LEADERSHIP AND AGING WORKFORCES:
EFFECTS OF LEADER'S RELATIVE AGE ON
TEAM'S AND LEADER'S EFFECTIVENESS

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CHAPTER 1

Introduction

Team effectiveness in a challenging economic environment

In addition to globalization, digitalization, enhanced knowledge and information-processing requirements, and the need for continuous innovations, fundamental shifts of labor market structures have also emerged as a major issue for individuals, organizations, and societies (Mannix & Neale, 2005; Kozlowski & Ilgen, 2006; Leibold & Voelpel, 2006; Shultz & Adams, 2007; West, 2012). For instance, the German population's age structure will be – compared to 1950 – completely reversed by 2050. Hence, by 2050 more than one third of the German population will be older than 65 years, whereas less than 16 percent will be younger than 20 years (Statistisches Bundesamt, 2014). However, based on the continuously increasing experiences of life and the correspondingly necessary raising of retirement ages, people of various ages and generations progressively have to work together in the same department, project or team. As a result, not just the society but also a company's workforce are progressively aging and becoming more and more age-diverse and thereby challenge specifically organizations in their goal to maintain and continuously increase productivity and thus remains competitiveness (Alley & Crimmins, 2007; Bass, Quinn, & Burkhauser, 1995; Leibold & Voelpel, 2006).

To cope with these fundamental shifts and the resulting multifaceted challenges in the working context, organizations increasingly rely on teams[1] as these are assumed to be able to master the complexity of modern work life and, thus, teamwork has become today's most common mode of work (Devine, Clayton, Philips, Dunford, & Meliner, 1999; Kozlowski & Bell, 2003; van Dick & West, 2013). It is therefore crucial for an organization that teams and team members effectively collaborate

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[1] When referring to or describing teams or work groups, I refer to the definition of teams by Kozlowski and Bell (2003, p. 334) as "... two or more individuals who (a) exist to perform organizationally relevant tasks, (b) share one or more common goals, (c) interact socially, (d) exhibit task interdependencies (i.e. work flow, goals, outcomes), (e) maintain and mange boundaries, and (f) are embedded in an organizational context that sets boundaries, constrains the team, and influences exchanges with other units in the broader entity." Moreover, I understand this more general term of "team" as an overarching and broad construct that also includes the leader of the team that is necessary to manage and lead the subordinates to the teams' goals and that can be seen as a part of a team that is closely embedded in its social structure.

together, and organizations that foster and harness the full range of their employees' potential have a strongly competitive advantage (Kozlowski & Bell, 2003). As team's effectiveness has thus become one of the most important criteria of organizational success (Guzzo & Dickson, 1996; West, 2012), different conceptions have arisen concerning this criterion. Following Cohen and Bailey's (1997) approach, I understand team effectiveness as a broad construct that contains the multiplicity of outcomes that do matter in an organizational context. Thus, this thesis includes team effectiveness dimensions[2] of actual performance (i.e., quality, quantity), behavioral outcomes (i.e., absenteeism, turnover, work engagement) that are related to actual performance (e.g., Guzzo & Dickson, 1996), and member attitudes (i.e., job satisfaction) that are related to behavioral outcomes (e.g., Mobley, 1977; Hom, Caranikas-Walker, Prussia, & Griffeth, 1992; Lambert, Hogan, & Barton, 2001).

When observing teams, one has to consider that they are not characterized as naturally being effective. Thus, to increase the chance to achieve the pursued goals and outcomes of a team, it appears to depend on numerous factors that need to be coordinated, synchronized, and managed. Hence, various different models try to identify which and describe how a variety of factors hinder or foster a fruitful collaboration of team members and teams in their challenge of reaching high team effectiveness and finally, showing high contribution to organizations' competitiveness (e.g., Guzzo & Shea, 1992; Cohen & Bailey, 1997; Zaccaro, Rittman, & Marks, 2001; Kozlowski & Bell, 2003; Ilgen, Hollenbeck, Johnson, & Jundt, 2005). In this regard, how a team is led and the level of its homogeneity or heterogeneity – in other words teams' diversity – have been increasingly investigated and identified as very crucial factors in the past three decades. Hence, not just a number of theoretical frameworks emphasize the general importance of leadership and a team's diversity for a team's success (e.g., Cohen & Bailey, 1997; Gladstein, 1984; McGrath, Arrow, & Bergdahl, 2000) but also extensive past research (e.g., Williams & O'Reilly, 1998; Kearney, 2008; van Knippenberg & Schippers, 2007; Kearney & Voelpel, 2012; Burke et al., 2006; Homan & Greer, 2013; Zaccaro et al., 2001).

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[2] A very unique aspect of this thesis is to show, in general, effects of a team's effectiveness – understanding a "team" as an overarching and broad construct – by consciously differentiating in (a) team's effectiveness including the team leader as an important person within the team that is socially embedded in it and (b) leader's effectiveness as the effectiveness of a single but specific and powerful team member that is provided with power, status, and resources compared to other team members and that influences for instance important team processes.

While diversity is defined as a variation from any characteristic that an individual can use to distinguish one group member from another (Williams & O'Reilly, 1998), various types of diversity have been developed to classify different possible dimensions of homogeneity and heterogeneity (e.g., van Knippenberg & Schippers, 2007; Jehn, Northcraft, & Neale, 1999). For instance, surface- and deep-level diversity can be used to differentiate between visible characteristics such as demographic attributes (i.e., age, gender) and between less visible attributes such as personality, attitudes, and values (e.g., Harrison, Price, & Bell, 1998; Jehn et al., 1999). However, driven by the increasing globalization and demographic changes that result in an aging workforce, work groups are rapidly becoming older and more and more diverse (e.g., Leibold & Voelpel, 2006; van Knippenberg & Schippers, 2007; Prezewowsky, 2007; Alley & Crimmins, 2007), which leads organizations, societies, governments, and also academic research worldwide to pay more attention to (investigate) diversity and its various impacts (Burke, Cooper, & Field, 2013). Past research shows inconsistent findings about the effects of teams' diversity (van Knippenberg & Schippers, 2007; Kearney & Voelpel, 2012), and it is thus argued to be a double-edged sword that can be beneficial or detrimental for a team's success (Mannix & Neale, 2005; Kearney & Gebert, 2009; Kearney & Voelpel, 2012). In sum, diversity is a powerful and, thus, highly relevant phenomenon that influences team processes and outcomes in various ways (e.g., Williams and O'Reilly, 1998; van Knippenberg & Schippers, 2007). However, based on the past inconsistent findings and different theoretical frameworks, it is difficult to predict whether a specific form of diversity in a particular context – for instance specific age-distributions between the leader as a part of the team and the further team members – will have positive, negative, or no effects on a team's effectiveness and outcomes. Hence, more research is necessary to shed more light on those specific forms of homogeneity and heterogeneity in a team.

The second proposed lever of team effectiveness is leadership (Guzzo & Dickson, 1996). Knowing that there are numerous definitions of what leadership is and how it is characterized (e.g., Stogdill, 1974; Bass & Bass, 2008), I follow Yukl (2013) who defined leadership as a process of influencing other people to guide, structure, and facilitate activities and relationships in a group or organization. Until today, various team leadership models have been developed (e.g., Zaccaro et al., 2001; Yukl, 2012;

Hackman, 2002; Kozlowski, Gully, Salas, & Cannon-Bowers, 1996) that aim to capture the specific demands of leading teams rather than individuals. However, even if team leadership is conceptually different from leadership of individuals, these models allow integrating various traditional leadership approaches (Yukl, 2012) and are, thus, important frameworks for understanding how leaders can best promote team success. Those traditional forms of leadership (cf. Morgeson, et al., 2010) have been examined numerously and thereby shown to substantially influence team processes and team outcomes in various contexts and specific organizational settings and are thus, declared as crucial to facilitate team's efforts toward goal attainment (e.g., Zaccaro et al., 2001; Stewart, 2006; Somech, 2006; Yukl, 2013; Burke et al., 2006). However, the importance of a leader does not only result from leadership in terms of leader's behaviors (e.g., Burke et al., 2006; Zaccaro et al., 2001) but also from leader's characteristics such as demographics (e.g., DeRue, Nahrgang, Wellman, & Humphrey, 2011). Hence, based on the research focus of this thesis, leader's demographics – precisely a leader's age – that are closely related to status, power, and prototypicality (e.g., Eagly, Karau, & Makhijani, 1995; Ridgeway, 2001; Rosette, Leonardelli, & Phillips, 2008; Ridgeway, 2003; Den Hartog & Koopman, 2005) are specifically relevant. Those demographics are inherently linked with a leader's acceptance, legitimacy, and possibility to exert influence over followers (e.g., Kearney, 2008; Sauer, 2011; Tsui & Gutek, 1999; Tsui, Xin, & Egan, 1995; Collins, Hair, & Rocco, 2009; Denmark, 1993). Furthermore, a leader's age may become even more important when considering demographic shifts and the resulting aging workforce (Leibold & Voelpel, 2006). Increasingly, a turnaround of established age-hierarchy relations becomes more and more common based on the aging workforces and the still constant young entry into/promotion in leadership positions that are grounded on higher levels in education, information technology skills, and management skills (e.g., Lawrence, 1984; Collins et al., 2009; Sopranos, 1999). Hence, those relatively younger leaders violate traditional age-norms that leaders are in general older, wiser, and more experienced than their subordinates (e.g., Collins et al., 2009; Shore, Cleveland, & Goldberg, 2003; Staudinger & Glück; Sopranos, 1999). As research is until today relatively silent concerning the implications of a leader's age on relevant organizational outcome variables such as a team's effectiveness, there is an academic need to shed more light on this field of research, specifically when facing the upcoming

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fundamental demographic shifts. In sum, leadership – grounded on leaders' behavioral aspects and leaders' characteristics – plays a crucial role when investigating the implications for organizations and teams' effectiveness of similarity/dissimilarity between leaders and their teams.

Dissertation overview

The goal of this thesis is to meaningfully contribute to the understanding of the effects of a leader's relative age or respectively of age-similarity/dissimilarity between leaders and teams (that is: leaders younger than the team, leaders almost equal in age to the team, leaders older than the team) on a team's effectiveness. Furthermore, an additional and very unique goal for team research in the field of age, diversity, and leadership is to not exclusively focus and show effects just on team effectiveness but also on leader effectiveness. As leaders are an integral part of a team and are provided with an exclusive position within the team that is afforded with appreciated power, status, and resources, this thesis aims to contribute to past age, diversity, and leadership research by using a holistic approach and investigating the research question concerning the effects of leaders' relative age, considering both the effectiveness of (the entire) teams. This, in turn, also includes leaders as a part of a team and the effectiveness of leaders as a specific and important team member. For this purpose, the present thesis comprises three empirical chapters that are written as articles to be independently published in scientific journals. Hence, all papers share the same structure; that is an introduction followed by the respective theoretical background, the used methods, the obtained results and a general discussion of the specific findings. Moreover, all three empirical chapters are based on field studies implemented at a collaboration partner and thus, were done in one single but large company from the energy sector. As these articles reflect my collaboration with my co-authors, I used "we" instead of "I" throughout these empirical chapters. These chapters are linked by an underlying thread, namely the prediction of team and leader effectiveness by differentiated forms of a leader's relative age to the team and by various forms of leadership while also considering the underlying effects of a leader's acceptance and legitimacy and the salience of age.

First, Chapter 2 addresses leaders' perceptions and experiences towards age, age-diversity within their team, and especially age-similarity/dissimilarity between themselves and their team. Based on the widely unexplored field about the meaning and possible effects of age-similarity/dissimilarity between leaders and teams, we decided to firstly use a qualitative research approach to shed more light on this specific field of age and diversity research. By doing so, an extensive explorative investigation enabled us to address our specific research questions about the general meaning of leaders' relative age and allow us to gain deeper insights into possible and relevant underlying effects. Moreover, this approach is appropriate to finally developing a first research model that introduces relevant variables and relationships and thus supports further research.

Second, Chapter 3 addresses the initial findings from Chapter 2 and partly investigates the presented research model by differentiated methodical approaches. First, a statistical analysis of archival data from our collaboration partner investigates the proposed general relationship between leader age-team age combinations and objective team outcomes. Second, two independent and extensive vignette studies – one among followers and one among leaders – addresses the causality of the proposed relationship between leader age-team age combination and organizational outcomes. Furthermore, these studies introduce leaders' acceptance and legitimacy and the salience of age as proposed key-mediating variables and thus, provide important insights into underlying processes. Finally, this chapter does not only examine effects of age on team outcomes but – and as a very unique point in age, diversity, and leadership research – also in the same investigation towards leader outcomes. Thus, we are able to emphasize the importance of leader age-team age combinations by showing proposed effects towards followers and leaders. This approach may implicate a dual challenge for organizations when negative effects occur, as they might be detrimental for both teams' effectiveness and leaders' effectiveness.

Third, Chapter 4 addresses the identified (Chapter 2, 3) detrimental leader age-team age combination. It investigates closer this finding from the qualitative and the (part-experimental) vignette studies by a quantitative approach with an extensive study among leaders referring to their actual working context. In addition to test past findings (Chapter 2, 3) with a further methodological approach, this chapter mainly introduces leadership behavior as a proposed powerful strategy to strengthen positive

effects and to attenuate negative effects of the detrimental leader age-team age combination when showing good leadership behaviors – and vise-versa when showing poor leadership behaviors. Finally, this third empirical chapter also differentiates between proposed effects to team effectiveness and leader effectiveness. In sum, specifically with this chapter, this thesis contributes significantly to past leadership research by investigating differentiated leadership behaviors in combination with age as an essential leader characteristic.

Finally, Chapter 5 reviews the overall empirical work and presents a brief general discussion of the major findings of this thesis.

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CHAPTER 2

Do differences matter? A qualitative analysis of age differences between leaders and teams

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Abstract

The phenomenon of demographic changes has prompted researchers worldwide to investigate diversity and its impact on and effects in the working context. Nonetheless, presently little is known about the effects that different forms of age (dis)similarity between a leader and his or her team might have. This paper addresses this question and these age differences. The study thus focuses on the leaders in order to explore the importance and impact of these differences, the strategies to manage these differences, and – finally – to enable the development of a research model that shows underlying effects and that is qualified to explain possible effects. A qualitative interview study with 35 leaders from a German private utility company with approximately 20,000 employees indicates that age differences between a leader and a team do have relevant effects for teams as well as for leaders. Furthermore, based on the results of this explorative method, we propose a first research model that indicates possible underlying processes and that is worthy of testing in further quantitative research.

Introduction

Differences are a challenge, and organizations must acknowledge existing and further increasing differences in their environments. Companies have increasingly become aware of demographic change and its impact on their business and their organization. When observing demographic change, the workforce is becoming more demographically diverse, with people frequently working with others differing in age, race, gender, and ethnicity (e.g., Tsui, Egan, & O'Reilly, 1992; European Commission, 2005; Leibold & Voelpel, 2006; Hertel, van der Heijden, de Lange, & Deller, 2013a, 2013b). Research on the increasing world of diversity and diversity management is seeking to guide organizations and the academe to fruitful new insights and identifies important puzzle parts towards a better way of understanding its effects and how they can be managed (e.g., Ng & Feldmann, 2010; Carless, 1998; Harrison, Price, & Bell, 1998; Harrison & Klein, 2007, Hertel et al., 2013b). Research about the effects of increasing diversity at the team level has recently taken beneficial steps, but there is still unchartered territory, while others need to be more explicitly explored so as to fully understand the first findings (van Knippenberg & Schippers, 2007). One question is whether age differences between leaders and their teams influence the successes of the team and/or leader, and which further impacts these differences might have. Traditionally, managers have been older and more experienced than their subordinates. However, this framework is increasingly crumbling and, as a result of demographic change, older workers will more often be reporting to (much) younger leaders who were promoted into leadership positions owing to a higher level of education, strategic planning expertise, or information technology skills (e.g., Collins, Hair, & Rocco, 2009; Shore, Cleveland, & Goldberg, 2003; Sopranos, 1999, Perry, Kulik, & Zhou, 1999).

This article sheds further light on this field of research and focuses on age-related differences between leaders and their teams. It shows if, and if so, which age differences seem to be more beneficial or more detrimental using a qualitative investigation of leaders. The paper explores the impact type that these (dis)similarities between the leader age and the team age has, as well as leaders' strategies for and approaches to managing these differences. Finally, it proposes a first research model based on the findings, allowing for more detailed future research. The paper focuses

exclusively on age differences between leaders and their complete teams. It contributes to the relational demography literature that to date has exclusively investigated the dyadic age-related situation between a leader and a subordinate (e.g., Perry et al., 1999). Finally, the research model developed should prompt researchers to pursue further and more detailed investigations into this area of diversity research and to expand relational demography research to additionally focus on the team level.

Age and how it matters

Age and its conceptualizations

Today, there are different ways to conceptualize and operationalize "age" (e.g., De Lange et al., 2006; Kooij, de Lange, Jansen, & Dikkers, 2008). First, it can be referred to in terms of chronological, physiological, social, and psychological age (e.g., Birren & Cunningham, 1985; Arber & Ginn, 1995; Cleveland & Shore, 1992). These different dimensions may vary, and it is very likely that all others differ more or less up or down from chronological age. Second, age can also be considered in relation to the differences between lifespan age and organizational age (e.g., Schalk et al., 2010; Sterns & Doverspike, 1989). Nevertheless, even though it is common to use chronological age in public, private, and the academe, past research has also shown that chronological age is limited in its explanatory power, for instance, because it does not consider the cultural context or the age self-perceptions people hold (e.g., Baltes, Lindenberger, & Staudinger, 2006; Settersten & Mayer, 1997). Therefore, human aging should be seen as the result of different continual interactions – for instance, physiological or social influences – and, as a result, has been seen as a multidimensional variable (e.g., Staudinger, 2012). Owing to the fact that different conceptualizations of age have different effects on work-related outcomes, it is valuable and necessary to distinguish them clearly (Kooij et al., 2008). However, despite all the critics of chronological age, its advantages as a measurement in scientific analyses are unbeatable, because it is a clearly objective variable that is very easy to measure. Nevertheless, here we use the psychological (or subjective) age (differences) between a leader and a team to investigate whether age differences may have effects on work-related outcomes. This approach is based mainly on the selected research method about collecting qualitative data by an investigation of leaders'

experiences and perceptions but also on the lacking of objective data about the age distributions of their teams.

Past meaningful research about age and aging has argued that age and age-related differences in the work context exist and play a meaningful role, because they have significant effects on team outcomes, individual behaviors, and cognition (e.g., Pelled, Eisenhardt, & Xin, 1999; Neubach, Roth, Wegge, & Schmidt, 2006; Wegge, Roth, Neubach, Schmidt, & Kanfer, 2008; Kearney, 2008; Schaffer, Kearney, Voelpel, & Koester, 2012; Zenger & Lawrence, 1989). Different effects were investigated, for instance, Kanfer and Ackerman (2004) argued that motivation in the workplace changes with employee age. Their reasoning is based on their observations that fluid intellectual abilities decrease with higher age, while at the same time, crystallized intellectual abilities increase. This means that, on the one hand, a person's abilities such as his or her working memory or the time to process novel information decline, while on the other hand, his or her abilities such as general knowledge, vocabulary, or verbal comprehension grow. Also, Carstensen and colleagues (e.g., Carstensen, Isaacowitz, & Charles, 1999; Carstensen & Mikels, 2005) have shown that older individuals, for instance, focus less on the acquisition of new knowledge but become stronger at memorizing and dealing with emotions. As a result – and in contrast to the widespread deficit-oriented approach to ageing that includes mainly stereotypes and that simply sees aging as a simple one-dimensional loss of former skills – getting older is a far more complex process that involves gains as well as losses in individuals abilities (e.g., Kanfer & Ackerman, 2004; Sneed & Whitbourne, 2005). Hence, it can be confirmed that age and aging do have effects in the work context, but investigations also have shown that these influences often depend on various other context settings and that the effects are often not as strong as expected and not as strong or widespread as stereotypes want us to assume (e.g., Kanfer & Ackerman, 2004; Kearney & Voelpel, 2012).

Demographical differences

Age seems to be one of the most challenging diversity variables within worldwide demographic developments, combined with past human resources practices that still often are very youth-centered and oriented to early retirement (e.g., Prezewowsky, 2007; Hertel et al., 2013a, 2013b). Hence, the most important question

in the diversity discussion is how these age and age-related differences between people, team members, or teams affect (group) processes, (team) outcomes, attitudes, and subjective well-being. Research has supplied data that supports the conclusions that age differences generate positive as well as negative results (e.g., van Knippenberg & Schippers, 2007; Williams & O'Reilly, 1998). A general conclusion at this time is therefore inappropriate.

The major approaches to demographic analysis must be distinguished according to the major aspects of this investigation as well as its object: the leader. Tsui and Gutek (1999) offered a categorical system and distinguished between *categorical*, *compositional*, and *relational* approaches. While the categorical approach studies demography (e.g., age, sex, or education) as personal attributes of an individual and their simple direct effects on outcomes, the compositional approach investigates demography as a structural aspect of a group and explores the effects on outcomes of individuals, groups, and/or organizational levels. The relational approach examines demography as a (social) relationship between an individual and another individual (or, frequently, the whole group) in cases of dyads. Several studies, following the compositional approach (e.g., Zellmer-Bruhn, Maloney, Bhappu, & Salvador, 2008; Roberge & van Dick, 2010; Horwitz & Horwitz, 2007) and the relational approach (e.g., Tsui, Porter, & Egan, 2002; Collins et al., 2009; Tsui & O'Reilly, 1989; Perry et al., 1999) have examined diversity's effects on various outcome variables such as creativity, performance, or satisfaction, for instance.

Two theoretical approaches help one understand the inconsistent or even contrasting findings of past research used to answer the research question about age (dis)similarity's effects (e.g., Williams & O'Reilly, 1998; van Knippenberg, de Dreu, & Homan, 2004). The social categorization perspective is assumed to foster the potential negative effects of diversity on outcomes (e.g., Williams & O'Reilly, 1998). Differences between team members may well disturb group processes and lead to weaker (team) outcomes (e.g., Williams & O'Reilly, 1998). Based on the similarity attraction paradigm of Byrne (1971), people prefer to work with (perceived) similar rather than (perceived) dissimilar others. This approach focuses on interpersonal similarity, especially in respect to values, experiences, and attitudes as bases of interpersonal attraction (e.g., van Knippenberg & Schippers, 2007; Jackson, 1992). In contrast, the social identity theory (Tajfel & Turner, 1986) also expects

counterproductive results from group processes in diverse work groups, but these are based on social categorization group processes instead of interpersonal traits. The initial point is that people tend to categorize themselves and other group members into groups, differentiating between similar in-group and dissimilar out-group members. That means, that in diverse teams, people tend to build subgroups and favor in-group members over out-group members, trust them more and are more willing to cooperate with them (e.g., Neubach et al., 2006; Tajfel & Turner, 1986). Such perceived dissimilarities in diverse teams – for instance concerning existing job or age norms – may serve as a basis for unfavorable social comparison processes that may end in favoritism, prejudice, and discrimination (e.g., Festinger, 1954). This polarization – based on social categorization and social comparison – is responsible for negative influences on important team efficiency resources (e.g., knowledge sharing, open communication, and concentration) (e.g., Neubach et al., 2006). From social categorization perspectives, conflicts and weaker group functioning are likely to result from dissimilarity in teams. This may lead to the assumption that people and teams work together more smoothly and perform better when they are (more) homogeneous than (more) heterogeneous (e.g., van Knippenberg & Schippers, 2007; Murnighan & Conlon, 1991; Jehn, Northcraft, & Neale, 1999).

In contrast, the information/decision-making perspective seeks to explain diversity's potential positive effects on team outcomes (e.g., Williams and O'Reilly, 1998) based on the extended range of task-relevant resources such as knowledge, experiences, skills, opinions, and perspectives within a group. These are not just a broader pool of resources but may also have advantageous effects, especially to increasing creative and innovative ideas and solutions (e.g., van Knippenberg et al., 2004). As a result, such teams have a higher decision quality and a better problem-solving ability, which as suggested leads to stronger team performance (e.g., van Knippenberg et al., 2004; Pelled et al., 1999; Jehn et al., 1999).

