from demographic diversity in basketball teams.
A different finding on the effects of racial diversity in basketball teams has been offered in a research note by Weiss and Sommers (2009). These authors examined the effect of the racial composition of basketball teams and the respective influence on team performance, again highlighting the special importance of high interdependence in basketball teams. Other than in Timmerman’s (2000) argument, Weiss and Sommers (2009) hypothesized that the impending negative effects of diversity due to less frequent and less effective communication between different racial groups might be overcome by the necessary cooperation inherent in basketball teams. Weiss and Sommers (2009) found support for their prediction in that racial diversity was found to have no impact on team performance. Importantly, Weiss and Sommers’ (2009) measure for racial diversity relies on the five demographic groups of African-Americans, Caucasians, East Europeans, Asians, and other foreign-born players, whereas Timmerman’s (2000) operationalization includes the categories of Blacks, Whites, and Hispanics. The differing findings of these two studies on racial diversity in basketball teams raise the question whether different operationalizations of racial diversity may in fact be the reason for such mixed findings.

Moving from racial diversity to nationality diversity, the study of Brandes, Franck, and Theiler (2009) conducted in a professional football setting did not find a significant overall influence of the number of nationalities within teams on seasonal team performance. A more nuanced analysis, however, revealed support for the theoretical arguments raised by Lazear (1999) that there may be nation-specific skills observable in the football setting. Put differently, by adding non-represented nationalities to a team, managers may actually enlarge a team’s pool of available skills. In a very recent attempt to examine cultural diversity in teams, and again building on the theoretical arguments by Lazear (1999), Kahane and colleagues (2012: 1) analyzed NHL ice-hockey teams “to consider the potential gains to firms from employing culturally-diverse work teams”. Overall, their findings revealed that teams including a higher proportion of foreign workers (i.e. European players as a non-American worker group) performed better, as teams were able to broaden their collective sets of skills and abilities beyond levels that would have been possible if only domestic workers (a relatively homogeneous group) were employed. A more detailed analysis then revealed that within the group of foreign workers, a too widespread of national origins implied increased integration costs associated with language and cultural barriers, starting to diminish the advantages of diversity. Results thus indicated that benefits from cultural diversity “may be greatest when the foreign component of the work force has, within itself, a higher degree of homogeneity” (Kahane et al., 2012: 28). Kahane et al.’s (2012) theoretical argument of the positive effects of cultural diversity on team performance rests on the condition that, in ice-hockey, foreign born players were trained in a non-
American context and thus are able to add non-overlapping skills to a team’s overall skill base. With this, Kahane et al.’s (2012) approach is very close to an examination of experiential composition in teams.

2.4.3.3 Experiential composition

Beyond focusing on more superficial demographic characteristic (see above), a number of studies have investigated experiential characteristics of teams and individual team members. Berman and colleagues (2002) used data from NBA basketball teams to examine the effects of tacit knowledge on sustained competitive advantage, thereby aiming at contributing empirically to the resource-based view of the firm. In their theoretical argument, Berman et al. (2002) outline how team experience leads to the accumulation of a stock of tacit knowledge in a group whereby a team profits from significant learning effects which ultimately raise team performance. With increasing levels of shared experience, however, these incremental benefits may become more and more difficult to harvest, and a lack of including new talent in a team may ultimately lead to negative returns of shared experience. Empirical results did support Berman et al.’s (2002) theoretical argument in the basketball team context.

In their study on the strategic core of teams, Humphrey and colleagues (2009) also examined the importance of several experiential team characteristics. Average career experience, reflecting the length of time spent in a field (number of baseball games played) and the number of times that tasks have been performed in that field (e.g. number of innings pitched), was found to be positively related to team performance, where the career experience of core role holders had an even stronger impact. Average team experience, representing the average quantity of time continuously spent with the current team (i.e. tenure), was also positively related to team performance. Heterogeneity in team experience, i.e. the degree to which members have comparable amounts of experience on the team, was negatively related to performance. These findings for team experience (average level and heterogeneity) were not found to differ significantly between core and non-core roles. Humphrey et al.’s (2009) findings on career experience supported their theoretical argument that individuals acquire knowledge (much of it tacit) during their careers, and may then leverage that knowledge to contribute to team performance. Humphrey et al.’s (2009) findings on team experience (i.e. tenure) support the insights by Berman and colleagues (2002) on shared experience, in that they are in line with the general finding of (initial) positive returns from shared team experience. Extending the study of Berman et al. (2002), Humphrey, Morgeson, and Mannor (2009) further find empirical support for a negative
impact of tenure heterogeneity. Similar to these previous studies, Chang (2011) examined the relationship between membership stability and team performance in baseball teams. The findings indicated that stable teams outperformed unstable teams, thus implying that an important aspect of team management should lie in promoting stable membership, thereby facilitating the accumulation of shared experience.

A geographical dimension of individual team members’ experience backgrounds, i.e. foreign experience or international experience, is another aspect that has been addressed within the context of sport teams. In an analysis of national association football (i.e. soccer) teams, Gelade and Dobson (2007) investigated the impact of several structural factors influencing teams’ performance ratings. Amongst these factors, and most interesting for the purposes of this review, Gelade and Dobson (2007: 250) looked into the importance of having expatriate players in a team, who may bring “additional resources of experience, skill, and fitness to their national teams.” In line with predictions, findings suggested that teams with a higher percentage of expatriate players were ranked higher in an international performance rating of national football teams. The study by Gelade and Dobson (2007), though in large part focusing on structural determinants of national football team performance which cannot directly be manipulated by managers, introduced the importance of expatriates or international experience in the sport team setting. Ruigrok et al. (2011) then presented a more detailed picture of international experiences in national football teams. In an attempt to integrate both potentially positive and negative influences of international experience in teams, these authors theoretically argued how international experiences first broaden an individual player’s stock of tacit knowledge about the game of football. Higher average levels of diversity of international experience of individual players thus were expected to be positively related to team performance. Empirical findings supported these arguments. Second, high costs of integration were found to be prevalent in team constellations where team members held experiences from a wide variety of international locations lacking considerable overlaps between their individual backgrounds.

2.4.3.4 Skill composition

Several of the previously discussed studies have included measures for teams’ skill levels as control variables (e.g. Kahane et al., 2012) or moderating variables (e.g. Bridgewater et al., 2011). This section highlights a number of studies looking more directly into the effects of skill levels and skill distributions in sport teams. Researchers have applied several approaches to capture the skill levels of sport teams empirically. Bridgewater and colleagues (2011) employed “a team’s payroll for players minus the average team’s payroll
for the given league and season” as a proxy for players’ skills. Such an operationalization rests on the assumption that the salaries of players are positively affected by their skills. Limitations to such an approach clearly exist, for example in the form of labor market restrictions in specific sports and leagues. Under the restrictions of a certain salary cap (as in the NFL or NBA) salary differences might not always adequately reflect the differences in skill levels of individual players. On the other hand, an advantage of such a “payroll approach” may rest in the potential that skills which are difficult to measure, e.g. leadership and mentoring skills, may be captured via player salaries. Other researchers have relied on a more direct approach to capture individual members’ and teams’ skills by relying on player performance measures (e.g. Brandes et al., 2009).

In a study of English Premier League football teams, Carmichael, McHale, and Thomas (2011) examined how financial measures (i.e. wage expenditures), playing skills, and team performance were related. Most importantly, their findings indicated that wages were systematically linked to playing skills and performances. Consequently, high wage strategies of certain clubs could be linked to greater success on the field. Following that logic, investment in human capital (i.e. highly skilled player) pays off for clubs. Beyond such a rather intuitive notion that teams consisting of highly skilled members should outperform those composed of lower skilled members, researchers have employed the sport team context to offer more detailed analyses of skill composition in teams.

De La Torre-Ruiz and colleagues (2011) focused on job-related skill heterogeneity and basketball team performance, basing their measures of job-related skill on individual player performances. With respect to their individual job-related skills, team members may well differ in the levels (more or less proficiency), but also in the degree to which their job-specific skills are focused on a single dimension or distributed across a wide spread of dimensions of a task (more or less specialization). Consequently, De La Torre-Ruiz and colleagues (2011) investigated the two research questions of whether heterogeneous or homogeneous skill levels (proficiency), and whether members with high or low specialization were preferable in teams. The researchers found support for their notion that heterogeneity in job-related skill levels is beneficial for teams having low average skill levels, and that these beneficial effects diminish with increasing average skill levels. Framed as a moderating hypothesis, this prediction implied that “as teams go from a situation of having all members with low job-related skills to a situation of having all members with high-job related skill, the effect of job-related skill level heterogeneity will have less positive effects on team performance” (De La Torre-Ruiz et al., 2011: 1065). Again highlighting the importance of low versus high average skill levels, De La Torre-Ruiz et al. (2011) further examined the importance of a team’s composition in terms of the
specialization of its members. Specialization in the context of highly interdependent basketball teams was found to be especially detrimental in teams with low levels of job-related skills.

Papps, Bryson, and Gomez (2011) investigated the effect of heterogeneous worker ability in major league baseball. Their main research question focused on whether “teams built on a more even distribution of observable talent perform better than those teams with a mixture of highly able and less able players” (Papps et al., 2011: 310). Conditioning on average player ability, their findings revealed that teams with a more balanced distribution of talent outperformed teams with a spread of player ability that was either too high or too low. This finding of an intermediate level of skill heterogeneity that maximizes the team output rested on a theoretical argument that teams composed of a certain healthy balance of star players and others who are either on their way to becoming stars or entering career phases of declining productivity may profit the most from “the assistance and motivation resulting from playing alongside teammates with complementary skills and greater talent” (Papps et al., 2011: 313). Too much of a gap between higher and lower skilled team members, however, could also make helping behaviors between team members impossible.

2.4.4 Composing teams - synthesis and areas for future research

With a focus on team composition, sport team studies have examined several compositional dimensions such as roles, demographics, experiences, and skills, in search of optimal patterns of how individuals assemble to form effective groups. Due to the fragmented focus of these studies on several team composition dimensions, relatively few consistent patterns emerge across dimensions. As an overarching notion, however, the reviewed studies suggest that effective teams find a balance between inequality and equality, dissimilarity and similarity in specific compositional dimensions. An optimal degree of inequality or dissimilarity benefits team effectiveness where it leads to the introduction of non-overlapping and complementary elements and at the same time avoids constellations of too much inequality or dissimilarity that pose barriers to cooperation. Several studies explicitly address this issue of balancing or optimization by combining both positive and negative effects of inequality or dissimilarity on team performance. For example, Kahane et al. (2012) propose that team effectiveness benefits from a culturally-diverse workforce that in fact is not overly diverse but remains a certain degree of homogeneity within the foreign component of the work force. Likewise, Papps and colleagues (2011) suggest that teams with a balanced mix of high-skilled and low-skilled members maximize team performance,
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and Berman et al. (2002) find that after initial beneficial effects, too much shared experience might actually hinder team effectiveness due to a lack of introducing new talent.

So far, few sport team studies have examined contingency factors that might influence this balancing act. With a focus on skill composition, De La Torre-Ruiz et al. (2011) examined how diversity in team members’ skill levels and the specialization of members are dependent on the overall skill level of the team. Further, Timmerman (2000) examined the effect of levels of task interdependence as a moderating factor on the relationship between demographic team composition and team effectiveness. Clearly, future research should further examine the conditions under which teams profit or suffer from increasing levels of inequality (cf. Joshi & Roh, 2009).

In a notable exception to the typical team composition study that implicitly assumes that all members contribute equally to team functioning (cf. Mathieu et al., 2008), Humphrey and colleagues’ (2009) study on the strategic core of teams examines individual team members’ disproportionate influence on team outcomes as a function of their affiliation to core or non-core roles. Their findings demonstrate how considering roles as an “additional compositional level” (49) between the individual and the overall team can contribute to a better understanding of the balancing act between beneficial and detrimental consequences of team composition. With such an approach still being the clear exception in the field of sport team research, favorable empirical conditions such as transparent role structures or readily observable patterns of cooperation (e.g. passing distributions) should encourage future research to further examine the influence of additional compositional levels such as subsets of team members. This accords with recent advances in team research to examine the importance of subteams in more detail (cf. Carton & Cummings, 2012). A further area where sport team research could contribute to a better understanding of teams emerges from the changing nature of teams and their environment. A recent article by Tannenbaum and colleagues (2012) describes dynamic composition as one of the central and changing features of contemporary teams. Dynamic team composition refers to individuals’ frequent movements in and out of teams, opposed to conditions of rather stable team membership (Mathieu et al., 2008). As a consequence, “for each team configuration there is a network of inter-member histories of working together” (Tannenbaum et al., 2012: 7). Team composition research to date has not yet adequately accounted for such inter-member working histories. The context of sport teams may serve as an informative setting for such a purpose. Well-documented career trajectories of players including detailed data on individual game line-ups could serve as the basis to empirically examine such inter-member networks of shared experience.
2.4.5 Allocating resources – key insights

Of longstanding interest among researchers interested in the factors influencing team performance are the effects of compensation systems, which are generally thought to have an impact on the behavior and performance of individuals and teams (Bloom, 1999; Day et al., 2012). Focusing on the context of sport teams, studies have primarily looked at the impact of pay distribution in teams, which is defined as the “array of compensation levels paid for differences in work responsibilities, human capital, or individual performance” within a single team (Milkovich & Newman, 1996: 45). Whether pay distribution should be hierarchical and more dispersed, or rather egalitarian and less dispersed, has been the subject of an intense theoretical debate. The studies reviewed in this section have concentrated on the effects of salary dispersion on team performance to contribute empirically to this debate.

Salary dispersion refers to the equality or inequality with which rates of pay are distributed to individuals in a team. Several studies also include examinations of the effects of pay levels which refer to the absolute rates of pay assigned to individuals in an organization or a team (Bloom, 1999). As outlined in the paragraphs above, pay levels (or total payroll) have been used frequently as a proxy for playing talent or the average skill level of the individual players composing a team. Based on the argument that within an efficient labor market salaries reflect the job-related skills or quality of an individual team member, a general finding that higher salary expenditures (and thus higher quality players) lead to increased team performance was observed. Generally speaking, many of the studies focusing on pay distribution add further support to this finding. In the present section the review thus concentrates on studies examining pay dispersion and the effects on sport team performance.

In condensing prior organizational theories and research, Bloom (1999) suggested two basic models linking unequal or equal salary distribution to individual member and team performance. In a hierarchical model, a greater proportion of pay is concentrated in a few individuals at the top of the distribution. In such a case of high salary dispersion, wages are distributed less equally. In a compressed model, pay is less dispersed, and the spread of salary levels across all individuals is more equal. Different explanations follow from the two basic models of pay dispersion for potential positive influences on team performance. Higher salary dispersion (hierarchical model) induces incentives for greater individual effort and performance, lower salary dispersion (compression model) is more likely to motivate cooperation and thus higher group performance. Some of the following studies on salary dispersion further refer to a danger-potential hypothesis (Ramaswamy & Rowthorn, 1991)
and a team-cohesiveness hypothesis (Levine, 1991). Following Ramaswamy and Rowthorn (1991), different labor types can justify wage disparity in that differentiated labor induces a worker-specific risk to firm performance, where workers with greater potential for damage should be paid more. This in turn is expected to “mitigate their desire to inflict damage on the team’s productivity” (Depken, 2000). According to Levine (1991), where more “team work” is necessary to complete a team’s task, wage disparity between individual team members may cause a breakdown in cohesiveness, ultimately leading to decreased team performance. A more equal salary distribution is thus thought to be beneficial in situations where team work is highly important.

Bloom (1999) tested the relationship between pay dispersion and performance within the setting of major league baseball teams. The findings indicated that more hierarchical pay dispersion led to poorer team performance. Furthermore, Bloom (1999) tested the relationship between pay dispersion and individual player performance. The results again supported the compression model hypothesis in that a larger difference between a player’s pay and the maximum pay in a team was negatively related to several indicators of individual performance. This negative effect of higher pay dispersion on individuals’ performances, however, was dependent on a player’s position in the pay dispersion (rank of a player’s pay in the team). Greater dispersion was negatively related to individual performance of those players lower in their intra-team wage ranking. Bloom’s (1999) study can thus be interpreted as somewhat inconclusive about the prevalence of either a hierarchical model or a compression model in baseball teams. While for overall team performance, a compression model was beneficial, individual players’ performances appeared to be affected positively by hierarchical salary distributions in the case of individuals in the high-earning part of the team.

Depken (2000) replicated Bloom’s (1999) finding that higher salary dispersion had negative effects on overall baseball team performance. Both authors accord in interpreting these findings: In teams that require collaborative effort, hierarchical salary dispersion is detrimental for team success. This general finding of early studies on salary dispersion in baseball teams was the starting point for Frick et al.’s (2003) analysis of pay inequalities and performance in the four major American team sport leagues. The unique contribution of Frick et al.’s (2003) study lies in their application of a sample with multiple sport teams. The four team sports (baseball, basketball, American football, and ice-hockey) were characterized by different degrees of interdependence between players and therefore arguably would exhibit different cooperation requirements. The findings indicated that higher degrees of wage dispersion were beneficial for basketball teams, detrimental for baseball teams, and non-significant for ice-hockey teams (coefficient implied in tendency a
beneficial effect) and American football teams (coefficient implied in tendency a detrimental effect). These findings ran contrary to the intuitive prediction based on relative levels of interdependence in baseball and basketball teams, as well as the findings by Bloom (1999) and Depken (2000). Low levels of interdependence in baseball teams compared with high levels of interdependence in basketball teams (Keidel, 1984, 1987) could give rise to the prediction that hierarchical pay dispersion introducing incentives for individual player performances rather than cooperative team behavior should be more beneficial in baseball than in basketball. The empirical findings by Frick et al. (2003), however, suggested a contrary relationship. These insights pointed to the possibility that for the case of pay dispersion in sport teams, team size might be an important factor. As Frick et al. (2003) put this point, the small number of players on the ice or the court in the NFL and NBA could imply that a single highly paid “star” player may have a much stronger impact on team performance than in baseball and American football, where teams are significantly larger. Individual players’ possibilities to impact team performance as a result of team size are thus limited in the MLB and NFL.

Following these studies, researchers started to concentrate on several special aspects of the relationship of pay dispersion to team performance. In his study on NFL American football teams, Borghesi (2008) included a distinction between justified and unjustified pay. While justified (fair) compensation could be explained by player productivity, unjustified (unfair) compensation could not. Results indicated that team performance was not only affected by justified and unjustified compensation levels but also by justified and unjustified dispersions in pay. Supporting the general findings of Bloom (1999) and Depken (2000), Borghesi (2008) concluded that team performance is highest when disparity in compensation, whether justified or unjustified, was low.

Gee and Wen-Jhan (2008) included an aspect of inter-team wage dispersion in their empirical analysis of pay dispersion in baseball teams. Their adjusted measure for team pay dispersion included an element of inter-team wage comparison in that the relative rank of players’ salaries within a league-wide pay ranking was integrated. In line with predictions by the authors and the findings of prior research, this adjusted measure of pay dispersion was again negatively related to team performance. Further studies contributed to this line of research by explicitly including incentive payments (Mondello & Maxcy, 2009), tests for causality (Wen-Jhan, 2010), or a different time focus as well as different sub-populations of a team (Katayama & Nuch, 2011) in their analyses. In large parts, these studies confirm that compressed salary dispersions are beneficial for sport teams, with the exception of Katayama and Nuch (2011) who did not find evidence for a significant relationship between salary dispersion and game-level performance in any direction. In an attempt to integrate the
potential positive (via incentives for individuals’ performances) and negative (via reduced incentives to cooperate) effects of higher pay inequality on team performance, Franck and Nüesch (2011) analyzed non-linear effects of pay dispersion on team performance in German professional football teams. Their data demonstrated that team performance was highest with either very high or very low levels of pay dispersion, while medium levels produced the weakest performance.

2.4.6 Allocating resources – synthesis and areas for future research

Several studies have examined the importance of pay distributions, as a form of allocating financial resources to team members, on team effectiveness. Most of the reviewed literature finds evidence that, in the sport team context, high intra-team pay dispersion leads to lower overall team performance. At first glance, one could interpret this finding in line with an apparent consensus in the broader literature on collaborative and competitive reward structures, in that collaborative allocations, i.e. compressed pay dispersions, are beneficial where team performance depends on intense team work (as in sport teams), but competitive allocations, i.e. hierarchical pay dispersions, are beneficial where performance depends on less interdependent contributions of individuals’ work (e.g. Wageman, 1995). However, the reviewed studies do not confirm this notion in that several studies examining highly interdependent basketball and football teams find evidence that hierarchical pay distributions relate positively to team effectiveness (Franck & Nüesch, 2011; Frick et al., 2003). Further, the preponderance of studies reporting negative effects of hierarchical pay distributions are based on baseball team samples (e.g. Bloom, 1999; Depken, 2000), where lower levels of interdependence (e.g. as opposed to basketball) would actually imply that hierarchical pay distributions are expected to be more beneficial. Together, these observations reveal that the link between pay distribution and team effectiveness might not be fully explained by levels of interdependence. This finding accords with recent approaches that challenge traditionally accepted recommendations as oversimplified, and ask for more nuanced contingency models of reward structures (Beersma, Hollenbeck, Humphrey, Moon, Conlon, & Ilgen, 2003). Given the observation that many of the empirical findings of sport team studies actually run contrary to the recommendations of traditional approaches, sport team studies appear to be a promising setting to explore the conditions influencing the relationship between pay distributions and performance, and a number of studies have already begun to examine such factors.

Frick and colleagues (2003) study, taking advantage of a multiple sport team dataset, suggests that the role of team size is highly influential, as an element of sport-
specific production functions. In smaller teams single “star players” are able to exert high influence on overall team performance. Rather unequal pay distributions that relate to differences in individual performances might therefore stimulate greater efforts and performance contributions of a team’s most central members without negatively affecting the performance of those lower in the hierarchy and disrupting overall team work. Frick and colleagues (2003) find evidence for positive relationships between hierarchical pay distribution in basketball and ice-hockey, where teams on the playing field are relatively small in comparison with baseball and American football teams. In their study on the strategic core of baseball teams, Humphrey and colleagues (2009) find evidence that higher percentages of resources allocated to the subset of the team that encounters most of the problems facing a team, handles more work, and is central to the work flow of the team, is beneficial for overall team performance. Together, these studies suggest that hierarchical pay distributions positively influence team effectiveness where pay differentials are based on a team’s dependence on critical roles fulfilled by individuals or a subset of members, thereby offering a more nuanced explanation than is implied by traditional approaches. Clearly, sport team studies have not yet gone beyond initial evidence on such an explanation and future research should aim at understanding the relationship between pay distribution and team effectiveness as dependent on the degree to which individuals exert disproportionate influence on the collective’s performance in more detail.