While research has for many years focused on diversity's more general primary effects, the findings concerning diversity's positive as well as negative effects are clearly inconsistent (e.g., Bowers, Pharmer, & Salas, 2000; Williams & O'Reilly, 1998; van Knippenberg & Schippers, 2007). Current research has shown that the simplistic classification of informational diversity as beneficial and demographic diversity as detrimental is invalid (e.g., van Knippenberg et al., 2004; Kearney, Gebert,

& Voelpel, 2009; Wegge et al., 2008). In short, the assumption has been made that all forms of diversity are capable of producing advantageous as well as disadvantageous outcomes, and that more detailed research is needed (van Knippenberg & Schippers, 2007). However, if negative effects of diversity are apparent and these are not addressed, poorer performance and increased dissatisfaction through a lack of identification, communication, and cooperation are very likely (e.g., Williams and O'Reilly, 1998; Hertel et al., 2013a, 2013b).

The role of status

  An additional line of argumentation should be applied when investigating age-related differences between leaders and teams. Specifically, a *status incongruence* approach may also be relevant to understanding the importance and possible effects of age-related differences on work outcomes (e.g., Perry et al., 1999). Our research focus includes age combination(s) that can be assumed to violate existent age norms and to reverse traditional age grading in organizations (e.g., Lawrence, 1988). As Tsui and colleagues (1995) have proposed, when a supervisor is younger than his or her subordinates, these subordinates will perceive lower levels of support and consideration from their supervisors, whereas supervisors will perceive lower levels of loyalty and contribution from their subordinates. Shellenbarger and Hymowitz (1994) have supported this by arguing that older workers evidently feel uncomfortable when reporting to and taking instructions from younger supervisors who might be their children's age. This illustrates the challenging situation for younger leaders and older teams. In line with this, Collins and colleagues (2009) have also demonstrated that older workers expect less from their younger supervisors and rate their supervisors' leadership behavior lower. Hence, past theorizing and research about age differences that are incompatible with existing status and age norms are assumed to negatively affect the supervisor-subordinate relationship (e.g., Vecchio, 1993; Tsui et al., 1995; Perry et al., 1999).

  Demographic attributes such as age have social status implications – not just in private life but also in the workplace (Bacharach, Bamberger, & Mundell, 1993). When organizational status and social status differ (e.g., a leader is younger than his or her subordinates), it is very likely that status-related incongruence occurs (Bacharach et al., 1993). Such inconsistencies between a person's status ranking on different status

dimensions (e.g. organizational position and age) can affect individual attitudes and behaviors (Bacharach et al., 1993). Hence, subordinates that are older than their supervisor may experience such status incongruence and may exhibit negative responses (e.g., Erickson, Pugh, & Gunderson, 1972; Tsui et al., 1995). The subordinates, but also the supervisors, may thus perceive that their situation violates career timetables and age norms that are associated with supervisory positions (e.g., Perry et al., 1999). From this perspective, especially leaders younger than their subordinates (team) violate age and status norms that generally suggest that older – and thus more experienced – leaders should supervise younger and more inexperienced employees. As a result, subordinates that are older than the leader may tend to deny the leader having the capability to lead, due to, for instance, lack of experience, wisdom, and training (Tsui et al., 1995).

Based on various past discussions and research about the possible effects of age-related differences between a supervisor and a subordinate in dyadic research, our study seeks to expand past findings and theoretical argumentation by transferring the question about age-related differences and its effects from the dyadic situation to the team level.

Method

Study overview

This research sets out to explore leaders' personal perceptions about age differences between leaders and teams aiming to address the following research questions.

1. Do leaders notice age (dis)similarity between themselves and their team and if so, in which way?
2. What are leaders' beliefs and perceptions about their specific leader age / team age combination and what are the perceived effects?
3. What are a leaders' relevant strategies and behaviors to foster beneficial and to attenuate detrimental effects of their specific leader age / team age combination?

The research questions are essentially exploratory in nature and concern individual perceptions and beliefs, both of which indicate the utility of empirical social research

based on qualitative information (e.g., Boger & Menz, 2009; Marshall & Rossman, 1989; Silverman, 1993). The qualitative research enables showing reality on the basis of subjective sentiments and views, to identify possible causes – and also relationships among them –, to understand behaviors and their patterns as well as to address unexplored areas of inquiry (e.g., Miles & Huberman, 1994; Flick, 1995; Flick, 2014). The primary goal of this methodical technique is the opportunity to gain further data and insights for (new or further developed) theorizing and hypothesizing on the subject of study through an explorative investigation (e.g., Flick, 1995; Flick, 2014). The primary aim of such research is not to examine more 'known fields' and generalize specific findings, as much as it is to show new perceptions, views, and sentiments and to form new hypotheses or a new theory about them, or to further develop an existing theory with new ideas (e.g., Flick, 1995; Gephart, 2004; Flick, 2014). In short, we decided to use this method, because it seems appropriate for addressing our specific goals in this widely unexplored field of diversity research and to allow deeper insights into relevance and possible underlying effects, and – finally – to build a research model for further research. Thus, we chose semi-structured interviewing as the method of collecting data for this research, in order to gain authentic insights into and an understanding of leaders' personal beliefs and perceptions (Silverman, 1993).

Sample and procedure

The empirical study is based on 35 extensive semi-structured interviews with leaders at a German private utility company with approximately 20,000 employees. In general, the sample should ensure representativeness concerning the investigated object of research (leaders) (e.g., Kühn & Kreuzer, 2006). However, based on the research focus of age differences between leaders and teams, it was important not to allow any falsification in the data through the common age structure of the group of leaders (e.g., Kühn & Kreuzer, 2006). Thus, representativeness was ensured through an IT-based random selection of leaders, with the aim of representing the women's quota and the management-level distribution. As age differences were the key variable of interest, the sample selection was controlled to show a largely equal distribution of three age cohorts (25 to 39, 40 to 49, 50 to 64) to enhance the possibility of also finding an adequate number of leaders that are younger or in the same age as their teams.

While maintaining the goal of this study, we assumed that leader behaviors as well as their personal perceptions and attitudes towards our research focus could not be satisfactorily investigated by standardized questions and answers. Hence, we decided to use the problem-centered interview style that nullifies the negative aspects of a structured approach by introducing the necessary openness through an inductive-deductive interplay (e.g., Lamnek, 2005). The communication strategies that were used target the interviewees' subjective views, perceptions, and behaviors. Furthermore, the stimulated narratives were completed by a central question-based questionnaire that was only used and known by the interviewer (e.g., Witzel, 2000). This semi-structured interview guideline was purposely designed for this study and contains the main questions and interests for different research question areas and serves as an orientation framework to ensure the comparability of the interviews. Before interviews were conducted, consensus was reached about specific questions and wordings with the assistance of an additional expert panel: one psychologist and one behavioral economist who are involved in diversity and demographic change research. The questionnaire (entitled *Age Diversity and Teams*) is in Appendix A and includes questions for the areas *demographic change in general*, *working groups and teams*, *functionality of working groups and teams*, *motivation*, *influencing factors within the team / between leader and team*, and *team performance indicators*.

Data were collected from February to April 2011 after conducting three pre-test interviews. Each leader was contacted by mail and telephone; they were asked if they would voluntarily participate in a study on demographic change. If requested, they received basic information by phone prior to the interview about the general research context and some limited information about the research project, to avoid influencing the interviewees as much as possible. Interviews took place in the office rooms of the leaders and lasted between 60 and 90 minutes. The same interviewer conducted all interviews as face-to-face interviews; they were audiotaped and supplemented by explanatory notes from the interviewer.

Sample description

The gender distribution is 80% male to 20% female, while the management distribution is 3% higher management, 26% middle management, and 71% lower management. The sample's mean age is 46.03 years (*SD* = 9.50; *range* = 27 to 60). The

(educational) background shows that 43% of the leaders have a technical (educational) background, while 57% have another (educational) background. While the mean size of the teams led by the interviewed leaders is 14.86 employees ($SD = 9.72$), 20% of the leaders lead a small team (up to 6 team members), 45.7% lead a mid-sized team (7 to 15 team members), and 34.3% lead a large team (> 15 team members). The organizational tenure mean is 19.09 years ($SD = 10.69$; *range* = 2 to 43), and the leadership tenure mean is 9.40 years ($SD = 8.56$; *range* = 0 to 30). To focus on the mentioned research goal, the leaders were asked to rate themselves into the leader age / team age combination of *younger than their team*, *(almost) equal in age to their team*, or *older than their team*. As a result, 25.7% of the leaders rate themselves as younger, 34.3% as (almost) equal in age, and 40% as older than their team.

Analysis

As a first step, the interviewer transliterated the audiotaped interviews (e.g., Lamnek, 2005). After complete transliteration, each interview was transliterated again, following Mayring's (2010) qualitative content analysis. To evaluate these qualitative data, we followed Erickson (1986), who highlighted that the main goal must be to generate empirical assertions largely through induction and to establish an evidentiary warrant. To fulfill Erickson's (1986) requirements, the interviews were evaluated by different sequent examination methods.

Following Mayring's (2010) and Erickson's (1986) approaches, two different researchers independently developed a categorical system to code the interviews in a next step. The researchers discussed the differences in the categories in order to achieve a consensus. To establish these categories, the interview content was manually analyzed to identify word and phrase frequencies as well as possible inter-correlations. Key themes were identified from whole paragraphs, together with collations of answers to specific themes. In a next step, the identified data were segmented into meaningful groups or topics. After determining the categories, we independently identified and developed central statements within each category. These statements aim to capture the essence of what the interviewee has said about the domain in fewer words and with more clarity (e.g., Hill, Thompson, & Williams, 1997). Finally, each interview was coded by assigning its statements to the categorical topics and their

central conclusion. According to Krippendorffs' *ALPHA* (Hayes & Krippendorff, 2007), the interrater reliability for the coding at the consolidated level of the main categories is between 0.77 and 1.00. Differences were solved through discussion. To interpret and finally discuss the condensed interviews and resulting statements, both were further analyzed by focusing on the main research question – the differentiation of the three leader age / team age categories (younger, equal in age, older) – and finally compared (e.g., Mayring, 2010).

We decided to implement the self-categorizations used by the leaders, thus implying the usage of psychological age (differences). The background for this decision is the qualitative study aim – to examine the specific self-perceptions, causes, and resulting behavior patterns of these age differences, to identify relevant variables, and to gain new insights for developing a relevant research model that can explain possible effects and underlying processes. How the leaders feel and how they perceive their own age compared to their team is therefore important, because one can presume that the further explanations and statements in the interviews are subconsciously based on and anchored in their mindsets and perceptions of their specific perceived age differences as leaders. Finally, this decision is also supported by the limitation from the collaboration partner to not provide us with statistical data about the age and age distributions from the corresponding teams, based on requirements from the works council and the data protection officer.

Results

Owing to our research focus, the reported results are based on a categorized analysis. Thus, results are structured following these relevant categories: leaders younger than their team, leaders (almost) equal in age to their team, and leaders older than their team. This categorization and a concentration on the main findings allow our research question to be addressed as well as the development of a first research model based on the used explorative research method. In addition to the results and example statements from the interviews, which we shall now describe, Table 1 at the end of this section contains an overview of the main results.

Leader younger than team

In total, most leaders rated this age combination negatively. Specifically, 11% of the leaders rate their own age combination *explicitly negative* while, in addition, 78% also rate it *negatively at the outset but getting better with time*. However, 11% also rate this combination as *explicitly positive*. The main reason for the specific (more) negative rating was the perceived low *acceptance, legitimacy, and credibility as a leader by the team members* – as named by 89% of the leaders.

> *At the beginning, it was very difficult, until the others finally accepted me.*

Leaders of this age category also named *generational differences* between themselves and their team (44%) and the *lack of leadership experiences and competencies* (33%) as the second and third most important reasons.

> *It is especially difficult if the age differences between the team leader and the team is very large. If this is the case, team members and the team leader do not find common ground easily, as the worlds in which they work are different.*

It is also important for our research to evaluate how leaders deal with this situation and which strategies they develop to preferably foster the beneficial effects and/or to attenuate the negative effects. One strategy used was to *show a high level of expert knowledge* (named by 67%), while 33% stated that they try to *systematically use leadership in general* as a helpful instrument or strategy. However, 33% in this leader age / team age combination utilize more *participative leadership behaviors* to handle this – clearly negatively rated – age combination. In addition, 33% of leaders named more *appreciative and contingent reward leadership behaviors*.

> *Leadership behavior is very important. One has to explain many things, include employees in decision-making, and lead them in a very co-operative and respectful manner.*

Furthermore, it is also very noticeable that 44% mentioned that they are *more passive and do not have any specific solution or strategy* to manage the negative situation of being younger than the team.

In addition to the evaluation's three main categories (rating, reason for rating, and strategies/behaviors), we also investigated if leaders named and described conflicts

within the team or between the team and themselves that concern age differences and age diversity. While all leaders answered in the negative to the explicit question if there are any age-related conflicts within their team or between the team and themselves, nonetheless, 44% *implicitly described or explained age-related conflicts*.

Leader (almost) equal in age to team

In this age combination, 0% of the leaders rated the combination *explicitly negative* or *negative at the outset but getting better with time*. On the contrary, 67% rated their specific age combination as clearly beneficial and thus *explicitly positive*, while 33% considered this as neutral because, in their view, *age plays no role*.

> *Actually, belonging to the same age group creates neither advantages nor difficulties. I do not believe that age plays a role. It is more a matter of the team leader's competence as well as respect and open-mindedness among the team.*

The main reasons for the specific (positive) rating were the *leadership experiences and competencies* (named by 75%) and the high *acceptance, legitimacy, and credibility as a leader by the team members* (named by 75%). Next, considering the strategies to foster the beneficial effects and/or attenuate possible negative effects of the leader age / team age combination, 75% of leaders stated that they *systematically use leadership in general*.

> *As a team leader, I have a special function as a role model. Through my leadership behavior, I have great influence on the daily conduct among team members because I exemplify certain behaviors.*

In addition, when specifically asked if there were any age-related conflicts in their team or between the team and the leader, 100% of leaders in this age combination answered negatively, as did the leaders in the *younger leader* combination. However, in this combination, 83% also did not *implicitly describe any age-related conflicts*.

Leader older than team

In this third leader age / team age combination, 93% of leaders rated their specific age combination basically as beneficial and, thus, *explicitly positive*. Only 7%

emphasized it as neutral because, in their view, *age plays no role*. One of the most commonly addressed reasons for this clearly positive evaluation was *acceptance, legitimacy and credibility as a leader by the team members* (named by 86%). As the second and third most important reasons, leaders also expressed *assertiveness* (79%) and *leadership experiences and competencies* (64%). Despite the clear positive rating of this age combination, 57% of leaders explained that there is also one strong negative aspect of being older than the team: the *generational differences* between themselves and their team.

> *If the age differences between team leader and team members are too large, one grows apart. It is therefore a challenge to continue to understand younger colleagues. As the older one, one has less understanding for young people and for their ideas.*

> *Younger colleagues nowadays lack the correct work ethic that one finds is normal among older colleagues. This includes tidiness, punctuality, reliability, willingness to work, etc. Sometimes, however, these qualities are overdeveloped in older colleagues. These diverging attitudes generally present a real problem and sometimes result in conflicts.*

Furthermore, we again were interested in how leaders deal with this situation and which strategies they develop to preferably foster the beneficial effects and/or to attenuate the negative effects. We identified *methods and activities that build trust and confidence*, named by 86% of leaders as the most important strategy. Leaders also pointed out that they *seek to shine* with a broad and extensive *knowledge owing to their experience* (named by 50%) and with systematical behaviors that can be attributed to more *authoritative/directive leadership behavior* (50%) and to more *supportive leadership behavior* (36%).

> *Leadership behavior is more sincere, not offhand and authoritative. There is no discussion in these instances.*

> *Employees can operate freely within a clearly defined scope, and I show support behaviors to them in these efforts as team leader. The longer someone is part of the team, the more he or she knows and is able to do, the more I can extend this scope and grant more freedom to this employee.*

Finally, 100% of the leaders in this age combination answered in the negative to the explicit question if there are any age-related conflicts in their team or between the team and themselves. Nevertheless, results follow the pattern of the *younger leader* combination, which means that a clear majority (64%) *implicitly describes or explains age-related conflicts*.

Table 1: Results from the Interviews Based on Leaders' Relative Age

Main category	Subcategory	Leader younger than team	Leader (almost) equal in age to team	Leader older than team
Age combination	(Self-evaluation by the participants)	26%	34%	40%
Rating of age combination	Explicitly negative	11%	0%	0%
	Negative at the outset but getting better with time	78%	0%	0%
	Explicitly positive	11%	67%	93%
	Age plays no role	0%	33%	7%
Reasons for the specific rating (most frequently mentioned)	Acceptance, legitimacy, and credibility as a leader by the team members	89%	75%	86%
	Generational differences (identity)	44%	17%	57%
	(Lack of) leadership experiences and competencies	44%	75%	64%
	(Lack of) assertiveness	11%	25%	79%
Strategies/Behaviors to be used to manage the specific situation (most frequently mentioned)	Showing a high level of expert knowledge	67%	8%	0%
	Showing a high knowledge owing to experience	0%	0%	50%
	Systematically use leadership in general	33%	75%	21%
	Showing participative leadership behaviors	33%	17%	0%
	Showing appreciative and contingent reward leadership behaviors	33%	8%	0%
	Showing authoritative and directive leadership behaviors	0%	17%	50%
	Showing supportive leadership behaviors	11%	0%	36%
	Methods and activities that build trust and confidence	22%	8%	86%
	No specific strategy/behaviors to manage the situation (being passive and reserved)	44%	8%	0%
Age-related conflicts	There are explicitly no age-related conflicts within the team and/or between leader and team	100%	100%	100%
	Implicitly described/explained age-related conflicts within the team and between leader and team	44%	17%	64%

Discussion

Our discussion returns to four themes we identified while analyzing and comparing the results, as they seem to be beneficial and to further contribute to the research topic and our research focus. We named these themes *age differences*, *leadership behavior*, *leader's acceptance and legitimation*, and *conflicts and age salience*. We discuss them in a comparison of existing theory, relevant past research, and the described results. As a conclusion, we present a research model that aims to explain the findings and the proposed relationship between age differences between leaders and teams. Finally, our presented research model should stimulate researchers to investigate further by quantifying the model and the findings, enhancing the model, and finding additional relevant moderating and mediating variables.

Age differences

Age and age-related differences have, in various cases, shown different effects based on different theories (e.g., van Knippenberg & Schippers, 2007). Our findings contribute to the field of age diversity research by examining the growing phenomenon of age-related differences between leaders and teams. The findings concerning the main research question – whether age differences between leaders and teams have any effect on the team or the team's leader – allow us to conclude that the investigated age differences do show relevant effects. Even if the basis is a qualitative investigation of the leader's perceptions, it can be confirmed that some age combinations between a leader and team are more beneficial, while some combinations are more detrimental. Despite that no concrete outcome variable was measured or even offered in the interviews, many answers addressed the effects on outcome variables. Especially effects on leader's satisfaction and leader's effectiveness/performance, but also effects on team-related outcomes such as team functioning, conflicts between leader and team or within the team, team communication, and work climate were named. Especially leaders who are younger than the team implicitly mentioned an influence on these outcome variables. However, a few leaders addressed this aspect by explicitly naming relevant variables – as the following quotations show.

> *At the beginning, it was difficult for both parties. This had obvious repercussions on performance and satisfaction for all of us.*

The changes initiated by a younger leader are often not wanted by older team members and are therefore sometimes attacked or even sabotaged. As a result, conflicts are very likely and, furthermore, the overall performance of everyone and the work climate suffer as a result of such behavior.

Considering social categorization processes and the results of leaders being younger than their team, it seems very likely that such categorization processes based on age differences strongly occur and, therefore, leaders rate this combination as clearly detrimental. However, following the theory of social categorization processes, this effect must also occur when leaders are older than their team and, indeed, our findings show that leaders who are older than their team observe a basis for higher conflicts in their team, that is, the negatively rated generational differences between them and the team. Nonetheless, such older leaders generally did not rate their age combination negatively but instead, as explicitly positive. This may imply that the social categorization processes did not occur as strongly when the leader age / team age combination is the traditional one and, furthermore, that other processes and variables may also be relevant.

However, if such (social) categorization processes occur – as our results confirm, particularly in the age combination of younger leader and older team – subordinates tend to compare themselves with the (younger) leader who is not part of team's age-based in-group. In this case, subordinates ask themselves why one of them who is younger – and therefore, is potentially less experienced and has had less organizational tenure – received the leadership position, with its associated power and resources. Initial for the starting comparison process can be seen in the fact that traditionally, managers have been older and more experienced than their subordinates, which coincides with perceptions of high competence and wisdom (e.g., Collins et al., 2009; Shore et al., 2003; Sopranos, 1999; Staudinger & Glück, 2011) and that, additionally, career success is normally linked to a higher age (e.g., Kearney, 2008). Hence, the reversed age dissimilarity is opposed to established age norms that older workers generally supervise younger, more inexperienced workers (e.g., Perry & Finkelstein, 1999; Collins et al., 2009).

Actually, it should clearly be the other way round. Normally, the older lead the young. Anything else is unusual and unfamiliar.

In line with social categorization perspectives, leaders (almost) equal in age to the team show a clear positive rating. Being the same age as the team means being a member of the team's age-based in-group and thus to be seen as one of the group, which implies a positive effect on various outcomes such as conflicts, satisfaction, and cooperation.

> *Personally, I think it has positive effects that I am the same age as my team. Slightly younger team members already accept me as a leadership figure, while the slightly older still acknowledge me as a leadership figure and also respect me. Probably, this is because I am roughly the same age and thus still in the same generation. I share similar ideas and problems with them.*

Finally, we propose that there is a general main effect between different leader age / team age combinations on organizational outcomes such as leaders' satisfaction, team functioning, open communication, and conflicts.

Leadership behavior

While comparing the answers of the three investigated age combinations concerning leadership in general and specific leadership behaviors, the results show a differentiated picture. As Table 1 shows, each group identified leadership as more or less helpful to support the specific age (dis)similarity between them and their team and the effects that go along with it. Especially for those leaders of a similar age to their team, the *systematically use leadership in general* is named with 75% very clearly as *the* important factor that guarantees a successful managing of their concrete situation. Nevertheless, it is astounding that this group of leaders has not specified leadership more clearly in any specific and concrete behaviors, as both other leader groups did. Even if leaders who were younger than their team did not often specifically name *systematically use leadership in general*, they nevertheless did clearly name or describe two specific leadership behaviors that help to support their problematic situation. They explicitly mentioned participative leadership behaviors and/or appreciative/contingent reward leadership behaviors as helpful to attenuate this age combination's more negative effects. A few leaders also positively described supportive leadership behaviors. Hence, the leaders hereby provide a first indication

that some specific leadership behaviors are particularly useful for this age combination.

> *For employees, recognition and appreciation are of particularly great importance. To be accepted as a younger leader, it is helpful to display such behavior on a regular basis.*
>
> *Leadership behavior is very important in general. Leaders must explain much and should include their team members in decision-making. In the end, one must lead in a cooperative and participative manner. Open and straightforward communication within the team and between the team leader and the team members is also very important. This does not yet work so well in our team, but we are working on this.*

Finally, leaders that are older than their team clearly mentioned specific leadership behaviors (authoritative/directive, supportive) as appropriate instruments to handle the advantages and disadvantages of their age / team age combination.

The results underline leadership behavior's general importance as a beneficial instrument to positively support leaders' specific leader age / team age combination. Furthermore, leaders are able to specify this by indicating different specific behaviors. These findings corroborate leadership's general importance, as described in current literature (e.g., Janz, Buengeler, Eckhoff, Homan, & Voelpel, 2012) and, in addition, also findings from other researchers who have detected leadership (behaviors) as an important moderator of the relationship between various diversity aspects and various outcome variables (e.g., Somech, 2006; Shin & Zhou, 2007; Kearney & Gebert, 2009; Klein, Knight, Ziegert, Lim, & Saltz, 2011). More specific to our research, Kearney (2008) and Buengeler (2013) have also found first evidence for the importance of specific leadership behaviors in the relationship between leader age / team age and group outcomes. Buengeler (2013), for instance, has shown that young leaders could use contingent reward leadership to positively influence teams' turnover levels. She also discovered that participative leadership seems to hinder young leaders' success concerning turnover.

In short, we expect that leadership is a clear moderator of the investigated relationship about age (dis)similarity between leaders and teams and organizational outcomes. Based on our findings, and supported by prior research, we would propose

that different leadership behaviors are beneficial in different leader age / team age combinations, while others are not.

Leader's acceptance and legitimacy

The results show that a leader's acceptance and legitimacy attributed by team members should be seen as a further very important variable in our research. Each leader age / team age combination named it as the most important reason for the specific (more) positive or (more) negative evaluation of his or her individual (age-related) situation. Thus, we make allowance for this importance in the following part by discussing a leader's acceptance and legitimacy by his or her team members and its relevance.

Leaders generally need to be approved and accepted by their team members, to foster their influence and the full positive effects on team performance – according to Kearney's (2008) investigation on transformational leadership behavior. Furthermore, Bass and Riggio (2006), focusing on transformational leadership, also pointed out that personal identification with and respect for a leader as well as internalization of the leader's values are often mentioned as key mediating processes through which specific leadership styles exert their advantageous effects. Hence, followers are supposed to accept and legitimate a leader's privileged status; thus, the disparity of valued resources and power if the leader is perceived as highly competent, exceptional, and as meriting this superior position within the team (e.g., Kearney, 2008; Halevy, Chou, & Galinsky, 2011).

Predominant status and age norms in the workplace traditionally suggest that older, more experienced supervisors should supervise younger, less experienced subordinates (Perry, Kulik, & Zhou, 1999; Collins et al., 2009; Lawrence, 1988). Hence, career success is usually linked to higher age (and tenure), so that a higher hierarchical status is even more accepted when one is older than the others in a group (e.g., Kearney, 2008). To violate these norms and traditions by promoting younger employees into leader positions may negatively affect the supervisor-subordinate relationship (Tsui, Xin, & Egan, 1995). Based on our results, we propose that this negative affect may largely be supported by less acceptance and legitimacy of younger leaders by older groups. If there is a lack of acceptance and legitimacy in the eyes of subordinates, they may tend to deny a leader the ability to impact team functioning and

to lead the team to successful performance (e.g., Kearney, 2008; Collins et al., 2009). This argument is also supported by Tsui and colleagues (1995), who found that older subordinates with a younger supervisor often felt that their supervisor lacked the knowledge, wisdom, experience, or training to lead a team and, as a result, supported them less.

In accordance with Perry and Finkelstein (1999), an additional effect that may lead to less or more acceptance and legitimacy might be the fact that supervisor positions can generally be understood as positions that are stereotyped as 'old-type jobs'. Such stereotyping also relies on the tradition as well as common age and status norms that leaders and managers traditionally have been older and more experienced and have higher organizational tenure and higher attributed wisdom in the eyes of followers and, in sum, their selection follows the rule of seniority. Following this, we propose that the suggested matching processes between a person and job requirements is not solely a source for the employment decision when a person is selected for a job, for instance as a leader (Perry & Finkelstein, 1999). Furthermore we suggest that these processes also occur between a leader and his or her team, especially if a leader's age is highly salient, because it violates established and predominant status and age norms. The greater the mismatch between job-related information and stereotypes is, the less likely it is that the leader will be perceived as a good fit for the job, with a possible decrease in acceptance and legitimacy by the group.

> *Being 'the younger' as a leader, I experience the lack in professional and life experience and especially, by a large margin, problems in being accepted and having legitimacy as the biggest obstacles.*
>
> *Older employees have strong, mature personalities and fixed work habits. I was only seen as an 'upstart' and therefore my acceptance as a leadership figure was low.*
>
> *Back then, at the age of 30, I was actually too young compared to the team. I generally lacked important life experience and experience in leading and dealing with employees. With growing age, personal experiences increases and employees treat you with the necessary respect, as it is taken as quite normal that a leader is not younger than the team members.*

As an older leader in comparison to the team, one commands a certain aura, charisma, and authority, which prevents problems being accepted by employees. Yet, this used to be the case much more commonly in former days that it is nowadays. But it still clearly exists.

Kearney (2008), while focusing only on transformational leaders, found that leaders older than the average team age were positively related to team outcomes, whereas leaders with similar age did not yield this positive effect. His deductive reasoning goes further, claiming that especially transformational leadership depends on authorization by teams or followers. Following our theoretical framework, one thus could predict – in line with Kearney's (2008) findings and conclusion – that, in our investigation, leaders equal in age to the team should show (similar to leaders younger than the team) lower acceptance and legitimacy. This prediction can be made based on breaching (1) existent status and age norms and (2) person/job-matching processes by those leaders. However, our findings, which do not focus on an explicit leadership behavior and are based on an explorative research method, are contrary to Kearney's (2008) and show that not just leaders older than the team but also leaders (almost) equal in age to the team explicitly perceive high acceptance and legitimacy by their team members and, in turn, indicate positive outcomes. Nonetheless, referring to the discussed effects of violating existent status and age norms and a negative matching process between the job and a leader, our answers did not allow an explanation of this more surprising finding. However, a potential explanation may be that age might not be as salient in this leader age / team age combination as it is supposed. Hence, the negatively assumed similarity in age (because a weak fit with current status and age norms and a mismatch between job stereotype and a leader) is not as explicitly noticed as one might suppose. This argumentation is supported by the fact that a noteworthy number (33%) of leaders equal in age to the team explained that *age (differences) play no role*. However, based on the partly distinct findings between our investigation and Kearney's (2008) argumentation as well as the literature's silence about possible mediating roles of leaders' acceptance and legitimacy, we call for further investigation, so as to shed more light in this field of research. Nevertheless, according to our findings, we conclude that a leader's acceptance and legitimacy attributed by team members mediate the relationship between the leader age / team age combination and organizational outcomes.

Conflicts and age salience

While teamwork is one of todays most common work settings, the focal point of teamwork is the challenges of working together effectively, efficiently, and flexibly. One important part of these challenges is conflicts that represent the processes resulting from tension between team members owing to real or perceived differences (e.g., De Dreu, Harinck, & van Vianen, 1999; Wall & Callister, 1995). Despite numerous past research about conflicts and their effects on (team) outcomes, the question concerning the linkage between diverse structures and conflicts, which itself remains fragmentary, is still unanswered. Pelled and colleagues (1999) found that task conflicts are driven by differences in functional backgrounds, which is a highly job-related diversity type. However, the findings about relational conflicts are even more complicated. Various work group diversity variables such as value diversity, information diversity, and social category diversity (e.g., gender, age, and tenure) have been applied in the investigation of conflicts (e.g., Pelled et al., 1999; Jehn et al., 1999; Olson, Parayitam, & Bao, 2007). These researchers found various mediating roles for conflicts, and conclude that different diversity types intensify different conflict types within different task configurations, which in turn affect outcomes such as (team) performance and (job) satisfaction. Thus, conflicts have been shown to influence the relationships between (dis)similarity and outcomes. These conclusions from past investigations are currently supported by a study from Ries, Diestel, Wegge, and Schmidt (2010), who found that the relationship between age heterogeneity within the work group and job satisfaction and identification are mediated by conflicts, while this mediating relationship is again mediated by the diversity variable's salience. Our study links to their important investigation and broadens the findings by focusing on age (dis)similarities between leaders and teams.

Existent theoretical diversity approaches assume that (age) diversity will have an influence on various outcomes, for instance because it is mediated by conflicts that in general will be counterproductive and therefore, will lead to poorer outcomes. However, these negative effects just seem to occur if the diversity attribute such as age comes into the focus of the group members, is then noticed by them and is thus increasingly salient (e.g., Ries et al., 2010). Applied to our research focus, this means, for instance, that the extent of a leader's age difference from the team makes it very

likely that age will be more salient among the team, especially if a difference is not in the 'common direction' of what traditionally is expected from a leader.

> *Team members need someone to ask for advice in order to feel comfortable in the team and in order to work successfully. Actually, the team leader should play this role next to other colleagues. However, one does not like to ask younger people for advice. If team members look for advice, the age of the team leader is especially noticed and noted. If the team leader is younger, this fact is negatively noted. If the team leader is older, this fact is of particular advantage because it conforms to general expectations and practices in professional life.*

When age becomes more salient and enters the team and the leader's focus, it is more likely that social categorization processes as well as job/person matching processes occur. Following our findings and the previous discussion, again it is most likely that these processes lead to less (or more) acceptance and legitimation of the leader, which in turn leads to a higher (or lower) degree of conflicts and finally to poorer (or better) outcomes.

> *Within my team, I aim to form subgroups, which are homogeneous especially with regard to team member's age. In my experience, this works best and produces least conflicts within the team and between the team and me.*

> *There exists a natural hierarchy based on age differences within teams, which are realized by everyone and which can lead to conflicts. Fortunately, I am older than my team. In case of leaders who are younger than their team, this is difficult as there are older, more experienced team members who are senior employees and additionally the formal leadership figure, which is the team leader. In my experience and opinion, this leads to continuous conflicts among all.*

> *Being a leader, it is certainly an advantage to be a little bit older. I experienced this fact back when I was promoted to a leadership position and was put in charge of a team older than I was. I had great responsibilities as a young leader, and that frequently created problems and conflicts with the older team. The fact that I was so young was omnipresent, as age is somehow always noticed.*

First, when analyzing the results of the age combination *leader equal in age to the team*, we propose that age is not as salient as it is in the two other leader age / team age combinations. The age similarity of leader and team seems to lead to a lower age salience level, which we see indicated by the statements that *age (differences) play no*

role for one-third of those leaders. Furthermore, in line with our previous discussion, we argue that, in turn, this proposed lower age salience level explains the fact that in this age combination, 100% rejects any age-related conflicts when directly asked. Moreover, and different to both other leader age / team age combinations, this absence of age-related conflicts was supported by a significant number (83%) that also did not implicitly describe any of these conflicts.

Second, when analyzing the age combination *leader younger than the team*, the findings support the assumption that age is quite salient and therefore, is in the group's and leader's focus. The unusual and evident age dissimilarity between the leader and the team is supposed to lead to a high age salience level, which in turn is assumed to lead to a higher conflict level. Several answers lead us to assume that the unusual age combination is very salient in the team and additionally, almost every second leader (44%) indirectly named age-related conflicts in the team or between leader and team.

Third, when analyzing the age combination *leader older than the team*, one could predict that age should be at least similarly salient as in the younger leader combination. The evident age dissimilarity between the leader and the team should lead to a higher age salience level, which is supported by the result that a clear majority (64%) indirectly attests age-related conflicts in the team or between leader and team. This is an interesting finding, as our previous finding together with our theoretical argumentation let us propose that, based on higher acceptance and legitimacy levels, the conflict levels and their intensity should decrease rather than increase. As argued previously, the clearly identified higher acceptance and legitimacy levels seems to be based on fulfilling existent status and age norms and a job/person match. Nevertheless, even though this age combination shows an almost exclusively positive rating, it has a high level of mentioning conflicts. This may indicate that there are some unexplored variables that seem to lead to higher conflict levels. Based on our qualitative investigation and its data, we are unable to shed more light on this specific finding. We did notice but did not investigate closer the naming of *generational differences* (57%), which seem to be a problem mainly for leaders who are older than their teams. Hence, one possible explanation for the aforementioned surprising finding is that these generational differences may lead to latent conflicts in the age combinations of younger and older leaders. Nevertheless, based on the strongly positive general rating of the age combination *leader older than team*, we propose that

these generational differences do not play as an important role as one might suppose and that the resulting conflicts are not that influential.

In conclusion, we propose that conflicts mediate the relationship between leader age / team age combinations and possible leader/team outcomes such as performance or satisfaction. Furthermore, we propose – based on the sum of our previous discussed findings – that this mediation is again mediated by the acceptance and legitimacy of the leader and, in a final step, this mediation is again mediated by the salience of age.

Based on the findings and discussion of the present qualitative investigation, we developed a research model (see Figure 1) that shows the identified relationship between our (diversity) variable of interest (age-related (dis)similarity between leader and team), its identified effects on outcome variables, and the identified moderating and mediating variables. We propose that this research model helps one understand the effects of different leader age / team age combinations by showing relevant underlying processes. Thus, it also seeks to answer the question why and how different age combinations unfold different effects on work groups' or leaders' satisfaction and performance.

Figure 1: Proposed General Research Model

42
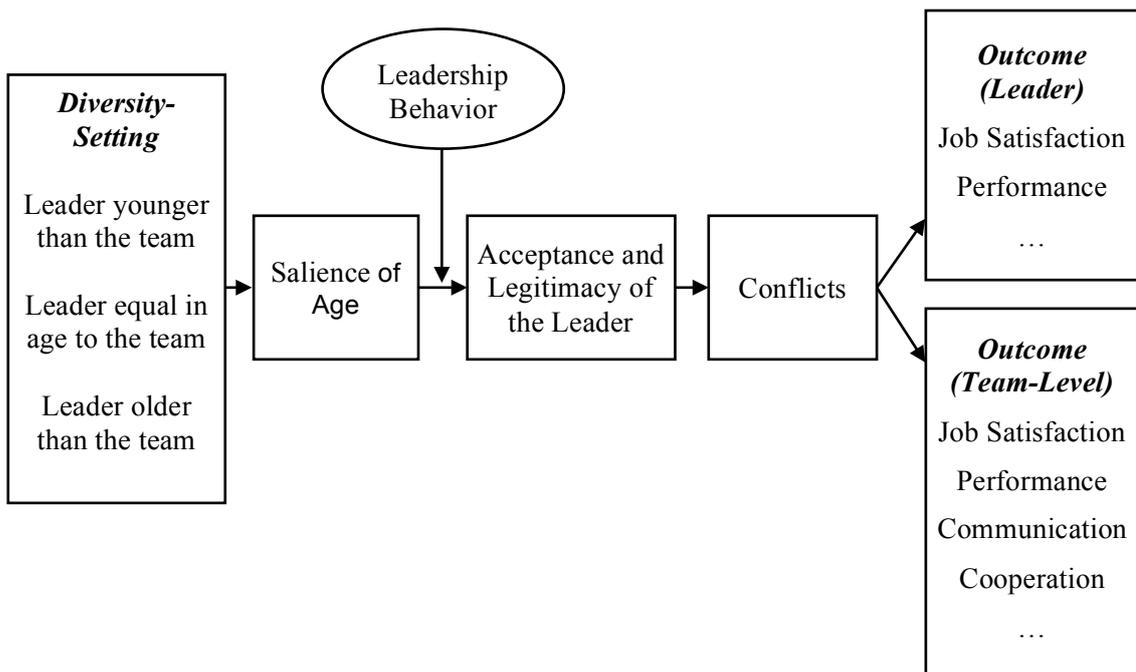
Limitations and future research

Despite following established research methods, we acknowledge certain limitations of our study.

First, one limitation can be that the interviews were done in only one organization, and that the findings are therefore potentially influenced by a specific organizational culture concerning (age) diversity. Hence, results could be affected by predominant age stereotypes, for instance. These effects and the specific organizational culture were not addressed or even measured in our study and, thus, could not be specified. For further studies, it might be fruitful to broaden the database by including more than one organization in the investigation to reduce the possible influence of specific organizational age stereotypes and age climates.

Second, to gain a holistic view of possible effects and the meaning of age (dis)similarity between leaders and teams, our research did not investigate teams' views and perceptions of these (dis)similarities. However, our primary focus of an investigation into this widely unexamined field of diversity research was the leader. This decision was primarily based on the specific and powerful positions that leaders hold and their significant influence on teams and the teams' respective performance. Thus, it was an appropriate approach for us to investigate especially leaders' views and perceptions and to develop a research model based on their specific perceptions. Nevertheless, future research should broaden our findings and address teams' beliefs and perceptions of the different leader age / team age combinations.

Third, a further limitation is given by our use of the subjective (psychological) age differences. However, this is based on two meaningful reasons. First, our collaboration partner did not allow us access to objective team data (e.g., chronological age and age distributions) for the teams whose leaders participated in our research. Hence, we were unable to pursue our analysis based on chronological age differences. Second, with our research, we sought to investigate, by means of an explorative approach, leaders' beliefs and subjective perceptions of their individual leader age / team age combination and their possible importance. Therefore, it was meaningful for us to use psychological age differences instead of chronological age differences. However, we assume that this use of psychological age differences did at least not influence the development of our research model.

Conclusion

The findings of our qualitative investigation in diversity research highlight the meaning of the precept *do not forget the leader in the equation* of successful teamwork in a diverse work environment. In the past, many studies in diversity research investigated leaders' importance by showing the relevance and effects of leadership and different leadership behaviors. Furthermore, for longer than a decade, scientific research has focused on a team's success and performance, concentrating on within-team diversity. However, even though past studies have shown that leaders' relational situation to the team can make all the difference, age-related differences between leaders and teams have to date received very little attention. Hence, our research contributes to this research field by showing that age-related (dis)similarity between leaders and teams does affect important organizational outcomes (e.g., (job) satisfaction, trust, and cooperation). Our investigation also illuminates the question of possible underlying processes by identifying relevant variables such as the salience of age, acceptance and legitimacy of the leader, and conflicts. Hence, we indicate that it is worthwhile to be aware of the existence and relevance of age-related (dis)similarity between leaders and teams. The specific findings become even more important in view of changing working conditions and the fact that leaders younger than a team are becoming more prevalent in an environment of aging workforces.

With our findings, we seek to motivate and prompt researchers to also focus on this field of diversity research, to test our research model in other contexts, and to identify further moderating and mediating variables. An additional aspect we want to address for further research is our finding that the diversity setting between leader and team also shows high relevance for leaders. Most past diversity research has investigated diversity's effects at the team-level or in dyads that make the leader a part (or not) of the team or the dyad. Based on our findings, it is surprising that leaders, who hold a specific and powerful position within teams, and who are the subject for specific, long, and expensive training or recruiting (costs), have not formed a clear part of diversity research. Thus, we call for an expansion of future diversity research by differentiating its impacts and putting effects on leaders on the same level as effects on the team as a whole.

As our investigation shows, leaders that are younger than their team must manage a specific and challenging situation compared to leaders that are the same age or older than the team. This latter situation is not just challenging for a leader, it also has even more concrete detrimental effects on a leader's performance and success – and, we assume, also on team's performance and success. The interviews showed that, especially for younger leaders, it is very likely that their situation has a significant negative influence on their success as a leader, their well-being, and their satisfaction. This finding is especially important for human resources managers in organizations. A possible starting point for HR departments can be the target-oriented training of such younger leaders to show beneficial patterns of (leadership) behaviors. Our findings also permit the assumption that actions that can increase younger leaders' acceptance and legitimacy are worthwhile, at least to ensure fewer conflicts and better team and leader outcomes. One possible supportive strategy could be to guarantee a clear and transparent process in the organization concerning why one is selected/promoted to fill a position as a leader. A personnel selection process based on transparent rules and criteria should not only benefit HR practice, but becomes – as our study lets us assume – even more relevant when a leader is younger than the team.

In short, in our study, we found first evidence for the relevance of age-related (dis)similarity between leaders and teams. We were also able to develop and present a corresponding research model that shows relevant moderating and mediating variables. We invite further research into age-related differences between leaders and teams and its possible theoretical backgrounds. We call on HR practitioners to become aware of challenging situations when leaders are younger than a team and to support such situations by adequate actions.

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CHAPTER 3

Is age just a number? How age differences between leaders and teams affect organizational outcomes

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Abstract

Traditionally, leaders have been older and more experienced than their subordinates, and in charge of teams with younger, less experienced employees. However, the aging workforce is changing this situation, and older workers will more often report to younger leaders. Little is known about the effects of age differences between leaders and their teams, making the examination of how those may affect organizational outcomes an important one. Building on prototypicality research (both from a social category as well as leadership perspective), we argue that especially relatively younger leaders would have detrimental effects as visualized in job satisfaction, turnover, and absenteeism of both the leader and the team members. An investigation of archival data from 430 teams, along with two additional scenario studies with 215 followers and 235 leaders, largely supports our hypothesis that relatively younger leaders create unfavorable outcomes, and we examine leader legitimacy and age salience as underlying processes to explain these effects.

Introduction

Past diversity research remains silent with regard to whether and how age differences between leaders and their teams influence the success of the team and the leader. Traditionally, leaders have been older and more experienced than their teams, which coincides with perceptions of older people as more competent and wise (Collins, Hair, & Rocco, 2009; Shore, Cleveland, & Goldberg, 2003; Sopranos, 1999; Staudinger & Glück, 2011). However, the trend of promoting workers to leadership positions based solely on their seniority is increasingly declining. Because of demographic changes and an aging workforce, teams with relatively older workers more often have (much) younger supervisors than in the past (e.g., Collins et al., 2009; Shore et al., 2003). Those younger leaders are often promoted to management and leadership positions because of higher levels of education, strategic planning expertise, or information technology skills (Collins et al., 2009; Sopranos, 1999).

Leaders need to be approved, accepted, and respected by the team members in order to foster their authority and exercise a positive influence on teams (DeRue & Ashford, 2010; Tjosvold, Dann, & Wong, 1992; Kearney, 2008; Bass & Riggio, 2006). Followers are more likely to accept and legitimize the privileged status of the leader and the concomitant disparity of valued resources and power if they perceive the leader as someone who merits this superior position within the team (Kearney, 2008; Halevy, Chou, & Galinsky, 2011). Conversely, leaders' positions will be less stable and challenged more often, when leaders are less accepted and seen as illegitimate (Kearney, 2008; Halevy et al., 2011). In this latter situation, conflicts are bound to arise between the leader and the team, leading to negative team outcomes, such as lowered job satisfaction, deteriorated performance, turnover, and absence. Moreover, leaders who are not able to adequately claim their leadership position are also likely to experience detrimental outcomes themselves – a problem that has received surprisingly little attention from researchers.

In this paper, we bring together two different theoretical frameworks pertaining to age-related demographics between leaders and their teams, and suggest that different combinations of leader age and team age will have differential effects on organizational outcomes. Both frameworks indicate that the leader's effectiveness depends on the degree to which he or she fits a certain prototype; however, his or her

perspective on this particular prototypicality stems from different information. First, the implicit leadership theory (Bryman, 1987; Eden & Leviatan, 1975; Berger, Cohen, & Zelditch, 1972; Berger, Ridgeway, Fisek & Norman, 1977) argues that people have strong beliefs with regard to leader prototypes. According to one of these prototypes, leaders should be older (rather than younger) than the people in their teams (Berger et al., 1972; Berger, Fisek, Norman, & Zelditch, 1977, Ridgeway, 2003). Second, the social categorization perspective (e.g., Byrne, 1971) indicates that people respond more favorably to someone who is similar (rather than dissimilar) to themselves, which implies that people are more likely to prefer and accept a leader who is prototypical for the group (in other words, someone who has approximately the same age as the rest of the team). Both theories would lead to similar predictions regarding leaders who are younger than their team; that is, they would be seen as less prototypical, which would make them less acceptable as leaders. However, these two theories would argue the underlying process accounting for the negative results of younger leaders to be different. We therefore suggest that the differential effects of different leader age–team age combinations may be driven by (1) the degree to which the leader is accepted and perceived to be legitimate (based on implicit leadership theory), and (2) by the salience of the age (based on social categorization).

By integrating these two distinctive theoretical frameworks, we develop hypotheses regarding when and how differences in age between leader and team will affect important organizational outcomes. In order to test our hypotheses, we will compare teams that have a leader who is younger than the team with teams that have a leader who is (almost) equal in age to the team and teams that have a leader who is older than the team[1]. We will report on two studies in which actual archival field data is used (Study 1), as well as a controlled scenario study among followers (Study 2a) and leaders (Study 2b).

With this research, we aim to make at least three main contributions to the literature. First, we shed light on an unexplored aspect of research on diversity between leaders and their followers by moving beyond past dyadic research (e.g., Tsui, Xin, & Egan, 1996; Collins et al., 2009) and investigating possible effects that age-related differences between leaders and their teams may have on the success of those.