2.5 Conclusions

Inspired by a growing stream of literature examining organizational research questions within the empirical context of sports (cf. Day et al., 2012; Wolfe et al., 2005), this review focused on the specific topic of team research, and was guided by the question of what we can learn about teams from research conducted within the context of sports. With that aim, the five most prominent sport team types studied, i.e. baseball teams, basketball teams, American football teams, ice-hockey teams, and football teams, have been discussed along the dimensions of skill differentiation, authority differentiation, temporal stability, and task interdependence. These dimensions have been suggested as critical in past attempts to compare and contrast different types of teams (Hollenbeck et al., 2012; Saavedra et al., 1993), and serve to put the findings of specific sport team studies into perspective. Where the teams studied share essential characteristics in terms of skill differentiation, authority differentiation, temporal stability, and task interdependence, researchers and practitioners can be confident that findings will apply beyond the sport context.
Against this conceptual background, this review of sport team studies revealed insights into the broader content areas of managing teams, composing teams, and allocating resources as team input factors that have also been suggested to influence team effectiveness in non-sports contexts (Guzzo & Dickson, 1996). More specifically, scholars paid special attention to the role of leadership in teams by looking into the effects of managerial succession, managerial tenure, and managerial ability. Characteristics of team members have been the issue in studies on role composition, demographic composition, experiential composition, as well as skill composition. Further, the effects of salary dispersion have raised the attention of a considerable number of studies. In an effort to synthesize this literature, several key lessons from sport team studies have been developed, that draw a complex picture of teams striving to maximize team effectiveness via the input dimensions of managing teams, composing teams, and allocating resources. These studies suggest that performance is highest where teams manage the challenges associated with (1) appointing competent leaders and retaining them until the peak of a specific coach-team combination is reached, (2) composing teams in such a way that individual members’ diverse inputs complement each other without disturbing cooperation, and (3) allocating resources such that the most influential team members are highly motivated while avoiding disruption of overall team work. Sport team studies have started to embrace this complexity in demonstrating how effective teams manage to balance these challenges, and, as described, there are multiple possibilities for how future studies in the context of sports can contribute further to our understanding of teams in general.
3 Composing teams to optimize the benefits of international experience diversity
Abstract

This chapter contributes to a better understanding of the effects of experiential diversity in teams. Specifically, the link between diversity in team members’ international experience backgrounds and team performance is examined from an information processing perspective. This chapter addresses the conditions under which teams optimize the benefits of a greater pool of knowledge and perspectives at their disposal. A set of four hypotheses is developed and tested on a longitudinal dataset drawn from professional football teams in the German Bundesliga over a seven-year period. The findings are that a diverse international experience base is positively associated with team performance. Indicators of experiential team composition and managerial tenure positively moderate this relationship. Specifically, the performance gains of greater diversity of international experience are larger the more a team: consists of members experienced in high quality settings; consists of members with narrow individual experience backgrounds; and is led by a longer-tenured coach. Theoretical and practical implications of these findings are discussed together with future research directions.
3.1 Introduction

Teams have become increasingly diverse, constituting a challenging reality in today’s organizations. A substantial body of research has been conducted that advances our understanding of team diversity, describing both positive and negative effects on team performance (for comprehensive reviews see: Jackson & Joshi, 2011; Milliken & Martins, 1996; Van Knippenberg & Schippers, 2007; Williams & O’Reilly, 1998). When organizations and scholars extol the potential positive effects of diversity, they often draw on the logic of the information processing perspective, emphasizing the role of less visible attributes of diversity such as knowledge, skills, and perspectives (Jackson & Joshi, 2011). Still, as researchers are trying to understand these potential positive effects of diversity, it is important to examine exactly which diversity attributes are driving team performance, and which conditions enable teams to optimize the potential benefits of diverse composition.

From the perspective that there is value in diversity (e.g. Cox, 2001; Cox & Blake, 1991; Herring, 2009), researchers have argued that diverse teams may profit from advantages in creativity and problem solving as people from various backgrounds come together and capitalize on the different perspectives they bring to a team. While differences in perspectives have also been associated with attributes of demographic diversity such as gender and race (e.g. Herring, 2009), nationality or culture (e.g. Cox & Blake, 1991), researchers have identified the importance of understanding team members’ experience backgrounds in that respect. Their experiences affect the development and shape of peoples’ knowledge, skills, and abilities (Quinones, Ford, & Teachout, 1995; Tesluk & Jacobs, 1998). Team members with diverse experiences may thus contribute to a team’s overall information processing capacity (Hinsz et al., 1997; Jackson & Joshi, 2011).

Prior research on the effects of experiential diversity has predominantly focused on educational and functional experiences (Bantel & Jackson, 1989; Bunderson & Sutcliffe, 2002; Dahlin, Weingart, & Hinds, 2005; Jehn et al., 1999), where team members’ school and academic educations or their careers within corporate functional domains served as indicators for the knowledge, skills, and perspectives they held. At the same time, changing career patterns beyond linear trajectories within single employment settings (Sullivan & Baruch, 2009), and the growing importance of international experiences (Gregersen et al., 1998) have been recognized as characteristics of contemporary careers. Research on expatriates suggests that international experiences have effects on individuals’ knowledge, skills, and perspectives (Cappellen & Janssens, 2005; Suutari, 2003). During international assignments people encounter more discontinuities, critical incidents and occasions for reflection than in their home country (Kohonen, 2005), leading to a situation of intense
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experiential learning (Jokinen, 2010). Moreover, recent research indicates that multiple international experiences, as a result of the discontinuous career paths common in contemporary society, have an extensive developmental effect on peoples’ knowledge, skills, and perspectives (Jokinen, 2010; Suutari & Mäkelä, 2007). Still, how diversity in international experience backgrounds influences the functioning and performance of teams has not been systemically addressed. This is the primary purpose of this chapter.

Researchers have aimed at developing a better understanding of the conditions under which the potential benefits of diversity will manifest (e.g. Joshi & Roh, 2009). When are teams able to capitalize on the potential advantages arising from experiential diversity? The composition of a team has long been proposed to influence team processes (Barrick, Stewart, Neubert, & Mount, 1998). Generally speaking, team composition is concerned with the configurations of attributes in teams (Levine & Moreland, 1990), wherein team diversity represents only one possible configuration of team members (Bell et al., 2011). As well as heterogeneity indices as higher level representations of variance in lower level attributes, aggregated levels as indicators of a central tendency in a team’s experiential composition have been linked to team functioning (Mathieu et al., 2008; Stewart, 2006). Further, prior research has demonstrated a highly influential role of leaders on the functioning and performance of teams, as leaders provide guidance and give directions over time (e.g. Rowe et al., 2005; Van Ginkel & Van Knippenberg, 2008). A second purpose of this chapter is therefore to examine the moderating role of two factors of experiential composition of teams and managerial tenure on the relationship between diversity of international experience and team performance.

The structure of this chapter is as follows. The theoretical logic linking diversity of international experience to team performance is highlighted, and hypotheses are developed pertaining to the expected benefits of diversity of international experience and the moderating influences of three conditional factors. The research setting, data, and methods are then described, followed by a presentation of the findings. The chapter concludes with a discussion of findings and implications for academic and practitioner audiences.

3.2 Theory and hypotheses

Following the information processing perspective (Hinsz et al., 1997), individual members bring differing approaches and expertise to a team. Diverse groups are more likely to possess a broader range of knowledge, skills, and perspectives containing distinct task-relevant information (Jackson & Joshi, 2011; Van Knippenberg et al., 2004). Diverse teams should then outperform homogenous teams, as they are able to draw on a greater pool of
information at their disposal, search more widely for relevant information, and develop and consider more alternative solutions (Jackson, 1992; Jackson & Joshi, 2011). Following that general logic, scholars studying teams have often defined diverse experiential composition as a resource that teams draw upon (Bunderson & Sutcliffe, 2002; Carpenter et al., 2001). Experiences affect the development and shape of peoples’ knowledge, skills, and perspectives (Tesluk & Jacobs, 1998). Consequently, team members’ differences in experiential dimensions have been linked to differences in knowledge, skills, and perspectives that members bring to a team (Jehn et al., 1999; Webber & Donahue, 2001; Williams & O’Reilly, 1998). Experiential diversity on dimensions such as educational (e.g. Bantel & Jackson, 1989; Dahlin et al., 2005), functional (e.g. Bunderson & Sutcliffe, 2002), or international backgrounds (e.g. Carpenter et al., 2001; Sambharya, 1996) thus exposes teams to a broader range information and perspectives, holding the potential for enhanced team performance.

Not only does the availability of a greater pool of information per se lie at the basis of potentially superior team performance, but the use of this information base determines how the potential benefits are realized (Van Knippenberg et al., 2004). Elaboration refers to the processing of information in teams, and is defined as the exchange of information and perspectives, the individual level processing of information and perspectives, the process of feeding back the results of this individual level processing into the group, and the discussion and integration of its implications (Hinsz et al., 1997). Elaboration processes then may positively lead teams to capitalize on the potential advantages of diverse experiential composition.

Research on diversity in team members’ functional experience backgrounds has indicated that different conceptualizations of functional diversity can have very different implications for team process and performance (Bunderson & Sutcliffe, 2002): a measure of functional diversity emphasizing the dispersion of team members across dominant functional areas (“dominant function diversity”) was negatively related to information sharing and team performance, while a measure emphasizing the functional breadth in team members’ backgrounds (“intrapersonal functional diversity”) was positively related to information sharing and team performance. Theoretically, these opposing findings were explained by the differing salience of social categorization processes (Williams & O’Reilly, 1998), disrupting the elaboration of information in the case of dominant function diversity, and minimizing these negative influences in the case of intrapersonal functional diversity. These findings underscore the effects of team composition on a team’s ability to elaborate diverse information successfully.
This chapter’s primary aim is to examine the relationship between diversity of international experience and team performance. In line with the basic argument of the information processing perspective, that diverse composition endows teams with a greater pool of information offering the potential for enhanced team performance, the following section develops how individuals’ international experiences contribute to the formation of such a team-level informational resource. Teams should manage to exploit the potential benefits of a diverse pool of available information better the higher the levels of knowledge and skills necessary for information elaboration are. Recent research into team composition has indicated the importance of elevated mean levels of compositional attributes for team functioning and performance (Bell, 2007; Bell et al., 2011), and has further suggested the influential role of team leaders (Stewart, 2006). Therefore, this chapter develops three moderating effects on the relationship between diversity of international experience and team performance in the subsequent sections.

### 3.2.1 International experience diversity and team performance

International experience is identified increasingly as a vital asset. In a business context, international work experience appears to be of relevance for individuals and companies alike (Takeuchi, Tesluk, Yun, & Lepak, 2005). At individual level, CEOs with extensive experience abroad are typically more highly sought after than those without (Daily, Certo, & Dalton, 2000). At firm level, especially, multinational companies recognize the international work experience of their executives as a potential source of competitive advantage (Carpenter et al., 2000). Individuals’ knowledge, skills, and perspectives are shaped through experiences in educational, training, or on-the-job settings. As individuals accumulate experiences, they may differ in the extent to which their experience background is relatively specific or generic (Castanias & Helfat, 2001; Sturman, Walsh, & Cheramie, 2008). Specificity refers to the uniqueness of acquired human capital (Lepak & Snell, 1999), i.e. the extent to which knowledge, skills, and perspectives are contextually specified. In contrast, generic human capital refers to attributes that are largely detached from context.

Previous research has highlighted how international experiences lead to the development of the rather generic competencies needed in a global environment, such as cross-cultural skills, or a broader global perspective (Antal, 2000; Carpenter et al., 2000). The development of a broad and flexible skill base which is transportable across contexts (Eby et al., 2003) is considered to be a crucial outcome of international careers. The nature of an international environment and a high level of autonomy encountered during expatriate assignments foster intense experiential learning situations (Illeris, 2007; Jokinen, 2010), and
enable individuals to develop the competencies required in an international context as opposed to the home country context. With this, generic international knowledge, skills, and perspectives are developed. At the same time, more context-specific knowledge is also created when individuals acquire experiences. The country-specific, contextual setting in which individuals acquire their experiences shapes the characteristics of knowledge, skills, and perspectives (Bhagat, Kedia, Harveston, & Trianidis, 2002). As Antal (2000) outlines, cultural specificities are important components of the knowledge expatriates gain during foreign assignments. Thus, international experience is not just a question of home country versus international arena, but rather an issue of the exact contextual setting where experiences are acquired. In international business research, the study of differences between countries in terms of their cultures has a long tradition under the heading of cultural distance (e.g. Shenkar, 2001). At the national level, culture provides a society’s characteristic profile with respect to norms, values, and institutions (e.g. Hofstede, 1980), which may in fact differ between countries (Tihanyi, Griffith, & Russel, 2005). Contextual factors at different levels are considered to have a direct influence on work experiences and their outcomes (Tesluk & Jacobs, 1998). Consequently the country-specific setting, where international experience is acquired, is identified as a formative element for the knowledge, skills, and perspectives individuals acquire and develop. Following that logic, international experience reflects an individual’s type of knowledge or perspective with respect to country-related, contextual peculiarities.

So far the discussion has considered the effects of international experience for individual-level knowledge, skills, and perspectives. At team level, diversity of international experience enables teams to profit from the availability of a broader task-relevant information base, since task-relevant information arises from country-specific peculiarities. As the central argument of the information processing perspective suggests, diverse composition benefits teams because of the greater pool of task relevant information at their disposal (Van Knippenberg et al., 2004).

The breadth in international experiences available to the team, i.e. the number of different countries in a team’s collectively-held experience background, as well as the depth in international experiences, i.e. the total number of years of experience in every country, builds the foundation to capture international experience operationally as informational diversity. The pool of available information is conceptualized as the aggregation of all individual-level experience backgrounds, by summing up the country-specific experiences and calculating an internal measure of the experiential diversity of the team. Operationally, this approach adopts Bunderson and Sutcliffe’s (2002) intrapersonal diversity construct to the team level, not by averaging across team members (Bunderson & Sutcliffe, 2002; Burke
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& Steensma, 1998), but by treating the totality of all country-specific experiences (irrespective of whether this experience has been acquired by team member A or B) as the constitutive parts of the construct. With this approach, the information base at team level, both breadth and depth of available information, is taken into account.

As knowledge acquired through experiences is different depending on the exact international setting, country-specific international experiences are treated as proxies for different perspectives or types of knowledge. Diverse knowledge or perspectives enable teams to search more broadly for information, consider more alternative solutions, and increase a team’s problem-solving capacity (e.g. Jackson, 1992; Jackson & Joshi, 2011). Furthermore, such informational diversity provides teams with more components useful for creating novel knowledge combinations (Taylor & Greve, 2006), and thereby holds the potential to develop further performance-relevant information. Teams with lower diversity in their international experience base lack such a possibility to create novel knowledge combinations.

Based on the notion that, at an individual level, international experience leads to the acquisition of country-specific international knowledge, diversity in country-specific knowledge at team level holds the potential for increased team performance. In sum, this argument leads to the following hypothesis, framing diversity of international experience as a performance potential in team settings:

_Hypothesis 1. A diverse international experience base will be positively related to team performance._

Depending on a team’s experiential composition, the exploitation of the performance potentials inherent in diversity of international experience at team level, i.e. the pool of available information, might be exploited more or less effectively. In the following sections, three optimizing factors (moderators) in the relationship between diversity of international experience and team performance are identified. These are: the average amount of team members’ high quality experiences, the degree to which team members have broad or narrow individual experience backgrounds, and the duration of tenure of a team’s leading manager.

3.2.2 Moderating effect of high quality experience

Van Knippenberg and colleagues (2004) suggest that ability is a moderator of the positive effects of diversity. Providing a common ground or shared frame of reference, high
levels of ability may aid diverse groups to make sense of divergent information, such that more capable groups may be better equipped to exploit the benefits of experiential diversity (Van Knippenberg et al., 2004). One criterion to assess team members’ ability to exploit a diverse experience base is the amount of high quality experiences, i.e. the degree to which team members have been exposed to highly challenging situations, extraordinary demands or pressures, or settings characterized by high standards. Such situations are likely to have a developmental effect on team members’ knowledge, skills, and abilities through effective learning situations (McCauley, Ruderman, Ohlott, & Morrow, 1994). A prominent line of past research has investigated the effects of high educational levels (i.e. high quality educational experiences) on individuals’ cognitive abilities (e.g. Bell, 2007), such as an ability to generate and implement creative solutions to complex problems (Bantel & Jackson, 1989), a capacity for information processing, and an ability to discriminate among a variety of stimuli (Wiersema & Bantel, 1992). Intuitively, teams composed of members with high cognitive ability are also better able to exploit the available international experience base through a more effective elaboration process. While this line of research focuses on the effects of education and training, there is also a growing recognition that on-the-job experiences are an effective form of learning and development (McCauley et al., 1994). Based on a conception that such experiential learning is most effective when individuals face challenging situations, several characteristics or features of such developmental on-the-job learning situations have been described (McCauley et al., 1994): amongst these are a high visibility of an individual’s actions, an opportunity to act and “make a difference” in a significant context, and an exposure to difficult and often discomforting situations, features characteristic of “high quality international settings”. Experiences and learning in such situations ultimately lead to the development of skills and abilities, such as finding alternatives when solving problems, handling relationships and understanding other people’s points of view, or sensitivity to human issues in work settings (McCall, Lombardo, & Morrison, 1988). Such skills and abilities are of special importance for effectively exploiting the performance potentials inherent in a diverse international experience base.

With respect to international experience, the country-related specifics of international experience might not be of equal level or quality for all international settings. Depending on industry characteristics or other conditions influencing the team’s task (on which performance is ultimately measured) specific experiences (here international settings) can be assessed as high quality experiences. These are experiences acquired in superior settings, where high levels of education and training as well as developmental experiential
learning are possible. The availability of such high quality experiences subsequently enables a better exploitation of the overall available experience base. Consequently:

*Hypothesis 2. High quality experience will have a positive moderating effect on the relationship between international experience diversity and team performance.*

### 3.2.3 Moderating effect of narrow experience backgrounds

Rulke and Galaskiewicz (2000) suggest that the distribution of knowledge is likely to have an effect on a team’s capacity for information elaboration. Distribution of knowledge refers to the types of information held by individual team members, i.e. whether knowledge is shared by team members with broad experiential backgrounds, or dispersed into pockets of unique information across members with narrow experiential backgrounds. This is equivalent to the conceptualization of generalist versus specialist functional knowledge of Bunderson and Sutcliffe (2002) as well as Burke and Steensma (1998). A measure of the average level of intrapersonal diversity of experience (Bunderson & Sutcliffe, 2002) serves as a means to assess whether a team consists of broad (functional) generalists or narrow (functional) specialists. Intuitively, higher average levels of intrapersonal diversity of functional experience would be associated with improved information sharing in teams (Bunderson & Sutcliffe, 2002; Burke & Steensma, 1998). Such a prediction would be based on social categorization theory. Teams composed of individuals with broad functional backgrounds are less susceptible to functionally grounded biases and stereotypes because members will identify with several functional areas. Such teams will be better at sharing information than teams of functional specialists (Bunderson & Sutcliffe, 2002). Importantly, this argumentation builds on an assumption that the sharing of information enhances team performance, irrespective of the actual content or nature of shared information. Such an argument concerns the main effect of an average member of the team being a generalist rather than a specialist. In order to explain the exploitation of the international experience base, however, a moderating role of broad versus narrow experience backgrounds is required.

When it comes to the actual process of information elaboration or the creation of new knowledge combinations, deep and specialized knowledge in certain information areas is required. While teams consisting of broad generalists might profit from diminished problems arising from social categorization (e.g. Bunderson & Sutcliffe, 2002), such a situation might in fact be detrimental when it comes to exploiting the performance potentials inherent in a team’s diverse overall experience base. Research on the combination of diverse
knowledge domains with a focus on resulting creativity and innovation has shown that discussions starting from differing viewpoints result in a broader search for information (Nemeth & Rogers, 1996). Differing viewpoints are more likely to arise in a group of specialists than in a team consisting of aligned generalists. Furthermore, taking full advantage of the inherent potentials of a diverse knowledge base requires in-depth consideration of the full spectrum of available knowledge. A group consisting of members with experiences in many areas but without deep and specialized experiences in any of these areas faces a severe disadvantage in that respect. Having experience in a broad range of international settings at the level of an individual team member might in fact be a hindrance for the successful exploitation of the collectively held background resource of experience, because rather superficial knowledge is provided in specific areas.

Teams whose individual members have broad experience backgrounds thus lack deep and specialized knowledge in specific areas. It is important to note that diversity of international experience at team-level does not hold any information about characteristics of the average team member, i.e. who is the carrier of parts of this total information. This means that identical levels of informational diversity at team level can be achieved with very different compositions of individual members (i.e. high levels of experiential diversity in a team can occur whether the team is composed exclusively of broad generalists or narrow specialists). However, deep and specialized experiences enable diverse teams to exploit the potential of the available experience base better, especially when the individuals’ specialist knowledge combines into a diverse pool of information within the team. Consequently:

Hypothesis 3. Narrow individual experience backgrounds will have a positive moderating effect on the relationship between international experience diversity and team performance.

### 3.2.4 Moderating effect of managerial tenure

When groups are insufficiently attuned to the requirements of information elaboration, diverse information is exploited to a lesser extent than is desirable for high quality team outcomes (Van Ginkel & Van Knippenberg, 2008). As Jehn and colleagues (1999: 744) assert, diverse experiential composition “may also prevent the group from realizing the benefits of its informational diversity”. Team members pursuing different information processing objectives can thereby impede group performance by disrupting the exploitation of a diverse experience base (Hinsz et al., 1997). Disagreements and difficulties
about how to proceed in solving a certain task may prevail in groups with diverse experiential composition (Jehn et al., 1999; Jehn, Chadwick, & Thatcher, 1997).

Team managers or leaders facilitate team functioning and performance by the exercise of organizational, directive, and motivational functions (Levine & Moreland, 1990), and have been proposed as a determining factor in a group’s use of distributed information (Larson, Foster-Fishman, & Franz, 1998). Teams may differ in the extent to which they recognize the importance of elaborating diverse information rather than simply achieving consensus through the pooling of preferences and making compromises (Van Ginkel & Van Knippenberg, 2008). Leaders provide guidance, give directions, clarify and make sense of a team’s task (Hill & Levenhagen, 1995; Van Ginkel & Van Knippenberg, 2008), and might thereby promote effective information elaboration.

Research on managerial succession has indicated that tenure of managers plays a crucial role in enabling leaders to influence team functioning and performance: Based on accumulated team-specific knowledge, longer tenured coaches are able to establish and implement a successful strategy (e.g. Hitt, Bierman, Shimizu, & Kochhar, 2001). Inspired by the literature on strategic human resource management, the role of strategy in the context of team composition can be described as the deployments and activities intended to enable a team to achieve its goals (Wright & McMahan, 1992). Such a perspective focuses on the role of a team’s human resources in developing a competitive advantage (Wright, McMahan, & McWilliams, 1994). Managers responsible for the establishment and implementation of a strategy seek to ensure that team members’ characteristics fit the chosen strategy, either by acquiring or developing the required members, or by adjusting an alternative strategy to match the existing team membership better (Wright et al., 1995). To that end, leaders need time to accumulate team-specific knowledge before actions can be taken that might positively affect performance (Rowe et al., 2005). Matching members with strategy is more challenging and requires more time when a team is composed of members with diverse experiences.

Continuity in team leadership, and thereby strategies and operations, is important for tacit knowledge to develop rapidly among team members, enabling a team to draw on patterns and schemata needed for the performance of complex tasks (Berman et al., 2002). Consequently, stability in the team manager’s position is expected to facilitate the exploitation of diverse experiential composition:

Hypothesis 4. Longer tenured team managers will have a positive moderating effect on the relationship between international experience diversity and team performance.
To summarize, this chapter’s central argument is that international experience diversity is positively associated with team performance. From a more detailed perspective, the availability of high quality experiences, a distribution of experiences among members with narrow experiential backgrounds, and longer tenure of the team manager, foster a team’s ability to optimize the performance benefits of greater diversity of international experience.

### 3.3 Methods

#### 3.3.1 Setting and sample

The setting used to test the proposed relationships empirically is the world of professional football teams. As Wolfe and colleagues (2005) outline, creative and innovative research approaches conducted within the sports context can contribute to an understanding of management and organizations. Supporting this declaration, there is a growing line of research taking advantage of data samples collected from the world of professional sports. Several studies draw on empirical data from American sports such as basketball (e.g. Berman et al., 2002) or baseball (e.g. Humphrey et al., 2009), and the context of football (i.e. soccer) is also becoming more and more prominent when it comes to studying team composition and team performance (e.g. Andresen & Altmann, 2006; Franck & Nüesch, 2010; Ruigrok et al., 2011).