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[1] Our focus is thus not on the actual age of the leader but rather the age composition between leader and team.

While research has illuminated the important role of diversity between leaders and followers on other diversity dimensions such as gender (Elsesser & Lever, 2011; Stoker, Van der Velde, & Lammers, 2012; Kushell & Newton, 1986; Johnson, 1994), our understanding of the effects of age diversity between a leader and the team is as yet insufficient. We make a meaningful contribution by investigating age as a prototypicality attribute from both (1) the implicit leadership theory representing leader prototypicality and (2) the social categorization perspective representing group prototypicality. Second, we contribute to diversity research by providing a more comprehensive picture of how differences between leaders and teams affect outcomes. In this respect, we argue that diversity between the leader and the team not only affects group outcomes, but also affects the outcomes of the leader, who is likely to be influenced by the degree to which his/her leadership position is perceived as legitimate or illegitimate (e.g., Nishii & Mayer, 2009; Zaccaro, Rittman, & Marks, 2001). Third, by including the salience of the diversity (here: the salience of age) and the acceptance and legitimacy of the leader as underlying processes in our research model, we follow past recommendations of various diversity researchers to move beyond simple main effects (e.g., van Knippenberg & Schippers, 2007) and provide a clearer understanding of when and how differences affect organizational outcomes.

Organizational outcomes

Our examination of the effects of age differences between leaders and followers on organizational outcomes includes both affective and task-related responses (van Knippenberg & Schippers, 2007; Yukl, 2013) that range from cognitions and attitudes to actual behavior. More specifically, we focus on job satisfaction, absenteeism, turnover, and team performance. Given that teamwork is today's most common mode of work (Devine, Clayton, Philips, Dunford, & Meliner, 1999; van Dick & West, 2013), we decided to examine these variables in the context of a team.

Job satisfaction (e.g., O'Reilly, 1991; Staw, 1984) can be defined as the contentedness of the members of an organization with the status of their job and their work environment (e.g. Zhou & George, 2001). Job satisfaction is one of the most commonly studied constructs in organizational behavior to examine people's favorable

or unfavorable *affective* responses to their work setting, and found to be strongly predictive of desired positive behavioral responses at work (e.g., intention to stay, organizational citizenship behavior) (e.g., Hom, Caranikas-Walker, Prussia, & Griffeth, 1992; Mobley, 1977; Steers & Rhodes, 1978; Lambert, Hogan, & Barton, 2001).

Absenteeism is an important behavioral aspect of organizational attachment (Tsui, Egan, & O'Reilly, 1992) and has been found to negatively influence organizational productivity (Harrison & Martocchio, 1998) as well as result in enormous financial costs for organizations (e.g., absenteeism cost the German economy about 43 billion Euros in 2009; Booz & Company, 2011).

Voluntary turnover, which is defined as an employee's choice to leave the organization (March & Simon, 1958; Mobley, 1977; Hausknecht & Trevor, 2011), is another important behavioral response to unpleasant work environments. Similar to absenteeism, voluntary turnover constitutes a severe organizational problem due to the many costs associated with it (Hausknecht & Trevor, 2011; McElroy, Morrow, & Rude, 2001; Nishii & Mayer, 2009). Voluntary turnover not only requires organizations to spend many resources to search for, select, and train new staff and leaders (Hausknecht & Trevor, 2011; Mobley, 1982), but also hampers team coordination processes due to missing team members (Staw, 1980).

Finally, we focus on team performance as our task-related outcome measure. As team effectiveness is the core focus of most theory and research on teams (Kozlowski & Bell, 2003), it can be seen as one of the most crucial outcomes of teamwork (e.g., Hackman, 1987). Teamwork and team performance are strongly influenced by effective processes between leaders and followers (e.g., Zaccaro et al., 2001; Janz, Buengeler, Eckhoff, Homan, & Voelpel, 2012), which makes team performance an important variable to include in our research on age diversity between leaders and their teams.

Two approaches to leadership prototypes

To address our research question, we make use of two theoretical frameworks that examine leader prototypicality from two different perspectives. First, when examining leader age-team age combinations applying implicit leadership theory (e.g.,

Bryman, 1987; Eden & Leviatan, 1975), we can predict that the best age combination is the one where leaders are older than their team, with the most negative situation being when leaders are younger than their team. Second, the social categorization perspective (Tajfel & Turner, 1979; Festinger, 1954, Byrne, 1971; Clore & Byrne, 1974; Tajfel & Turner, 1986) would inform us to predict that the optimal age combination between leader and team exists when the leader fits the group prototype (i.e., is the same age as their team), whereas situations in which leaders are clearly younger (or older) than their team are less optimal for work attitudes and behaviors.

Leader prototypes and acceptance and legitimacy

Implicit leadership theory (Bryman, 1987; Eden & Leviatan, 1975) builds on the idea that afforded power and status of the leader depend on the responsiveness of those being led (Denmark, 1993; Van Kleef, Oveis, Van der Löwe, LuoKogan, Goetz & Keltner, 2008; Lord & Maher, 1991; Shamir, 2007). Followers have (implicit) ideas about the characteristics that leaders should have or not have, and how leaders should or should not act (e.g., Den Hartog & Koopman, 2001; Den Hartog & Koopman, 2005). In turn, these ideas and beliefs are used to make judgments about leaders and their behavior (Eden & Leviatan, 1975; Korukonda & Hunt, 1989).

Such judgments are based on cognitive categorization processes in which perceivers match the perceived attributes of leaders they observe to an internal prototype of a leader and leadership categories (Foti & Luch, 1992; Den Hartog & Koopman, 2001; Den Hartog & Koopman, 2005). The better the fit between the observed leader and the prototype, the more likely the leader will be seen as someone with power, status, and legitimacy (Offerman, Kennedy, & Wirtz, 1994; Foti & Luch, 1992; Lord & Maher, 1991; Den Hartog & Koopman, 2001). Within Western culture, higher age is an important characteristic of this implicit leadership prototype (Berger et al., 1972; Berger et al., 1977; Ridgeway, 2003), which means older leaders fit the leadership prototype better than do younger leaders (see also Lawrence, 1984; 1988; Perry & Finkelstein, 1999).

Further support for these implicit leadership prototypes comes from power and status theorizing (e.g., French & Raven, 1959; Berger et al., 1972). Bass and Bass (2008) claim that the concepts of leadership and power are inherently linked and that leaders need to be approved, accepted, and respected by their team members in order

to legitimize their authority and make it possible to have a positive influence on their teams (DeRue & Ashford, 2010; Tjosvold et al., 1992; Kearney, 2008; Bass & Riggio, 2006). Leaders might achieve such legitimacy in different ways (e.g., French & Raven, 1959; Bass, 1960; Yukl & Falbe, 1991), one of which is simply by being older. Age is generally associated with more job-related experiences (Avolio, Waldman, & Mc Daniel, 1990; Liden, Stilwell, & Ferris, 1996), more knowledge, higher competency, more wisdom resulting from a wealth of life experiences, and more career success (Lawrence, 1988; Pelled, Eisenhardt, & Xin, 1999; Halevy et al., 2011, Staudinger & Glück, 2011). Thus, older leaders possess characteristics that are associated with more power and prestige that will assist their ability to lead and create acceptance and to obtain legitimacy from their followers (Hollander, 2008; Tsui et al., 1996).

The effective match between leader age and leader prototypes aids the development of leader/follower identity (DeRue & Ashford, 2010). Older leaders may more easily see themselves – and be seen by others – as a leader. This supports the development of a leader identity within older leaders, and at the same time, creates a follower identity within their relatively younger followers. When such an identity is established, it is associated, in turn, with leaders effectively claiming power, and followers granting power to the leaders (DeRue & Ashford, 2010). Followers are thus more likely to accept and legitimize the privileged status of older leaders, because older leaders are already perceived as worthy of their superior position within the team (Kearney, 2008; Halevy et al., 2011). Conversely, when leaders are younger than their teams, followers are less likely to grant the leader the leadership position, and the leader is less likely to claim it, which leads to lower acceptance and legitimacy.

By using a leadership prototype approach, we argue that leaders who are younger than their team – and, therefore, do not clearly fit existing prototypes, beliefs, and norms concerning leader age – are less accepted and seen as less legitimized by their subordinates. We predict that this lack of acceptance and legitimacy of the leader results in deteriorated outcomes for both the leader and his/her team.

Group prototypes and the salience of age

A leader also shares one or more group memberships with the people he/she has to lead (van Knippenberg & Hogg, 2003). That is, leaders do not just lead a group from an external position on the outside but are also a member of this group.

Within this (work) group, similarities and differences between group members form the basis for categorizing oneself and others as part of different social groups (van Knippenberg & Schippers, 2007). Age is a demographic variable that is often used, consciously and unconsciously, to build social categorizations and, as such, may instigate categorization processes (Williams & O'Reilly, 1998). People divide the world into people that are similar (the in-group) and those who are dissimilar to them (the out-group). Being similar to each other on the basis of age is likely to coincide with similar attitudes, beliefs, and values (Harrison & Klein, 2007; Williams & O'Reilly, 1998).

Leaders who are similar in age (i.e., in the same age-based in-group) will be seen as (more) prototypical to the group, because he/she fits the (age) characteristic of the group. Van Knippenberg's and Hogg's (2003) social identity perspective on leadership states that leader (and team) effectiveness clearly increases (van Knippenberg & Hogg, 2003; Fielding & Hogg, 1997; Platow & van Knippenberg, 2001; van Knippenberg & van Knippenberg, 2003) to the degree the leader is more prototypical to the group. Consequently, we argue that the more the leader is similar to the team in terms of age, the higher team's effectiveness will be, thus producing better outcomes for team members as well as the leader. When leaders are non-prototypical to the group in terms of age (in other words, when leaders are clearly younger or older than the group), leaders (and the team) are likely to be less effective (De Dreu, Harinck, & Van Vianen, 1999; Wall & Callister, 1995), leading to a decrease in leaders' ability to influence and motivate followers to cooperate with them (van Knippenberg & Hogg, 2003; Chemers, 2001, Yukl, 2013).

We argue that the negative effects of age-related differences occur because age becomes salient to the group's members; in other words, they take note of age as a category (Ries, Diestel, Wegge, & Schmidt, 2010). When the leader's age is different from that of the team, age as a category is likely to become more cognitively accessible to the leader as well as to the team members. This salience would likely initiate the creation of age-based subgroups, as well as intergroup bias within the team (Avery, McKay & Wilson, 2008; Randel, 2002; Ries et al., 2010; van Knippenberg, De Dreu, & Homan, 2004), consequently resulting in deteriorated performance, job satisfaction, and increases in turnover and absence.

Using solely a group prototype approach, we predict that leaders who do not

belong to the teams' age-based in-group (namely, leaders who are not the same age as the team) are less effective due to age being salient within the team, which results in deteriorated outcomes for both the team and the leader.

Integrating leadership and group prototypes

Based on the two different frameworks above, we argue that a leader's ability to fit one of the prototypes can compensate for a misfit with the other prototype. That is, older leaders compensate for not matching the in-group prototype by being able to claim their leadership position: They are seen as legitimate and, therefore, accepted by their followers. Similarly, leaders who are the same age as their team members might not clearly fit the implicit leadership prototype, but their similarity to the group makes them acceptable as the leader. Thus, we propose that the only combination of leader age and team age that will have negative effects is the situation in which leaders are younger than their team. These leaders lack a fit with both the leadership and group prototype, and, as a result, will have a negative effect on team and leader outcomes. Our corresponding research model is visualized in Figure 1.

> *Hypothesis 1a: Teams led by leaders younger than their team show lower performance and job satisfaction and higher turnover and absence than teams led by leaders (almost) equal in age to the team or older than the team.*

> *Hypothesis 1b: Leaders leading a team older than themselves show less job satisfaction and higher turnover and absence than leaders leading a team (almost) equal in age or younger than themselves.*

> *Hypothesis 2: The negative effects on outcomes of having a leader who is younger than the team will be mediated by increased salience of age and by team members' lowered attributions of acceptance and legitimacy to the leader.*

Figure 1: The Proposed Relationships Between the Variables of Interest.
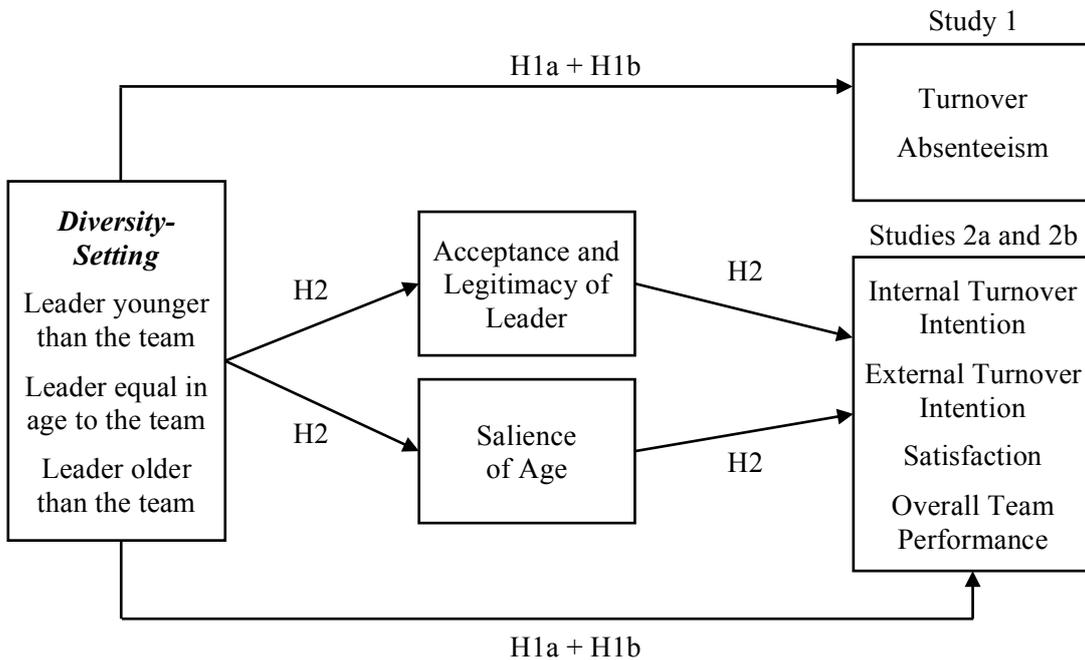
Overview of studies

In order to test our research model, we conducted two studies at a large company in Germany. The German collaboration partner is a private company in the energy sector with more than 5,000 employees. The company's activities include generating, trading in, transporting, and selling electricity and gas, as well as energy and environmental services. The company has a strong focus on teamwork, and teams mostly conduct both the technical and the non-technical tasks at the firm.

In Study 1, we investigated the general relationship between team outcomes and the age similarity/dissimilarity between leaders and their teams by using existing team data. This archival data was collected from the HR Management/IT Systems at our German collaboration partner. With this data, we tested our hypothesis that there is a significant relationship between age similarity/dissimilarity between leaders and teams and our measured objective team outcomes.

In Study 2, we employed an extensive vignette study in order to address the causality of the relationships and provide insights into the underlying processes of the effect. This study consists of two sub-studies that differed with respect to the sample. Study 2a was conducted among followers and, therefore, provides the follower perspective on the effects of age similarity/dissimilarity between leaders and their

teams. Study 2b was conducted among leaders and speaks from the leader perspective.

Study 1

Sample and procedure

We obtained archival data from the firm's human resources management that was based on a random selection of 430 working groups and includes teams from administration, sales and distribution, and aftersales. Unfortunately, the company did not provide us with details about the distribution of the teams over these different organizational units due to data protection requirements.

Leader age ranged from 28 to 63 (M = 44.96, SD = 7.42), and their gender distribution was 18.1% female and 81.9% male. Some 60% of the leaders had graduated from university, 39.1% had finished a non-university degree, and 0.9% did not have a degree. Among the team members, 47.3% were female, and their mean age was 41.01 years (range: 19 - 64, SD = 9.67); 33.6% of the team members had graduated from university, 63.4% had a non-university degree, and 3.0% were without a degree. Team sizes ranged from three to 28 people, not including the team leader (M = 9.34, SD = 5.29). The total sample consisted of 430 teams, with 430 leaders and 4,018 followers.

Measures

The HR department provided the objective raw data necessary for this study from company records and specific HR IT-systems. Because of considerable organizational changes between 2012 and 2014, we decided to use data from (December) 2011, which represented the last stable year before larger reorganization projects. Both dependent variables (i.e., voluntary turnover and absenteeism) were measured and operationalized at the team level. Due to privacy reasons and data protection rules, the data was not provided to us on the individual level. As a result, all relationships were analyzed on the team level, as we could not perform individual-level or multi-level analyses (Bryk & Raudenbush, 1992; Kashy & Kenny, 2000).

Leader/team age. The objective information that was provided on the ages of the team leaders and their team members was given in years. For all analyses, we used this absolute measure of age to operationalize different categories of age differences

between leaders and teams.

Leader age–team age combination. To determine the age difference between leader and team, we divided our sample into three categories based on the standard deviation of the respective team age. The first category included all the teams in which the leader was more than one standard deviation older than the mean age of the team (in other words, the leader was older than the team; $N = 145$ teams). The second category was operationalized as the leader being (almost) equal in age to the mean age of the team (in other words, the leader age was within one standard deviation below or above the mean age of the team; $N = 249$ teams). The third category consisted of teams whose leaders were more than one standard deviation younger than the mean age of the team (in other words, the leader was younger than the team; $N = 36$ teams).[2]

Turnover. Turnover was expressed as a percentage ($M = 2.04\%$, $SD = 6.88$) and operationalized as the proportion of team members[3] leaving the company annually of their own volition.

Absenteeism. Absenteeism was also measured as a percentage ($M = 4.06\%$, $SD = 3.71$) and constitutes the proportion of time during which team members[4] were absent from work compared to the total regular working time per year.

Control variables. We controlled for leader age, leader gender, team and the team's age composition. To ensure results were independent of a team's age composition, we controlled for the team mean age (based on the company's archival data), as well as for age diversity. To control for age diversity, we conceptualized diversity as the disparity of status and authority (Harrison & Klein, 2007) by operationalizing age diversity as a coefficient of variation. Because the coefficient of variation is sensitive to sample/team size, we calculated a standardized adjustment by following Martin and Gray (1971).

Data analysis

We conducted analyses of variance to examine the hypothesized relationship

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[2] We also operationalized the leader age–team age combination in two other ways to test the stability of our findings. Both an operationalization in terms of difference scores and an operationalization where the categorization was based on the leader being older or younger than the oldest and youngest team member, respectively, led to the same pattern of results.

[3] The variable also includes leaders and not only followers.

[4] The variable also includes leaders and not only followers.

between our dependent outcome variables and similarity/dissimilarity between leaders and teams, along with Cohen's *d* effect size estimates (1988). In accordance with Cohen's (1988) rule of thumb, the size of an effect is classified as small if its value is around .20, as medium if it is around .50, and as large if the effect size exceeds .80.

Results

In line with our hypotheses, the independent variable "leader age–team age combination" significantly predicted our dependent variables turnover ($F[2, 427] = 7.70$, $p = .001$, $\eta^2 = .035$) and absenteeism ($F[2, 427] = 6.13$, $p = .002$, $\eta^2 = .028$). The means and standard deviations for each of the three combinations of leader age–team age appear in Table 1. The control variables were not significantly related to turnover and absenteeism. The pairwise comparisons of the ANOVA – based on a Bonferroni post-hoc test – showed significant differences between teams with a younger leader and those with a leader equal in age to the team (turnover: $p = .012$, $d = 1.07$; absenteeism: $p = .002$, $d = 1.01$), as well as between teams with a leader younger than the team and teams with a leader older than the team ($p = .010$, $d = 1.31$). For turnover, we found no significant differences between teams with a leader who is younger than the team and teams with a leader who is older than the team ($p = .861$).

Table 1: Effects of Leader Age-Team Age Combination Pertaining to Hypotheses 1a/b

Variables	Leader younger than the team		Leader equal in age to the team		Leader older than the team	
	M	*SD*	*M*	*SD*	*M*	*SD*
Turnover	6.52[a]	7.66	1.40[b]	4.25	2.11[ab]	9.49
Absenteeism	7.72[a]	4.24	4.05[b]	3.55	3.17[b]	3.29

Note. $N = 430$ teams. Means with different superscripts differ significantly from each other at $p < .05$

Discussion

In this first study, we found that a leader's age compared with the team's age influenced important organizational outcomes such as turnover and absenteeism. More specifically, the results of this study provide partial support for our Hypotheses 1a and 1b. Teams with a leader who was younger than the team experienced significantly more absenteeism than teams with both other age-combinations, and significantly

more turnover than teams with leaders (almost) equal in age to the team. Even though teams led by a leader older than the team ($M = 2.11\%$, $SD = 9.49$) seem to experience less turnover than teams led by a leader younger than the team ($M = 6.52\%$, $SD = 7.66$), this effect did not reach significance in our sample. However, these findings give a first indication that leaders who are younger than their team can produce severe negative effects on objective team functioning and thus supports our Hypothesis 1a and Hypothesis 1b.

One limitation of this study was that we were not able to obtain separate data for leaders and team members for our dependent variables. This made it impossible to adequately test differences in responses between leaders and followers. A second limitation was that there were relatively few teams with a younger leader. Although this state of affairs is still the norm in many organizations, the question becomes whether our comparison would actually hold up in other companies in which younger leaders are more common. Finally, because all our data was collected at one point in time, we cannot speak to causality, and it is unclear whether other variables might drive these effects. To solve these issues, we decided to adopt a more controlled approach in our second study by employing a scenario with different age combinations to both followers and leaders. Study 1 was extended in a number of ways with this study. First, we move beyond correlational measures by manipulating leader age–team age combination (we also increase our sample size in the "younger leader" condition). Second, it includes measures relating to the potential underlying processes (i.e., salience of age and the acceptance and legitimacy of leaders) of the effects. Third, we distinguish between leaders and teams (followers) and investigate whether and how the findings of Study 1 are different for teams (followers) and for leaders.

Study 2a

Sample and procedure

Study 2a tests our hypotheses from the perspective of the followers. We were interested to see how followers would rate and assess the different leader age–team age combinations, and which underlying processes account for their responses to differences between team age and leader age. The sample of this study consisted of a random selection of 500 followers from our collaboration partner and includes

followers from all organizational functions and units. The study was presented online, and followers could participate voluntarily from their personal workplace. The participation rate was 43% ($N = 215$). In order to achieve a well-balanced distribution between the three conditions, the randomly selected sample of 500 followers was again randomly split into three subsets to which one of the three scenarios was presented.

The participants read a scenario in which they had to imagine that they worked in a team in which (1) the leader was younger than the team ($N = 71$), (2) the leader was almost equal in age to the team ($N = 75$), or (3) the leader was older than the team ($N = 69$). The complete text of the scenarios can be found in Appendix A. After reading through the scenario, they filled out a questionnaire assessing the mediators and the dependent variables of interest. After the first half of the questionnaire, the scenario was presented again. Participants' ages ranged from 21 to 59 ($M = 42.22$, $SD = 11.30$), and the gender distribution was 30.2% female and 69.8% male.

Measures

Followers responded to the following scales on a seven-point Likert scale, with for most items, a 1 indicated weak and a 7 strong agreement with the statement or question. We created German versions of all the scales by means of the translation–back translation procedure (Brislin, 1980).

Salience of age. The salience of age was measured with a six-item scale from Schmidt and Wegge (2009). The scale was subdivided in two subscales, in which three items represent the cognitive salience of age ($M = 4.13$, $SD = 1.63$, $\alpha = .75$), and three items the behavioral salience of age ($M = 3.07$, $SD = 1.61$, $\alpha = .78$). Items were slightly adapted to focus on the salience of age differences between leader and team instead of age differences within the group. Example items are "I am clearly aware of the age difference between myself and my leader" for cognitive salience of age, and "If problems come up in our group, they often have something to do with the age difference between the group and our leader" for behavioral salience of age.

Leaders' acceptance and legitimacy. Team members' judgment of leaders' acceptance and legitimacy was measured with a scale from Choi and Mai-Dalton (1999) that consisted of four items ($M = 5.53$, $SD = 1.48$, $\alpha = .89$). Example items are "I accept him/her as a leader" and "He/She deserves the position of a leader."

Turnover intention. Following Shore, Newton, and Thornton (1990), we used

three items to measure turnover intention. The original items were slightly adapted to incorporate both "external turnover intention" (M = 2.50, SD = 1.28, α = .82) and "internal turnover intention" (M = 2.95, SD = 1.53, α = .88) in order to distinguish between the intention of leaving the company/organization (external change) and the intention of leaving the current team but staying in the same company/organization (internal change). In total, we used six items to measure these two types of turnover intention. An example item for measuring external turnover intention is: "How likely is it that you will look for a job outside this organization during the next year?" An example item for internal turnover intention is: "How likely is it that you will look for a job in this organization but outside of this team during the next year?" For this scale, higher numbers represented a higher intention to leave the organization (external turnover) or the specific team (internal turnover).

Job Satisfaction. We used three items from Zhou and George (2001; M = 5.36, SD = 1.26, α = .73) to measure job satisfaction. One item was adapted slightly to examine satisfaction with the leader instead of the organization. Example items are: "In general, I like working with this leader" and "All in all, I am satisfied with my job."

Overall team performance. We used three items from Hackman and Oldham (1976) to measure overall team performance. Due to the poor reliability of the scale in Study 2b (α = .59) and our preference to use identical measurements in Study 2a and 2b, we calculated the inter-item correlations and decided to delete the item with the worst correlation to the other items ("This team performs with an amount of effort."). Hence, the analyses in Study 2a (as well as in Study 2b) were done with the two-item measurement (M = 5.71, SD = 1.22, r = .60, p < .001). The items used are "This team performs quantitative well" and "This team performs qualitative well."

Manipulation check. We used three items to check the adequacy of the age diversity manipulation. Items are "In the described hypothetical working situation, my leader is older than me and my team colleagues" (M = 3.29, SD = 2.54), "In the described hypothetical working situation, my leader is the same age as me and my team colleagues" (M = 2.54, SD = 2.16), and "In the described hypothetical working situation, my leader is younger than me and my team colleagues" (M = 3.47, SD = 2.65).

Data analysis

We conducted analyses of variance to examine the hypothesized relationship of the similarity/dissimilarity between leaders and teams, our dependent outcome variables and the possible mediators, along with Cohen's *d* effect size estimates (1988). To test the proposed mediating roles, we followed Hayes' and Preacher's (2013) approach to statistical mediation analysis with a multi-categorical, independent variable.

Results

Manipulation check. The manipulation check with ANOVA showed significant differences between the three conditions for all three manipulation check questions (manipulation check younger leader: $F[2, 212] = 61.54$, $p < .001$, $\eta^2 = .367$; manipulation check same-age leader: $F[2, 212] = 61.46$, $p < .001$, $\eta^2 = .367$; manipulation check older leader: $F[2, 212] = 113.67$, $p < .001$, $\eta^2 = .517$). We performed specific contrast tests for each manipulation, contrasting the condition of interest with the other two conditions. These planned contrasts showed that participants in the "younger leader" condition ($M = 5.54$, $SD = 2.38$; $t[212] = 10.19$, $d = 1.48$, $p < .001$) indicated their leader to be significantly younger than did participants in the "same-age leader" condition ($M = 3.23$, $SD = 2.33$) or the "older leader" condition ($M = 1.59$, $SD = 1.49$). Similarly, participants in "same-age leader" condition ($M = 4.32$, $SD = 2.31$; $t[212] = 11.08$, $d = 2.19$, $p < .001$) indicated their leader to be significantly more equal in age than did participants in the "younger leader" condition ($M = 1.55$, $SD = 1.39$) and in the "older leader" condition ($M = 1.62$, $SD = 1.21$). Finally, participants in the "older leader" condition ($M = 5.90$, $SD = 1.93$; $t[212] = 14.90$, $d = 1,59$, $p < .001$) indicated their leader to be significantly older than did participants in the "younger leader" condition ($M = 1.68$, $SD = 1.57$) and the "same-age leader" condition ($M = 2.41$, $SD = 1.79$). In summary, our manipulations seemed to be successful.

Hypotheses testing. The means, standard deviations, and main effects of leader age–team age combinations on the variables of interest can be found in Table 2. Except for external turnover intention, our manipulation successfully predicted our investigated mediators and outcome variables. The pairwise comparisons of the

ANOVA – based on a Bonferroni post-hoc test – showed significant differences between teams with a younger leader and a leader that is equal in age to the team (cognitive salience of age: $p < .001$, $d = 0.68$; behavioral salience of age: $p < .001$, $d = 0.89$; leaders' acceptance and legitimacy: $p < .001$, $d = 0.75$; internal turnover intention: $p = .010$, $d = 0.47$; job satisfaction: $p < .001$, $d = 0.63$; overall team performance: $p = .001$, $d = 0.58$), as well as between teams with a leader that is younger than the team and teams with a leader that is older than the team (behavioral salience of age: $p = .010$, $d = 0.46$; leaders' acceptance and legitimacy: $p < .001$, $d = 0.71$; job satisfaction: $p = .002$, $d = 0.55$; overall team performance: $p = .041$, $d = 0.41$). The results show that participants who imagined working in teams led by leaders younger than the team report negative organizational outcomes compared to those who imagined working in a team with members who are almost equal in age to their leader, as well as teams whose members are younger than their leader. These results provide further support for Hypothesis 1a.

Table 2: Results of ANOVA and Contrast Test Pertaining to Hypotheses 1/2

Variables	Leader age-team age combination			Leader younger than the team		Leader equal in age to the team		Leader older than the team		Contrast Test young vs. rest	
	$F(2, 212)$	η^2	p	M	SD	M	SD	M	SD	Estimate	p
Cognitive salience of age	9.34	.08	.000	4.60[a]	1.67	3.52[b]	1.51	4.32[a]	1.51	1.35	.003
Behavioral salience of age	16.08	.13	.000	3.80[a]	1.95	2.39[b]	1.15	3.05[c]	1.31	2.17	.000
Leaders' acceptance and legitimacy	14.10	.12	.000	4.81[a]	1.69	5.93[b]	1.33	5.82[b]	1.12	-2.14	.000
Job satisfaction	9.22	.08	.000	4.85[a]	1.50	5.64[b]	1.03	5.56[b]	1.08	-1.51	.000
Overall team performance	6.85	.06	.001	5.34[a]	1.23	5.99[b]	1.02	5.80[b]	1.01	-1.11	.001
Internal turnover intention	4.51	.04	.012	3.36[a]	1.69	2.61[b]	1.48	2.90[ab]	1.34	1.21	.006
External turnover intention	1.47	.01	.232	2.63[a]	1.25	2.29[a]	1.23	2.58[a]	1.35	.39	.292

Note. $N = 215$ subordinates. Means with different superscripts differ significantly from each other at $p < .05$

Mediation analysis. Additionally, we examined our mediation hypothesis by using a bootstrap approach. Bootstrapping is a nonparametric method that assigns

measures of accuracy to statistical estimates (Efron & Tibshirani, 1998; Mooney & Duval, 1993), and the standard errors are estimated using the available data. The bootstrap approach involves computing confidence intervals around the product term (a*b), and if zero falls outside of this 95% confidence interval, the indirect effect is significant, which provides evidence for mediation. On the basis of recommendations, we resampled 5,000 times and used the percentile method to create 95% intervals (Preacher & Hayes, 2008). In all analyses, we used the MEDIATE macro (Hayes & Preacher, 2013), and we tested the two mediators in parallel.

In order to test our hypothesized mediation by salience of age and leaders' acceptance and legitimacy (H2), we first note that the planned contrast tests for the "younger leader" condition were significant for internal turnover intention, job satisfaction, and team performance (see Table 2). Our hypothesis – that differences in these outcomes in the "younger leader" condition, compared with both of the other two conditions, could be explained by salience of age and by leaders' acceptance and legitimacy – was partially supported by the study. Behavioral salience of age acted as a mediator for job satisfaction (B = 0.12, SE = .06, 95% BC_a CI: [0.03; 0.28]) and team performance (B = 0.18, SE = .07, 95% BC_a CI: [0.06; 0.35]); for team performance, cognitive salience also acted as a mediator (B = -0.06, SE = .04, 95% BC_a CI: [-0.17; -0.01]). For internal turnover intention, (cognitive and/or behavioral) salience of age (cognitive: B = -0.01, SE = .05, 95% BC_a CI: [-0.12; 0.10]; behavioral: B = -0.07, SE = .08, 95% BC_a CI: [-0.24; 0.07]) could not explain the significant contrast between the "younger leader" condition and the other two conditions. Furthermore, in line with our prediction, we found evidence for mediation by leaders' acceptance and legitimacy for all three discussed outcomes (internal turnover intention: B = -0.48, SE = .13, 95% BC_a CI: [-0.77; -0.27]; job satisfaction: B = 0.64, SE = .14, 95% BC_a CI: [0.39; 0.95]; team performance: B = 0.35, SE = .11, 95% BC_a CI: [0.18; 0.62]). These findings support Hypothesis 2. They indicate that lowered acceptance and legitimacy, as well as higher salience of age in the "younger leader" condition, explain the effects of the contrast between younger leaders and the older and same-age leaders regarding job satisfaction, team performance, and internal turnover intention.

Discussion

We found that for followers, the difference between the leader's age and the

team's age affects important organizational outcomes such as internal turnover intention, job satisfaction, and team performance. Nevertheless, results also show that, in contrast to Study 1, the age composition between leader and team did not directly affect external turnover for followers. However, based on the findings for job satisfaction and the research about the relationship between job satisfaction and turnover intentions (e.g., Hellman, 1997; Mahdi, Zin, Nor, Sakat, & Naim, 2012; Mobley, Griffeth, Hand, & Meglino, 1979), there might still be an indirect effect. Hence, the results of this study provide further evidence for Hypothesis 1a and were in line with results of Study 1.

We also found partial evidence for Hypothesis 2. Results support the conclusion that participants in the "younger leader" condition experience difficulties because they fit neither the leader prototype nor the group prototype, making this combination of leader age and team age the most detrimental one.

Study 2b

Sample and procedure

In Study 2b, we were interested to see how leaders would rate and assess the different leader age–team age combinations and whether similar mediator processes would play a role from their perspective. We therefore used the same scenarios as in Study 2a, but this time the participants were leaders. The study was conducted among a random selection of 500 leaders from all organizational functions and units at our collaboration partner. Again, the study was presented as an online survey, and leaders could voluntarily participate from their personal workplace. The participation rate was 47% ($N = 235$), and to achieve a well-balanced distribution between the three conditions, the participating leaders were again randomly distributed among the three experimental conditions.

The participants read the same scenario as the followers in Study 2a, with the difference that they were asked to imagine that they were the leader of the team described in the scenario. More specifically, we created a condition in which they had to imagine that they led a team in which (1) the leader was younger than the team ($N = 85$), (2) the leader was almost equal in age to the team ($N = 74$), or (3) the leader was older than the team ($N = 76$). The complete text of the scenarios can be found in

Appendix B. They also filled out a questionnaire concerning the proposed mediators and dependent variables. After the first half of the questionnaire, we repeated the mentioned scenario. Participants' ages ranged from 26 to 64 ($M = 47.68$, $SD = 7.10$), and their gender distribution was 7.7% female and 92.3% male.

Measures

Followers responded based on a seven-point Likert scale with 1 indicating weak and 7 indicating strong agreement with the statement/question for most items. We created German versions of all the scales by means of the widely used translation–back translation procedure (Brislin, 1980).

Salience of age. We used the same scale as in Study 2a, but the items were adapted slightly to focus on the salience of age differences between the leader and the team from the leader's perspective (cognitive salience of age: $M = 4.43$, $SD = 1.55$, $\alpha = .72$; behavioral salience of age: $M = 3.37$, $SD = 1.53$, $\alpha = .75$).

Beliefs of leader's acceptance and legitimacy. Items from Study 2a were adapted to measure the leader's beliefs about his/her attributed acceptance and legitimacy by the team ($M = 5.65$, $SD = 1.19$, $\alpha = .86$).

Turnover intention. We used the same scale as in Study 2a to measure "external turnover intention" ($M = 2.71$, $SD = 1.33$, $\alpha = .89$) and "internal turnover intention" ($M = 3.29$, $SD = 1.56$, $\alpha = .88$).

Job Satisfaction. We utilized the same scale as in Study 2a, but one item was adapted slightly to examine the satisfaction with the team instead of the leader ($M = 5.58$, $SD = 1.08$, $\alpha = .72$).

Overall team performance. We applied the same scale as in Study 2a to measure teams' overall performance ($M = 5.37$, $SD = 1.06$, $r = .44$, $p < .001$).

Manipulation check. We used three items to check the adequacy of the age-combination manipulation. Items are "In the described hypothetical working situation, my followers are all in all older than I am" ($M = 3.68$, $SD = 2.55$), "In the described hypothetical working situation, my followers are all about the same age as me" ($M = 2.71$, $SD = 2.24$), and "In the described hypothetical working situation, my followers are younger than I am" ($M = 3.60$, $SD = 2.56$).

Data analysis

We again conducted analyses of variance to examine the hypothesized relationships along with Cohen's *d* effect size estimates (1988). To test the proposed mediating roles, we again followed Hayes' and Preacher's (2013) approach to statistical mediation analysis with a multi-categorical, independent variable.

Results

Manipulation checks. The manipulation check showed significant differences between the three conditions for all three manipulation check questions (manipulation check younger leader: $F[2, 232] = 318.01$, $p < .001$, $\eta^2 = .733$; manipulation check same-age leader: $F[2, 232] = 138.00$, $p < .001$, $\eta^2 = .543$; manipulation check older leader: $F[2, 232] = 207.09$, $p < .001$, $\eta^2 = .641$). We performed specific contrast tests for each manipulation check question, contrasting the condition of interest with the other two conditions. These planned contrasts showed that participants in the "younger leader" condition ($M = 6.49$, $SD = 1.32$; $t[232] = 24.50$, $d = 3.34$, $p < .001$) indicated their followers to be significantly older than did participants in the "same-age leader" condition ($M = 2.72$, $SD = 1.58$) or the "older leader" condition ($M = 1.46$, $SD = 1.01$). Similarly, participants in the "same-age leader" condition ($M = 5.14$, $SD = 1.93$; $t[232] = 16.60$, $d = 2.34$, $p < .001$) indicated their followers to be significantly more equal in age than did participants in the "younger leader" condition ($M = 1.59$, $SD = 1.43$) and in the "older leader" condition ($M = 1.59$, $SD = 1.12$). Finally, also participants in the "older leader" condition ($M = 6.33$, $SD = 1.34$; $t[232] = 18.52$, $d = 2.59$, $p < .001$) indicated their followers to be significantly younger than did participants in the "younger leader" condition ($M = 1.41$, $SD = 1.30$) and the "same-age leader" condition ($M = 3.30$, $SD = 1.93$). Our manipulations were thus successful.

Hypothesis testing. The means, standard deviations, and main effects of leader age–team age combinations on the variables of interest can be seen in Table 3. Our manipulation indeed predicted our investigated mediators and outcome variables. The pairwise comparisons – based on a Bonferroni post-hoc test – showed significant differences between teams with a younger leader and those with a leader who is equal in age to the team (cognitive salience of age: $p < .001$, $d = 1.00$; behavioral salience of age: $p < .001$, $d = 1.20$; beliefs of leaders' acceptance and legitimacy: $p < .001$, $d =$

1.14; internal turnover intention: $p = .003$, $d = 0.49$; external turnover intention: $p =$ .003, $d = 0.51$; job satisfaction: $p < .001$, $d = 0.83$; overall team performance: $p = .007$, $d = 0.48$), as well as between teams with a leader who is younger than the team and teams with a leader who is older than the team (behavioral salience of age: $p = .001$, $d = 0.53$; beliefs of leaders' acceptance and legitimacy: $p < .001$, $d = 1.01$; internal turnover intention: $p < .001$, $d = 0.97$; external turnover intention: $p < .001$, $d = 1.03$; job satisfaction: $p = .002$, $d = 0.89$; overall team performance: $p = .013$, $d = 0.45$). In terms of our measured organizational outcomes, the results show that leaders who are younger (relative to the age of their team) are negatively affected compared to leaders who are almost the same age as their team, and leaders who are older than their team. Hence, these results again provide further support Hypothesis 1b.

Table 2: Results of ANOVA and Contrast Test Pertaining to Hypotheses 1/2

	Leader age-team age combination			Leader younger than the team		Leader equal in age to the team		Leader older than the team		Contrast Test young vs. rest	
Variables	$F(2, 212)$	η^2	p	M	SD	M	SD	M	SD	Estimate	p
Cognitive salience of age	19.88	.15	.000	5.00[a]	1.34	3.60[b]	1.50	4.61[a]	1.47	1.80	.000
Behavioral salience of age	27.54	.19	.000	4.13[a]	1.51	2.50[b]	1.18	3.36[c]	1.41	2.40	.000
Leaders' acceptance and legitimacy	37.01	.24	.000	4.87[a]	1.36	6.14[b]	.74	6.04[b]	.88	-2.43	.000
Job satisfaction	23.20	.18	.000	5.00[a]	1.27	5.89[b]	.83	5.93[b]	.74	-1.83	.000
Overall team performance	6.07	.05	.003	5.06[a]	1.16	5.57[b]	.97	5.53[b]	.96	-.98	.001
Internal turnover intention	18.75	.14	.000	3.98[a]	1.67	3.22[b]	1.45	2.59[c]	1.16	2.17	.000
External turnover intention	21.35	.16	.000	3.33[a]	1.39	2.67[b]	1.21	2.07[c]	1.06	1.93	.000

Note. $N = 235$ leaders. Means with different superscripts differ significantly from each other at $p < .05$

Mediation analysis. Additionally, we wanted to examine our mediation hypothesis by using the same bootstrap approach as mentioned in Study 2a (i.e., by using the MEDIATE macro [Hayes & Preacher, 2013]).

In order to test our hypothesized mediation by cognitive/behavioral salience of

age and beliefs of leaders' acceptance and legitimacy (H2), the planned contrast test for the "younger leader" condition needed to be significant. As Table 3 shows, we obtained significant contrast tests for all measured outcomes. Our hypothesis that differences in these outcomes in the "younger leader" condition, compared with the "same-age leader" and the "older leader" condition, could be explained by salience of age and by leaders' acceptance and legitimacy was partially supported. For all measured outcomes, we found evidence for mediation by leaders' acceptance and legitimacy (internal turnover intention: $B = -0.64$, $SE = .15$, 95% BC_a CI: [-0.96; -0.38]; external turnover intention: $B = -0.52$, $SE = .12$, 95% BC_a CI: [-0.81; -0.31]; job satisfaction: $B = 0.61$, $SE = .12$, 95% BC_a CI: [0.40; 0.86]; team performance: $B = 0.49$, $SE = .10$, 95% BC_a CI: [0.32; 0.71]). In addition, we found behavioral salience of age to act as a mediator for job satisfaction ($B = -0.34$, $SE = .08$, 95% BC_a CI: [-0.50; -0.20]) and cognitive salience of age to be a mediator for internal turnover intention ($B = -0.34$, $SE = .08$, 95% BC_a CI: [-0.50; -0.20]). However, for external turnover intention and team performance, the significant contrasts between the "younger leader" condition and the "same-age leader" and "older leader" conditions could not be explained by cognitive and/or behavioral salience of age. In summary, the findings partially support H2. They indicate that from a leader's perspective lowered acceptance and legitimacy and partially higher salience of age in the "younger leader" condition drove the negative effects of being a younger leader (compared to older and same-age leaders) on job satisfaction, team performance, and internal and external turnover intention.

Discussion

We showed that a leader's age, as compared with the age of the team, affects important organizational outcomes, such as (internal and external) turnover intention, job satisfaction and anticipated team performance. However, in this case we also found these effects from a leader's perspective. As a result, these findings provide – more specifically than the results of Study 1 – evidence for Hypothesis 1b but were nevertheless in line with the results of Study 1, as well as those of Study 2a. These results demonstrate that the possible leader age–team age combinations affect not only team processes and team outcomes but also leader's outcomes.

In addition, we found partial evidence for our mediation Hypothesis 2. Results

support the conclusion that leaders in the "younger leader" condition suffer most severely from issues with age differences and from a lack of power and status cues, leading to the worst outcomes as compared with those of leaders in both other leader age–team age combination.

General discussion

As a result of the worldwide phenomenon of an aging workforce, the entry of younger people into leadership positions, and the elimination of traditional promotion rules, older workers will be reporting to younger leaders more and more often. As previous research on diversity in teams is silent with regards to if and how age-related differences between a leader and a team affect organizational outcomes, we set out to illuminate the role of this specific form of age diversity in a team by investigating its effects and taking relevant mediators into account. In summary, we found that age differences between leaders and teams indeed influence important organizational outcomes such as turnover (intention), job satisfaction, team performance, and absence.

More specifically, we first found that, in terms of our measured outcomes, teams led by leaders younger than the team show more negative outcomes than teams led by leaders almost equal in age to the team and – for most outcome measures – than teams led by leaders older than the team. Second, we found this was not only the case for the team but even more so for the leader. Third, we found that the effects of age differences on turnover (intention), job satisfaction, team performance, and absence are mediated by the acceptance and legitimacy of a leader and partly by salience of age. In conclusion, we found evidence that leaders who do not fit the group prototype or leader prototype – that is, leaders who are younger than the team – obtain noticeably lower results than do the leaders who fit one of these prototypes. Perhaps our most compelling finding is that these negative outcomes apply to leaders as well as to their teams. These findings extend previous research on leadership and diversity by showing that age-based differences between a leader and his/her entire team affect important organizational outcomes at the team level and the individual level (leaders), and also that the effects are driven by the acceptance and legitimacy of a leader, and partly by the salience of age. In the following section, we consider the theoretical and practical

implications of our findings, discuss the strengths and limitations of our research, and outline some possibilities for future research.

Theoretical implications and contributions

For many years diversity research was characterized by showing the "main effects" of diversity in dyads and teams (van Knippenberg et al., 2004; Van Knippenberg & Schippers, 2007). The resulting inconsistent findings have been predominantly discussed within two theoretical frameworks that very well explain the more positive (information/decision-making processes) or more negative (social categorization processes) findings (e.g., Williams & O'Reilly, 1998; van Knippenberg & Schippers, 2007). However, when examining our specific research question these perspectives alone seem to be less able to predict when and how positive or negative effects of similarity/dissimilarity will occur. As such, our research followed former recommendations to (1) broaden past findings by additionally focus on mediating processes and (2) by introducing additional theoretical frameworks that are necessary to more clearly specify and explain findings in diversity research. Using the "prototypicality" concept, we illustrated that outcomes of the investigated diversity setting depend on the leader being prototypical as a leader or being prototypical to the group. These findings contribute to the literature in several ways and expand past research.

First, we add to prototypicality research by examining two prevalent outlooks on this concept in one study. This is an important contribution to existent research and literature because one can be prototypical in different ways and most past research in leadership and diversity tends to focus on one (for instance: being prototypical to a group) or to the other (for instance: being prototypical as a leader). We show that both types of protoypicality are important, and that high leader prototypicality can compensate for low in-group prototypicality (and vice versa). This shines new light on existent theories about prototypicality even if still more research is needed.

Second, we followed Kearney's (2008) call for closer studying of age relations between leaders and followers and if and how age differences might affect organizational outcomes. Building upon the still very limited number of studies linking age-related differences between leaders and teams and organizational outcomes, we add knowledge to why, how and when age similarity/dissimilarity between leaders and

teams affect important organizational outcomes such as job satisfaction, voluntary turnover, and absenteeism. We showed that leaders who are not seen as a prototypical leader or as prototypical to the group were less accepted and received less legitimation by team members as well as resulted in higher age salience. This, in turn, led to lower levels of important organizational outcomes. Thus, we are able to importantly add to the implicit leadership theory (e.g., Bryman, 1987; Eden & Leviatan, 1975; Berger, Cohen, & Zelditch, 1972), to van Knippenberg and Hogg's (2003) social identity perspective on leadership as well as to the social categorization perspectives (e.g., Byrne, 1971) by examining mediators that are very interesting from the view of these theoretical frameworks.