The field of highest-level professional football is a setting where international experience forms a valuable and widely-spread asset. Individual players’ knowledge of the game of football is a combination of their innate athletic ability, their training and practice individually and in a coaching context, as well as their participation in friendly and competitive matches (McNamara & Peck, 2010). As football is a cultural as well as physical experience (Szymanski & Zymbalist, 2005), a player’s football knowledge is influenced and shaped by the specific (cultural) environment in which that knowledge is acquired. As professional footballers gain international experience, they develop rather generic international football competencies, such as an ability to adapt to and integrate in new teams and settings. Even more important from an experiential diversity perspective, however, are the cultural or national specificities of developed competencies: A player’s style of play and relative emphasis on the countless skills of the game are influenced by the cultures in which he learns football (McNamara & Peck, 2010). The development of footballers’ knowledge of the game is therefore highly context specific. An example is the two very different football cultures of typical Brazilian teams (a creative and technically highly sophisticated
short passing game) versus typical English teams (reduced to the basic elements of a fighting defense and fast and direct strikes of attack, i.e. kick-and-rush) which are likely to have a strong impact on footballers’ knowledge, skills and abilities. Recent research in the context of professional sport has supported the notion that differences in players’ skills exist as a function of country-specific training methods which emphasize different aspects of a sport’s skills (e.g. Brandes et al., 2009; Osborne, 2006). For the case of ice-hockey players, Kahane and colleagues (2012) highlight how European training methods place greater emphasis on developing skills like skating, stickhandling, passing, and shooting, whereas in North America greater emphasis is placed on the stronger physical presence of players.

At team level, the availability of different forms of knowledge of the game of football enables teams to create new hybrid forms of football knowledge, resulting in the potential to develop creative combinations or better solutions to challenges arising on the playing field. A team’s ability to exploit these performance potentials, however, depends on the experiential characteristics, and with this the knowledge, skills, and abilities of its players and coaches. Players who have acquired experience in high quality settings, such as top leagues or national teams, were able to learn and develop special skills and abilities, enabling them to deal with highly challenging situations. An understanding of the factors necessary for performance in the most competitive and challenging environments then enables teams to elaborate the available diverse experience base better, identifying and exploiting the factors most relevant for team performance. Furthermore, as players acquire extensive experience in a specific national context, the country- or league-related specificities of football knowledge are more and more consolidated. Consequently, careers which focus on a given league enable players to acquire deep and specialized knowledge about the country-specific aspects of the game, such as style of play or emphasis on certain skills. Such players are more likely to add a strong and new perspective to a team’s experiential resource base, as opposed to players experienced in a multitude of leagues who have acquired rather superficial and less specialized country-specific football knowledge. The team managers’ or coaches’ role primarily lies in matching strategies and game plans with the knowledge, skills, and abilities of the team’s players, either by attracting or developing the players required to match a certain strategy, or by adjusting strategy to match the available player base (Wright et al., 1995). As both are time consuming options, longer tenured coaches were able to fulfill such a role more thoroughly.

Professional football also offers attractive possibilities for an empirical investigation of diversity of international experience, e.g. in terms of data completeness (e.g. complete player backgrounds), or objective performance measures. Most research conducted within an organizational setting depends on the voluntary participation of organizational
members (Timmerman, 2005). However, patterns of individual non-response may produce variability in team-level variables calculated from individual-level attributes (Timmerman, 2005). Here, the completeness of available data as it is apparent in the professional football context bears advantages for the study of group-level phenomena, as potential selection biases are avoided. Professional football teams match common team definitions as they consist of individual players who are interdependent, mutually accountable for a common objective, and recognize themselves as a team (cf. Cohen & Bailey, 1997). It has been argued that, in the sporting context, a team’s success relies almost exclusively upon its people (players and coaches) rather than upon technology or equipment (Wright et al., 1995). Therefore, team composition influencing a team’s human resource endowment is seen as the primary factor driving performance.

The sample chosen in this study is based on all teams, players, and seasonal performances from seven consecutive seasons of German Bundesliga football (2005/06 to 2011/12). Based on a data collection effort relying on the official website of the German Bundesliga (bundesliga.de) and official club websites as the primary sources, as well as larger online databases providing a broad spectrum of football data (weltfussball.com, footballdatabase.eu) as secondary sources, a complete data set was compiled containing the following information: player demographic information (such as age and nationality) as well as career background (such as career length, countries where a player has acquired experience, number of years in each country). This resulted in a total of 3360 season-specific player profiles, general team information (such as team size, or staffing data) and team performance data on a total of 126 seasonal team observations (from a total of 27 different teams). This specific sample makes it possible to investigate the composition of teams consisting of individuals with highly international backgrounds, and thus is particularly appropriate to explore the effects of international experience diversity. At the same time, teams are relatively homogenous with regard to other attributes such as gender (all are male players), age, or function (all are professional football players and thus very similar in their main focus of work). Thus, a relatively isolated investigation of international experience diversity is possible.

3.3.2 Measures

The dependent variable points is an indicator of team performance and is operationalized as the total number of points gained per season, achieved as the end of season total of 34 individual game results per team. In the German Bundesliga, a team is awarded three points for a victory, one point for a draw, and a loss results in no points for
that game. While individual game outcomes might be relatively strongly influenced by uncontrollable factors such as luck, unfavorable referee decisions, or the short-term condition of a team, such factors tend to level out over the course of a complete season.

Four main independent variables are employed. **International experience diversity** as the operationalization of the experience pool at a team’s disposal was calculated in a two-stage process. First, the total number of years of experience in every country is calculated by summing up all inputs from individual player backgrounds (e.g. two years of experience in England by player A, plus four years of experience by player B, adds up to a total of six years of experience in England). In a second step, and in order to achieve a measure which takes both the breadth (number of different countries) and the depth (number of years of experience in each country) of international experience into account, a formula developed by Bunderson and Sutcliffe (2002) was applied as an adaptation of Blau’s (1977) diversity index: \(1-\sum p_i^2\), where \(p_i\) is the percentage of experience the team has acquired in county \(i\). This measure captures the extent to which a team carries a diverse pool of information with respect to international experience. **High quality experience** was determined as players’ average number of years of experience in Germany, Spain, Italy, England, and France which are generally considered as the “big five” European football leagues (Frick, 2007). **Narrow backgrounds** as the operationalization of team members’ breadth or depth in experiential backgrounds was calculated according to the following formula, again relying on Blau’s (1977) diversity index: \(\sum(\sum p_{ij}^2)/n\), where \(p_{ij}\) is the percentage of years that player \(i\) has played in country \(j\), and \(n\) is the number of team members. This measure captures the extent to which the average player of a team has experience in a broad or narrow set of countries, thereby accounting for the number of years in each of these countries. Higher values will thus be indicative of a situation where the average team member has a narrow and specialized experience background. **Managerial tenure** was calculated as the number of consecutive years of experience a team’s coach has with the current team in prior seasons. If, as a result of managerial change, more than one coach has been active during a given season, an averaging measure is calculated by weighting each coach’s influence by the number of months in charge.

Several control variables are included: As older players generally have had more time to acquire experience, **age** controls for the average age of a team’s players. **International staffing** captures the extent to which clubs rely on the recruiting of new players from clubs other than in Germany. Such players would by definition have international experience and consequently endow teams with broader or more diverse knowledge, skills, and perspectives. In order to calculate the clubs’ reliance on international staffing strategies more consistently, the proportion of international transfers on total transfers per season was
calculated, and an average score of the actual and two preceding seasons was determined. A team member’s nationality as a demographic dimension contains country-specific components of knowledge, skills, and perspectives (Earley & Mosakowski, 2000; Hambrick et al., 1998; Stahl et al., 2010; Watson, Kumar, & Michaelsen, 1993). International careers as accumulations of information and knowledge (Bird, 1984), however, form a more dynamic pattern of team members’ informational backgrounds than the rather static concepts of national origin. This study controls for *nationality diversity* to distinguish empirically between these two sources of country specific knowledge, skills, and perspectives. Finally, *year dummies* are included to control for unobservable seasonal effects.

All measures were calculated on a seasonal basis, taking into account the career backgrounds of all individual players who have actual playing time (i.e. have been fielded at least once over the course of a season). To control for seasonal fluctuations in the general levels of measures, independent and control variables were centered by subtracting the average team’s value (mean) for a given season. This procedure has been applied by earlier studies examining the performance of sport teams on a seasonal basis (e.g. Bridgewater et al., 2011). The dependent variable *points* represents a portion of a seasonal maximum of points achievable that does not change between seasons. Therefore, centering of the dependent variable was not necessary.

### 3.3.3 Analysis

Hierarchical regression procedures are applied, while accounting for repeated observations of teams in the sample by using a clustering procedure to obtain cluster-robust standard errors. Standard errors have thereby been adjusted to twenty-seven clusters, according to the number of different teams in the sample. Baseline model 1 consists of control variables and main effects of the focal independent variables only. Hypothesis 1 is tested in this baseline model 1. In a next step, and by following the procedures suggested by Aiken and West (1991), interaction terms are investigated one at a time in order to test the moderating effects of Hypotheses 2 to 4. Therefore, models 2 to 4 each represent a hierarchical extension to hypotheses 2 to 4.

### 3.4 Results

Table 4 presents the means, standard deviations, and correlations for all variables included in the models (except year dummies and interaction terms). Correlations (all below
Optimizing international experience diversity

0.7) as well as variation inflation factors (all below 4) in all models suggest that multicollinearity is not an issue. Table 5 then presents the outcomes of the hierarchical regression analysis with cluster-robust standard errors.

Table 4: Descriptives and correlations of variables for chapter 3

<table>
<thead>
<tr>
<th>variable</th>
<th>mean</th>
<th>s.d.</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>1  age</td>
<td>25.48</td>
<td>1.04</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2  nationality diversity</td>
<td>0.73</td>
<td>0.10</td>
<td>0.12</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3  international staffing</td>
<td>0.33</td>
<td>0.11</td>
<td>-0.10</td>
<td>0.46***</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4  high quality experience</td>
<td>4.79</td>
<td>0.87</td>
<td>0.48***</td>
<td>-0.45***</td>
<td>-0.43***</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5  narrow backgrounds</td>
<td>0.82</td>
<td>0.05</td>
<td>-0.15+</td>
<td>0.51***</td>
<td>0.47***</td>
<td>0.30***</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6  managerial tenure</td>
<td>1.52</td>
<td>2.20</td>
<td>-0.16+</td>
<td>-0.18*</td>
<td>-0.12</td>
<td>-0.02</td>
<td>-0.07</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7  int. experience diversity</td>
<td>0.56</td>
<td>0.13</td>
<td>0.12</td>
<td>0.66***</td>
<td>0.60***</td>
<td>-0.55***</td>
<td>-0.62***</td>
<td>-0.21*</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>8  points</td>
<td>46.60</td>
<td>13.31</td>
<td>-0.21*</td>
<td>0.07</td>
<td>-0.04</td>
<td>0.12</td>
<td>-0.13</td>
<td>0.05</td>
<td>0.03</td>
<td>-</td>
</tr>
</tbody>
</table>

n = 126; + p < 0.1; * p < 0.05; ** p < 0.01; *** p < 0.001

The baseline model (model 1) reveals that several control variables are related to team performance. In general, these relationships are in logical and expected directions. Average age is negatively related to team performance (p < 0.001), indicating that teams consisting of younger players in tendency outperform those composed of older players. A curvilinear relationship of age on team performance was tested in order to determine an optimum age composition, but analysis did not reveal significant results. International staffing strategies are negatively related to team performance in the baseline model, where this effect is marginally significant (p < 0.1). Players acquired from foreign leagues could be perceived as different from players acquired from Bundesliga teams, thereby evoking in-group/out-group classifications. In that sense, intensified international staffing strategies could be an indication of salient negative social categorization processes. An interaction of international staffing on diversity of international experience was tested to examine a potential negative effect on the exploitation of a diverse experience base, but did not render significant results. Further, diversity of nationalities is not significantly related to team performance throughout all models.
Table 5: Statistical results for chapter 3

Results of hierarchical regression analysis with cluster robust standard errors

Dependent variable: points, standardized betas reported

<table>
<thead>
<tr>
<th>independent variables</th>
<th>model 1</th>
<th>model 2</th>
<th>model 3</th>
<th>model 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>age</td>
<td>-0.843***</td>
<td>-0.792***</td>
<td>-0.778***</td>
<td>-0.808***</td>
</tr>
<tr>
<td>nationality diversity</td>
<td>0.147</td>
<td>0.087</td>
<td>0.098</td>
<td>0.143</td>
</tr>
<tr>
<td>international staffing</td>
<td>-0.176+</td>
<td>-0.187*</td>
<td>-0.158+</td>
<td>-0.199*</td>
</tr>
<tr>
<td>year dummies</td>
<td>included</td>
<td>included</td>
<td>included</td>
<td>included</td>
</tr>
<tr>
<td>high quality experience</td>
<td>0.879***</td>
<td>0.843***</td>
<td>0.837***</td>
<td>0.873***</td>
</tr>
<tr>
<td>narrow backgrounds</td>
<td>-0.285+</td>
<td>-0.254</td>
<td>-0.292+</td>
<td>-0.242+</td>
</tr>
<tr>
<td>managerial tenure</td>
<td>0.008</td>
<td>0.014</td>
<td>0.004</td>
<td>0.091</td>
</tr>
<tr>
<td>international experience diversity</td>
<td>0.465**</td>
<td>0.466**</td>
<td>0.407*</td>
<td>0.502**</td>
</tr>
<tr>
<td>high quality experience *</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>international experience diversity</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>narrow backgrounds *</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>international experience diversity</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>managerial tenure *</td>
<td></td>
<td></td>
<td>0.127*</td>
<td></td>
</tr>
<tr>
<td>international experience diversity</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>constant</td>
<td>45.67</td>
<td>46.85</td>
<td>46.56</td>
<td>46.63</td>
</tr>
<tr>
<td>r-squared</td>
<td>0.370</td>
<td>0.392</td>
<td>0.381</td>
<td>0.398</td>
</tr>
<tr>
<td>change in r-squared (to m1)</td>
<td>-</td>
<td>0.021</td>
<td>0.011</td>
<td>0.027</td>
</tr>
<tr>
<td>F</td>
<td>10.01***</td>
<td>13.41***</td>
<td>8.31***</td>
<td>17.48***</td>
</tr>
</tbody>
</table>

n = 126; + p < 0.1; * p < 0.05; ** p < 0.01; *** p < 0.001

Meanwhile, model 1 provides statistical support for Hypothesis 1 (p < 0.01), which suggested a positive relationship between international experience diversity and team performance. Additionally, the interaction analyses in models 2 to 4 suggest significant and positive moderating effects of high quality experience (p < 0.05), narrow experiential backgrounds (p < 0.05), and managerial tenure (p < 0.01) on the relationship of international experience diversity to performance, in line with the predictions. The hierarchical structure of the regression analysis reveals that while the baseline model accounted for a significant 0.370 r-squared, this value is increased to a maximum of 0.398 in interaction model 4. All changes in r-squared are statistically significant, adding to the models’ explanatory power.
Prior research on the performance determinants of professional sport teams has suggested a strong impact of players’ market values, based on the argumentation that market values constitute an efficient measure of players’ skill levels, talent, or quality (e.g. Bridgewater et al., 2011). As a robustness test for this study’s findings, the analyses were thus repeated by including an additional control variable of teams’ market values. Following Depken (1999), the logarithm of players’ average market values, as estimated by the football magazine Kicker and adjusted to 2009 Euros, was included in the analyses. The findings were confirmed, as identical directions of relationships were found. Significance levels only slightly diminished while still in the range of statistical significance. This, with the exception of the moderating effect of high quality experience, where the effect was approaching statistical significance ($p = 0.128$). This finding implies that part of the moderating effect of high quality experience might be driven by players’ market values. As the “big five” European leagues are financially the most powerful football leagues, attracting the most talented players (Frick, 2007), the measures of high quality experience and market values can both be interpreted as a proxy for player quality or talent. For that reason, the findings in this study were reported without the additional measure of market values. Importantly, the robustness test generally suggested that the effects of international experience diversity and the moderating effects of experiential team composition variables prevailed beyond the effect of the additional control variable.

Figures 1 to 3 illustrate the moderating effects of high quality experience, narrow backgrounds, and managerial tenure on the relationship between diversity of international experience and team performance. Higher and lower values of the moderating variables are illustrated at plus/minus one standard deviation.
Figure 1: Moderating effect of high quality experience

Figure 2: Moderating effect of narrow backgrounds
A general positive relationship between increased international experience diversity and team performance is apparent, as all the illustrated effects show a positive slope. A team’s ability to optimize these general benefits of increasing experiential diversity, however, differs with the levels of the moderating variables. Increasing levels of diversity of international experience are even more beneficial for team performance in teams where the average team member brings high quality experiences to the team. This effect is weaker when the average team member has less high quality experiences. Testing of simple slopes (Aiken & West, 1991) revealed the significance of these relationships at both high (p < 0.001) and low levels (p < 0.05) of high quality experience. The graphing of the moderating effects of broad versus narrow experience backgrounds reveals a general advantage of having a team composed of individuals with broad backgrounds. However, the lines converge as diversity of international experience increases, implying that teams composed of individuals with narrow backgrounds exploit the benefits of increasing experiential diversity better. Simple slopes are highly significant for teams composed of individuals with narrow backgrounds (p < 0.01) but only marginally significant for teams composed of individuals with broad backgrounds (p < 0.1). Consistent with predictions, these findings highlight the importance of deep and specialized experiential backgrounds for the exploitation of increasing experiential diversity. Further, the moderating effect of
managerial tenure on the relationship between diversity of international experience and team performance is illustrated in Figure 3. Generally speaking, coaches with longer tenure enable teams to exploit the benefits of diverse experiential composition more effectively than coaches with shorter tenure. Interestingly, at low levels of international experience diversity, teams led by shorter-tenured coaches outperform those led by longer-tenured coaches. Simple slopes are significant for high levels of managerial tenure (p < 0.001) but insignificant for low levels.

### 3.5 Discussion

While international experience has received little attention compared with other dimensions of experiential diversity, the present study shows that diversity of international experience significantly adds to the performance of teams. This chapter follows an emerging tradition employing data sets from the world of professional sports to empirically investigate ideas which have typically been developed and addressed in an organizational context. It appears that diversity in international experiences enables teams to draw on a broader pool of information, holding the potential for enhanced performance. Therefore, international experiences are important in the composition of teams as individuals have become increasingly mobile in pursuing careers across national borders and might become even more so in the future. Moreover, the importance of experience in team composition apparently lies in considering multiple interacting dimensions to optimize the benefits of experiential diversity.

In line with the information processing perspective as the predominant theoretical view to explain the relationship between the experiential composition of teams and team performance, international experiences of members were found to combine into a pool of information at a team’s disposal. Prior studies on experiential diversity have theoretically argued how a greater pool of information and expertise forms a potential advantage for diverse teams over homogeneous teams, and that group elaboration processes are the key to realizing the potential of diversity (Van Knippenberg, De Dreu, & Homan, 2004). Yet, operationalizations of experiential diversity typically do not distinguish between conceptualizations of experiential diversity as an indicator of the pool of available information or as an indicator of engendered elaboration processes. The present study pays careful attention to the match between theoretical reasoning and empirical operationalization of the experiential diversity construct. Operationalized as the diversity in country-specific experiences across all team members’ backgrounds, this study’s measure of diversity of international experience serves as an indicator of a team’s experience base capturing the
breadth and depth of the pool of available information. Elaboration processes, as underlying the exploitation of the information pool’s performance potentials, are operationalized as further indicators of experiential team composition, and statistically analyzed as moderating factors. With this, the present study sheds new light on the conditions under which greater experiential diversity is beneficial for a team’s use of distributed information. Together, the results point to the importance of considering other experiential composition variables when explaining the benefits of experiential diversity, in that the benefits of diversity may be optimized by suitable team composition.

The strength of the performance implications of experiential diversity varies with different configurations of other factors of team composition. In particular, this study finds that teams composed of members with higher average levels of experience in high quality settings are better able to exploit the benefits of experiential diversity, as individuals were able to develop the skills and abilities to perform in highly challenging settings. Although ability has been recognized by social psychology scholars as one of the primary factors influencing the processing of information (Chaiken & Trope, 1999), diversity research has largely neglected the potential influence of team member ability on elaboration processes (Van Knippenberg et al., 2004). Beyond the intuitively expected effect that teams composed of higher skilled individuals should generally outperform those composed of less skilled members, the findings depicted in Figure 1 illustrate that higher skilled teams are also better able to optimize the benefits of greater experiential diversity. With this, the present study takes a step in the direction of viewing member ability as a determinant of elaboration processes in diverse teams.

Moreover, the findings suggest that teams composed of individuals with narrow backgrounds are better able to exploit the performance potentials of greater diversity of international experience. Prior research on functional backgrounds of team members suggests that individuals with experience in a range of functional domains are less susceptible to functionally grounded biases and stereotypes because these individuals will identify with a variety of areas (Bunderson & Sutcliffe, 2002). Thus, teams of generalists should be better at sharing information than teams composed of specialists with narrow backgrounds. As Figure 2 illustrates, a general advantage of teams composed of individuals with broad backgrounds is observable, confirming the suggestions from prior research. However, this study’s results further reveal that teams of individuals with narrow backgrounds are better able to benefit from increasing experiential diversity, as indicated by a steeper slope of narrow background teams. Teams composed of generalists do not profit from higher levels of experiential diversity to the same degree. At high levels of experiential diversity, teams of members with narrow backgrounds reach the performance levels of those
composed of members with broad backgrounds, and might at extreme levels even outperform. Although such an extrapolation is speculative in nature and has to be left for future research, the findings of this study highlight that a team’s composition in terms of generalists and specialists has subtle effects on team functioning and performance.

Finally, managerial tenure plays an important role in a team’s ability to optimize the benefits of diversity of international experience. Prior research has hinted at the role of a process of matching between strategy and the characteristics of team members (Wright et al., 1995) and the importance of time as a determining factor of team leaders’ opportunities to accumulate team-specific knowledge when taking actions intended to affect performance (Rowe et al., 2005). The specific contribution of the present study lies in highlighting the role of managerial tenure in enabling a team to exploit experiential performance potentials especially in diverse teams. As depicted in Figure 3, longer-tenured managers enable teams to profit more from increasing levels of diversity of international experience. At low levels of diversity, teams led by shorter-tenured coaches outperform those by longer-tenured coaches. This finding could be indicative of a situation where homogenous teams benefit from a coaching change because of the introduction of a new perspective (cf. Berman et al., 2002), while diverse teams suffer more from coaching changes because established patterns of cooperation and sense-making, which enable diverse teams to capitalize on their differences, are disrupted.

A possible concern with this study is that results may be idiosyncratic to professional football teams. Clearly, there are differences between the types of teams researchers examine, and these differences are important to consider when meaningfully interpreting and aggregating results across studies. Hollenbeck and colleagues (2012) have recently suggested a dimensional scaling approach for team description. Focusing on the three constructs of skill differentiation, authority differentiation, and temporal stability, which have been found explicitly or implicitly to underlie many of the available typologies of team types (e.g. Cohen & Bailey, 1997; Sundstrom et al., 1990), this approach assesses the similarities and differences between teams examined, whereby such comparisons are not limited to the categories provided by any chosen typology of teams.

Skill differentiation refers to the degree to which individual team members have unique skill sets, where a broad take on the term skills refers to any factor where differentiation is likely to have an impact on the ability of teams to perform work (Hollenbeck et al., 2012). In teams with high skill differentiation (e.g. surgical teams), individual members are typically bound to relatively narrow roles for which they have developed specific skills and people are thus not easily interchangeable. In the context of professional football, certain core football skills such as running, passing, shooting, or
handling the ball are highly important for a player’s general skill level. At the same time, individual athletes develop the skills necessary to fulfill specific roles in a team (such as goalkeeper or striker), and specialize on these role-specific skills in order to meet the challenges of the highest levels of competition in professional sports. From such a perspective, football teams might be very similar to functionally diverse management teams, where, owing to the relevance of core skills, individual members are able temporarily to take over roles not lying in their primary field of expertise. Clearly, both management teams and football teams would aim at replacing a temporary role filler with a specialized expert as soon as possible, but team functioning would not completely be disrupted by interchanging members between roles. In a more crew-like setting such as surgical teams, individual members such as surgeons, anaesthetists, or nurses might be much less able to switch between roles and keep team functioning at a reasonable level.

In a team, there may be one person who is formally assigned a leadership role, a leader may emerge informally from the team, or no single member may possess an inordinate amount of influence compared with the rest of the group (Hollenbeck et al., 2012). Authority differentiation refers to the degree to which a clear distinction is recognizable between leading functions and the rest of a team. The context of professional football teams is characterized as a setting of highly important leadership functions, evident in the influential role of a team’s manager or coach. Several studies on managerial succession in the football context have highlighted a coach’s influence on team functioning (e.g. Audas, Dobson, & Goddard, 2002; Carmichael et al., 2011). As Cohen and Bailey (1997: 242) state, in many traditional work teams supervisors “make most of the decisions about what is done, how it is done, and who does it”. From such a viewpoint, professional football teams might well be compared to work teams in many situations, whereas more autonomous or self-managing teams might be very different.

With a focus on the dimension of temporal stability, teams that are stable and have a future and history together are differentiated from teams that may work together only for the purpose of a special short-termed project (Hollenbeck et al., 2012). Professional football teams in a club context are rather stable teams that are composed and trained to compete in specific leagues over the course of a complete season spanning roughly ten months, with the final aim of achieving the highest possible league ranking at the end of the season. With this, the football teams examined in the present study are very similar to many organizational types of teams from a temporal stability perspective (De La Torre-Ruiz et al., 2011). In sum, the preceding discussion of team characteristics suggests that there are good reasons to perceive football teams as a team type that shares considerable similarities with other types of organizational teams.
This study has limitations which in turn serve to delineate some future research directions. Clearly, the exemplary discussion of football team characteristics can only serve as an initial assessment of the potential validity of findings in alternative team settings. While this study aims to derive implications that are relevant for teams in general, the links between the characteristics and performance of sport teams and other organizational teams has yet to be firmly established in the literature. Future research should thus examine the influence of international experience diversity in other team settings. Further, this study has focused on a single dimension of diversity. At the same time, recent research suggests that diversity is multidimensional in nature (e.g. Jackson & Joshi, 2004; Jackson & Joshi, 2011). This study tested the interactions of other experiential attributes with diversity of international experience. Clearly, interactions with other attributes of experiential diversity such as functional diversity are of great interest as prior research has found functional diversity to influence the information processing capacity of teams (Bunderson & Sutcliffe, 2002). An interaction between diversity of international experience and functional diversity could be especially relevant in the context of top management teams where the international experience backgrounds as well as the functional backgrounds of managers have been recognized as indicators of managerial human capital (e.g. Castanias & Helfat, 2001; Kor, 2003). An examination of these relationships was beyond the possibilities of the data set employed here but could be explored by future studies in a management team context. This study’s results, developed in a relatively isolated laboratory-like setting therefore should inspire future research to further explore the effects of diversity of international experience.
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Opposing task requirements in subteams and experiential team composition
Abstract

This chapter contributes to a better understanding of a team’s task environment as a determinant in the composition of teams. In project-type task environments, teams frequently face challenging complexities that require excelling at subtasks with opposing requirements to reach an overall goal. Where teams respond to such challenges by assigning the primary responsibility of dealing with different subtasks to certain subsets of team members, a match between the composition of subteams and the requirements of the assigned tasks becomes a driver of overall team performance. Specifically, this chapter draws on regulatory focus theory (Higgins, 1997) from the psychology field to examine how promotion-oriented versus prevention-oriented subtasks influence the relationship between team composition and performance. Three variables of experiential composition at overall team level and at subteam level are linked to overall team performance, and a set of hypotheses is tested on a data set composed of all football players, teams, tactical line-ups and game outcome statistics from the FIFA World Cup 2010. The findings suggest that team composition should aim to match team members’ experiential characteristics with their assigned subtasks. Specifically, diversity of international experience and the introduction of new experiences are found to relate differently to team performance when applied to subteams primarily responsible for seeking a team’s win (promotion-oriented) or avoiding a team’s loss (prevention-oriented), while shared experience is found to influence team performance at the overall team level but not at subteam level. To conclude, the theoretical and practical implications of these findings, as well as future research directions, are discussed.


4.1 Introduction

Defined as small groups of two or more interdependent and interacting individuals who share responsibility for outcomes (Ilgen, 1999), teams have been described as a means to organizational success in the modern economy (Cohen & Bailey, 1997). Increasingly, teams are composed flexibly to match the knowledge and expertise of members with arising challenges and tasks (Bunderson, 2003a; DeFillippi & Arthur, 1998). As researchers are trying to understand the drivers of successful team composition, task requirements have been recognized as a conditional factor in the relationship of team composition to performance (e.g. Bowers, Pharmer, & Salas, 2000).

Whether teams engage in conceptual or behavioral tasks (e.g. Stewart & Barrick, 2000), routine or non-routine tasks (e.g. Jehn et al., 1999), very difficult or rather simple tasks (e.g. Bowers et al., 2000), influences how they benefit or suffer from the conditions of their experiential composition. For example, where task performance requires generation of creative and innovative ideas or high quality decision making, an experientially diverse composition has been suggested to benefit the team (Van Knippenberg et al., 2004). However, routine tasks such as repetitive production tasks may even suffer from diverse composition, as intense elaboration processes evoked by the experientially diverse composition might lead teams to abandon other reasonable work procedures (De Dreu & Weingart, 2003). Different tasks thus impose different requirements on teams and individuals to solve in the process of team production. A problem with such stylized task types, however, is that teams in actual work situations rarely face only one type of task (Stewart & Barrick, 2000). In fact, it has been suggested that teams generally perform tasks associated with multiple task-type categories (McGrath, 1984; Stewart & Barrick, 2000). This suggests subtle consequences for successful team composition where teams engage in complex tasks with multiple and potentially opposing requirements. Still, team composition research has not systematically addressed how task environments characterized by opposing task requirements influence the relationship between team composition and performance. This is the aim of the present chapter.

The importance of matching team composition with arising tasks becomes especially evident in the case of project-type teams, where highly complex tasks require the collaboration of individuals on a temporary basis (DeFillippi & Arthur, 1998). Project teams are often composed with the explicit goal of bringing together individuals with a special set of experiences, knowledge, or expertise needed to perform specific aspects of an organization’s work (Bunderson, 2003a). The role of team composition is especially important in the project team setting, as organizations seek to compose teams that are able to
benefit immediately from the combinations of individual members’ knowledge and expertise as time pressures, and avoid team constellations not optimally suited to meet the complexity of arising tasks. At the same time, project teams frequently face the challenge of dealing with a variety of tasks that have opposing requirements (Ancona & Caldwell, 1992). Therefore, the project team setting is ideally suited to examine this chapter’s primary question.

In the following, the main argument suggests that teams may cope with opposing requirements resulting from highly complex task environments by forming subgroups that match the knowledge and experience of subgroup members with specific subtask requirements. Drawing on research associated with the psychological theory of regulatory focus (Higgins, 1997), the complexity of project teams’ task environments is characterized as a duality of promotion-oriented and prevention-oriented subtasks. As project teams are explicitly composed to take advantage of the specific knowledge and skill configurations of their members, the experience backgrounds of project team members pose potential sources of advantage in the performance of team overall tasks as well as subtasks (cf. Castanias & Helfat, 1991; Kor, 2003). Following that logic, the chapter then develops hypotheses relating diversity in experience, the introduction of new experiences, and shared experience at overall team level and at subteam level to overall team performance. Next, the research setting, data and methods are described, followed by a presentation of the findings. To conclude, the findings and implications for theory and practice are discussed.

4.2 Theoretical background

4.2.1 Project teams in complex task environments

Project teams are “groups comprising a mix of different specialist competences, which have to achieve a certain goal or carry out a specific task” (Sydow, Lindkvist, & DeFillippi, 2004: 1480). Arising from increasing competitive pressures in the global economy, organizations rely on project teams to deal with their potentially most complex tasks (De Dreu & Weingart, 2003; DeFillippi & Arthur, 1998), those that have a high degree of uncertainty, and are of a non-routine nature (Jehn et al., 1999; Van de Ven et al., 1976). Dealing with this task environment requires project teams to engage in problem-solving activities, and the discussion and debate of competing perspectives and approaches, as teams have few set procedures to rely on when solving complex tasks (Jehn et al., 1999).

Specifying the nature of project-type tasks in general terms is a difficult endeavor. Firms in all types of industries, including professional services, cultural industries, high
technology, and complex products and systems, undertake projects as a growing part of their operations (Keegan & Turner, 2002; Sydow et al., 2004). As a result of this broad spectrum of sectors, individual projects might refer to such different activities as the development of a new Hollywood movie (DeFillippi & Arthur, 1998) or the processing of a legal case (Hitt et al., 2001). Still, structural elements characteristic of the project team setting may serve to delineate the specific nature of project type tasks. Project teams serve organizations to address specific challenges or goals. With this, the “what” to achieve is typically well specified from the start of a project. “How” the project is run is in many cases left for the project leader or the team to decide (Sydow et al., 2004). At the same time, there are clear and predefined boundary conditions, which teams have to observe in handling a project. A rich literature on project management has framed these limitations around the dimensions of time, cost, and quality constraints (e.g., Atkinson, 1999). Project goals have to be achieved within a certain timeframe and the restrictions of a given budget and set indicators serve to determine whether a project output meets required quality standards. Not meeting these boundary conditions implies an overall project failure. With this, the project team’s task environment is characterized by a duality of subtasks: When project teams strive to achieve a specific project goal, one type of subtasks focuses on the accomplishment of a certain positive outcome, such as the commercial success of a Hollywood movie, or the winning of a legal case. At the same time, the constraints of time, cost, and quality require project teams to engage in another type of subtasks that focuses on responsibilities and obligations and with this the avoidance of a project’s failure. Quality and cost control, or the establishment and monitoring of milestones and time schedule, are project team activities related to the avoidance of project failure.

Generally speaking, the complexity of the project team’s task environment is thus characterized by a need to handle the duality of striving to achieve goals, while at the same time avoiding running the risk of an overall project failure. Importantly, the goals of these (sub)tasks impose different motivational orientations on team members: a focus on the presence or absence of positive gains, as in the case of “achieving goals”, and a focus on the presence or absence of potential losses, as in the case of “avoiding failure”. The psychological theory of regulatory focus (Higgins, 1997) examines such differences in motivational orientation at the level of an individual, and has in recent years increasingly been studied in group contexts (e.g., Dimotakis, Davison, & Hollenbeck, 2012; Faddegon, Scheepers, & Ellemers, 2008).
4.2.2 Promotion, prevention, and regulatory fit

Regulatory focus theory (Higgins, 1997) from the psychology field separates individuals based on a distinction of two motivational orientations underlying the wish to achieve desired end-states: a promotion focus and a prevention focus. People in a promotion focus are guided by ambitions and a wish for accomplishment, giving rise to sensitivity for the presence or absence of positive gains. Duties, obligations, and the fulfilling of their responsibilities instead guide people in a prevention focus, who thus frame outcomes in terms of the presence of absence of negative losses (e.g. Shah, Higgins, & Friedman, 1998). Apart from these cognitive processes, regulatory focus has been shown to influence individuals’ behavioral patterns on a range of tasks: For example, whereas promotion focus has been associated with creativity and speediness, people in a prevention focus performed better on analytical thinking and accuracy (e.g. Förster, Higgins, & Taylor Bianco, 2003; Friedman & Förster, 2001). More generally, the theory draws distinctions between the dominant means by which goals are pursued. In a promotion focus, individuals eagerly seek to achieve positive outcomes, involving a relatively “risky” processing style in which novel alternatives are sought (Friedman & Förster, 2001). In a prevention focus, where people vigilantly seek to avoid negative outcomes, a relatively risk-averse and careful processing style with repetition favored over novelty is involved (Crowe & Higgins, 1997).

Regulatory focus is both a chronic trait, where people show individual differences in their generic preferences, and a state that can be induced by situational factors (Higgins, 1997). Importantly, whether regulatory focus is trait based or induced by a situation does not change the strategic means and processing style preferences of an eager manner in a promotion orientation and a vigilant manner in a prevention focus (Dimotakis et al., 2012; Higgins & Spiegel, 2004). A prominent factor that has recently been suggested to explain situation induced regulatory focus in organizational settings is the requirements resulting from task environments (Dimotakis et al., 2012). To illustrate this point, Dimotakis and colleagues (2012) present the example of one sales team tasked with increasing market penetration in a specific region, and another sales team tasked with maintaining existing accounts. According to regulatory focus theory (Higgins, 1997), the framing of these sales teams’ tasks would induce different motivational orientations in team members, leading to differences in preferred internal processing styles. The former team’s task focuses on potential gains, whereby promotion-oriented processing styles are evoked as the preferred means to fulfill the task. The latter team rather focuses on the avoidance of potential losses, triggering prevention-oriented cognitive responses (Crowe & Higgins, 1997). The described sales teams are thus subject to different regulatory demands deriving from the task context,
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with the former team being more inclined to apply relatively risky processing styles seeking novel solutions, and the latter being more likely to prefer risk-averse and careful processing styles favoring repetition over novelty. Consequently, “regulatory demands as a task characteristic” (Dimotakis et al., 2012: 422) arise from the situational task environment and induce preferences for either promotion-oriented or prevention-oriented strategic means and processing styles.

Despite these preferences for certain processing styles evoked by regulatory demands of team tasks, the actual internal processes of the team are also influenced by other factors such as team composition or structure. The actual strategic means and processes by which teams perform tasks might thus deviate from the preferences of individual members. One of the most central tenets of regulatory focus theory holds that the degree of fit between preferred and actual means and processing styles has important consequences for task outcomes. When an individual pursues a goal in a manner that is in line with regulatory orientation, the individual experiences regulatory fit (Higgins, 2000). Experiencing regulatory fit has been found to increase individuals’ motivation during the pursuit of goals ( Förster, Higgins, & Idson, 1998; Shah et al., 1998), and to lead to better task performance generally (Higgins, 2000; Shah et al., 1998). Based on this logic of regulatory fit, teams are expected to profit from a close match between the regulatory focus orientation of the task situation and other structural elements influencing team processes and the manner in which individual members are able to work on a task. A rich literature on team composition has suggested that attributes of individual members, as well as the composition of these attributes at team level, have consequences for team functioning (e.g. Van Knippenberg et al., 2004). Project teams matching their experiential composition with the task-induced regulatory orientation of team members are thus expected to perform at higher levels.

4.2.3 Composing subteams to meet subtask requirements

The task environments of project teams are characterized by the complexity of opposing regulatory demands. That is, for optimal performance, project teams need to apply both risky and risk-averse processing styles, seeking novelty and alternatives and at the same time emphasizing the repetition of established solutions. An important challenge in such situations, then, is to compose teams in a manner that meets the opposing regulatory requirements of subtasks. Teams may respond to this challenge by forming subteams with primary responsibility for certain subtasks. From an overarching theory of information processing (Galbraith, 1974), it has been suggested that organizations develop specialized units to adjust to specific knowledge domains such as accounting or research and
development. Similarly, teams may allocate subtasks of a given overall task to subsets of members and align the composition of subteams with arising task requirements. Researchers have proposed that team processes and outcomes are strongly influenced by subgroups (e.g. Gibson & Vermeulen, 2003; Lau & Murnighan, 2005). The nature of a team’s tasks may cause task-related subgroups to form according to the specialized knowledge, training, and experience of subgroup members (Carton & Cummings, 2012; Choi & Sy, 2009). A subgroup consists of at least two members as a subset of the same team, and is characterized by a form or degree of interdependence that is unique when compared with that of other members (Carton & Cummings, 2012). That is, members of a subgroup interact differently with each other than with team members outside the subgroup, and may apply different processing styles than other subgroups. Thus, where complex group tasks consist of different subtasks inducing promotion or prevention focus, a key to successful team composition lies in considering the subteam level as a structural element to maximize the regulatory fit of the overall team.

The preceding argument suggests that project teams in complex task environments face the challenge of matching team composition with opposing regulatory demands of subtasks. When achieving fit between regulatory orientation induced by the subtask situation (promotion or prevention focus) and subteam processes evoked by team composition, teams are expected to perform at higher levels. The following sections build on this argument and develop testable hypotheses on how team composition at overall team level and at subteam level are related to overall team performance.

4.3 Hypotheses

Project teams are primarily composed on the basis of individuals’ knowledge, skills, and expertise (Cohen & Bailey, 1997). At the same time, individuals’ experience backgrounds play an important role in the development and shaping of their knowledge, skills, and expertise (Tesluk & Jacobs, 1998). Thus, hypotheses focus on the experiential characteristics of team members as the compositional dimension most relevant in the project team context. Specifically, diversity in experiences (e.g. Jehn et al., 1999), newcomer experiences (e.g. Perretti & Negro, 2007), and shared experience (e.g. Berman et al., 2002) – conceptualized both at overall team level and at subteam level – are related to overall team performance.

The complexity of project teams’ task environments is characterized by highly uncertain and non-routine tasks requiring problem solving, and the discussion and debate of perspectives and approaches. The need to handle a duality of subtasks with opposing
regulatory demands further adds to the complexity of project task environments. Where project teams respond to these challenges by assigning primary responsibility for opposing subtasks to certain subsets of team members, experiential composition variables at subteam level should relate differently to overall team performance, depending on the regulatory fit between composition and subtask demands.

4.3.1 Diverse experiences

Diversity in team members’ experiential characteristics refers to the differing knowledge, skills, or perspectives that individuals bring to a team (Jackson & Joshi, 2011). Building on a conceptualization of groups as information processors, elaboration has been defined as the exchange of information and perspectives (Hinsz et al., 1997), individual-level processing of information and perspectives, the process of feeding back the results of this individual-level processing into the group, and the discussion and integration of its implications (Van Knippenberg et al., 2004). Prior research on experiential diversity has predominantly relied on the information processing perspective to inform predictions about the relationship to team functioning and performance.

Several experiential attributes, such as members’ educational (e.g. Bantel & Jackson, 1989; Wiersema & Bantel, 1993) or functional backgrounds (e.g. Bunderson & Sutcliffe, 2002), have been examined in prior studies, where experiences in educational or functional settings reflected team members’ knowledge, skills, and abilities. An experiential characteristic, which is of increasing importance in today’s globalized environment, is international experience. Contemporary careers are characterized by increasingly flexible and mobile trajectories, where acquiring experiences from multiple international contexts is becoming more and more prominent (Sullivan & Baruch, 2009; Suutari, 2003). As project teams are increasingly employed in the context of multinational companies (DiStefano & Maznevski, 2000), this study concentrates on international experiences as the focal dimension of experiential diversity. With international experiences, individuals acquire context-specific knowledge about particular international settings. Similar to assumptions made in earlier studies on experiential diversity (e.g. Bunderson & Sutcliffe, 2002), country-specific international experiences serve as indicators of the knowledge, skills, and perspectives that members bring to a project team.

Following the information processing perspective, diversity in experiential attributes influences team functioning and performance, as diverse teams are more likely to possess a broader range of knowledge, skills, and perspectives containing distinct task-relevant information (Van Knippenberg et al., 2004). Experientially diverse teams are able
to draw on a greater pool of information at their disposal, search more widely for relevant information, and develop and consider more alternative solutions (Jackson, 1992; Jackson & Joshi, 2011), thus exhibiting intensified elaboration processes. The preceding discussion of project teams’ task environments has brought forward how project teams are frequently engaged in the discussion and debate of competing perspectives and approaches to identify the appropriate strategies for projects that require problem solving, have a high degree of uncertainty, and are non-routine (Jehn et al., 1999; Sydow et al., 2004). Intense information elaboration processes induced by experientially diverse composition are thus expected to be generally beneficial for the functioning and performance of project teams:

Hypothesis 5a. International experience diversity in project teams will be positively related to overall team performance.

Project teams’ task environments as characterized by a duality of opposing promotion-oriented and prevention-oriented subtasks require examining team composition at subteam level. Following regulatory focus theory, the relationship between diversity of international experience at subteam level and overall team performance is expected to be stronger where regulatory fit between subteam composition and subtask requirements is higher. Intense information elaboration processes may well fit individuals’ preferred processing styles associated with promotion focus, such as actively and eagerly seeking novel alternatives (Förster et al., 2003; Friedman & Förster, 2001;). At the same time, a preference for vigilant and risk-averse processing styles favoring repetition over novelty might interfere with experientially diverse subteam composition in a prevention oriented task environment. Due to better regulatory fit, diversity of international experience in the promotion-oriented subteam should thus relate more positively to overall team performance than diversity in international experience in the prevention-oriented subteam. Therefore:

Hypothesis 5b. International experience diversity in promotion-oriented subteams will be more positively related to overall team performance than will international experience diversity in prevention-oriented subteams.

4.3.2 Newcomer experiences

Project teams are temporary in nature, where teams are composed with an explicit aim to apply selected members’ knowledge, skills, and perspectives to a project at hand (Cohen & Bailey, 1997). Some organizations use project teams as a primary building block
to organize their core activities (Tannenbaum et al., 2012). Such project-based organizations (DeFillippi & Arthur, 1998; Hobday, 2000) maintain a pool of employees, from which individuals are selected to be part of a specific project team, and after completion of one project they may wait to move on to the next. Some individuals might be part of a project-based organization for a long time, while others are relatively new members. Both organizational newcomers and “oldtimers” bring specific experiential assets to a team (Perretti & Negro, 2007). A distinction between newcomers and “oldtimers” is thus particularly relevant in a project team setting, where teams are continually recomposed to take advantage of their members’ specialized knowledge, skills, and abilities.

Individuals with a long history in a project-based organization on average know more about the specific organization. However, what these oldtimers know is often also redundant, with the knowledge already reflected in the organization (March, 1991). Thus, oldtimers’ experience backgrounds are less likely to contribute to the formation of new knowledge (Perretti & Negro, 2007). Newcomers, on the other hand, have less organization-specific experiences, but their backgrounds are also more likely to be different than what is already available to the organization (March, 1991; Perretti & Negro, 2007). With this, newcomers are less susceptible to being major sources of inertial behavior, or rigidity and resistance to new solutions, as is the case with oldtimers (Rollag, 2004). At the same time, the integration of newcomers has been described as costly and time-consuming, as they have to observe, accept, and adapt to organizational norms and values in a process of socialization (Rollag, 2004). In the context of project-based organizations, industry cultures may have established common routines and conventions (Jones, 1996) that allow a faster and smoother integration of new team members. In that respect, integration costs associated with the introduction of newcomers may be outweighed by the corresponding advantages. By providing different knowledge than what is already available in an organization, the introduction of newcomers with their new experiences thus enables a project team to draw on a greater pool of available information. Advantages of a greater pool of information can be expected for project teams engaging in the performance of complex tasks. Thus:

Hypothesis 6a. Newcomers’ experiences in project teams will be positively related to overall team performance.

Building on the concept of regulatory fit, newcomers’ experiences are expected to relate differently to overall team performance when they are held by members of subteams facing different task requirements. In the case of promotion-oriented subtasks, involving individual members’ tendency for processing styles that emphasize novelty and the
generation of alternatives, newcomers’ experiences might well be received as a supporting element. For prevention-oriented subtasks, however, the novelty and lack of familiarity of experiences may be perceived as a risk or even threat, interfering with the preferred processing style which focuses on repetition instead of novelty. Regulatory fit between task demands and newcomers’ experiences in subteams is thus likely to be higher in promotion-oriented subteams than in prevention-oriented subteams. Therefore:

**Hypothesis 6b.** Newcomer experiences in promotion-oriented subteams will be more positively related to overall team performance than will newcomer experiences in prevention-oriented subteams.

### 4.3.3 Shared experience

According to Humphrey and colleagues (2009), shared experience is one of the best studied of team-level experience constructs. Shared experience is in many cases examined via some measure based on the average tenure of team members, representing the time continuously spent with the current team (e.g. Berman et al., 2002; Humphrey et al., 2009). In a project-based setting, where individual members are frequently recomposed into new teams, shared experience needs to be captured differently. Project-based organizations draw on the available pool of employees to staff specific project teams with the necessary knowledge and expertise. Project-based staffing thus leads to frequent recompositions of teams, where some members may have intensively worked together on earlier projects, while others may be cooperating for the first time. For each project team configuration, there is thus a network of inter-member work histories, whereby team members have acquired shared experiences (cf. Tannenbaum et al., 2012).