Third, our findings point to the importance of considering the salience of the diversity as a result of categorization processes (Wegge, Roth, Neubach, Schmidt, & Kanfer, 2008). Comparing three conditions of age similarity/dissimilarity, we showed that although similar levels of dissimilarity might result in similar levels of age-salience, age-salience does not automatically feed into similar negative results. That is, whereas for younger leaders age salience mediated the negative effects on affective and behavioral outcomes, age salience did not result in negative outcomes for leaders who were older than the team. We argue that for older leaders, the fit with the leader prototype might compensate for this lack of group prototypicality. In line with this reasoning, we show that the leader's acceptance and legitimacy also plays a crucial mediating role. As such, our findings represent a relevant qualification of the social categorization perspective because they indicate that similar levels of diversity do not necessarily result in similar negative social categorization processes.

Fourth, research on (age) diversity in teams that not just integrates the leader in the investigation but also focuses – in addition to team-level outcomes – on leader outcomes is very rare. We are one of the first demonstrating that relational age differences between the leader and the team are important for team outcomes but also affect the perceptions and behaviors of leaders themselves. This result represents an important finding for leadership and diversity research because it indicates that processes and effects based on similarity/dissimilarity are also relevant for leader-follower differences. Interestingly, the outcome that leaders – in contrast to the team members – show significant higher external turnover intensions when they are younger than the team appears to imply that some of the diversity effects might even be

stronger for leaders than for followers. One possibility is that reputation and self-esteem plays a role here, and future research should thus focus more on the effects on leaders and investigate if – and when so why – effects might be stronger for younger leaders.

Practical implications

As our research shows, younger leaders are confronted with critical challenges that can seriously threaten the success of their team and of their own career. As "double" non-prototypical leaders (Ryan & Haslam, 2007), they do not only have to fight against being in an out-group position within their team but also against strong, unfavorable leadership-attributions from their team. Thus, leaders in this detrimental situation need to draw on powerful strategies that allow them to safeguard their own and their team's success by adequately influencing turnover (intensions), job satisfaction, and absenteeism to ensure at least a satisfactory level of team performance. Moreover, the organization itself should provide assistance by offering adequate support for such leaders. To attain higher organizational outcomes for leaders and teams in the unfavorable "double" non-prototypical "younger leader" condition, we can formulate at least three managerial/organizational recommendations from our findings.

First, candidates for supervisory positions who fail the leader prototype and thus miss an adequate level of power and status based on their age could be supported by actions that are likely to increase the level of their acceptance and legitimacy as a leader. One such instrument might be, for instance, a standardized, clear, and openly communicated selection and promotion process for entry into leader positions and promotion into higher leader positions. This might be capable of increasing their legitimacy, and as such enhance their leadership identity (as well as the follower identity of their subordinates).

Second, on the basis of past research, leadership behavior is identified as playing a crucial role in influencing teams and leveraging the effects of age diversity (Zaccaro et al., 2001; Kearney & Gebert, 2009; Janz et al., 2012). Moreover, the specific theories of different leadership behaviors allow us to assume that some kinds of behavior are more suitable than others to assist in supporting candidates (leaders) with low power and status based on their age. Whereas some kinds of behavior seem

to be explicitly beneficial for such leaders, because they are grounded in position rather than personal power and status cues, this does not seem to be the case with others (e.g., Kearney, 2008; Eagly, Makhijani, & Klonsky, 1992; Eagly & Johnson, 1990). Thus, young candidates should be examined with regard to their competency to adapt such leadership behaviors to their own age-based status and at least receive leadership training that would support the development of such behavior to increase their effectiveness.

Third, companies should sensitize younger leaders to the powerful impact of team members' implicit leader prototypes, old-typed jobs, and social categorization processes on their capacity to successfully lead the team, and on their own (career) success. Increasing leaders' ability to deal with the lack of age-based power and status cues – by providing information about their functioning, as well as behaviors that are acceptable to team members – might reduce problematic situations and conflicts and thereby increase successful collaboration between the leader and the team.

Limitations and future research

Despite basing our hypotheses on well-grounded theoretical assumptions and using tested, valid, and measuring constructs/scales that have previously been used in multiple investigations, we acknowledge certain limitations of our research.

First, in Study 1 we were not able to obtain separate data for leaders and team members for our dependent variables. This made it impossible to adequately test differences between leaders and followers / teams. We compensated for this limitation by integrating studies 2a and 2b into our research, which adopt a more controlled approach by employing a scenario with different age combinations for both followers and leaders. However, the methodological approach of vignette studies also presents a limitation. Vignette studies are used to establish causal relationships, but they cannot ensure their external validity (e.g., van Dick, van Knippenberg, Hägele, Guillaume, & Brodbeck, 2008). Thus, we tried to mitigate this limitation by combining the vignette studies (Study 2a and Study 2b) with the analysis of objective archival data from the same collaboration partner (Study 1) in order to strengthen the validity of our findings and examine more causality in the relationship that was being studied. Hereby, we were able to compensate the limitations of one study set-up with the strengths from the other study set-up and vice versa in our research.

Second, in Study 1 we could only measure the independent and the dependent variables at the same point in time. Thus, we cannot clearly address causality, and it is unclear whether other variables might drive these effects. To attenuate this limitation, we obtained general information about our entire sample, but we were not provided with detailed information at the individual level about which individual leaders had not led their team six months before our measurement point. Even if the number is very small (28 team from 430, which is 6.51%), the limitation remains important, as we are not able to identify these teams and exclude them from the analysis to ensure that they do not distort the results. In addition, our lack of information with regard to team and leadership changes in the previous six months refrains us from examining this as an outcome variable. It might be the case that current absenteeism and turnover were actually driven by previous leader age-team age combinations.

Third, a further limitation is given by the fact that there were relatively few teams with a younger leader in our sample of Study 1. Although this is the situation in many organizations, the question is whether our comparison would actually hold up in other companies where younger leaders are more common. However, we compensate for this limitation in our research by adding Study 2a and 2b in our investigation. In these vignette studies we were able to control for an almost equal distribution of each scenario (younger, same-age, and older) among the participants. Thus we were able to meaningfully increase the number of leaders and followers that were in the "younger leader" condition.

In sum, future research based on field studies would highly benefit from fewer data (security) restrictions and could set out to reduce these limitations by obtaining more detailed information at the individual and team level and test samples with a higher number of teams fulfilling the "younger leader" condition. However, it is important to note that in Study 1 we made use of independent data sources (in other words, objective turnover and absence information, objective leader age, objective team age and objective team age composition/structure), which limits potential interpretational problems, and that the entire sample with 430 teams and more than 4,000 followers is quite large. Thus, based on the result pattern in our studies, we feel relatively secure with our approach and do not believe our results are exclusively limited to vignette studies nor to the restrictions we underlie in the archival data.

Finally, as we aimed to provide a first structural examination of whether and how age differences between leaders and teams indeed matter for affective and behavioral outcomes, we did not set out to examine potential contingency factors of the findings. Of course, examining these moderating factors is highly interesting for practical reasons, as organizations (and leaders) could benefit from understanding under which conditions younger leaders might not experience negative outcomes of being younger than their team. As such, our research and its results may prompt researchers to investigate the possible effects of relevant moderating variables that have been identified in past research about prototypical and / or diverse attributes, for instance such as different types of leadership behavior (Somech, 2006; Shin & Zhou, 2007; Kearney & Gebert, 2009) or various task types (Kearney & Voelpel, 2012; Jehn, Northcraft, & Neale, 1999; Mannix, & Neale, 2005). It seems – based on past research – apparent that those variables and other prototypical attributes might have a meaningful influence on the investigated relationship between leader age / team age combination and organizational outcomes.

Conclusion

When looking at the current demographic developments of aging workforces on the one hand, and individuals' young entry ages into leadership positions on the other hand (Jackson, May, & Whitney, 1995; Shore et al., 2003), we set out to examine how important age differences between team leaders and their team are. In this respect, our research presents one of the first structural investigations with regard to how age differences between leaders and teams affect important organizational outcomes. By focusing on these leader age-team age differences from a prototypicality perspective, we were able to explain why and how younger leaders suffer the most from their age (compared to same-age and older leaders).

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CHAPTER 4

How to survive and how to fail? The role of leadership behavior for younger leaders' lowered outcomes and lowered acceptance

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Abstract

As a result of aging workforces, older workers will more often report to relatively younger leaders. Whereas higher age is one possible important condition of status and power and thus of being accepted and legitimized as a leader, relatively younger leaders cannot rely on it. This begs the question if younger leaders actually experience less acceptance and legitimacy in a negative way and if leadership behavior can compensate for assumed lowered outcomes and lowered acceptance and legitimacy. Building on power/status, prototypicality, and leadership research, we argue that relatively younger leaders (compared to all other leaders) are associated with lower acceptance and legitimacy, which in turn detrimentally affects their teams' absenteeism and their own work engagement. Moreover, we propose that distinctive leadership behavior can compensate for (or intensify) younger leaders' lowered acceptance and legitimacy and lowered outcomes. A survey among 280 leaders, combined with objective team data from nearly 3,000 followers, largely supports our hypothesis that relatively younger leaders create unfavorable outcomes due to lowered acceptance and legitimacy and that, furthermore, the concrete leadership behavior can weaken or strengthen these effects.

Introduction

Resulting from demographic developments in most industrialized countries, the workforce and thus organizational teams have become increasingly older (Shulz & Adams, 2007; Leibold & Voelpel, 2006). Nevertheless, those individuals pursuing a managerial career are generally appointed to leading positions within a certain age range that, in contrast, has not changed.

This (relatively) young entry of individuals into those supervisory functions is often based on higher levels of education, strategic planning expertise, or information technology skills (Collins, Hair, & Rocco, 2009). Whereas in the past, younger individuals leading teams of a higher age were quite unusual, this has become more common in today's organizations and may be even more so in the future when processes of aging workforce proceed (Shore, Cleveland, & Goldberg, 2003; Collins et al., 2009). But are leaders who are younger than their team really in a disadvantaged situation? As previous work by Schreiber and colleagues (Schreiber, Bauer, & Voelpel, 2014; Schreiber, Homan, & Voelpel, 2015) has shown, they indeed seem to be, and this situation will generate negative effects in various ways. However, as they also showed (Schreiber et al., 2014) leadership behavior is identified as a potential important variable to be considered in further research. Hence, we want to broaden past findings from Schreiber and colleagues (Schreiber et al., 2014; Schreiber et al., 2015) and focus on the deprived leader age-team age combination of leaders younger than the team by using a quantitative field study and by investigating the specific role of leadership behavior for important organizational outcomes and for younger leader's assumed lowered acceptance and legitimacy.[1]

First, according to status characteristics theory (e.g., Berger, Cohen, & Zelditch, 1972; Berger, Fisek, Norman, & Zelditch, 1977), individuals hold culturally formed beliefs that assume higher competence for individuals characterized with status characteristics such as higher age (Nishii & Mayer, 2009; Ridgeway, 2003). In an organizational setting, such competency beliefs increases followers' acceptance and legitimacy of their leader's higher status when their leader is relatively older rather than younger (Kearney, 2008), and this higher acceptance and legitimacy allow their

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[1] Our focus is thus not on the actual age of the leader but rather the age composition between leader and team.

leader to exercise power over them (Ridgeway, 2003). However, leaders relatively younger than the led team may not be able to rely on such natural occurrences of status and power. In this second setting, a leader's situation will be less stable and more challenged based on the lowered acceptance and legitimacy (Kearney, 2008; Halevy, Chou, & Galinsky, 2011). Hence, conflicts are bound to arise between the leader and the team, leading to negative outcomes for both, the team and the leader – a problem that has received surprisingly little attention from researchers until now.

Second, based on the linkage of leader power and influence strategies (Tjosvold, Andrews, & Struthers, 1992), those relatively younger leaders may be prompted to apply strategies that compensate for low age-based status and power and stabilize their early supervisory position (Ridgeway, 2003). Leadership literature argues that the concrete actions and behaviors leaders show or even consciously use to exert power and influence over their subordinates are an important example of such strategies (e.g., Northouse, 2010; Bass & Bass, 2008; Yukl, 2013). This is also supported by the work from Schreiber and colleagues (2014) who identified leadership behavior as a possible key variable for younger leaders when leading older subordinates/teams. In this respect, we propose that different leadership behavior will be capable of strengthening or weakening the assumed detrimental effects of being/having a leader younger than the team because these (a) have shown general moderating effects in past leadership research (e.g., Somech, 2006; Shin & Zhou, 2007; Kearney & Gebert, 2009) and (b) we further assume them to improve or impair younger leader's lowered acceptance and legitimacy by an additional moderating effect.

Our purpose is to investigate leadership behaviors specific role for deprived (relatively) younger leaders and its conditional direct and indirect effect on crucial outcomes in organizations: absenteeism (at the teams' level) and work engagement (at leaders' individual level). Moreover, we also address the underlying processes of the relationship between a leader's relative age, leadership behavior, and absenteeism/work engagement by focusing on leaders' acceptance and legitimacy.

In sum, this study examines, first, the mediating effects of a leader's acceptance and legitimacy in the relationship between the leader age-team age composition (leaders being younger, equal or older than the led team) and absenteeism/work engagement by focusing on the relatively younger leaders. Second, the main focus of

this study is the investigation of the moderating effects of different leadership behavior on (a) the relationship between the leader age-team age composition and absenteeism/work engagement and (b) the relationship between the leader age-team age composition and leader's acceptance and legitimacy by focusing again on the relatively younger leaders. By doing so, we aim to make three contributions to the age/demography, power/status, and leadership literature. First, against the background of numerous studies on demography (e.g., Williams & O'Reilly, 1998), we examine the link between an important demographic characteristic – a leader's (relative) age – and (objective) measures of important organizational outcomes. At the same time, we were capable of showing effects to the leader himself/herself and to the entire team in one study that is a unique point too. Second, we examine an important mediator variable that helps to explain how younger leaders suffer from their specific age-related situation. Third, in light of the increasingly frequent inversion of the former hierarchical order of older individuals leading younger followers, our research suggests strategies how to overcome a lack of powerful status cues when the leader is younger than the team. Our corresponding research model is visualized in Figure 1.

Figure 1: The Proposed Relationships Between the Variables of Interest.
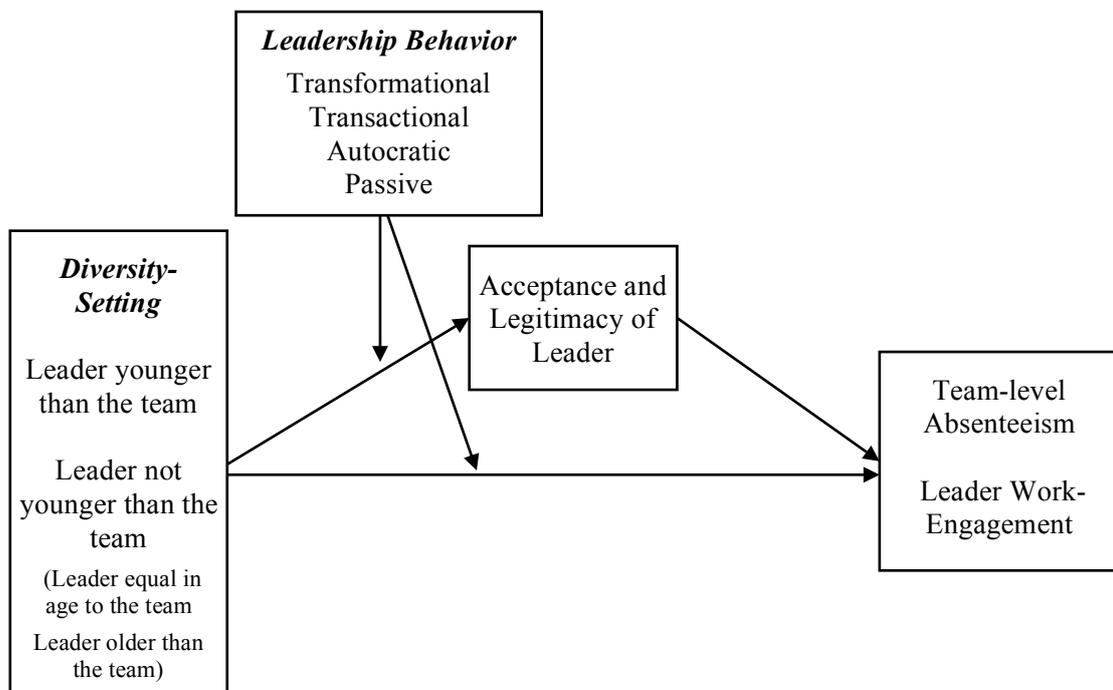
Organizational outcomes

Our examination of the importance of leadership behavior for younger leaders and their assumed lowered acceptance and legitimacy and lowered organizational outcomes include both a behavioral response and a more cognitive/attitude response. Given that (1) leaders have a specific and powerful position where they are able to affect attitudes and behaviors of individuals and processes and the performance of teams (e.g., Zaccaro, Rittman, & Marks, 2001; Stewart, 2006; Friedrich, 2010; Bass, 1990) and (2) teamwork is today's most common and important mode of work (e.g., Devine, Clayton, Philips, Dunford, & Meliner, 1999; van Dick & West, 2013), we decided to integrate two outcome variables in our research; one is specifically connected to the leader and one specifically to the entire team. Hence, we focus on work engagement as our explicit measurement for an important leader outcome and on absenteeism as our explicit measurement for an important team outcome.

Work engagement has been defined contrary to burnout (Maslach, Schaufeli, & Leiter, 2001) and can be seen as one important positive answer following Luthans' (2002) call for studying positively oriented human resources strengths and capacities in today's workplace. As Ulrich (1997) and Wright (2003) have argued, it is crucial for organizations to create more engaged employees to solve the problems of generating more performance with less workforce and to create valuable (extra) goals for the organization. Highly engaged employees have a sense of energetic and effective connection with their work activities and they see themselves as able to deal well with the demands of their job (Schaufeli, Salanova, Gonzáles-Romá, & Bakker, 2002). Hence, work engagement can be expressed as a positive, fulfilling, work-related state of mind that refers to a more persistent and pervasive affective-cognitive state (Schaufeli, Bakker, & Salanova, 2006). Given that leaders in general cause higher costs (for instance for recruiting, training, and for compensation and benefits) than any other group of employees and moreover that leaders hold a specific powerful position to affect processes and performance of teams, their work engagement should be as high as possible to unfold their greatest influence and thus to create maximum values for the organization.

Another important behavioral aspect of organizational attachment is low absenteeism (Tsui, Egan, & O'Reilly, 1992). Absenteeism has been found to negatively

influence organizational productivity (Harrison & Martocchio, 1998) as well as to result in enormous financial costs for organizations (e.g., absenteeism cost the German economy about 43 billion Euros in 2009; Booz & Company, 2011). Preferably, thus, absenteeism should be – based on its closely related direct and indirect costs for the organization – generally at a low level.

As within our Western culture, higher age is an important characteristic of being a prototypical leader (Berger et al., 1972; Berger et al., 1977; Ridgeway, 2003; Schreiber et al., 2015). People have implicit age-related career tables that prescribe age norms for certain career steps (Lawrence, 1984; Lawrence, 1988), and leader positions can be seen as positions that are stereotyped as 'old-typed jobs' (Perry & Finkelstein, 1999). Leaders violating these conditions – that is relatively young leaders – can be seen as in a clearly deprived situation. Hence, when leaders are younger than the team, it is very likely that conflicts are bound to arise between the leader and the team. Conflicts represent the processes resulting from tension between team members (which also includes the leader) because of real or perceived differences (e.g., De Dreu, Harinck, & Van Vianen, 1999; Wall & Callister, 1995) and especially relationship conflicts have been shown to negatively influence important organizational outcomes such as satisfaction or team performance (e.g., Jehn, 1995; Robbins, 2000; De Dreu & Weingart, 2003). In addition, also increased emotional and cognitive conflicts – that can be assumed when leaders are younger than the team – are found to be disruptive for important organizational outcomes such as job satisfaction (Ries, Diestel, Wegge, & Schmidt, 2010). As tensions and frictions disrupt group processes, open communication, and knowledge sharing, they lead to lowered outcomes in areas such as job satisfaction or team performance. Hence, we argue that especially leaders younger than the team are in a detrimental situation compared to all other leaders and are, therefore, confronted with higher conflicts between themselves and their team. Moreover, by following past conflict research, we argue that these conflicts end showing negative results in teams in terms of higher absenteeism and in leaders in terms of lower work engagement. Herewith, we explicitly state that not just followers/teams suffer from relatively younger leaders in terms of organizational outcomes but that at the same time, also leaders themselves suffer from this leader age-team age combination.

Hypothesis 1: Teams led by leaders younger than the team show higher absenteeism than all other teams.

Hypothesis 2: Leaders leading a team older than themselves show less work engagement than all other leaders.

Power, status, and acceptance and legitimacy

Following the argumentation from Bass and Bass (2008), the concepts of leadership and power are inherently linked, and leaders need to be approved, accepted, and respected by their team members in order to legitimize their authority and make it possible to successfully influence their teams (e.g., DeRue & Ashford, 2010; Kearney, 2008; Bass & Riggio, 2006). This leader power can be built on different foundations (French & Raven, 1959), and one important candidate for such a power base is higher age, as it is generally associated with more job-related experiences, (Avolio, Waldmann, & Mc Daniel, 1990; Liden, Stilwell, & Ferris, 1996), more knowledge, higher competency, and more career success (Lawrence, 1988; Pelled, Eisenhardt, & Xin,, 1999; Halevy et al., 2011). Those collective cultural beliefs on the higher status of individual characteristics – such as higher age – shape a leader's perceived acceptance and legitimacy (Ridgeway, 2003). Hence, older leaders possess characteristics that are associated with more power and status that will assist their ability to lead and create acceptance and to obtain legitimacy from their followers (e.g., Hollander, 2008; Tsui, Xin, & Egan, 1996).

Consistently, one of the first studies taking into account leaders' relative ages by Kearney (2008) indicated differences in transformational leadership effectiveness depending on leaders being older or equal in age to the team. One probable explanation for this finding is that followers' acceptance and legitimation of a leader's superior position is dependent on a leader's relative age.

Moreover, also previous work by Schreiber and colleagues (Schreiber et al., 2015) offered a theoretical argumentation why and how younger leaders suffer from their leader age-team age combination compared to leaders that are not younger than their teams. The approach used in their work, that leaders have to necessarily fulfill a *leader prototype* or a *group prototype* to be sufficiently prepared with acceptance and

legitimacy – in addition to power and status theory –, also considers implicit leadership theory (Bryman, 1987; Eden & Leviatan, 1975) and the social categorization perspective (Tajfel & Turner, 1979; Festinger, 1954; Byrne, 1971; Tajfel & Turner, 1986). In their research (Schreiber et al., 2015), they showed first evidence for leaders younger than the team being in a harmful situation and showing lowered important organizational outcomes compared to leaders equal in age to the team and to leaders older than the team. As they further demonstrated, younger leaders' lowered acceptance and legitimacy partly explains these lowered outcomes and supports their reasoning. However, their investigation did not consider strategies how younger leaders can compensate for lowered outcomes and for lowered acceptance and legitimacy.

By following a power/status approach and the prototypicality approach by Schreiber and colleagues (2015), we argue that leaders who are younger than their team are less accepted and seen as less legitimated by their subordinates and thus experience less acceptance and legitimacy.

Hypothesis 3: Leaders leading a team older than themselves experience less acceptance and legitimacy then all other leaders.