As individuals become more experienced in working together with specific team mates, teams are able to develop shared mental models (Kim, 1997) and transactive memory (Austin, 2003; Wegner, 1986). Shared mental models refer to the knowledge shared by all team members, and this construct has been associated with increased coordination and helping behaviors (Mathieu, Heffner, Goodwin, Salas, & Cannon-Bowers, 2000). Transactive memory refers to the knowledge about who in the team possesses specific expertise that allows the team to access relevant knowledge efficiently when required (Humphrey, Morgeson, & Mannor, 2009). High levels of shared experience thus enable a more efficient exploitation and deeper use of the knowledge, skills, and perspectives brought to the team by individual members. However, initially building a certain stock of shared experience is related to integration and coordination costs (Perretti & Negro, 2007), where
beneficial collective knowledge, such as shared mental models and transactive memory, are still lacking. Project team members uncover mutual similarities and differences through interaction (cf. Swann, Polzer, Seyle, & Ko, 2004; Van Knippenberg et al., 2004). As initially inter-member differences may still be perceived in stereotyped ways, uncovering more hidden differences may give rise to disruptive categorization processes (Harrison, Price, & Bell, 1998). Over time, stereotypes are replaced by more accurate perceptions and team members may learn to capitalize on their individual knowledge and expertise, leading to positive returns of higher levels of shared experience.

As a result, newly formed project teams may face difficulties in dealing with complex task situations as acquiring shared experience initially imposes coordination costs and disruptive categorization processes. After initial negative effects of shared experience, the development of shared mental models and transactive memory may lead to less negative and ultimately positive returns of shared experience. In sum, these negative effects at low levels of shared experience and positive effects at high levels of shared experience imply a u-shaped relationship to overall team performance. Therefore:

Hypothesis 7a. The relationship between shared experience and overall team performance follows a pattern of performance losses at low levels of shared experience that are compensated at higher levels of shared experience, implying a u-shaped relationship.

Shared experiences endow teams with well-established routines and coordination processes that enable the efficient exploitation and deeper use of team members’ knowledge, skills, and perspectives. Deeper use of available experiences, it has been suggested, may foster less novel but more predictably performing outputs (Taylor & Greve, 2006). Accordingly, prevention-oriented subteams might profit more from increasing levels of shared experience, as their preference for repetitive and well proven processing styles fits with increased knowledge about and familiarity with other members’ knowledge and expertise. At the same time, the preferred processing style of seeking novel alternatives in promotion-oriented subteams might interfere with high levels of shared experience, as inertial behavior, rigidities, or even resistance to new solutions might occur (Rollag, 2004). Regulatory fit between task demands and shared experience in subteams is thus likely to be higher in prevention-oriented subteams than in promotion-oriented subteams. Therefore:
Hypothesis 7b. The u-shaped relationship with overall team performance will be more pronounced for shared experience resting within the prevention-oriented subteam than within the promotion-oriented subteam.

4.4 Methods

4.4.1 Setting and Sample

The Fédération Internationale de Football Association (FIFA) World Cup in South Africa 2010 serves as the setting in which to test these hypothesized relationships. Professional football is a sport in which teams of eleven players, potentially supplemented with a maximum of three substitutes, compete against each other. Football is a global sport and is played at professional level on five continents (McNamara & Peck, 2010). Specifically, the FIFA World Cup is the highest level tournament, held every four years, in which national football teams need to qualify and then compete for the title of world champions.

National football teams share many similarities with organizational project teams. When competing at a World Cup tournament, participating nations register with a total squad of twenty-three players who have been selected from a broader pool of potential candidates (the totality of football players with a given nationality). From this squad of twenty-three, eleven players are selected to start in each World Cup match. An additional three players are selected as substitute players, who may potentially engage in the match. This process of team composition closely resembles project-based staffing in organizational settings, where individuals are part of an overall employee base, from which they are selected to be part of specific project teams. Members of national football teams engage in a temporary team setting, with the goal of accomplishing a predefined objective, such as winning an individual game (Ruigrok et al., 2011). Football teams are highly interdependent teams, where team members need to interact and cooperate intensely (Cannon-Bowers & Bowers, 2006; Keidel, 1987). The task of winning individual World Cup games involves high degrees of uncertainty and absence of routine. Competing against the world’s best teams poses major challenges and the outcome is in most cases highly uncertain. With the tournament held only every four years, many players only engage in a handful of World Cup matches over the course of their careers. World Cup games are thus a non-routine task, even for the most experienced players and teams. Specific teams are composed for each game on the basis of individual players’ experiences and skills. Some players possess indispensable skill sets, resulting in their regular participation, others are selected to appear in a game due
Gaining victory and avoiding defeat

to strong recent performances or because their specific skills are particularly important when facing a certain opponent (Ruigrok et al., 2011).

What is most important for the present study is that professional football teams are a suitable setting to test the theoretical arguments relating the composition of subteams with differing regulatory orientations to overall team performance. Football teams have to excel at the different subtasks of attacking and defending to reach the overall goal of winning a game. Importantly, football teams respond to this challenge by forming subteams and assigning different roles to individual players with a primary responsibility for either offensive or defensive subtasks (cf. Brandes et al., 2009). Tactical line-ups ascribing certain roles (playing positions) to the eleven starting players in a given game provide the opportunity to identify those individuals who are primarily responsible for offensive or defensive tasks readily. The task environment in offensive subteams induces a promotion focus on achieving positive outcomes, i.e. gaining a victory. The offensive subteam, consisting of a total of approximately five to seven midfielders and strikers, is primarily in charge of creating chances and ultimately scoring goals, which requires the creation of novel solutions (combinations of passes and runs), to play out the opponent’s defense. Concerning defensive subteams, the task environment induces a prevention focus on avoiding negative outcomes, i.e. avoiding a loss. The defensive subteam, consisting of the goalkeeper and approximately three to five defenders, is primarily responsible for minimizing the risk of conceding a goal. In order to successfully fulfill this task, defensive subteams need to work together efficiently and be able to rely on well-established routines. Clearly, defensive and offensive tasks in football teams are not exclusively fulfilled by the nominated defenders or offensive players, but defensive performance of the overall team also depends on the quality of fore-checking actions undertaken by offensive players, and offensive performance also depends on the offensive passes given by nominal defensive players. Again, this bears similarities to organizational project teams, where promotion-oriented tasks such developing creative ideas by engaging in a brainstorming session, and prevention oriented tasks such as meeting budget constraints, are partially also fulfilled by members assigned primary responsibility for other subtasks.

This study draws upon sports team data to take advantage of access to complete data on individual team members’ backgrounds, objective performance outcomes at team level, as well as detailed records of teams’ subgroup configurations (tactical line-ups). Thereby, this chapter adds to an emerging tradition of studies exploring organizational research questions within the empirical context of sports (Wolfe et al., 2005). Specifically, football teams have been examined within a club context (e.g. Audas et al., 2002;
Bridgewater et al., 2011; Carmichael et al., 2011; Franck & Nüesch, 2010) as well as in a national team context (e.g. Gelade & Dobson, 2007; Ruigrok et al., 2011).

The analysis is based on all 736 individual players and thirty-two teams participating in the FIFA World Cup 2010 in South Africa. A total of sixty-four games were played within the period of one month to determine the World Champion as the winner of the tournament. The sample thus contains 128 team-specific game results as project team performances. Rich data on individual players, teams, and performances was provided by the official FIFA World Cup webpage (www.fifa.com/worldcup) before and during the tournament. Further sources such as the FIFA archives of historical national team matches, and the FIFA “Big Count 2006”, a survey among the FIFA member associations estimating the extent of football activities around the world, have been used to complete the database.

4.4.2 Measures

All measures were calculated on a regular game-time basis, where individual players’ influences were weighted by the number of minutes they played in a particular game. With this, and unless explicitly reported differently, substitute players were taken into account. Focal independent variables were calculated on an overall team basis (including all fielded players) and on a subteam basis (including only the players ascribed to the offensive or defensive subteam).

Offensive and defensive subteams were operationalized by means of the official tactical line-ups reported before the start of a certain game. Starting line-up players were ascribed to offensive or defensive subgroups according to their official playing position (goalkeepers and defenders in the defensive subgroup, midfielders and strikers in the offensive subgroup). Substitute players were ascribed to subteams according to their major playing area on the field, indicated by a heat map monitoring individual players’ movements across the pitch, as officially reported in FIFA World Cup’s after-game technical statistics reports. With this procedure substitute players’ tactical positions within the overall team structure were assessed. This is a crucial step in attaching substitute players to subteams according to the primary task assigned to them, as, unlike the case for starting line-up players, the tactical roles of substitute players in specific games are not officially reported. This approach cannot account for starting line-up players changing tactical positions during a game (e.g. from defender to midfielder). Such changes primarily occur when the integration of substitute players requires major shifts in the overall team line-up. However, such cases are considered a negligible circumstance, as substitutions generally take place
towards the end of a game, indicating that the majority of a game’s total of 90 minutes has been played with the starting line-up tactical formation.

The dependent variable team performance is an indicator of game specific project team outcomes relying on the Elo rating system for national football team performance (www.eloratings.net). The Elo rating system generates a score based on individual game results and the historical relative strength of opponents. The advantage of using the Elo system rather than raw game outcomes such as points won or goal difference thus lies in generating a more nuanced performance indicator for each individual game and team (Ruigrok et al., 2011). A better distinction between ordinary and extraordinary team performances during the tournament can be made as the Elo system accounts for differences in the expected relative strength of opponents. Elo ratings have been used by earlier studies on football team performance (Hvattum & Arntzen, 2010; Leitner, Zeileis, & Hornik, 2010; Ruigrok et al., 2011). In this study, the natural logarithm of a team’s individual game Elo score is employed as the dependent variable capturing overall project team performance.

The three focal independent variables of diversity of international experience, newcomers’ experiences, and shared experience are employed. First, international experience diversity is operationalized as the heterogeneity in players’ international experience backgrounds. The measure was calculated in a two-stage process. In a first step, the total number of years of experience acquired in a specific setting was calculated by summing up all individual-player-background inputs per country at the overall team or subteam level. As an example, three years of experience in Germany acquired by player A, and two years of experience acquired in the same country by player B added up to a total of five years of experience in Germany at the overall team level. If player A appeared as a goalkeeper and player B as a striker in a specific game, defensive and offensive subteams would only be assigned totals of three and two years of experience in Germany. In a second step, the diversity in the overall team’s or subteam’s international experience base was calculated according to the following formula, relying on Blau’s (1977) diversity index: \( I - \sum p_i \), where \( p \) is the percentage of total experience the team or subteam holds from country \( i \). This measure captures the extent to which an overall team or subteam is able to draw on a diverse pool of experiences.

Second, newcomers’ experiences were operationalized according to the following procedure: the players’ average number of appearances in the national team captures the extent to which a team is composed of newcomers versus oldtimers. Averages at overall or subteam level are multiplied by a factor of -1 in order to report this measure in a form where higher values represent higher levels of newcomer experiences. When national football teams are drawn together, playing friendly or competitive matches (i.e. in official
tournaments or qualifiers) usually plays an important part. As this study conceptualizes individual national team games as the entity of individual projects, the total number of national team appearances is employed, as a tenure measure to assess how long an individual player has been part of a national team as a project-based organization.

To employ a measure of *shared experience* as the third focal independent variable, the extent to which the players assigned to a specific World Cup game have actually been fielded together in previous competitive games was calculated. To obtain a precise measure of shared experience acquired in earlier projects, the average number of competitive national game appearances individual players had with all other players fielded in a certain World Cup 2010 game was calculated. Individual players’ influences on this aggregate measure were weighted according to the number of minutes played. The same procedure was applied to the overall team as well as offensive and defensive subteams. In obtaining this measure, several assumptions were made: World Cup games are highly uncertain and non-routine projects, and thus very different from the less competitive conditions in friendly matches where the focus is usually on the testing of new players or line-ups. Therefore, shared experience was only assessed for previous competitive matches held in official tournaments or qualifiers, where conditions comparable to those in a World Cup game can be assumed.

Further, shared experience was calculated on the basis of joint appearances in the starting line-up of earlier competitive matches. As starting line-up players usually spend a significant amount of time together on the pitch, players are able to acquire shared experience. Substitute players in many cases are only fielded for a couple of minutes, in which significant shared experiences with other players are much more difficult to acquire.

Several control variables were included in the analysis: Depending on the number of substitutions made during a game, between eleven and fourteen players appear on the pitch. *Fielded players* controls for the number of players with actual playing time during a given World Cup game. Further, *registered players* is a control variable accounting for the total number of football players in a country, from which national teams in principle can select the most talented players as their members (source: FIFA Big Count 2006). In order to capture further country-level differences between national teams, *gdp* as the gross domestic product per capita and *population density* as country population per square kilometer are included (source: CIA World Factbook 2010). A research stream analyzing the Olympic medal success of nations (e.g. Krishna & Haglund, 2008) has suggested that such country characteristics are determinants of national success at international sporting events. Because the exceptional sporting talent necessary for international top performance is assumed to be equally distributed across the world’s population, larger countries are expected to have greater chances of international sporting success. Breaking down this assumption to the
level of the football playing population leads to employing the number of registered players as a control variable. Furthermore, wealthier nations are better able to produce successful athletes and teams (Bernard & Busse, 2004), because these athletes profit from better facilities and equipment compared with those in poorer countries. The degree of connectedness of a country’s population (here captured by population density) has been suggested as a further contributor to the development of the pool of sporting talent (Krishna & Haglund, 2008). Countries with a great population density are able to identify their best sporting talents more easily and consistently, and then develop them. *Managerial experience* accounts for the managers’ influence on team performance. As Rowe and colleagues (2005) argue, over time managers can implement changes and influence performance by inducing individual and team learning. This measure captures managerial experience as the number of competitive games coached in relation to the managers’ overall tenure to estimate the degree to which managers had the opportunity to influence teams under prior conditions of highly uncertain and non-routine projects. Finally, the tournament modus of a World Cup entails that teams play between three and seven matches. The analysis controls for tournament stage with dummy variables representing the group stage (*round 1 to round 3*), where all thirty-two teams play one game per round, and dummies representing the knock-out stage (*round 4 to round 7*), where losing teams no longer appear in a following round.

### 4.4.3 Analysis

The three focal independent variables of diverse experiences, newcomers’ experiences, and shared experience were aggregated to the subteam (i.e. offensive/defensive) or overall team level, depending on the analysis. Data were analyzed using ordinary least squares procedures (multiple regression) with fixed time effects, to account for the seven rounds of play of a World Cup tournament (Ruigrok et al., 2011). Because individual teams played between three and seven matches, national teams appeared as repeated observations in the sample. Therefore, a clustering procedure was applied to obtain cluster-robust standard errors (Franck & Nüesch, 2010; Ruigrok et al., 2011). Standard errors have thereby been adjusted to 32 clusters, according to the number of national teams in the sample.

To test hypotheses, hierarchical multiple regression models are presented. While model 1 represents a baseline model including control variables only, hypotheses at the overall team level were tested in model 2. In order to test for the proposed u-shaped relationship between shared experience and team performance, the squared term of shared experience was included. To test whether the composition of offensive and defensive
subteams are differently related to overall team performance, the focal independent variables at overall team level were replaced with the two subteam equivalents in model 3. Based on this subteam specified model 3, the differences in partial coefficients were estimated using a Wald test (Cohen & Cohen, 1983; Holcomb et al., 2009).

4.5 Results

Table 6 presents the correlation matrix as well as means and standard deviations for the variables of interest. Correlations as well as variation inflation factors (VIFs) in a model excluding the naturally correlated squared term of shared experience suggest that multicollinearity amongst the variables is not an issue. Table 7 presents the results of models 1 and 2, at the overall team level.

Table 6: Descriptives and correlations of variables for chapter 4

<table>
<thead>
<tr>
<th>variable</th>
<th>mean</th>
<th>s.d.</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>gdp</td>
<td>22'527</td>
<td>14'124</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>population density</td>
<td>126.86</td>
<td>124.91</td>
<td>0.48***</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>registered players</td>
<td>958'319</td>
<td>1'554'221</td>
<td>0.46***</td>
<td>0.18*</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>fielded players</td>
<td>13.73</td>
<td>0.51</td>
<td>0.03</td>
<td>-0.15+</td>
<td>0.09</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>managerial experience</td>
<td>5.94</td>
<td>4.41</td>
<td>-0.08</td>
<td>-0.15+</td>
<td>-0.02</td>
<td>0.02</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>int. exp. diversity</td>
<td>0.58</td>
<td>0.27</td>
<td>-0.46***</td>
<td>-0.44***</td>
<td>-0.55***</td>
<td>-0.02</td>
<td>0.01</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>newcomer experiences</td>
<td>42.04</td>
<td>9.89</td>
<td>-0.30***</td>
<td>-0.29**</td>
<td>-0.19*</td>
<td>0.05</td>
<td>-0.31***</td>
<td>0.33***</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>shared experience</td>
<td>2.78</td>
<td>0.95</td>
<td>-0.09</td>
<td>-0.09</td>
<td>-0.09</td>
<td>-0.28**</td>
<td>0.19*</td>
<td>0.02</td>
<td>-0.52***</td>
<td>-</td>
</tr>
<tr>
<td>team performance</td>
<td>3.94</td>
<td>0.68</td>
<td>-0.02</td>
<td>0.02</td>
<td>0.02</td>
<td>0.08</td>
<td>-0.07</td>
<td>0.06</td>
<td>0.06</td>
<td>-0.04</td>
</tr>
</tbody>
</table>

n = 128; + p < 0.1; * p < 0.05; ** p < 0.01; *** p < 0.001
Table 7: Statistical results for chapter 4 (1/2)

Results of hierarchical regression analysis with cluster robust standard errors
Overall team level effects, dependent variable: team performance, standardized betas reported

<table>
<thead>
<tr>
<th>independent variables</th>
<th>model 1</th>
<th>model 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>round 1</td>
<td>omitted</td>
<td>omitted</td>
</tr>
<tr>
<td>round 2</td>
<td>0.008</td>
<td>0.003</td>
</tr>
<tr>
<td>round 3</td>
<td>-0.007</td>
<td>-0.066</td>
</tr>
<tr>
<td>round 4</td>
<td>-0.016</td>
<td>-0.043</td>
</tr>
<tr>
<td>round 5</td>
<td>-0.112</td>
<td>-0.197</td>
</tr>
<tr>
<td>round 6</td>
<td>0.025</td>
<td>-0.041</td>
</tr>
<tr>
<td>round 7</td>
<td>0.033</td>
<td>-0.091</td>
</tr>
<tr>
<td>gdp</td>
<td>-0.068</td>
<td>0.019</td>
</tr>
<tr>
<td>population density</td>
<td>0.035</td>
<td>0.172+</td>
</tr>
<tr>
<td>registered players</td>
<td>0.039</td>
<td>0.144+</td>
</tr>
<tr>
<td>fielded players</td>
<td>0.078</td>
<td>0.142</td>
</tr>
<tr>
<td>managerial experience</td>
<td>-0.067</td>
<td>0.036</td>
</tr>
<tr>
<td>international experience diversity</td>
<td></td>
<td>0.179+</td>
</tr>
<tr>
<td>newcomer experiences</td>
<td></td>
<td>0.201*</td>
</tr>
<tr>
<td>shared experience</td>
<td></td>
<td>-1.068*</td>
</tr>
<tr>
<td>shared experience sq</td>
<td></td>
<td>1.230*</td>
</tr>
<tr>
<td>constant</td>
<td>5.82</td>
<td>5.931</td>
</tr>
<tr>
<td>F</td>
<td>2.03+</td>
<td>3.19**</td>
</tr>
<tr>
<td>r-squared</td>
<td>0.029</td>
<td>0.090</td>
</tr>
</tbody>
</table>

n = 128; + p < 0.1; * p < 0.05; ** p < 0.01; *** p < 0.001

While most control variables are not significant according to traditional significance levels, population density as well as registered players are approaching statistical significance, at p < 0.1, in model 2. Relationships are in the expected directions. Both a larger overall football talent pool and higher levels of connectedness serve as country-level indicators of international sporting success (Krishna & Haglund, 2008).

Meanwhile, model 2 provides support for the hypothesized relationships at overall team level. Hypothesis 5a suggested a positive relationship between international experience diversity and overall project team performance. The statistical results offer at least marginal
support for this relationship \( (p < 0.1) \). In line with predictions, model 2 further finds statistical support for the positive relationship between newcomer experiences and team performance (hypothesis 6a) at \( p < 0.05 \). Finally, the suggested u-shaped relationship (hypothesis 7a) between shared experience and overall team performance is supported by the data, with a negative linear effect \( (p < 0.05) \) and a positive curvilinear effect \( (p < 0.05) \) of shared experience. Further calculations served to identify the level of shared experience teams need to acquire in order for the expected benefits to manifest in increasing performance, i.e., starting to compensate initial performance losses. Therefore, the point where increasing returns to shared experience become positive returns had to be determined by taking the partial derivative of model 2 with respect to shared experience, setting the result equal to zero, and solve for shared experience. The result indicated a shared experience level of 2.438 where positive returns start to kick in. With the shared experience variable ranging from 0.711 (minimum) to 4.985 (maximum) this value is well within the boundaries of the sample and comes in slightly below the 50th percentile (2.724). This finding suggests that the national football teams in the studied sample do profit from increased levels of shared experience by overcoming the initial performance losses at lower levels of shared experience.

Table 8 offers the results for the analysis of subteam level effects. Hypothesis 5b suggests a stronger positive relationship between diversity of international experience and overall team performance for offensive promotion-oriented subteams than for defensive prevention-oriented subteams. As the partial beta coefficients reveal, strong support is found for this prediction. While diverse experiences in offensive subteams are positively and significantly \( (p < 0.01) \) related to team performance, the coefficient for defensive subteams is negative and statistically significant \( (p < 0.05) \), suggesting that prevention-oriented subteams not only benefit less but actually suffer from diverse experiential composition. Furthermore, the Wald test comparing these partial coefficients reveals a significant difference with \( F(1, 31) = 7.61 \) and \( \text{Prob} > F = 0.0097 \). These results thus offer strong support for Hypothesis 5b. Hypothesis 6b predicts a stronger positive relationship between newcomers’ experiences for offensive subteams than for defensive subteams. The partial coefficient for offensive subgroups is highly significant \( (p < 0.01) \) and in the predicted direction, while the coefficient for the defensive subgroup is negative but not significant on its own. The Wald test comparing both partial coefficients, however, reveals a significant difference at \( F(1, 31) = 4.57 \) and \( \text{Prob} > F = 0.0405 \), thus offering statistical support for Hypothesis 6b. Finally, Hypothesis 7b is not supported, as both the individual partial coefficients as well as the corresponding Wald tests do not reveal statistical significance.
Table 8: Statistical results for chapter 4 (2/2)

Results of hierarchical regression analysis with cluster robust standard errors
Subgroup level effects, dependent variable: team performance, standardized betas reported

<table>
<thead>
<tr>
<th>variable</th>
<th>model 3</th>
</tr>
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<tbody>
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<td>round 1</td>
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<td>round 2</td>
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<td>round 3</td>
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<td>round 5</td>
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<td>round 6</td>
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<td>round 7</td>
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<td>gdp</td>
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<td>population density</td>
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<td>registered players</td>
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<tr>
<td>fielded players</td>
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<tr>
<td>managerial experience</td>
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<tr>
<td>OFF international experience diversity</td>
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<tr>
<td>DEF international experience diversity</td>
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<tr>
<td>OFF newcomer experiences</td>
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<tr>
<td>DEF newcomer experiences</td>
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<tr>
<td>OFF shared experience</td>
<td>-0.058</td>
</tr>
<tr>
<td>OFF shared experience sq</td>
<td>0.117</td>
</tr>
<tr>
<td>DEF shared experience</td>
<td>-0.459</td>
</tr>
<tr>
<td>DEF shared experience sq</td>
<td>0.399</td>
</tr>
<tr>
<td>constant</td>
<td>5.74</td>
</tr>
<tr>
<td>F</td>
<td>3.25**</td>
</tr>
<tr>
<td>r-squared</td>
<td>0.092</td>
</tr>
</tbody>
</table>

n = 128; + p < 0.1; * p < 0.05; ** p < 0.01; *** p < 0.001
4.6 Discussion

The results of this study confirm that the experiential constructs of international experience diversity, newcomer experiences, and shared experience are related to project team performance. Consistent with the theoretical argument, the results show that it matters where these experiential characteristics reside in the team. Promotion-oriented subteam members’ characteristics were related to overall team performance differently than those of prevention-oriented subteam members. First and foremost, these findings suggest that complex task environments require team composition to operate at a subteam level. Implications for team composition can be broken into several categories. First, the importance of considering a team’s task environment is highlighted. Second, empirical findings show that team compositional variables can exhibit very different relationships to overall team performance when operationalized at overall team level or at subteam level. This suggests including the subteam level as a structural element in team composition. Third, regulatory focus is examined as a factor in the study of team composition. And fourth, several implications derive from findings on the three focal experiential composition variables.

Prior research has identified the importance of task type as a determining factor in the relationship of team composition to performance, and scholars have also hinted to the observation that teams in actual work situations rarely perform only one type of task (e.g. Goodman, 1986; Stewart & Barrick, 2000). As an empirical approach scholars have suggested assessing the relative amount of time a team spends on tasks along the categories of a task classification scheme (Goodman, 1986; McGrath, 1984). Such an approach may help to determine a team’s most dominant task type along a continuum. The present study addresses a team’s task environment more directly, and shows that subtasks with opposing requirements pose subtle challenges for team composition. In sum, these results suggest that different subtasks play a crucial role in the relationship between the composition of subteams, team functioning, and overall team performance. Researchers should thus go beyond relying on a team’s predominant task as a sort of proxy for the team task environment, and explicitly include the role of subtasks.

Despite a vast amount of research on team composition, many reviews of parts of this literature, e.g. on group diversity, still detect inconclusive and sometimes contradictory findings (e.g. Bell et al., 2011; Jackson & Joshi, 2011). The present study suggests that the role of subteams could play an important role in further clarifying inconsistent findings. The results demonstrate that some experiential composition dimensions relate to team performance when operationalized at the overall team level (i.e. shared experience), while
others show more subtle relationships to overall team performance when operationalized at the subteam level. In this study, this is especially the case for diversity of international experience, where team members’ international backgrounds were found to influence team performance differently, depending on whether individuals played in the promotion-oriented or prevention-oriented subteam. A positive and marginally significant relationship between diverse experiences and overall team performance was found where, according to traditional significance levels, this would be considered as a non-finding. However, effects become much clearer and also statistically significant when investigated at the subteam level. This finding adds the subteam level as a structural element of teams to consider in team composition research, and implies that team members’ characteristics relate differently to overall team performance, depending on the affiliation to subtask specific subteams and the characteristics of other subteam members. Similarly, a recent study by Humphrey et al. (2009) has demonstrated that strategic core roles in teams are more important than other, non-core roles, and characteristics of team members relate differently to overall team performance depending on members having a core or non-core role. Together, these insights suggest that a closer examination of team structure, e.g. role structure or subteam structure, helps untangle the nuanced effects of team composition on team functioning and performance. From a more practical perspective, these results suggest that managers responsible for team composition should aim at a close match between the composition of subteams and subtasks in order to maximize team performance. In the case of project teams, where problem solving or product development tasks, as well as implementation tasks, are often combined (e.g. Ancona & Caldwell, 1992), managers should consider forming different subteams with primary responsibility for subtasks with opposing regulatory demands.

Further, results point to the importance of regulatory demands as a task requirement in team contexts (Dimotakis et al., 2012; Wallace & Chen, 2006). More specifically, regulatory fit (Higgins, 2000) is suggested as a performance determinant in team composition situations, as regulatory demands induced by the subtask environment were found to moderate the degree to which subteams benefit from diverse experiences or the availability of newcomer experiences. This also complements previous work that examined the influence of situational context on regulatory focus (e.g. Crowe & Higgins, 1997; Dimotakis et al., 2012; Higgins, 1997) by demonstrating how the task context in project teams includes specific demands that can be addressed better or worse by subteams with different experiential configurations. Team composition research could thus benefit from considering regulatory demands as a component of teams’ task environments in future studies.
Finally, this research contributes to the study of experiential characteristics as team composition dimensions by demonstrating that three experiential constructs were related to overall team performance. Together, these findings demonstrate the complexity of the experience construct (Quinones et al., 1995; Tesluk & Jacobs, 1998). Several implications for individual experience variables can be derived: For the study of diversity, the proposition has been developed that task requirements moderate the relationship between diversity and performance such that diversity may be positively related to performance when creative and innovative solutions are required (Van Knippenberg et al., 2004). The results of this study present support for this proposition as diversity of international experience in promotion-oriented subteams, where the creation of novel alternatives and solutions represents a preferred processing style, was positively related to team performance. Moreover, the findings suggest that diversity in experiences may not only be less of an advantage but actually a disadvantage when it is a characteristic of prevention-oriented subteams where repetition and implementation rather than creativity and the generation of novel alternatives is the preferred processing style. This chapter further contributes to the study of shared experiences in teams. As a result of organizations’ increasing reliance on teams and project-based structures, individuals face frequent changes in team affiliations and co-workers. It has been argued that research to date has not adequately accounted for the fact that for each specific configuration of a project team, there is a network of inter-member co-working histories (Tannenbaum et al., 2012). Frequently employed measures of shared experience in teams are based on average team or organizational tenure (e.g. Berman et al., 2002; Humphrey et al., 2009) and do not adequately match the conditions in project teams. In project teams, team tenure is typically very short and similar for most team members, as these are time-limited teams that recompose into new teams after the completion of a project (Cohen & Bailey, 1997). Further, organizational tenure does not serve as a measure to capture the extent to which individual team members have been staffed on projects together. The shared experience measure employed in this study can thus serve as an initial test of the importance of inter-member co-working networks. The results demonstrate that teams start benefiting from increasing levels of shared experience after an initial phase of performance losses. A practical implication can be derived when combining these insights into shared experience with the finding that integrating newcomers’ experiences has beneficial effects on overall project team performance. Clearly, an organizational newcomer would by definition have very low levels of shared experience with other project team members, as newcomers have not worked with other team members on earlier projects. The benefits of newcomers’ experiences could thus be offset by the initial costs of acquiring shared experience.
composition should therefore aim at integrating newcomers fast and frequently into projects with other core members, i.e. those members who are supposed to play an important role in future projects as well. In doing so, teams can take advantage of newcomers’ experiences while at the same time aiming at overcoming the initial downsides of acquiring shared experience as fast as possible.

Several boundary conditions to this study are identified, which also serve to delineate future research directions. Investigating the importance of subgroups in work teams is not an entirely new approach, whereby existing work also looks into the effects of inter-subgroup processes (Carton & Cummings, 2012). In this study, inter-subgroup effects were not directly examined. Still, the findings relating shared experience to team performance could serve as a sign for the relevance of inter-subgroup processes. Shared experience was found to relate to overall team performance when operationalized at the overall team level, but not when operationalized at the subteam level. This indicates that the shared experiences of offensive subteam members with defensive subteam members and vice versa play an important role in explaining overall team performance. Clearly, future research should examine in more detail how the processes between subgroups characterized by different regulatory orientations influence overall team performance.

A further concern with this study is that results may be idiosyncratic for the football team context. However, there are good reasons to understand the setting and structure of national football teams as bearing many important similarities with organizational project team settings. Most important for the focus of this study are staffing procedures whereby eleven to fourteen players are selected from a broader pool of players who are in principle available to collaborate on a specific project (i.e. a World Cup game), and the clearly distinguishable promotion-oriented and prevention-oriented subtasks of offense and defense. Further, the theoretical argument in this study was developed with an explicit focus on the case of project teams. Clearly, future research should address whether insights developed for project teams also apply to other types of teams. An initial assessment of this question can be structured along the constructs of skill differentiation, authority differentiation, and temporal stability. These dimensions have been found implicitly or explicitly to underlie many of the available team typologies (e.g. Cohen & Bailey, 1997; Sundstrom et al., 1990), and serve to examine the differences and similarities between teams studied (Hollenbeck et al., 2012). Such differences and similarities, in turn, may help to assess the degree to which findings can be meaningfully applied to other teams.

Skill differentiation refers to the degree to which individual team members have specific and unique skill sets and are thus not easily interchangeable (Hollenbeck et al., 2012). Project teams are explicitly composed to take advantage of members’ unique skills
and specialized expertise (Cohen & Bailey, 1997), implying high degrees of skill differentiation where project teams face complex tasks with opposing subtask requirements for which different skills are needed. Based on this argument, the experiential backgrounds of team members were identified as the primary dimension of team composition of interest in this study. In team settings characterized by lower levels of skill differentiation, experiential composition could thus form a less salient determinant of regulatory fit experienced by individual subteam members, leading to less pronounced differences in the impact on performance of experiential subgroup composition. Authority differentiation refers to the degree to which a team is characterized by clearly identifiable leadership roles (Hollenbeck et al., 2012). Project team settings appear as a context where leaders exert a great deal of influence via the selection of team members, the assignment of specific tasks, or the division of labor. Self-managing groups might face more difficulties composing individual members into subteams and aligning subtasks respectively. Future research could thus examine the specific role of team leaders in the relationship between subgroup composition and overall team performance. With a focus on temporal stability, teams that are stable and have a future and history together are distinguished from teams that may work together only for the purpose of a special short-term occasion (Hollenbeck et al., 2012). Clearly, project teams are short-term teams. Matching subtasks with team composition is likely to be especially important in settings characterized by high time pressures, as teams need to create efficient work conditions as fast as possible. Future research could thus assess whether regulatory fit between task demands and subgroup composition is of similar importance for the performance of longer-term teams.
Newcomers’ international experience backgrounds and contributions to team performance
Newcomers’ international backgrounds

Abstract

Newcomers are often described as a source of new knowledge and experiences in teams, yet little is known about how specific experience backgrounds influence these expected benefits. At the same time, contemporary career trajectories have become increasingly flexible and mobile across national borders, leading to a need to understand better the role of internationally experienced newcomers. This chapter examines the relationship between new team members’ international experience backgrounds and their subsequent contributions to team performance in the first year of team membership. It is argued, that individuals’ experiential backgrounds may range from narrow careers in single national contexts to broad careers in multiple international settings, with different developmental effects on newcomers’ knowledge, competencies, and subsequent potentials to contribute successfully to team performance. Importantly, the experiential composition of the joined team moderates these relationships in such a way that newcomers’ broad international backgrounds constitute valuable inputs of new knowledge and perspectives in experientially homogeneous and long tenured teams. A set of three hypotheses is tested on a longitudinal multi-level dataset from seven consecutive seasons of German Bundesliga football (2005 - 2012) and provides support for predictions. Implications of these findings are discussed together with future research directions.
5.1 Introduction

As a response to the dynamics of a globalized competitive environment, organizations increasingly rely on teams to take advantage of team members’ knowledge and expertise (e.g. Bunderson, 2003b). From the perspective of both practitioners and scholars, individuals’ prior experiences thereby serve as an expedient proxy for the knowledge, expertise, and competencies held by team members (cf. Quinones et al., 1995; Tesluk & Jacobs, 1998). Organizations often hire on the basis of prior work experience (Dokko, Wilk, & Rothbard, 2009; Rynes, Orlitzky, & Bretz, 1997), and researchers have focused on the educational (e.g. Dahlin et al., 2005), functional (e.g. Bunderson & Sutcliffe, 2002), or international experiences of team members (Carpenter et al., 2000) as determinants of team processes and outcomes. A basic premise underlying the theory and research on experiential team composition is that team members with different experiential backgrounds bring different knowledge and perspectives to their teams (Bunderson, 2003a). Along these lines, individuals’ careers and experience backgrounds have been described as important resources that teams can draw upon (Bunderson, 2003a; Castanias & Helfat, 1991; Kor, 2003).

Meanwhile, individuals’ career trajectories have become increasingly independent of single employment settings and mobile across the boundaries of teams, organizations, and countries (Arthur & Rousseau, 1996; Hall, 1996; Sullivan & Baruch, 2009). With this, team composition has become a dynamic process, where individual members move on and off teams for a variety of reasons such as turnover, promotions, or changing task demands that require an adjustment of a team’s knowledge configuration (Mathieu et al., 2008). Frequent change in team composition has led to a need to understand the role of newcomers in more detail. Specifically, competitive pressures require managers and researchers to understand better which individuals will benefit a team, i.e. which newcomers are likely to effectively contribute to team performance.

The general logic of experiential team composition suggests that newcomers’ experience backgrounds have shaped the knowledge and perspectives they bring to a team, and should consequently influence newcomers’ likelihood for contributing to team performance. At the same time, the growing importance of international experiences has been recognized as a characteristic of contemporary careers (Gregersen et al., 1998). Research on expatriates suggests that international experiences have developmental effects on individuals’ knowledge and skills (e.g. Cappellen & Jannssens, 2005; Suutari, 2003), as international environments lead to situations of intense experiential learning (Jokinen, 2010). International experiences of team members have thus been described as rare,
valuable, and hard to imitate, holding the potential to create competitive advantages (Carpenter et al., 2000). Such insights from research on international careers and experience would thus suggest that teams benefit from internationally experienced newcomers. However, as teams and newcomers might also face difficulties integrating these potentials (Bauer, Bodner, Erdogan, Truxillo, & Tucker, 2007), the expected effects on subsequent contributions to team performance may be difficult to predict. How international experience backgrounds benefit or hinder newcomers’ performance contributions has not been systematically addressed. This is the primary aim of this chapter. Further, prior research has brought forward that team processes and performance are dependent on a team’s experiential configuration. Composition in terms of average team tenure (e.g. Berman et al., 2002; Humphrey et al., 2009) or diversity in experiences (e.g. Bunderson & Sutcliffe, 2002) influences how team members interact, cooperate, and take advantage of their individual experiential assets. Newcomers might thus find new team environments that allow for their own contributions to varying degrees. As a second purpose, this chapter therefore examines how the performance contributions of newcomers depend on the experiential composition of the team they join.

This chapter continues as follows. In the next section, the complexity of possible benefits and potential problems associated with newcomers as a source of new and diverse knowledge is highlighted from a theoretical perspective. The discussion then focuses on international career backgrounds, which may be characterized by a broad range of multiple international influences or a relatively narrow set of few or single country experiences, which differently shaped the specific knowledge and expertise of individuals. Building on this basis, newcomers’ international backgrounds are in a next step linked to their subsequent performance contributions. Hypotheses are developed pertaining to an expected main effect and moderating influences of the joined team’s experiential composition. The research setting, data, and methods are described, followed by a presentation of the findings. To conclude, the chapter elaborates on these findings and discusses implications and future research directions.

5.2 Theory and hypotheses

Newcomers have been described as a source of new knowledge in teams and organizations that may enable innovation, learning, and performance (e.g. Almeida, Dokko, & Rosenkopf, 2003; Perretti & Negro, 2007; Rao & Drazin, 2002). March (1991) analyzed the influences of existing team members and newcomers on new organizational knowledge in a simulation model of personnel turnover, thereby comparing existing team members’ and
Newcomers’ international backgrounds

newcomers’ contributions. Existing team members, on average are more knowledgeable, but what they know is often redundant with the knowledge already reflected in the organization. Newcomers, on the other hand, are often less knowledgeable, but are more likely to contribute to the creation of new knowledge, as what they know is less redundant in terms of the knowledge already available. With this, newcomers can diversify a group’s knowledge base via the infusion of new experiences, perspectives, and information (e.g. Levine & Choi, 2004; Levine, Choi, & Moreland, 2003; Staw, 1980). In addition to a direct effect of infusing previously unavailable knowledge, newcomers may also have an indirect effect by influencing team processes (Choi & Levine, 2004; Gruenfeld, Martorana, & Fan, 2000). This may occur if the knowledge infused by a newcomer does not provide direct solutions to the problems and challenges a team faces, but rather provides the necessary diversity and dissent to enhance a team’s problem-solving capacity (Gruenfeld et al., 2000; Nahavandi & Aranda, 1994). Newcomers may further exert a developmental influence on the thinking and learning processes of existing team members by promoting the consideration of multiple perspectives and potentially deeper analyses of a given problem (Choi & Thompson, 2005; Nemeth & Owens, 1996).

Besides such beneficial effects, newcomers have also been associated with substantial problems for team processes and performance: New team members often lack the skills necessary to function in a specific team setting, thus undermining the overall team’s ability to perform (Choi & Thompson, 2005). Newcomers may interfere with existing work routines because teams are required to spend substantial effort on their socialization and integration (Moreland & Levine, 1982). The role of newcomers as a source of new and beneficial knowledge inputs might thus be less straightforward (Perretti & Negro, 2007). Although newcomers might bring a wealth of new knowledge with the potential for valuable contributions, this knowledge will only be useful if it is successfully incorporated in the team’s social context. Socialization refers to the process by which newcomers make a transition from team outsiders to team insiders (Bauer et al., 2007; Van Maanen & Schein, 1979). This process of socialization or integration can be costly and time-consuming (cf. Ostroff & Kozlowski, 1992) as newcomers need to learn about their new environment. This learning must cover several domains, such as task demands, role attributes, group norms, as well as climate and culture (Feldman, 1981), whereby learning how to interact and cooperate with others in the course of performing a specific task have been argued to be among the main objectives of organizational socialization (Adkins, 1995; De La Torre-Ruiz & Aragon-Correa, 2012). When joining a new team setting, newcomers may experience a liability of foreignness (Perretti & Negro, 2007), and face disadvantages of stereotyping, and marginalization by existing team members (Jackson, Stone, & Alvarez, 1993). As a result,
newcomers may face problems interacting and cooperating with existing team members and bring their potentially advantageous knowledge and expertise to bear.

In sum, the preceding theoretical viewpoints suggest that newcomers are associated with potential benefits of providing new knowledge inputs and difficulties in incorporating these inputs in a new team. With the aim of developing a better understanding of newcomers’ impacts on team functioning and performance, researchers have studied new team members in different team settings to examine the conditions under which benefits or problems will predominantly manifest. Lee and Allen (1982) analyzed newcomers in R&D project teams, and found that different types of R&D varied in their need for new and external knowledge inputs and the predominant cooperation patterns amongst team members. Together, the nature of a team’s work had a moderating effect on both the possible benefits and potential problems of integrating new team members. Where a team’s work was heavily dependent on new knowledge inputs and characterized by relatively open and externally oriented patterns of cooperation and communication (as in the case of research activities), newcomers, with their fresh outlook and new approaches, were important assets to a team. In the case of more technical activities characterized by lower dependence on external information and rather closed and internal patterns of cooperation and communication, newcomers were less useful (Lee & Allen, 1982). These insights suggest that a newcomer’s knowledge and expertise becomes especially important and valuable when it helps to resolve key challenges and uncertainties faced by a team (cf. Hickson, Hinings, Lee, Schneck, & Pennings, 1971). Teams’ differing information and communication requirements influence the degree to which newcomers’ experiences and knowledge are expected to be associated with beneficial or detrimental effects on team functioning and performance.

In the following, the chapter builds on these arguments to examine the influence of internationally experienced newcomers. While scholars have described international experiences as valuable resources that teams draw upon (e.g. Carpenter et al., 2000), past research has also highlighted problems associated with taking full advantage of internationally experienced individuals’ knowledge and competences (e.g. Dickmann & Harris, 2005; Sanchez Vidal, Sanz Valle, & Barba Aragon, 2008; Vermond, 2001). International experience backgrounds of newcomers thus appear as a highly relevant subject to study against the preceding theoretical background.
5.2.1 Broad and narrow international backgrounds

International experience has predominantly been researched in a business context, where a broad stream of literature has developed that examines multiple dimensions along an “expatriate cycle”, with issues ranging from pre-departure training to repatriation (Bonache et al., 2001). With expatriate assignments being an increasingly prominent characteristic of contemporary managerial careers, studies on the composition of top management teams have then recognized the importance of international experiences for individual managers and teams alike (e.g. Carpenter et al., 2001; Daily et al., 2000; Nielsen, 2010; Sambharya, 1996). These studies suggest that executives’ international experiences may benefit team and firm performance through management development, coordination and control of international operations, or the flow of information between parent firm and affiliates (Black, Gregersen, & Mendenhall, 1992; Sambharya, 1996). With this, top management team studies frame the value of internationally experienced team members from the perspective of their strategic functions in contributing to a firm’s global competitiveness.

More recently, scholars have turned their attention to qualitatively examining the question of what kind of knowledge and expertise individuals actually develop when gaining international experience (e.g. Eby et al., 2003; Suutari & Mäkelä, 2007; Suutari, 2003). Generally speaking, this literature argues that international experiences create intense learning situations with developmental effects on knowledge and competencies as individuals are confronted with high responsibilities and encounter cross-cultural differences (Dickmann & Doherty, 2008; Kohonen, 2005; Suutari & Mäkelä, 2007). According to Jokinen (2010), an apparently very consistent effect on broad and flexible competencies, such as social or people skills, cross-cultural skills, and a general business understanding, becomes evident in the literature (cf. Cappellen & Janssens, 2005; Dickmann & Harris, 2005). Findings of Dickmann and Doherty (2008) support this notion and report “softer” know-how, such as managerial capability, cultural awareness, the development of skills in dealing with diversity, or a broadened perspective as the dominating characteristics resulting from expatriate assignments. The development of such broad and flexible competencies, which are transportable across contexts, is thereby considered as a crucial outcome of international careers (Eby et al., 2003). At the same time, more context-specific knowledge and competencies are also developed during international assignments. According to Antal (2000), cultural specificities are important components of the knowledge expatriates gain. As contextual factors are considered to have a direct influence on work experiences and their outcomes (Bhagat et al., 2002; Tesluk & Jacobs, 1998), international experiences also
reflect an individual’s type of knowledge or perspective about country-related, contextual peculiarities. With this, international experiences may also result in more specific knowledge and skills that are less transferable across contexts because of a lack of applicability or compatibility of the acquired knowledge in a new context (Bonache et al., 2001; Dickmann & Harris, 2005).

Much of the research on international experiences focuses on the knowledge and competencies acquired in single contexts, i.e. during separate international assignments. Recently, there is a growing recognition of another, more globally oriented type of international career, where individuals are highly mobile between multiple international contexts and do not limit their assignments abroad to single settings (Cappellen & Janssens, 2005; Dickmann & Harris, 2005; Jokinen, 2010; Roberts et al., 1998; Suutari & Mäkelä, 2007). In such global careers, each international move reflects the acquisition of different experiences, competencies, and skills (Cappellen & Janssens, 2005). Over the course of several career moves, global careerists thereby accumulate rich contextual knowledge and become familiar with different contextual peculiarities (cf. Roberts et al., 1998). Indeed, it has been argued that the most extensive learning of international knowledge and competencies takes place during wider-ranging careers, where individuals go through a number of adjustment processes in different contexts (Roberts et al., 1998; Suutari & Mäkelä, 2007; Suutari, 2003). In a recent qualitative study on managers with global careers, Jokinen (2010) specifically focused on the cumulative effect of different international assignments. The results confirmed earlier findings from studies on single international assignments in that interviewees emphasized a lot of development in areas connected to interaction between people, i.e. social skills. Further, findings suggested that “each assignment taught different things”, where a subsequent assignment was either deepening acquired competencies when the context was similar to the previous assignment, or widening them when the second assignment’s context was very different (Jokinen, 2010: 329).

Several conclusions can be drawn from the above synthesis on international contexts as a learning environment: Apparently, as individuals acquire international experience, strong developmental effects result on generic skills, such as social skills or a broadened perspective, which are considered to be transportable across contexts. In addition, exposure to different settings leads to the development of context-specific knowledge about particular international settings, which are generally considered less easily transportable across contexts. Further, international careers may differ in the extent to which they span a narrow set of few or single country assignments or a relatively broad range of multiple international settings. Importantly, prior research on internationally mobile individuals
suggests that narrow or broad career backgrounds have distinctive developmental effects on acquired knowledge and competencies (Jokinen, 2010). Accordingly, experiences acquired in a limited number of international contexts have deepening effects, leading to relatively specialized and context-dependent knowledge and competencies. On the other hand, more dispersed careers across multiple international contexts have widening effects, leading to the development of broader and more generalist knowledge and competencies.