We further predict that this (experienced) lack of acceptance and legitimacy by the leader results in deteriorated outcomes for both the leader and his/her team. We argue, that this occurs because the lowered acceptance and legitimacy lead to increased conflicts between the leader and the team/followers that disturb group processes and finally, followers show lowered support to their leader (Tsui et al., 1996) and vice versa. Furthermore, previous work by Schreiber and colleagues (2014) also has shown that relatively younger leaders implicitly described a noteworthy number of age-related conflicts within the team and between themselves and the team, whereas they, at same time, negatively experienced lowered acceptance and legitimacy from their followers.

Hypothesis 4: Leaders' beliefs of his/her lowered acceptance and legitimacy will mediate the relationship between having/being a leader who is younger than the team and absenteeism and work engagement.

Leadership behavior and its relevance

Does leadership behavior play a significant role for relatively younger leaders and can it compensate for assumed lowered outcomes/acceptance and legitimacy? Examining this unexplored question could yield further important insights into the conditions under which divergent leadership behavior is likely to have the most advantageous effect on organizational outcomes. Moreover, it could identify an aspect that warrants consideration in finding an optimal fit between a leader's behavior and his/her team.

Leadership and specific leadership behavior (or styles) grounded on different developed leadership theories have been recognized and studied for numerous decades (Friedrich, 2010). Leaders have been found to influence various important team processes and team outcomes substantially (Zaccaro et al., 2001), and their actual behavior has been identified as one main important variable in supplying leaders' effectiveness (Yukl, 2013; Yukl & Van Fleet, 1992). For instance, investigations in the field of diversity research showed that leadership and team performance are positively associated and that the concrete type of leadership behavior shows relevance (e.g., Stewart, 2006; Somech, 2006; Shin & Zhou, 2007; Kearney & Gebert, 2009). Knowing that numerous different concepts of leadership styles developed in several decades of leadership research exist, we consciously decided to use four distinctive styles to investigate our research question about the meaning/role of leadership behavior for leaders younger than their team compared to leaders that are not younger than the team. Hence, we included largely divergent leadership styles that have been studied and identified as especially beneficial and – opposing – as more detrimental in the recent past. Hence, in our research we focus on transformational, transactional, autocratic and passive leadership behavior to answer our research questions. This decision is based upon the fact that transformational and transactional leadership behavior are well studied in the past two decades and that especially transformational leadership is declared as the most effective style (e.g., Bass, 1985; Bass & Riggio, 2006; Judge & Piccolo, 2004) whereas also transactional leadership is generally considered to be an effective leadership style (e.g., Bass & Riggio, 2006; Zhu, Riggio, Avolio, & Sosik, 2011). However, as we also wanted to include two more opposed leadership styles that are declared as largely being more ineffective styles (e.g., Bass &

Riggio, 2006; Van Vugt, Jepson, Hart, & De Cremer, 2004; Judge, Piccolo, & Ilies, 2004; Kelloway, Sivanthan, Francis, & Barling, 2005), we integrated autocratic and passive leadership into our investigation. By doing so, we aim to shed more light on the general meaning and role of distinctive behaviors especially for leaders younger than their team. Moreover, herewith, we are capable of showing a strategy for leaders in the assumed deprived leader age-team age combination how to overcome their detrimental situation. Furthermore, we also aim to show that there are other behaviors that explain how to fail as a relatively younger leader. Finally, we contribute to existent leadership literature and research about the included leadership styles and show their specific effects for younger leaders, as there is very little knowledge about the conditions under which transformational, transactional, autocratic, and passive leadership of teams is more effective or less effective.

Transformational and transactional leadership or how to survive

Transformational Leadership (TFL). Transformational leadership has become one of the most investigated and influential leadership styles in work and organizational psychology literature in the past three decades (e.g., Bass, 1985; Lowe, Kroeck, & Sivasubramaniam, 1996; Bono & Judge, 2004; Kearney & Gebert, 2009). It was introduced by Burns (1978) and Bass (1985; 1990) and composes four characteristics: idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration (Bass, 1990). With these four characteristics, TFL relates mainly to influencing followers' attitudes, beliefs and values so that they become more motivated to perform beyond common expectations (Rafferty & Griffin, 2004; Bass & Riggio, 2006). Transformational leaders are considered to be highly effective managers in the workplace who are concerned about the well-being of their followers and thus TFL has been found in many studies to be positively related to various performances measures (e.g., Kelloway, Mullen, & Francis, 2006; Avolio & Bass, 2004; Burke et al., 2006; Chan & Chan, 2005; Judge & Bono; 2000). Given its positive impact on a number of important organizational outcomes such as organizational commitment (e.g., Barling, Weber, & Kelloway, 1996), employee performance (e.g., Bass, 1985), team performance (e.g., Schaubroeck, Lam, & Cha; 2007), and business unit performance (e.g., Howell & Avolio, 1993), transformational leadership is considered to be a very effective leadership style.

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Based on the highly researched positive effects of transformational leadership – and opposing Kearneys' (2008) argumentation that TFL just unfolds its positive effects when leaders are older than the team and provided with sufficient level of acceptance and legitimacy – we propose that also younger leaders can participate in the positive effects of TFL. We argue, that leaders' charismatic behaviors to show appreciation, support and supervision towards individuals, and to establish and communicate a shared vision and to facilitate team spirit also unfold its positive effects in a team with subordinates that are older than the leader. Hence, the expected negative relationship between leaders being younger than the team and work engagement/absenteeism is assumed to be attenuated when younger leaders show higher levels of transformational leadership rather than lower levels. Moreover, we argue that the positive effect of transformational behaviors also attenuates the proposed negative relationship between relatively younger leaders and leaders' (experienced) acceptance and legitimacy.

Transactional Leadership (TAL). While the transformational leader typically inspires followers to do more than originally is expected, the transactional leader motivates followers to perform as expected (Den Hartog, Van Muijen, & Koopman, 1997). By giving followers something they want in exchange for something the leader wants, transactional leaders generally focus on the appropriate exchange of resources (Kuhnert & Lewis, 1987; Judge & Piccolo, 2004). In contrast to the affective and emotional approach of transformational leadership, this is a more rational approach.

Transactional leaders aim to monitor and control employees through rational or economic means with three dimensions characterizing them: contingent reward, management by exception (active), and management by exception (passive) (Zhu et al., 2011). As contingent reward leaders, they set up constructive exchanges with their followers by clarifying expectations and establishing the rewards for meeting these expectations; management by exception leaders take corrective action on the basis of results of the leader-follower transactions (Judge & Piccolo, 2004). The differences between active and passive management by exception refer to the timing of a leader's interventions (Howell & Avolio, 1993). Whereas active leaders monitor a follower's behavior and take actions before problems arise, passive leaders wait until the follower's behavior creates serious problems (Judge & Piccolo, 2004).

Based on Bass and Avolio's (1994), full range of leadership model contingent reward is exclusively seen as an effective sub-dimension because of setting clear

expectations and goals on the one hand, and rewarding followers for goal attainment on the other hand, are expected to motivate until a certain point (Avolio, 1999). However, management by exception (active) is seen as neither an effective nor an ineffective behavior, whereas management by exception (passive) is seen as an ineffective behavior in the full range of leadership model (Bass & Avolio, 1994). Nonetheless, as Judge and Piccolo (2004) in their meta analytical review observed, contingent reward and management by exception (active) revealed positive effects to certain outcome variables such as follower motivation, whereas management by exception (passive) explicitly revealed negative effects.

In sum, past research has shown that the management by exception form of transformational leadership is less effective than both contingent reward and transformational leadership and that transformational leadership has a more positive effect than contingent reward on various organizational outcomes (e.g., Avolio, 2005; Judge & Piccolo, 2004; Lowe, Kroeck, & Sivasubramaniam, 1996). Nevertheless, transactional leaders are able to monitor a follower's performance, correct his/her mistakes and errors and thus can enable the achievement of the necessary goals. Hence, also transactional leadership is in sum generally stated to be an effective leadership style and to lead to appropriate organizational outcomes (e.g., Bass & Riggio, 2006; Zhu, Riggio, Avolio, & Sosik, 2011).

Based on the well-researched and largely positive effects of transactional leadership, we propose that also younger leaders can benefit from the positive effects of TAL. We argue that leaders' behavior to provide tangible or intangible support and resources to followers in exchange for their efforts and performance while punishing followers if they do not accomplish agreed goals, and their behaviors to monitor performance and taking corrective action, also lead to positive effects in a team with subordinates that are older than the leader. Hence, the expected negative relationship between leaders being younger than the team and work engagement/absenteeism is assumed to be attenuated when younger leaders show higher levels of transactional leadership rather than lower levels. Moreover, we argue that the positive effect of transactional behaviors also attenuates the proposed negative relationship between relatively younger leaders and leaders' (experienced) acceptance and legitimacy.

Autocratic and passive leadership or how to fail

Autocratic Leadership (ACL). Autocratic leadership is declared as generally being a less positive form of leadership. This evaluation refers to autocratic leaders' limiting subordinates input in decisions, being dominating and pushy, showing little respect for others' opinions and values, and finally fostering dependency (Bass, 1990; De Cremer, 2006; Yukl, 2013). By doing such, autocratic leaders limit self-determination and autonomy and push followers to accept the leader's ideas which in turn decreases subordinates' sense of control and goal orientation and increases powerlessness (De Hoogh & Den Hartog, 2009). Moreover, such leaders are low in consideration and support (Judge et al., 2004) that is related to lower outcomes such as reduced satisfaction, motivation, effectiveness, and/or burnout for instance (Judge et al., 2004; Maslach et al., 2001). Combined past findings suggest that autocratic leadership is largely in a negative way related to important organizational outcomes, setting the assumption not to investigate extreme social settings (that may dictating autocratic leadership style) but task situations in which autocratic behaviors are regarded as less satisfying and motivating due to their direct nature.

Based on the directive and forceful nature and thus the negative influence towards group stability, group effectiveness, group climate, and feelings of being content, happy, and involved (Van Vugt, Jepson, Hart, & De Cremer, 2004; Bass, 1990), we propose that younger leaders especially suffer from the negative effects of autocratic leadership behavior. We argue that younger leaders' autocratic behavior specifically does not satisfy older followers or motivate them to exhibit loyalty and dedication toward the younger leader in a strengthened way and in turn, the younger leaders themselves also suffer from this interaction resulting in being less satisfied, motivated and finally, less engaged. Moreover, we argue that especially younger leaders suffer from displaying a dominating and pushy leader style in which they show little respect towards followers' opinions and values. Furthermore, that this is based on their specific situation of being younger than the team as they are not provided with adequate age-based status and power that may make such behaviors more bearable or acceptable for followers. Hence, the expected negative relationship between leaders being younger than the team and work engagement/absenteeism is assumed to be strengthened when younger leaders show higher levels of autocratic leadership rather than lower levels. Moreover, we argue that the negative effect of autocratic behaviors

also strengthens the proposed negative relationship between relatively younger leaders and leaders' (experienced) acceptance and legitimacy.

Passive Leadership (PL). In addition to the autocratic leadership also passive leadership is generally considered to be an ineffective approach to leading subordinates and teams (e.g., Kelloway et al., 2006; Howell & Avolio, 1993; Bass & Avolio, 1994). Passive leadership style comprises mainly elements of *laissez-faire leadership* and *management-by-exception (passive) leadership* (Den Hartog et al., 1997; Kalshoven, Den Hartog, & De Hoogh, 2011) both being part of the full range of leadership model by Bass and Avolio (1994).

Leaders with passive behaviors invest only a minimal amount of effort to get required work done, they avoid problems and involvement, and they just act when problems are already urgent (Bass, 1985; Den Hartog, et al., 1997; Kalshoven et al., 2011). By doing so, passive leaders mainly do not fulfill their responsibilities and do not achieve required results. Moreover, passive leadership is not only seen as an ineffective form but even more as a destructive form of leadership as passive leaders waste time, are unmotivated, and fail to adequately support and guide their followers (Deluga, 1990; Einarsen, Aasland, & Skogstad, 2007). In sum, passive leaders lack important positive leadership skills leading to / resulting in poor results and demotivated followers.

Based on the deedless behaviors of passive leaders and their effects on followers and organizational outcomes, we propose that younger leaders especially suffer from these negative effects. We argue, that younger leaders' passive behavior explicitly demotivates their older followers by not giving them any direction, not satisfying their individual needs (Deluga, 1990; Bass & Avolio, 1997), and not showing goal-oriented actions. Furthermore, as Collins and colleagues (2009) have shown, older workers expect less from their younger supervisors and in turn, older workers rate their younger supervisors' leadership behavior lower than all other possible leader age-team age combinations did. Hence, we argue that younger leaders actually shown poor and ineffective passive leadership behavior combined with older workers lowered expectations and in turn, lowered leadership behavior rating, is finally negatively related to organizational outcomes. Moreover, displaying an inactive and passive leadership style seems furthermore not appropriate to compensate for younger leaders lack of age-based status and power and thus assumed lowered

acceptance and legitimacy. Hence, the expected negative relationship between leaders being younger than the team and work engagement / absenteeism is assumed to be strengthened when younger leaders show higher levels of passive leadership rather than lower levels. Moreover, we argue that the negative effect of passive behavior also strengthens the proposed negative relationship between relatively younger leaders and leaders' (experienced) acceptance and legitimacy.

In sum, we argue that the two integrated leadership styles that represent charismatic and rational behaviors are well qualified to attenuate the negative effects of relatively younger leaders in terms of lowered acceptance and legitimacy and in terms of lowered outcomes. Moreover, we further argue that the two integrated leadership styles that represent directive and passive behaviors are well qualified to strengthen the negative effects of relatively younger leaders in terms of lowered acceptance and legitimacy and in terms of lowered outcomes.

Hypothesis 5:

Leadership behavior will moderate the direct effect of having/being a leader younger than the team on outcomes and the indirect effect through leaders' beliefs of his/her lowered acceptance and legitimacy. Specifically,

a) when transformational/transactional leadership is high rather than low, this attenuates the direct and indirect negative effects of younger leaders on absenteeism and work engagement.

b) when autocratic/passive leadership is high rather than low, this strengthens the negative direct and indirect effects of younger leaders on absenteeism and work engagement.

Method

To test our research model, we conducted a field study in a large German company from the energy sector with more than 5,000 employees. We employed this extensive study in order to address the proposed relationships and provide insights into underlying processes. The survey of this study was conducted among leaders and thus

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largely speaks from the leader perspective. Additionally, we obtained relevant information from archival data from the HR Management-IT Systems at our collaboration partner.

Sample and Procedure

The sample of our study consisted of a selection of 500 leaders from all organizational functions, units, and management levels. In order to obtain a sample that entailed as many as possible leaders younger than their team – the core of our research – we invited all leaders that fulfilled this leader age-team age combination to participate. We obtained the necessary information from a preliminary analysis of the team's age-structures based on archival – and thus, objective – data. Therefore, we used the provided information about leaders' and team members' individual ages for all employees of the company and than calculated all those leaders that were more than one standard deviation younger than the mean age of the respective team. We then drew a random selection of the other leaders (i.e., equal in age to the team and relatively older than the team) to reach the approved sample size for our study. The questionnaire was presented online, and leaders could participate voluntarily from their personal workplace. The participation rate was 56% ($N = 280$).

Leader age ranged from 28 to 64 ($M = 45.89$, $SD = 7.76$), their gender distribution was 9.3% female and 90.7% male, and their leader tenure ranged from one to 35 years ($M = 11.49$, $SD = 7.70$). Some 65.7% of the leaders had graduated from university, 33.9% had finished a non-university degree, and 0.4% did not have a degree. Team sizes ranged from two to 31 people, not including the team leader ($M = 10.67$, $SD = 6.04$). The total sample consisted of 280 leaders that were leading 280 teams with in total 2,988 followers.

Measures

To measure acceptance and legitimacy, work engagement and leadership behavior, leaders responded to questionnaire items on a seven-point Likert scale (1 = weak agreement; 7 = strong agreement). We created German versions of all used scales by means of the translation–back translation procedure (Brislin, 1980).

Additionally, to operationalize leader age-team age combination and

absenteeism, the HR department provided objective raw data. The dependent variable absenteeism was measured and operationalized at the team level (including the leader). Due to privacy reasons and data protection rules, the data was not provided to us on the individual level. Therefore, all relationships were analyzed on the team level, as we could not perform individual-level or multi-level analyses (Bryk & Raudenbush, 1992; Kashy & Kenny, 2000).

Leader age-team age combination. The ages of the leaders as well as the age of each team member were provided from company's IT-systems as objective information. To determine the age difference between a leader and a team, we divided our sample into three categories based on the standard deviation of the respective team age. The first category included all leaders who were more than one standard deviation older than the mean age of the team (i.e., the 'older leader' category; $N = 81$). The second category was operationalized as the leader being (almost) equal in age to the mean age of the team (i.e., the 'equal age leader' category; $N = 109$). The third category consisted of leaders that were more than one standard deviation younger than the mean age of their team (i.e., the 'younger leader' category; $N = 90$ teams).

Leader's beliefs of his/her acceptance and legitimacy. A leader's beliefs of team members' judgment of his/her acceptance and legitimacy were measured using Choi and Mai-Dalton's (1999) scale that consists of four items ($M = 5.70$, $SD = 1.09$, $\alpha = .92$). These items were slightly adapted to measure a leader's beliefs about his/her attributed acceptance and legitimacy by the team. Example items are "I believe that my team accept me as a leader." and "I believe that in the eyes of my team I deserve the position of a leader.".

Leadership behavior. To measure the meaning of distinctive leadership behavior we assessed the discussed styles by using the corresponding scales from the Dutch validated Charismatic Leadership in Organizations (CLIO) questionnaire (De Hoogh, Den Hartog, & Koopman, 2004). Transformational leadership was assessed using eleven items ($M = 5.44$, $SD = .82$, $\alpha = .89$). A sample item is: "I encourage subordinates to be independent thinkers.". Six items were used to assess transactional leadership ($M = 6.04$, $SD = .64$, $\alpha = .80$). A sample item is: "I do not criticize subordinates without good reason.". Passive leadership was measured using four items ($M = 2.85$, $SD = 1.13$, $\alpha = .70$) and a sample item is "Things have to go wrong for me to take action.". Finally, autocratic leadership was evaluated using six items ($M = 4.39$,

SD = 1.13, α = .57). Unfortunately, the items measuring autocratic leadership exhibited very poor reliability, and as a result we decided not to include this leadership style in our statistical analysis.

Work engagement. Leaders' work engagement was measured with the shortened version of the Utrecht Work Engagement Scale (UWES-9; Schaufeli, Bakker, and Salanova, 2006) that consists of nine items (*M* = 5.21, *SD* = .94, α = .92). Example items are "At my work, I feel bursting with energy." and "I feel happy when I am working intensely.".

Absenteeism. Absenteeism, which was measured as an objective variable at the team level, was expressed as a percentage (*M* = 3.89%, *SD* = 2.82) and constitutes the proportion of time during which team members were absent from work compared to the total regular working time per year.[2]

Data Analysis

We tested our study hypotheses in four linked steps. First, we conducted analyses of variance to examine the hypothesized relationship of the similarity / dissimilarity between leaders and teams, our dependent variables and the mediator, along with Cohen's *d* effect size estimates (1988) (Hypotheses 1-3). In accordance with Cohen's (1988) rule of thumb, an effect size is classified as small if its value is around .20, as medium if this is around .50, and as large if the effect size exceeds .80. Second, we examined a simple mediation model (Hypothesis 4) by following the approaches of Preacher and Hayes (2004) and Hayes (2009; 2013) and using the PROCESS macro provided by Hayes. Third, we tested the interactions and their significance between the variables of interest by using regression analysis as a prerequisite for the moderated-mediation-analysis. Fourth, we integrated the proposed moderator variable into our model (Hypotheses 5a and b) and empirically tested the moderated mediation roles by following Preacher's, Rucker's, and Hayes' (2007) and Hayes' (2013) approach to statistical moderated mediation analysis again using the PROCESS macro. We tested a separate model for both outcome variables. A correlation matrix of all variables of interest can be found in Table 1.

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[2]   The variable also includes leaders and not only followers.

Table 1: Descriptive Statistics and Study Variable Intercorrelations

Variables	M	SD	1	2	3	4	5	6	7
1. Younger category[a]	0.32	0.47	-						
2. Leader's beliefs of his/her acceptance and legitimacy[b]	5.70	1.09	-.37**	-					
3. Transformational leadership[b]	5.44	0.82	-.31**	.75**	-				
4. Transactional leadership[b]	6.04	0.64	-.28**	.67**	.68**	-			
5. Passive leadership[b]	2.85	1.13	.30**	-.56**	-.58**	-.37**	-		
6. Absenteeism[a]	3.89	2.82	.55**	-.34**	-.34**	-.25**	.34**	-	
7. Work engagement[b]	5.21	0.94	-.38**	.73**	.73**	-.61**	-.55**	-.32**	-

Note. $N = 280$ leaders/teams. For younger category, leaders equal and older than the team were coded 0, and leaders younger than the team were coded 1. [a] Rating provided by archival data. [b] Rating provided by supervisor. ** $p < .01$

Results

Main effects

The means, standard deviations, and main effects of leader age–team age combinations on the variables of interest can be found in Table 2. Our independent variable of leader age-team age combination is significantly related to the mediator and outcome variables. The pairwise comparisons of the ANOVA – based on a Bonferroni post-hoc test – showed that for the younger leader category leader's beliefs of his/her acceptance and legitimacy ($p < .001$, $d = 0.84$) and work engagement ($p < .001$, $d = 0.81$) were lower, and absenteeism ($p < .001$, $d = 1.35$) was higher compared to the leader equal in age category. Similarly, the younger leader category was associated with lower leader's beliefs of his/her acceptance and legitimacy ($p < .001$, $d = 0.70$), lower work engagement ($p < .001$, $d = 0.82$), and relatively more absenteeism ($p < .001$, $d = 1.41$) than the older leader category. We did not find any significant differences between the group of leaders that are equal in age to the team and the group of leaders that are older than their team in terms of our measured variables. These results provide support for our Hypotheses 1, 2 and 3.

Based on these results, we dummy-coded our independent variable of leader age-team age combinations for further analyses into leaders that are younger than the led team ("younger category" = 1) and leaders who are not younger than the led team

("all other category" = 0) to investigate the effects of distinctive leadership behavior for leaders in the "younger category"

Table 2: Results of ANOVA Analyses for Categorical Comparisons *(Hypothesis 1, 2, and 3)*

Variables	Leader age-team age combination			Leader younger than the team		Leader equal in age to the team		Leader older than the team		Contrast test young vs. rest	
	$F(2, 277)$	η^2	*p*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*Estimate*	*p*
Leader's beliefs of his/her acceptance and legitimacy	21.63	.14	.000	5.12[a]	1.34	6.01[b]	.78	5.93[b]	.91	-1.70	.000
Absenteeism	60.17	.30	.010	6.14[a]	2.61	2.78[b]	2.42	2.88[b]	1.97	6.62	.000
Work engagement	23.07	.14	.000	4.70[a]	1.07	5.42[b]	.71	5.49[b]	.83	-1.52	.000

Note. N = 280 leaders/teams. Means with different superscripts differ significantly from each other at $p < .05$

Mediation analysis

Before testing our complete research model with the included moderating variable, we were interested in testing the effect of our mediating variable in the relationship between leader age and our outcome variables (Hypothesis 4). We examined our mediation hypotheses by using the SPSS macro PROCESS designed by Preacher and colleagues (2007; Model 4). This macro facilitates the implementation of the recommended bootstrap approach. Bootstrapping is a nonparametric method that assigns measures of accuracy to statistical estimates (Efron & Tibshirani, 1998; Mooney & Duval, 1993), and the standard errors are estimated using the available data. The bootstrap approach involves computing confidence intervals around the product term (a*b), and if zero falls outside of this 95% confidence interval, the indirect effect is significant, providing evidence for mediation. On the basis of recommendations, we resampled 5,000 times and used the percentile method to create 95% intervals (Preacher & Hayes, 2008).

In line with our previous finding, the analysis showed that being/having a leader younger than the team ("younger category") was positively associated with absenteeism (B = 2.97, SE = .32, 95% BC$_a$ CI: [2.34; 3.60]) and negatively associated with work engagement (B = -0.26, SE = .09, 95% BC$_a$ CI: [-0.43; -0.08]). As Table 3 shows, the differences in these outcome variables between the "younger category" and

the "all other category" can be explained by leader's beliefs in his/her lowered acceptance and legitimacy. The bootstrapped 95% CI did not contain zero, which demonstrated that the indirect effects were significant. Thus, Hypothesis 4 was supported.