These insights parallel conceptualizations of individuals’ backgrounds in other experiential domains, such as functional or educational backgrounds (e.g. Bunderson & Sutcliffe, 2002; Dahlin et al., 2005). Bunderson and Sutcliffe (2002) focused on the degree to which individuals’ backgrounds are characterized by intrapersonal diversity, i.e. the extent to which an individual is considered a narrow functional specialist with experience in a limited range of functional domains, or a broad generalist whose experiences span a wide range of functions. Building on social categorization theory (Tajfel, 1981; Turner, 1982), Bunderson and Sutcliffe (2002) then argued that intrapersonal experiential diversity facilitates the sharing of information with other team members. An individual with experiences from several functional areas will be less likely to view others and be perceived by others in stereotyped and biased ways, whereby communication, cohesion, and collaborative problem solving is facilitated. These findings from earlier work on individuals’ experience backgrounds may serve as a basis to relate the breadth in newcomers’ international backgrounds to expected contributions to team performance. When joining a team, newcomers may face the disadvantage of being perceived by existing team members in a stereotyped and biased way, resulting in problems interacting and cooperating, and thus bringing their potentially beneficial external knowledge to bear (Jackson et al., 1993). Newcomers with broad experiential backgrounds are less susceptible to experientially grounded stereotyping and in-group/out-group biases because they are less strongly identified with single experiential areas. Broad backgrounds allow newcomers to claim membership of a variety of experiential domains, facilitating the interaction and cooperation with other team members (Bunderson & Sutcliffe, 2002). Newcomers with relatively narrow experiential backgrounds, to the contrary, are likely to face higher barriers to successful interaction and cooperation. Newcomers with narrow careers have developed deep and specialized knowledge that is potentially less transferable across contexts because of a lack of applicability or compatibility in new contexts (Bonache et al., 2001; Dickmann & Harris, 2005). Such a specializing effect increasing the context-dependence of acquired knowledge is less dominating for individuals pursuing more globalized careers in multiple contexts, whose knowledge and competencies, although less deep and specialized, are thus considered to be better transportable across contexts. In addition, newcomers with global prior careers
have become familiar with various contextual conditions and have gone through several adjustment processes in the past (Roberts, et al., 1998; Suutari & Mäkelä, 2007; Suutari, 2003). Prior socialization and adjustment experiences are expected to facilitate the integration in a new team, enabling newcomers with broad international backgrounds to rapidly and effectively contribute to team performance.

In sum, it is argued that the degree to which individuals pursue careers in a broad or narrow range of international contexts has consequences for the development of knowledge and competencies. Relying on the notion that internationally experienced newcomers are a potentially valuable source of knowledge in teams, contributions to team performance are expected to be higher for newcomers with broad international backgrounds, as these newcomers are less susceptible to stereotyping and biased perceptions, possess broad and flexible knowledge and competencies that are more transferable across contexts, and may rely on hands-on experience with earlier socialization and integration occasions. These arguments thus suggest that:

*H8. Newcomers’ broad international backgrounds will be positively associated with contributions to team performance.*

In the following, the conditions under which internationally experienced newcomers may most effectively contribute to team performance are examined. The experiential composition of teams is described with a focus on arising information requirements and patterns of cooperation and communication, and associated with expected contributions to team performance of internationally experienced newcomers. Contributions are expected to be highest where a team’s information requirements value newcomers’ external knowledge as a means to overcome key challenges of the team, and where prevailing cooperation patterns enable newcomers to effectively incorporate that knowledge into the context of the team. With that aim, the discussion outlines how newcomers are a potentially valuable input in experientially homogeneous and stable teams, and focuses on the question whether broad or narrow experience backgrounds are expectedly more beneficial inputs.

### 5.2.2 Newcomers in experientially homogeneous teams

Past research has suggested that one reason to set up experientially diverse teams is to increase the resource pool available (e.g. Ancona & Caldwell, 1992). As an example, functional diversity offers a team direct access to expertise and information from various
areas of an organization’s functional domains (e.g. marketing, financial, human resources) that would not be available in the case of functionally heterogeneous composition (e.g. Bantel, 1993; Bantel & Jackson, 1989; Hambrick, Cho, & Chen, 1996). Similarly, educational diversity allows teams to draw on a broad range of educational content areas (e.g. Dahlin et al., 2005). Based on an information processing perspective of team diversity (cf. Hinsz et al., 1997), it has been argued that teams may profit from a diverse experiential resource pool via learning, insight, and problem-solving effectiveness (e.g. Jackson, 1992; Van Knippenberg et al., 2004). Given the notion that experientially diverse composition is thus beneficial for team performance, homogeneous teams face a comparative disadvantage. With this, the information requirements in experientially homogeneous teams are characterized by the key challenge of broadening the available pool of knowledge and information. As a potential source of knowledge that is not yet represented in the team (cf. March, 1991), newcomers appear to be a means to broaden the available knowledge base in experientially homogeneous teams via the infusion of new ideas, perspectives, and information (e.g. Levine & Choi, 2004; Levine et al., 2003).

In the first place, newcomers may thus contribute to the team performance of experientially homogeneous teams by helping to overcome resource constraints. At the same time, prior research has highlighted the importance of considering predominant patterns of cooperation and communication to assess newcomers’ influence (e.g. Lee & Allen, 1982). Experientially homogeneous teams rely on a relatively narrow but deep pool of available knowledge where individual team members each add very similar knowledge and competencies. Team members are thus relatively aligned in terms of their experiential backgrounds, leading to significant barriers to newcomers’ likelihood of effectively integrating and contributing to team performance. Prior research suggests that experientially diverse teams may face conflict in terms of how to proceed with certain tasks or how to delegate responsibilities, whereas experientially homogeneous teams encounter less difficulty in reaching a consensus on how to cooperate (Jehn, 1997; Jehn et al., 1999). This implies that experientially homogeneous teams are likely to develop strong and highly accepted patterns of cooperation to which new team members have to adapt. Broad and flexible knowledge and competencies held by newcomers with broad international backgrounds are thereby considered to be more easily transferable and adaptable to prevailing patterns of cooperation than the relatively context-dependent knowledge and competencies held by individuals with narrow backgrounds. Further, team newcomers face the risk of being perceived by existing team members in stereotyped and biased ways based on their experiential background characteristics, hindering the effective interaction and cooperation with other team members. These disadvantages might be especially salient...
where existing team members are highly aligned in terms of their backgrounds, as in experientially homogeneous teams. Newcomers with broad experiential backgrounds should be less strongly identified with single experiential domains (Bunderson & Sutcliffe, 2002), and are thus likely to be more easily socialized than their counterparts with narrower backgrounds.

The preceding argument suggests that newcomers’ external knowledge and competences are considered a valuable asset in experientially homogeneous teams. At the same time, such teams constitute an environment where the potential problems associated with newcomers might be especially salient, amplifying the expected advantages of broad over narrow international backgrounds. Accordingly, contributions to team performance are expected to be highest for newcomers’ with broad experiential backgrounds in experientially homogeneous teams. In formal terms:

\[ H9. \text{ The positive relationship between newcomers’ broad international backgrounds and contributions to team performance will be more pronounced when joining experientially homogeneous teams.} \]

5.2.3 Newcomers in long tenured teams

From an interest in experiential team composition, several studies have focused on the effects of team members’ average tenure, a compositional dimension which is sometimes also referred to as team experience (Humphrey et al., 2009) or shared experience (Berman et al., 2002). Generally speaking, this literature suggests that higher levels of average tenure facilitate team functioning and performance in three ways (Humphrey et al., 2009): members are able to develop shared mental models (Kim, 1997), transactive memory (Austin, 2003; Wegner, 1986), and an improved understanding about the roles of other team members. Teams which have developed shared mental models possess a certain amount of commonly held knowledge which is shared by all team members and such teams profit from superior coordination and helping behaviors (Cannon-Bowers & Salas, 2001; Mathieu et al., 2000). Similarly, research on transactive memory suggests that the development of collective memory systems increases a team’s awareness of which members hold specific information, knowledge, or expertise (e.g. Liang, Moreland, & Argote, 1995; Moreland, 1999). This in turn enables teams to tap and utilize specific knowledge when needed (Bunderson, 2003a). Moreover, established and accepted role composition in teams facilitates team functioning and ultimately team performance (Humphrey et al., 2009). As a sum of these mechanisms, more stable teams develop towards an increasingly well-
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functioning unity by learning about the perspectives of other members and accumulating a stock of valuable collective knowledge (Berman et al., 2002; Pelled, Eisenhardt, & Xin, 1999).

These positive effects of shared experience, however, have been found to decrease in teams where members have acquired very high levels of shared experience (Katz, 1982). Where team members have been working together for long periods of time, the team may become increasingly inward oriented and less able to implement changes to its experiential configuration. According to Berman and colleagues (2002), after an initial learning period where teams profit from developing a stock of collective knowledge, a process of knowledge ossification sets in where thought processes and interactions become routinized and taken-for-granted. With this, long-tenured teams also become more prone to inertial behavior, rigidity, and resistance to change and new solutions (Perretti & Negro, 2007). With this, the information requirements in long-tenured teams are characterized by a need to infuse new knowledge that helps overcoming these problems (cf. Berman et al., 2002).

Meanwhile, when it comes to the integration of new team members, longer tenured teams may pose substantial barriers. In order to interact successfully and cooperate with existing team members, newcomers have to adapt and adjust to predominant role structures, and integrate their external knowledge into established and well functioning coordination processes. Where the introduction of new knowledge has a disruptive effect on team functioning, newcomers might actually cause problems with information processing and coordination, resulting in negative effects on overall team performance (Choi & Thompson, 2005; Hinsz et al., 1997). Broad and flexible knowledge and competencies introduced by newcomers who have pursued broad international careers is thereby considered more adaptable and less disruptive to the well rehearsed patterns of cooperation in longer tenured teams.

The preceding argument suggests that newcomers are considered a valuable asset in longer- tenured teams. Well established and functioning patterns of cooperation may at the same time pose substantial hurdles for newcomers to successfully contribute in long-tenured teams. These conditions reinforce the advantages of newcomers’ broad international backgrounds. Accordingly, contributions to team performance are expected to be highest where newcomers’ with broad international backgrounds join longer-tenured teams. Thus:

\[ H10. \] The positive relationship between newcomers’ broad international backgrounds and contributions to team performance will be more pronounced when joining longer tenured teams.
To summarize, this chapter’s theoretical reasoning holds that the relative breadth of individuals’ experiential backgrounds characterizes the developed knowledge and competencies that newcomers bring to a team, where broader backgrounds lead to the development of a flexible skill base that is more transportable and adaptable to new contexts. Accordingly, breadth in newcomers’ international backgrounds is expected to be positively associated with contributions to team performance. From a more detailed perspective, newcomers’ external knowledge inputs are valuable assets in experientially homogeneous and longer tenured teams. At the same time, these teams constitute an environment where newcomers might encounter especially challenging conditions to successfully integrate and contribute to team performance. Together, contributions to team performance are expected to be highest where newcomers with broad international backgrounds join experientially homogeneous or longer-tenured teams.

5.3 Methods

5.3.1 Setting and sample

The setting to test the proposed relationships empirically is the world of professional football in the German Bundesliga. Professional sport teams are regularly confronted with the challenges of integrating new team members, as changes in the player roster occur frequently. As the hiring of new players is a high financial investment and associated with considerable uncertainties (De La Torre-Ruiz & Aragon-Correa, 2012), the sport team setting allows to study newcomers in a context where their fast and successful integration is highly relevant for overall team effectiveness. Moreover, the very dynamic environment of professional football, where mobility between clubs, leagues, and countries characterizes individual players’ careers, enables to study a large number of new player appointment situations. In addition, this particular setting offers advantages for the study of new team members’ international experience backgrounds: As the German Bundesliga is considered to be one of the most competitive football leagues in the world, players from various nations with highly international backgrounds are recruited to play together in eighteen teams per season. Importantly, the field of highest-level professional football is a setting where international experiences form a valuable and widely-spread asset. As football is considered a physical as well as cultural experience (Szymanski & Zymbalist, 2005), a player’s knowledge about the game of football, such as style of play and the relative emphasis on the countless skills of the game, is influenced by the cultures in which the game is learned (cf. McNamara & Peck, 2010). Recent research in the context of professional sport has
supported this notion and found that differences in players’ skills exist as a function of

country-specific training methods and environments (Brandes et al., 2009; Kahane et al.,
2012; Osborne, 2006). With the verdict of the European Court of Justice in the case of the
Belgian football player Jean-Marc Bosman in 1995, operating modes in national football
leagues have changed dramatically (Frick, 2007). As a result of the major regulatory and
structural changes following the Bosman ruling, professional football players have exhibited
rising levels of mobility between clubs and leagues (countries). Today, Europe’s most
competitive football leagues are characterized by high degrees of internationality, both in
terms of national origin and experiential backgrounds of players. In the 2009/10 German
Bundesliga season, 55% of all players who made at least one appearance on the pitch had
acquired experience other than in their home country, and these experiences were acquired
from a total of fifty-eight different countries. The setting of German Bundesliga football
thus allows investigating highly internationalized teams and individuals.

The analysis is based on all new player appointments in German Bundesliga
football from 2005 to 2012. In order to be able to study the relationship between prior career
background and subsequent contributions to team performance, the analysis did not include
players in their first year as a professional footballer. Further, players who had not spent the
full season with their newly joined teams were excluded. With this, comparable conditions
in the competitive environments of teams are created, as every team is facing opponents
twice over the course of a full season. Publicly available information on individuals’ careers
as well as teams’ performances allowed taking advantage of a complete individual and
team-level data set on key study constructs. Data collection relied on several well-
established online resources, such as the official website of the German Bundesliga
(bundesliga.de) and official club websites as the primary sources, as well as larger online
databases providing a broad spectrum of football data (weltfussball.com,
footballdatabase.eu, playerhistory.com) as complementary sources. A complete data set was
compiled containing the following information: career information on 726 new players (e.g.
number of different countries and corresponding length of appointments over the full
career), information on the 126 seasonal teams which these new players joined (e.g. average
market values of players, managerial tenure, squad size, average team tenure, number of
new players acquired), as well as more general information on the 27 clubs fielding teams
each season (average attendance over the study’s time frame). With individual newcomers
joining season specific teams that are fielded by different clubs, the design of the present
study implies a hierarchical data structure containing three different levels. Both the
calculation of measures and the analytical procedures accounted for this multilevel data
structure.
5.3.2 Measures

All measures were calculated on a seasonal basis, taking account of individual team compositions (line-up reports) and outcomes (game results). Career backgrounds of new players as well as overall team measures include information up until the start of a specific season.

The dependent variable performance contribution as an individual level indicator of newcomers’ involvement in successful team production draws upon documentation of players’ appearances in individual games (34 Bundesliga game days per team corresponds to a maximum of 34 appearances). In a first step, the number of points the team has acquired in matches where a new player was fielded were counted. In line with rules and standards of the German Bundesliga, this procedure accounted three points in case of a win, one point for a draw, and no points for a loss. The total number of points acquired when being on the pitch served as an initial estimate for new team members’ contributions. In order to account for new players’ eligibility to be fielded by the responsible team coach, the sum of points acquired was divided by the number of games where a new player was in principle eligible to play (i.e. the player was not injured or blocked to play due to any official restrictions or regulatory issues). Eligibility was estimated by counting the number of appearances on the official match report, either as a starting line-up player or a bench player. Performance contribution was calculated as the natural logarithm of the resulting ratio. This measure of performance contribution as an individual-level variable captures the extent to which new team members have significantly added to successful team performance in a newly joined team.

Three main independent variables are employed: At the individual level, broad international background serves as an indicator of the relative breadth in newcomers’ experience backgrounds. Relying on Blau’s (1977) diversity index, this measure was calculated according to the following formula: $1-\sum p_i^2$, where $p$ is the percentage of total experience acquired in country $i$. This measure captures the extent to which a new player has acquired experience in a broad or narrow set of countries prior to joining a new team and has been used as an indicator of individuals’ career diversity both in a business context (Bunderson & Sutcliffe, 2002, Dahlin et al., 2005) and in a sports context (Ruigrok et al., 2011). At the seasonal team level, experiential homogeneity serves as an indicator of the relative breadth in a teams’ overall pool of available knowledge and experiences. According to the main interest of this study, the measure relies on international experiences as the focal experiential attribute and was calculated according to the following procedure. First, the total number of years of experience in every country at team level was calculated by
summing up all individual player background inputs (e.g. two years of experience in England by player A added to five years of experience in England held by player B). Second, Blau’s (1977) diversity index was adapted to determine the homogeneity in international experiences according to the following formula: $\sum p_i^2$, where $p$ is the percentage of experience the team holds from country $i$. This measure captures the extent to which a team carries a relatively homogeneous pool of knowledge and information with respect to international experience. As a second indicator of experiential team composition at the seasonal team level average team tenure was calculated as all team members’ average number of games played for the current club in previous consecutive seasons. This measure captures the extent to which a team is composed of long tenured or relatively newly appointed members.

Control variables at the individual level, the seasonal team level, and the club level were included in the analysis: As the literature on organizational socialization suggests, the integration of newcomers, i.e. individuals who have not been members of a certain organization in the past, poses challenges to both the newcomers and the existing team, especially when newcomers are different to existing team members (e.g. Jackson et al., 1993). According to this study’s main focus on experiential team composition, the individual level control variable dominant country dissimilarity is employed to capture the degree to which newcomers’ experience backgrounds are substantially different from the backgrounds of other team members. In a first step, and in line with earlier approaches to operationalize individuals’ experience backgrounds (e.g. Bunderson & Sutcliffe, 2002), the dominating country-specific experiential influence in each player’s career background was determined by identifying the country where a player had acquired the most experience. If the player had the same amount of experience in two countries, the country where the player had acquired experience more recently was chosen as the dominating influence. To calculate the degree of dissimilarity between newcomers’ and existing team members’ dominant countries, the squared proportion of existing team members sharing the same dominant country with a newcomer was subtracted from one. This procedure accords established approaches to operationalize dissimilarity in categorical variables (Boone, van Olffen, van Witteloostijn, & De Brabander, 2004). As a further control at individual player level, a dummy variable distinguishing between offensive and defensive players is included, whereby midfielders and strikers were assigned to the offensive category and goalkeepers and defenders assigned to the defensive category. At seasonal team level, team market value is included as a control variable. Prior research on the performance determinants of professional sport teams has suggested a strong impact of players’ market values, as these constitute an efficient measure of players’ skill level, talent, or quality (e.g. Bridgewater et
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Following the procedure suggested by Depken (1999), the analysis thus includes the logarithm of players’ average market values as estimated by Kicker football magazine and adjusted to 2009 Euros. Further, managerial tenure accounts for the influence of a team’s manager or coach. Prior research has demonstrated the influential role of the team manager on the team’s functioning and performance. Longer-tenured coaches have the potential to implement significant changes that influence performance through individual and group learning (Rowe et al., 2005), or the implementation of a successful strategy (Wright et al., 1995). Managerial tenure was calculated as the number of consecutive years of experience a team’s coach had acquired with the current team in prior seasons. If, as a result of managerial succession, more than one coach had been active during a given season, an average measure was calculated by weighting each coach’s influence by the number of months in charge. As joining larger teams may diminish the chances of a new player appearing on the pitch and then helping the team to win points, team size controls for the overall size of the squad, and was determined as the number of players with actual playing time over the course of the full season. As a further control at seasonal team level, number of new players accounts for the total number of new players joining a team, as the challenges associated with integrating in a new team might be dependent on whether newcomers join a team as a single new member or as a part of larger group. At club level the analysis controls for the average attendance, i.e. the average number of spectators at home games over the seven-year period from 2005 to 2012 in the first and second Bundesliga, as a means to proxy the overall reputation or standing of a club over time. Finally, seasonal year dummies are included in the analysis to account for unobservable time effects.

5.3.3 Analysis

This study’s research design resulted in a nested hierarchical data structure with three distinct levels (individual level, seasonal team level, and club level). Consequently, a three-level hierarchical modeling (HLM) technique is employed to analyze the data (Raudenbush & Bryk, 2002). Hierarchical linear modeling addresses the concern that dependence in the data arises from the nested data structure as it “provides the correct parameter estimates and significance tests for multilevel and non-independent data” (Chen, Kirkman, Knafer, Allen, & Rosen, 2007: 337). Thus, at the first level of analysis, differences in individual newcomers are examined. At the second level, potential differences between teams where new members are appointed are considered. And at the third level, differences between clubs are observed.
In hierarchical multilevel modeling special attention should be given to centering decisions. Lower level variables can be centered at the grand mean or at the group mean, i.e. centering within clusters (Enders & Tofighi, 2007). Centering at the group mean removes all between-group variation, and thus group-mean centered variables are uncorrelated with higher-level variables. Therefore, consistent with HLM conventions, group-mean centering is considered as the appropriate procedure for all variables of special interest in order to receive pure estimates of the respective level variance. Specifically, all individual level variables as well as seasonal team level variables of special interest (experiential homogeneity and average team tenure) were group-mean centered, and all other variables were grand-mean centered. Hypotheses are tested with a series of hierarchical linear models.

5.4 Results

Table 9 presents correlations as well as means and standard deviations for the variables of interest. As shown in the table, correlations do not exceed a maximum level of 0.572 (between team market value and average attendance). An ordinary least squares replication of the models did reveal variation inflation factors all below values of five. According to generally applied rules to detect multicollinearity by using VIFs (O’Brien, 2007), these values indicate that multicollinearity is not an issue in the present analysis.

Table 10 presents results of the HLM null model (empty model) in which no independent or control variables are included. The depicted decomposition allows assessing how the variance at three levels affects the variance among observations of the dependent variable at individual level (Raudenbush & Bryk, 2002). As these numbers indicate, the individual new player level explains a vast majority of more than 70% of the variance in newcomers’ contributions to team performance. Higher levels explain the remaining variance, with 17% at seasonal team level and 10% at club level. These results are statistically significant (p < 0.001) and indicate that it is reasonable to include predictors at higher levels as explanatory factors of the individual level dependent variable into the models. Table 11 presents a series of hierarchical linear models to test the main effect hypothesis as well as moderating hypotheses.
### Table 9: Descriptives and correlations of variables for chapter 5

Means, standard deviations, and correlations of core variables (uncentered)

<table>
<thead>
<tr>
<th>variable</th>
<th>mean</th>
<th>s.d.</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>club level</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 average attendance</td>
<td>39'605</td>
<td>16'859</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>seasonal team level</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 team market value</td>
<td>1.71</td>
<td>0.77</td>
<td>0.57***</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 managerial tenure</td>
<td>1.44</td>
<td>2.01</td>
<td>-0.14***</td>
<td>0.02</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 team size</td>
<td>26.85</td>
<td>2.78</td>
<td>-0.10**</td>
<td>-0.41***</td>
<td>0.05</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 number of new players</td>
<td>11.77</td>
<td>3.38</td>
<td>-0.08*</td>
<td>-0.19***</td>
<td>-0.09*</td>
<td>0.55***</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6 exp. homogeneity</td>
<td>0.44</td>
<td>0.13</td>
<td>-0.04</td>
<td>-0.03</td>
<td>0.22***</td>
<td>-0.15***</td>
<td>-0.45***</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7 average team tenure</td>
<td>35.00</td>
<td>11.53</td>
<td>0.33***</td>
<td>0.49***</td>
<td>0.11**</td>
<td>-0.48***</td>
<td>-0.48***</td>
<td>0.39***</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>individual level</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8 dom. country dissimilarity</td>
<td>0.72</td>
<td>0.28</td>
<td>0.08*</td>
<td>0.06</td>
<td>-0.13***</td>
<td>0.00</td>
<td>0.20***</td>
<td>-0.47***</td>
<td>-0.10**</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>9 broad int. background</td>
<td>0.16</td>
<td>0.23</td>
<td>0.03</td>
<td>0.01</td>
<td>0.01</td>
<td>0.04</td>
<td>0.05</td>
<td>-0.08*</td>
<td>0.02</td>
<td>0.29***</td>
<td>-</td>
</tr>
<tr>
<td><strong>dependent</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10 performance contribution</td>
<td>0.66</td>
<td>0.28</td>
<td>0.24***</td>
<td>0.33***</td>
<td>0.06</td>
<td>-0.22***</td>
<td>-0.04</td>
<td>0.04</td>
<td>0.14***</td>
<td>-0.02</td>
<td>0.07+</td>
</tr>
</tbody>
</table>

Note. N = 726 at individual level, 126 at seasonal team level, 27 at club level.

+ p<0.1; * p<0.05; ** p<0.01; ***p<0.001

### Table 10: Multilevel model variance decomposition for chapter 5

<table>
<thead>
<tr>
<th>variance decomposition (%)</th>
<th>number of observations</th>
<th>mean observations per level</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>nullmodel</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>level 1 (individual player)</td>
<td>72.573</td>
<td>726</td>
</tr>
<tr>
<td>level 2 (seasonal team)</td>
<td>17.295</td>
<td>126</td>
</tr>
<tr>
<td>level 3 (club)</td>
<td>10.132</td>
<td>27</td>
</tr>
<tr>
<td>significance</td>
<td>p&lt;0.001</td>
<td>-</td>
</tr>
</tbody>
</table>
Model 1 includes all higher-level variables. Results indicate that average attendance (p < 0.01), team market value (p < 0.01), managerial tenure (p < 0.05), and number of new players (p < 0.05) all positively and significantly influence newcomers’ contributions to team performance. Team size (p < 0.001) and average team tenure (p < 0.1) report a negative and significant relationship to the outcome variable. These effects are stable across extensions of the baseline model and suggest that higher-level explanatory factors account significantly for variance in the individual level outcome variable. Generally, the relationships are in expected directions. The results from average attendance as an indicator of a club’s standing or reputation indicate that newcomers profit from a well established and professional environment. Newcomers also profit from high quality team mates surrounding them, as indicated by the findings on team market value. Teams composed of high quality players might accordingly be better able to integrate new players. Further, longer-tenured coaches positively influence the performance contributions of new players, a finding that could indicate how over the time of their employment spell coaches successfully match the characteristics of new players with the preferred strategy and existing human capital base of their teams (Rowe et al., 2005; Wright et al., 1995). Supplementary analysis did not indicate a significant interaction between managerial tenure and newcomers’ broad international backgrounds.
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Table 11: Statistical results for chapter 5

Results for HLM analysis of new team members’ performance contributions (log)

<table>
<thead>
<tr>
<th>variables</th>
<th>model 1</th>
<th>model 2</th>
<th>model 3</th>
<th>model 4</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>intercept</strong></td>
<td>0.698***</td>
<td>0.446***</td>
<td>0.446***</td>
<td>0.447***</td>
</tr>
<tr>
<td></td>
<td>(0.035)</td>
<td>(0.054)</td>
<td>(0.053)</td>
<td>(0.053)</td>
</tr>
<tr>
<td><strong>club level</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>average attendance</td>
<td>2.42e-06**</td>
<td>2.46e-06**</td>
<td>2.48e-06**</td>
<td>2.47e-06**</td>
</tr>
<tr>
<td></td>
<td>(9.26e-07)</td>
<td>(9.19e-07)</td>
<td>(9.19e-07)</td>
<td>(9.18e-07)</td>
</tr>
<tr>
<td><strong>seasonal team level</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>year dummies</td>
<td>included</td>
<td>included</td>
<td>included</td>
<td>included</td>
</tr>
<tr>
<td>team market value</td>
<td>0.068**</td>
<td>0.067**</td>
<td>0.067**</td>
<td>0.067**</td>
</tr>
<tr>
<td></td>
<td>(0.022)</td>
<td>(0.022)</td>
<td>(0.022)</td>
<td>(0.022)</td>
</tr>
<tr>
<td>managerial tenure</td>
<td>0.016*</td>
<td>0.016**</td>
<td>0.016**</td>
<td>0.016**</td>
</tr>
<tr>
<td></td>
<td>(0.006)</td>
<td>(0.006)</td>
<td>(0.006)</td>
<td>(0.006)</td>
</tr>
<tr>
<td>team size</td>
<td>-0.021***</td>
<td>-0.021***</td>
<td>-0.021***</td>
<td>-0.021***</td>
</tr>
<tr>
<td></td>
<td>(0.006)</td>
<td>(0.006)</td>
<td>(0.006)</td>
<td>(0.006)</td>
</tr>
<tr>
<td>number of new players</td>
<td>0.010*</td>
<td>0.010*</td>
<td>0.009*</td>
<td>0.009*</td>
</tr>
<tr>
<td></td>
<td>(0.005)</td>
<td>(0.005)</td>
<td>(0.005)</td>
<td>(0.005)</td>
</tr>
<tr>
<td>experiential homogeneity</td>
<td>-0.019</td>
<td>-0.024</td>
<td>-0.024</td>
<td>-0.024</td>
</tr>
<tr>
<td></td>
<td>(0.178)</td>
<td>(0.176)</td>
<td>(0.176)</td>
<td>(0.176)</td>
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<tr>
<td>average team tenure</td>
<td>-0.003+</td>
<td>-0.003+</td>
<td>-0.003+</td>
<td>-0.003+</td>
</tr>
<tr>
<td></td>
<td>(0.002)</td>
<td>(0.002)</td>
<td>(0.002)</td>
<td>(0.002)</td>
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<tr>
<td><strong>individual level</strong></td>
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<td></td>
</tr>
<tr>
<td>defensive player (dummy)</td>
<td>0.263***</td>
<td>0.260***</td>
<td>0.262***</td>
<td>0.262***</td>
</tr>
<tr>
<td></td>
<td>(0.043)</td>
<td>(0.043)</td>
<td>(0.043)</td>
<td>(0.042)</td>
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<tr>
<td>offensive player (dummy)</td>
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<tr>
<td>dominant country dissimilarity</td>
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<td>-0.096*</td>
<td>-0.093*</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.040)</td>
<td>(0.040)</td>
<td>(0.040)</td>
<td></td>
</tr>
<tr>
<td>broad international background</td>
<td>0.090*</td>
<td>0.093*</td>
<td>0.089*</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.042)</td>
<td>(0.042)</td>
<td>(0.042)</td>
<td></td>
</tr>
<tr>
<td><strong>Interactions</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>broad international background *</td>
<td>0.944+</td>
<td></td>
<td></td>
<td>0.014**</td>
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<tr>
<td>experiential homogeneity</td>
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<td>(0.512)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>broad international background *</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>average team tenure</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Deviance: -2*e(ll)</td>
<td>23.50</td>
<td>-17.30</td>
<td>-20.69</td>
<td>-24.06</td>
</tr>
</tbody>
</table>

Note. N = 726 at individual level, 126 at seasonal team level, 27 at club level. For variables, the first value is the HLM coefficient, and the value in parentheses is the standard error.

+ p < 0.1; * p < 0.05; ** p < 0.01; ***p < 0.001
The positive relationship between the number of new players and newcomers’ performance contributions could indicate how new players, when joining a team as a part of a larger cohort, face less resistance and marginalization from existing team members in the socialization process. The negative and significant influence of team size might be due to the fact that appearances on the pitch, and thereby the possibility to contribute to team performance, is limited to a maximum of fourteen players per game day. Larger teams might occasionally take advantage of the possibility to leave some of their players on the bench (“rotation strategy”). Further, a negative coefficient of the average team tenure variable indicates that long tenured teams pose substantial barriers that newcomers need to overcome in their ambitions to successfully contribute to team performance.

Introducing individual player variables in model 2 substantially increases model fit, as indicated by the lower deviance scores. Control variables at individual level indicate that dissimilarity among players’ dominant countries negatively influences newcomers’ performance contributions (p < 0.05), and offensive newcomers significantly contribute more (p < 0.001). Meanwhile, model 2 reveals a positive and significant relationship between newcomers’ broad international backgrounds and their contributions to team performance (p < 0.05), thereby offering statistical support for Hypothesis 8.

Supplementary analysis was conducted to examine the significantly positive association of offensive players with the outcome variable. Including dummy variables for specific tactical playing positions (i.e. goalkeepers, defenders, midfielders, and strikers) revealed that this effect is due to the significantly lower performance contributions of new goalkeepers in comparison with field players. As goalkeepers are only very rarely substituted during games, new goalkeepers could likely face the position of being a team’s second goalkeeper, with regular bench nominations but very few appearances on the pitch. As a result, such players have little possibility to actually contribute to team performance on the pitch, leading to low scores in this study’s dependent variable. As a robustness test to this study’s findings, the analysis was therefore repeated excluding all goalkeepers from the newcomer sample. Importantly, the findings were confirmed by this robustness test, as identical directions of all relationships were found with significance levels well in the range of statistical significance. Reported findings refer to the full sample including the goalkeepers in order to provide a more complete picture of the analysis.

Moderating effects of experiential homogeneity and average team tenure on newcomers’ broad international experience backgrounds to explain performance contributions were tested in models 3 and 4. Hypotheses 9 and 10, which predicted positive interaction effects, are supported by the statistical findings with p < 0.1 for Hypothesis 9, and p < 0.01 for Hypothesis 10. Figure 4 and Figure 5 graphically illustrate these
moderation effects. Higher and lower levels of the moderating variables are depicted at plus/minus one standard deviation.

**Figure 4: Moderating effect of experiential homogeneity**
Generally, breadth of international background appears as an influential determinant of newcomers’ contributions to performance especially in experientially homogeneous and long-tenured teams. In experientially diverse and shorter-tenured teams, breadth in international backgrounds is less influential in explaining differential performance contributions, as indicated by the much flatter slopes of the respective interaction graphs. Consistent with the predictions in Hypotheses 9 and 10, these graphs further illustrate that performance contributions are highest when newcomers with broad international backgrounds join experientially homogeneous and long tenured teams. At the same time, newcomers with relatively narrow backgrounds apparently are able to contribute more when joining diverse and shorter-tenured teams.

5.5 Discussion

Prior research has often framed newcomers as a source of fresh external knowledge and competencies to benefit teams. Focusing on newcomers’ knowledge and competencies acquired during their international careers, this study finds that the relative breadth in new team members’ international experience backgrounds has a decisive
influence on the degree to which such expected benefits translate into subsequent performance contributions. It appears that broad international experience backgrounds enable newcomers to contribute better to team performance as opposed to relatively narrow backgrounds. Further, these effects are dependent on the specific experiential composition of the newly joined team, suggesting that internationally experienced newcomers contribute differently to different types of teams. Together, these insights shed new light on the determining factors of newcomer performances in team settings. First and foremost, implications thus arise for researchers and practitioners interested in experiential team composition.

With teams facing the challenge of increasingly dynamic composition where members frequently move on and off teams (Mathieu et al., 2009; Tannenbaum et al., 2012), it is important to understand better which newcomers are likely to contribute the most under which conditions. Focusing on the determinants of newcomer performance in team situations, prior research has recognized the role of newcomers’ experiences, but predominantly focused on the degree to which experiences in related industry or occupational work contexts facilitate their socialization in and contribution to new teams (e.g. Adkins, 1995; Chen & Klimoski, 2003; Dokko et al., 2009). The present study confirms this prior research in that experiential characteristics appear as an important determinant of later contributions in new teams, and exceeds existing studies by examining international experience as a new dimension in the conceptualization of newcomers’ backgrounds. Understanding the effects on international experiences is crucial, as individuals’ career paths may well span several international environments while at the same time remaining within the boundaries of specific industries or occupations. Future research designs should thus consider international experiences in conceptualizations of individuals’ backgrounds. From the perspective of experiential team composition, breadth in individuals’ experience backgrounds may serve as a criterion to assess the expected performance contributions of potential new team members and should be considered in team staffing decisions.

Offering a more precise picture, the analysis of moderation effects reveals that individuals with broad or narrow backgrounds contribute to different extents to overall team performance when joining different types of teams. As depicted in Figures 4 and 5, when joining experientially homogeneous or long-tenured teams, newcomers with broad backgrounds contribute significantly more to team performance than newcomers with narrower backgrounds. At the same time, such differential effects are less recognizable when joining experientially diverse or shorter-tenured teams. In more abstract terms, these insights thus suggest that experientially homogeneous and longer-tenured teams are
Newcomers’ international backgrounds

characterized by information requirements and cooperation patterns that are sensitive to the degree to which newcomers’ broad or narrow knowledge and competencies constitute valuable and beneficial inputs. Conditions in experientially diverse and shorter-tenured teams appear to be different since less sensitive to this distinction between newcomers’ broad or narrow backgrounds. Thus, managers responsible for team composition should take careful decisions in appointing individuals with broad backgrounds over those with narrow backgrounds the more a team is characterized as experientially homogeneous and long tenured.

This study’s conceptualization of newcomers’ experience backgrounds along a spectrum from narrow to broad backgrounds resembles other researchers’ approaches to distinguish between specialists (with narrow backgrounds) and generalists (with broad backgrounds) (e.g. Bunderson & Sutcliffe, 2002). Prior research has examined group composition of specialist and generalist members, and argued that generalists are more likely to share similar knowledge with other team members, thereby facilitating the exchange of information (e.g. De La Torre-Ruiz et al., 2011; Liang, 1994; Rulke & Galaskiewicz, 2000). Importantly, the present study adds to this prior research by applying this distinction to an investigation of newcomers’ performances in teams, thereby offering insights into the contributions of individual specialists and generalists in team settings. Broader backgrounds, i.e. generalist backgrounds, were found to enable newcomers to contribute to team performance better, with these effects being more pronounced when they joined experientially homogeneous and longer tenured teams.

Further implications follow from some of the results of the analyses on the control variables. These reveal a significant negative effect of dominant country dissimilarity on newcomers’ contributions to team performance, indicating that the experience backgrounds of new team members which are dissimilar to those of other team members with respect to the most dominating influence hinder the transferability and applicability of acquired knowledge and competencies. In addition, this study’s main finding highlights that breadth in international experience backgrounds facilitates contributions in new team settings. Together, the two dimensions of dominant country dissimilarity and breadth in backgrounds may serve to delineate a stylized picture of international careers and have implications for the expected transferability and adaptability of acquired knowledge in new team settings (cf. Eby et al., 2003). The more an individual has acquired experiences in a multitude of international environments and thereby kept a dominating influence that is similar to that in other team members’ backgrounds, the better that individual will be able to contribute to the performance of a newly joined team. In many cases, the home country context will be the dominating influence in most team members’ experience backgrounds. This implies that a
promising career path leading to the development of highly transferable and readily applicable knowledge and competencies consists of several shorter termed international assignments as an extension of the remaining dominating home country influence. Moreover, results on the managerial tenure control variable reveal that longer-tenured coaches have a positive influence on newcomers’ contributions to team performance. Where teams face highly dynamic conditions of frequent change in membership, continuity in leadership thus appears a promising strategy to maximize the performance contributions of new team members.

Several limitations to this study are identified, which also serve to delineate future research directions. A possible concern with this study is its empirical focus on the setting of professional football. Professional football teams might be considered comparable to other types of teams only to a limited extent, thereby hindering a meaningful interpretation and application of findings across different teams and contexts. Recently, Hollenbeck and colleagues (2012) have suggested the three dimensions of skill differentiation, authority differentiation, and temporal stability, which may serve as critical dimensions to compare and contrast different teams and assess the degree to which findings can be applied across teams and contexts. Levels of skill differentiation, authority differentiation, and temporal stability therefore represent boundary conditions to the present study, suggesting that findings are most meaningfully applied to settings where teams share essential characteristics with the professional football teams examined herein.

Skill differentiation refers to the degree to which individual team members have specific and unique skill sets that limit their interchangeability (Hollenbeck et al., 2012). Within the context of professional football, individual players have developed the skills necessary to fulfill specialized roles in a highly competitive team, such as goalkeeper, defender, or striker. At the same time, due to the high importance of certain football core skills such as running, passing, and shooting, individual members are able to at least temporarily take over roles not lying in their primary field of specialization. With this, professional football teams share elements of both high and low degrees of skill differentiation. Importantly, these characteristics of football teams’ skill differentiation are also likely to influence the integration of new players in the team production process, due to the high relevance of certain core skills and football teams’ general reliance on well-established roles (i.e. tactical playing positions) that facilitate the cooperation between newcomers and other team members. It has been argued that common routines and conventions facilitating the integration and coordination of previously unacquainted individuals also exist in other settings, such as the cultural industries (Jones, 1996; Perretti & Negro, 2007). Still, future research should examine how different levels of skill
differentiation influence the relationships between newcomers’ prior experience backgrounds and contributions to team performance proposed in this study. Authority differentiation refers to the degree to which clearly identifiable leadership roles influence team functioning (Hollenbeck et al., 2012). In the context of professional sport teams, managers have been ascribed central roles in that they influence and decide on the staffing of teams, the development of individual players, and the selection and implementation of an appropriate strategy (e.g. Audas et al., 2002; Carmichael et al., 2011; Rowe et al., 2005). The present study suggests that coaches also facilitate contributions of new team members, in that longer-tenured coaches have been found to be positively associated with newcomers’ contributions to team performance. Future research could thus examine the specific role of managers in facilitating newcomers’ contributions in more detail. With a focus on the dimension of temporal stability, teams that are stable and have a future and history together are distinguished from teams that may work together only for the purpose of a special short-termed occasion (Hollenbeck et al., 2012). The professional football teams examined in the present study can be considered relatively long-term teams, which are composed to perform over the course of a full season. The temporal stability of the teams examined, and the chosen time frame of a full season, pose boundary conditions to the findings reported in this study, as prior research has demonstrated how newcomers’ performances may improve over the stages of a socialization process (e.g. Chen, 2005; De La Torre-Ruiz & Aragon-Correa, 2012). This implies that examining different time frames could have yielded different relationships between newcomers’ backgrounds and contributions to team performance. Future research could thus assess whether newcomers’ contributions as a function of experiential backgrounds change over time and how newcomers contribute to more short termed or even longer termed teams.

Further, this study has focused on a single dimension of individuals’ experience backgrounds, i.e. international experiences. At the same time, experience has been described as a complex and multidimensional construct (Quinones et al., 1995; Tesluk & Jacobs, 1998), and prior research has offered a great deal of work suggesting how dimensions such as functional (e.g. Bunderson, 2003a; Bunderson & Sutcliffe, 2002) or educational experiences (e.g. Dahlin et al., 2005) affect individuals’ intra-team involvement and contributions to team processes. These insights suggest that a promising avenue for future research is to examine the combined effects of multiple experiential dimensions on newcomers’ performance contributions. The special contribution of the present study thereby lies in a focused analysis of the effects of international experiences that should inspire future research to explore further this increasingly important dimension of contemporary career backgrounds.
6 General conclusions

This dissertation’s main focus was on examining how the international backgrounds of team members influence team performance and understanding how teams can optimize the benefits of diversity of international experience. This research focus pointed at the intersection of two major developments shaping today’s environment: Organizations’ increasing reliance on teams to take advantage of team members’ knowledge and competences, and international experiences as a more and more common career characteristic of a globally oriented work force. With that aim, this thesis took advantage of a data set drawn from German Bundesliga football and the FIFA World Cup 2010 that enabled a unique grasp of international career backgrounds as the focal study concept. As such, this dissertation follows an emerging stream of literature that examines phenomena of interest to organizational scholars within the context of sports (cf. Wolfe et al., 2005). Chapter 2 reviewed earlier team studies conducted within the context of professional sport, and set the stage for the subsequent empirical chapters by means of an exemplary discussion of sport team types along the lines of well established dimensions that capture some of the essential characteristics of teams across specific types and settings (cf. Hollenbeck et al., 2012).

The study’s main finding shows that diversity of international experience is positively associated with team performance. This introduces the dimension of international experience to the study of experiential diversity where prior research has predominantly focused on functional or educational experiences. As one of its main contributions, the present study paid careful attention to a sound match between theoretical reasoning and operationalization of the international experience diversity construct. In line with the information processing perspective as the predominant theoretical view to explain the relationship between experiential team composition and performance, the international experience diversity measure employed in all three empirical chapters was operationalized as the diversity in country-specific experiences across all team members’ backgrounds. This measure captures the breadth and depth of the pool of information and expertise teams have at their disposal as a result of individual team members’ combined international background inputs (cf. Van Knippenberg et al., 2004). Applying a more nuanced perspective, three empirical chapters examined how factors at an overall team level, a subteam level, and an individual newcomer level influence the effects of international experiences on team performance. With this, the study sheds new light on the team-internal conditions under which experiential diversity is beneficial (cf. Joshi & Roh, 2009). Focusing on average team member characteristics and the influence of managers, chapter 3 finds that teams are better
able to optimize the benefits of increasing diversity of international experience if they are composed of members with relatively narrow and focused international backgrounds from high quality settings, and are led by longer tenured managers. Chapter 4 emphasized a team’s task environment. Findings reveal that a team’s composition into subteams that focus on achieving positive outcomes (such as striving to win a game) or avoiding negative outcomes (such as striving not to lose a game) influences how international experience diversity at a subteam level benefits or hinders overall team performance. While diversity of international experience is beneficial in a team subgroup with primary responsibility for achieving positive outcomes, detrimental effects occur from diversity of international experience in the subgroup assigned with the subtask of avoiding negative outcomes. Finally, and applying a more dynamic perspective with a focus on individual newcomers’ backgrounds, chapter 5 finds that teams lacking a diverse international experience base benefit the most from appointing individuals with broad international backgrounds.

In sum, this study demonstrates that individuals’ international backgrounds pose expedient inputs to form a team level experiential resource base with the potential to benefit team performance, and supports a notion that pursuing international careers is an effective way to develop knowledge and competences that are valuable in today’s global and dynamic environment (cf. Gregersen et al., 1998). Further, experiential team composition appears to be a highly complex matter where multiple interacting dimensions at different levels influence how teams benefit from international experience diversity. Highlighting different aspects of this complexity, practically oriented implications arise from the above and other findings of this dissertation. Amongst the most important are the following: First and foremost, persons in charge for team composition are well advised to consider individuals’ international backgrounds as a critical compositional dimension. Importantly, this involves acknowledging the specific country-context where experiences have been acquired and goes beyond a superficial recognition of international experiences as acquiring experience in a non-home country context. This implies assigning high priority to the international experience dimension in staffing and team composition decisions in team settings characterized by high international mobility of individuals, such as professional sport teams or top management teams. Second, team composition should especially aim at diversifying the international experience base where a team consists of individuals with narrow backgrounds, in order to reach performance levels comparable with teams composed of members with broader backgrounds. As the expected performance gains of increasing international experience diversity differ for teams depending on the experiential characteristics of average team members and leaders, these dimensions could guide related investment decisions such as investing in the appointment of internationally experienced
General conclusions

new members, or in sending existing members temporarily abroad. Importantly, when building an international experience base, teams lacking international experience diversity can expect the highest performance contributions from newcomers with broad backgrounds, and should take account of this when making hiring decisions. Third, optimizing the potentials inherent in a diverse international experience base requires taking the subteam level into account, where teams face complex task environments characterized by a duality of subtasks with opposing requirements. Staffing decisions should be guided by a close match between the composition of subteams and subtasks in order to maximize team performance. Fourth, and thereby taking the perspective of an individual career actor, these findings may enable informed decisions in critical stages of international careers, such as deciding on the destination of a player’s next international career move. Generally speaking, pursuing a broad international career involving multiple international contexts appears to be a promising strategy to develop the knowledge and competences necessary to contribute significantly in new team settings. At the same time, international careerists should be aware that having acquired a dominant part of experiences in a country dissimilar to that of the members of a newly joined team limits their possibilities to contribute significantly to team performance. Together, these insights also suggest that in order to facilitate the transfer of knowledge and competences acquired during international careers to new team contexts, newcomers’ international career profiles need to be matched with compositional properties of the new team. Contributions to team performance are maximized where newcomers with broad international backgrounds join experientially homogenous and longer-tenured teams, and newcomers with narrow international backgrounds join experientially diverse and shorter-tenured teams.

This dissertation draws a multifaceted picture of experiential team composition with a focus on the dimension of international experiences. Hopefully, researchers will build on this work to advance further our understanding of experiential team composition in the future. To this end, researchers could examine whether the operationalization of international experience diversity employed in this study also has explanatory power when applied to other experience dimensions, such as functional or educational experiences, or when applied in other contextual settings.
References


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Curriculum vitae

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