Table 3: Results of Regression Analyses for Simple Mediation Models *(Hypothesis 4)*

Model: Absenteeism	*B*	*SE*	*t*	*p*
Total and Direct Effects				
Total: younger category to absenteeism	3.32	0.30	10.99	< .001
Direct: younger category to absenteeism	2.97	0.32	9.28	< .001
	B	*SE*	LL 95% CI	UL 95% CI
Indirect Effect (Bootstrap Result)				
Indirect: younger category to absenteeism through leader's beliefs of his/her acceptance and legitimacy	0.35	0.17	0.08	0.75
Model: Work Engagement	*B*	*SE*	*t*	*p*
Total and Direct Effects				
Total: younger category to work engagement	-0.76	0.11	-6.78	< .001
Direct: younger category to work engagement	-0.26	0.09	-2.91	.004
	B	*SE*	LL 95% CI	UL 95% CI
Indirect Effect (Bootstrap Result)				
Indirect: younger category to work engagement through leaders' beliefs of his/her acceptance and legitimacy	-0.50	0.11	-0.73	-0.30

Note. N = 280 leaders/teams. Unstandardized regression coefficients are reported. Bootstrap sample size = 5,000. LL = lower limit; CI = confidence interval; UL = upper limit.

Moderated-mediation analysis

Before testing our research models for conditional direct and indirect effects for Hypothesis 5, we first examined whether the three leadership styles moderated the effects of leader age-team age combination – being a leader younger than the team ("younger category") versus the rest – on the outcome measures. To test this, we firstly computed interactions between our assumed moderating variables (transformational, transactional, and passive leadership behavior, which were centered) and our independent variable ("younger category" vs. rest) and then we used these interactions to predict absenteeism, work engagement, and leader's beliefs of his/her acceptance and legitimacy (as our mediating variable). Table 4 presents the results of this analysis for Hypothesis 5.

Table 4: Results of Hierarchical Regression Analyses for Interactions *(Hypothesis 5)*

Variables	Absenteeism		Work engagement		Leader's beliefs of his/her acceptance and legitimacy	
	Step 1	*Step 2*	*Step 1*	*Step 2*	*Step 1*	*Step 2*
(a) Transformational leadership and younger category						
Step 1: Main effects						
Transformational leadership	-.19*		.68*		.71*	
Younger category	.49*		-.17*		-.15*	
Step 2: Two-way interaction						
Transformational leadership x younger category		-.17*		.12*		.16*
R²	.34	.35	.56	.56	.58	.60
F	69.66*	49.23*	174.45*	118.83*	196.07*	137.01*
ΔR²	.34	.01	.56	.01	.59	.01
F Change	69.66*	5.92*	174.45*	3.92*	196.07*	8.41*
(b) Transactional leadership and younger category						
Step 1: Main effects						
Transactional leadership	-.11*		.55*		.61*	
Younger category	.52*		-.22*		-.20*	
Step 2: Two-way interaction						
Transactional leadership x younger category		-.19*		.25*		.27*
R²	.31	.33	.42	.46	.48	.53
F	63.05*	46.07*	101.11*	78.58*	128.72*	101.88*
ΔR²	.31	.02	.42	.04	.48	.04
F Change	63.05*	8.62*	101.11*	19.80*	128.72*	25.47*
(c) Passive leadership and younger category						
Step 1: Main effects						
Passive leadership	.19*		-.48*		-.50*	
Younger category	.49*		-.24*		-.22*	
Step 2: Two-way interaction						
Passive leadership x younger category		.17*		-.36*		-.38*
R²	.34	.35	.35	.41	.36	.42
F	70.25*	49.58*	73.83*	63.52*	77.13*	67.67*
ΔR²	.34	.01	.35	.06	.36	.07
F Change	70.25*	5.80*	73.83*	28.33*	77.13*	31.67*

Note. N = 280 leaders/teams. Standardized regression coefficients (*β*) are reported. For younger category, leaders equal and older than the team were coded 0, and leaders younger than the team were coded 1.   * p < .05

As expected, the interactions between the different leadership behavior and the "younger category" predicted our mediating and outcome variables, and the interactions explained significantly more variance over and above the main effects. To

probe the significance of the simple slopes, we secondly adopted the procedure outlined by Aiken and West (1991), who recommended testing the significance of simple slopes at one standard deviation below and one standard deviation above the mean of the second predictor. This procedure revealed the following results:

Acceptance and legitimacy. The "younger category" was negatively related to leader's beliefs of his/her acceptance and legitimacy when transformational leadership is relatively low ($\beta = -.24$, $t = -4.68$, $p < .001$), but not when transformational leadership is relatively high ($\beta = -.03$, $t = -.42$, $p = .673$). When transactional leadership is relatively low, the "younger category" was also negatively related to leader's beliefs of his/her acceptance and legitimacy ($\beta = -.37$, $t = -6.68$, $p < .001$) whereas it is not when this type of leadership is relatively high ($\beta = .07$, $t = 1.02$, $p = .310$). Furthermore, the "younger category" was negatively related to leader's beliefs of his/her acceptance and legitimacy when passive leadership is relatively high ($\beta = -.44$, $t = -7.12$, $p < .001$), but not when passive leadership is relatively low ($\beta = .06$, $t = .90$, $p = .368$). That is, leaders younger than the team experienced less acceptance and legitimacy than all other leaders when transformational (see Figure 2) or transactional (see Figure 3) leadership is relatively low or when passive (see Figure 4) leadership is relatively high. For leaders that indicate relatively high transformational or transactional leadership or relatively low passive leadership, there is no significant difference between leaders younger than the team or leaders equal in age to the team or older than the team.

Figure 2: Leader's Beliefs of his/her Acceptance and Legitimacy as a Function of the
Leader Age-Team Age Combination and Transformational Leadership (TFL)
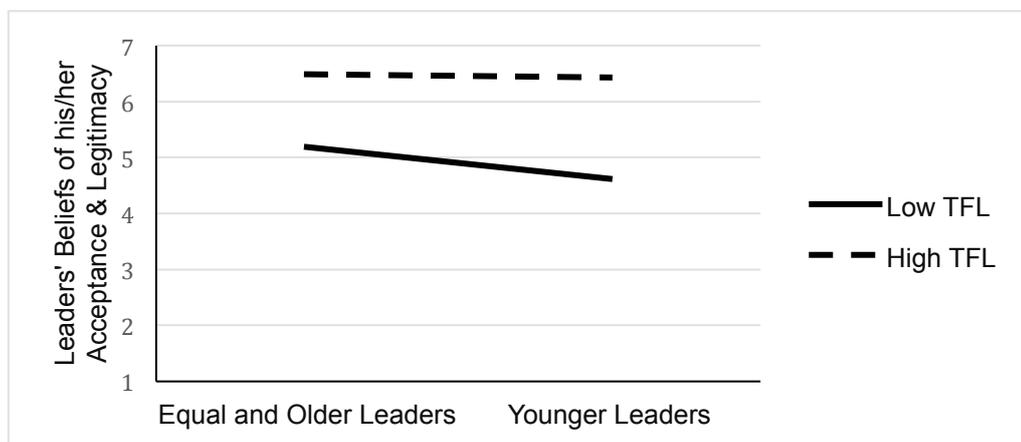
Figure 3: Leader's Beliefs of his/her Acceptance and Legitimacy as a Function of the Leader Age-Team Age Combination and Transactional Leadership (TAL)
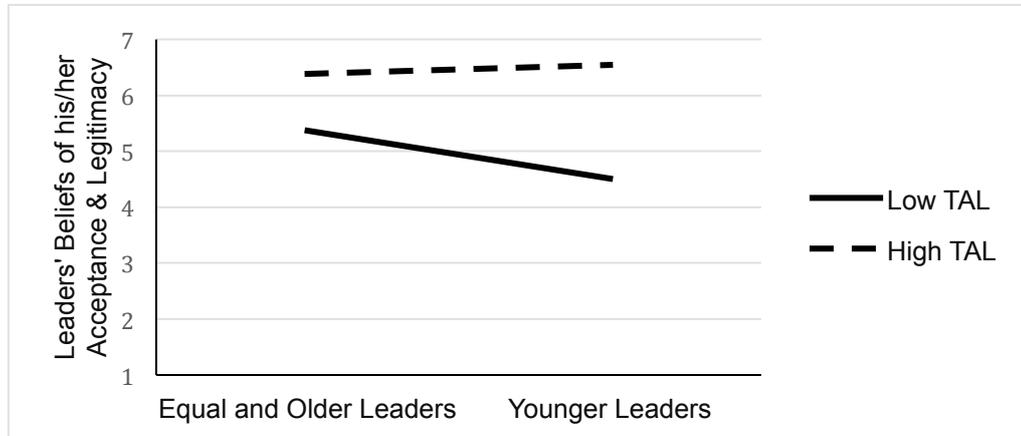
Figure 4: Leader's Beliefs of his/her Acceptance and Legitimacy as a Function of the Leader Age-Team Age Combination and Passive Leadership (PL)
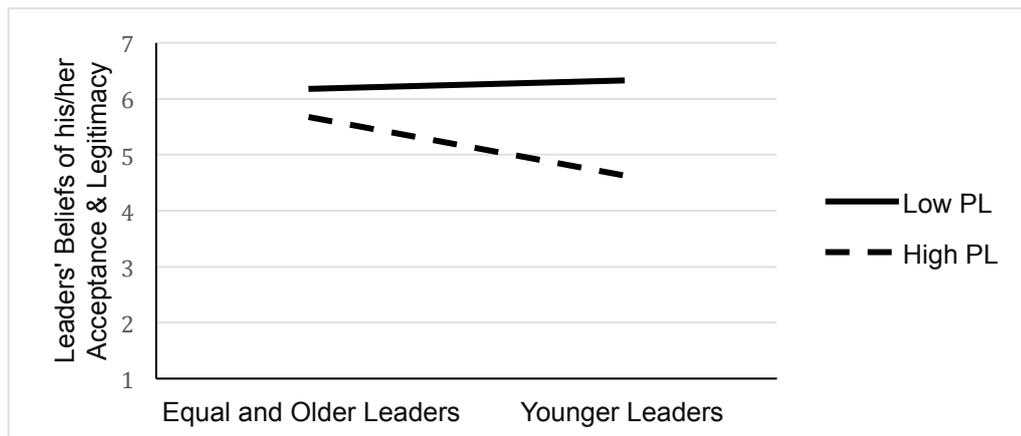
Absenteeism. For absenteeism, we found that the "younger category" was positively related to absenteeism when transformational leadership is relatively low (β = -.59, t = 8.99, p < .001), but also when it is relatively high (β = .36, t = 4.87, p < .001), albeit less strong. Similarly, when transactional leadership is relatively low (β = .64, t = 9.81, p < .001) and relatively high (β = .34, t = 4.21, p < .001), the "younger category" was positively related to absenteeism. Finally, the "younger category" was also positively related to absenteeism when passive leadership is relatively low (β = .37, t = 4.96, p < .001) and relatively high (β = .59, t = 9.02, p < .001).

These results indicate that although we obtained a significant interaction

between leader age category and leadership behavior for all outcome variables, the mitigating effect of relatively higher transformational and transactional leadership and relatively less passive leadership was not strong enough to eliminate the increase in absenteeism completely for teams with a leader younger than the team (see Figures 5, 6, and 7).

Figure 5: Absenteeism as a Function of the Leader Age-Team Age Combination and Transformational Leadership (TFL)
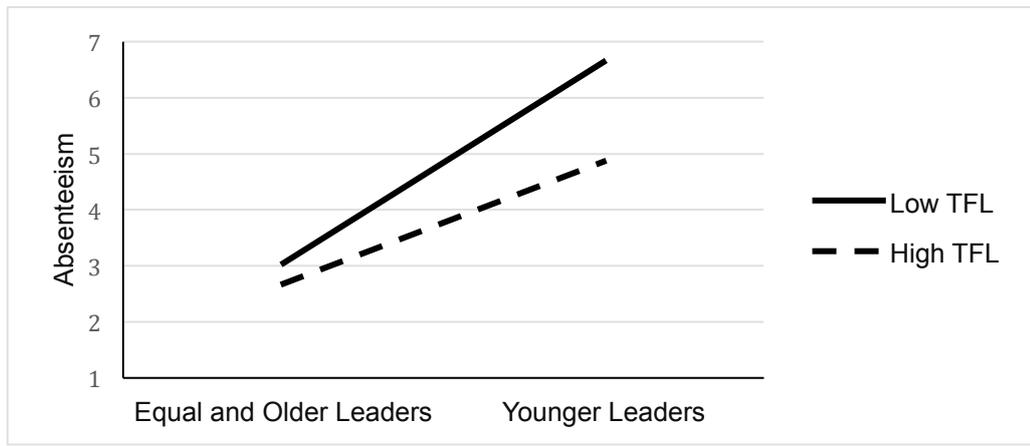
Figure 6: Absenteeism as a Function of the Leader Age-Team Age Combination and Transactional Leadership (TAL)
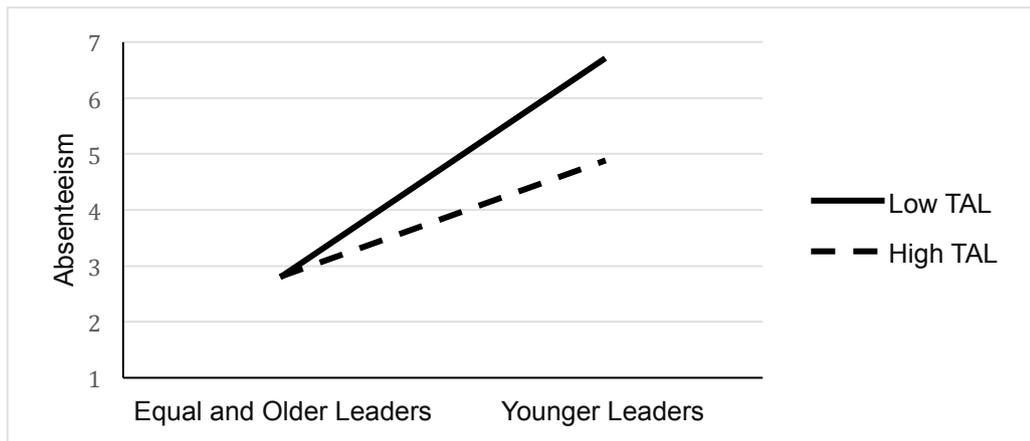
Figure 7: Absenteeism as a Function of the Leader Age-Team Age Combination and Passive Leadership (PL)
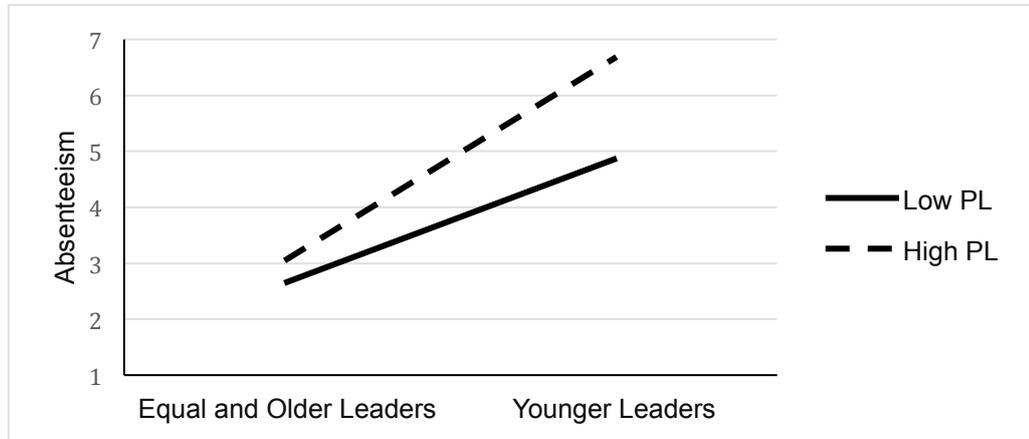
Work engagement. The "younger category" was negatively related to work engagement when transformational leadership is relatively low ($\beta = -.23$, $t = -4.33$, $p < .001$), but not when it is relatively high ($\beta = -.08$, $t = -1.30$, $p = .673$). When transactional leadership is relatively low, the "younger category" was also negatively related to work engagement ($\beta = -.39$, $t = -6.56$, $p < .001$) whereas there was no relationship when transactional leadership is relatively high ($\beta = .03$, $t = .35$, $p = .724$). Furthermore, the "younger category" was again negatively related to work engagement when passive leadership is relatively high ($\beta = -.45$, $t = -7.14$, $p < .001$), but not when passive leadership is relatively low ($\beta = .04$, $t = .49$, $p = .621$). That is, leaders younger than the team experienced less work engagement than all other leaders when transformational (see Figure 8) or transactional (see Figure 9) leadership is relatively low or when passive leadership (see Figure 10) is relatively high. For leaders that indicate relatively high transformational or transactional leadership or relatively low passive leadership, there is no significant difference between leaders younger than the team or leaders equal in age to the team or older than the team.

Figure 8: Work Engagement as a Function of the Leader Age-Team Age Combination and Transformational Leadership (TFL)
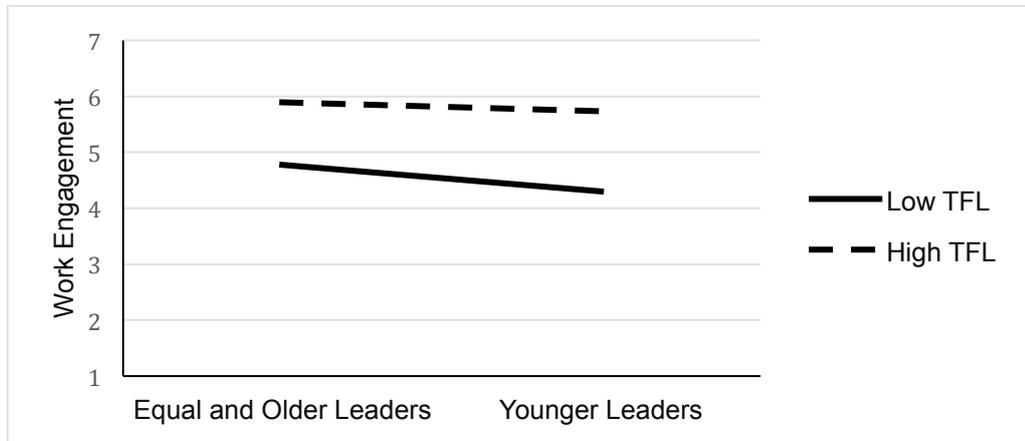
Figure 9: Work Engagement as a Function of the Leader Age-Team Age Combination and Transactional Leadership (TAL)
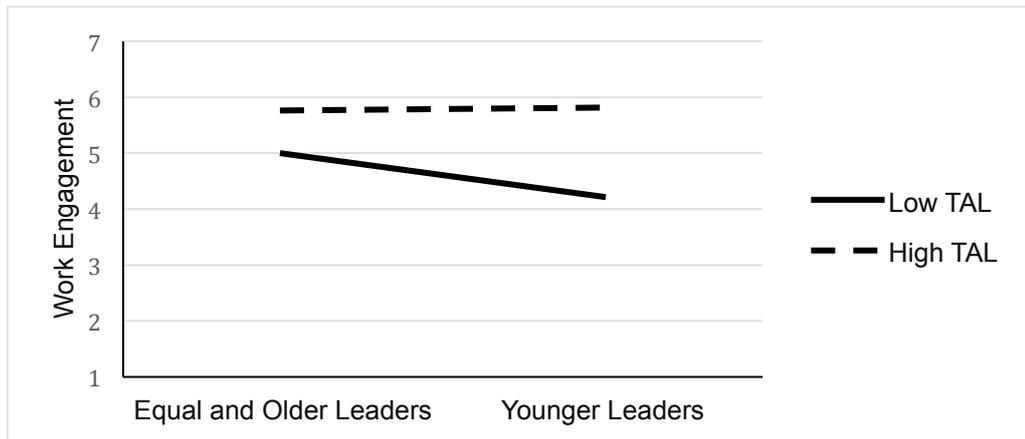

Figure 10: Work Engagement as a Function of the Leader Age-Team Age Combination and Passive Leadership (PL)
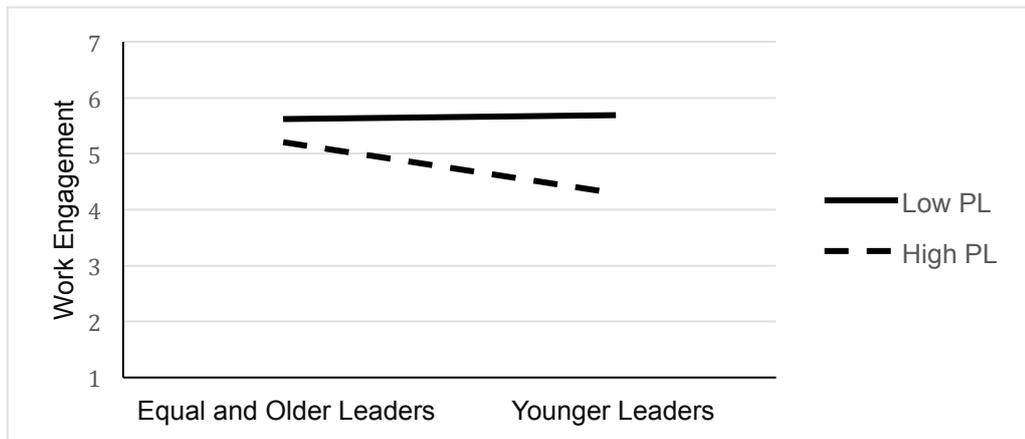
We then proceeded to test Hypothesis 5 to show conditional direct and indirect effects. We again utilized the SPSS macro PROCESS designed by Preacher and colleagues (2007; Model 8). This macro facilitates the implementation of the recommended bootstrapping methods and provides a method for probing the significance of conditional direct and indirect effects at different values of the moderator variable, which is alternatively also known as moderated-mediation as visualized in Figure 1. We once more resampled 5,000 times and used the bias corrected method to create 95% intervals (Preacher & Hayes, 2008).

In line with our previous regression findings, the bootstrap approach indicated that all three leadership behaviors showed a significant conditional direct effect (i.e., acted as a moderator) in the relationship between the "younger category" and absenteeism and work engagement. Furthermore, the bootstrap approach revealed for conditional indirect effects (i.e., moderated mediations) the following results (Table 5 presents the results for Hypothesis 5):

Absenteeism. The results show that the interaction between the "younger category" and leadership behavior on absenteeism was not mediated by leaders' perceptions of his/her acceptance and legitimacy.

Work engagement. The results show that the interaction between the "younger category" and leadership behavior on work engagement was mediated by leader's perceptions of his/her acceptance and legitimacy, such that for low levels and mean levels of transformational and transactional leadership, acceptance and legitimacy mediated the negative relationship between younger leaders and work engagement, but not for high levels of transformational and transactional leadership. For passive leadership, legitimacy and acceptance mediated the negative relationship between younger leaders and work engagement when passive leadership was moderate or high, but not when it was low. Thus, Hypothesis 5 was partly supported.

Table 5: Results of Regression Analyses for Moderated Mediation Models *(Hypothesis 4)*

Transformational Leadership (TFL) & Absenteeism	*B*	*SE*	LL 95% CI	UL 95% CI
Conditional indirect effect at values of TFL (bootstrap result)				
-1 SD (4.62)	0.01	0.15	-0.30	0.31
M (5.44)	0.01	0.09	-0.16	0.19
+1 SD (6.25)	0.00	0.04	-0.07	0.11
Transactional Leadership (TAL) & Absenteeism	*B*	*SE*	LL 95% CI	UL 95% CI
Conditional indirect effect at values of TAL (bootstrap result)				
-1 SD (5.40)	0.22	0.20	-0.12	0.64
M (6.04)	0.09	0.08	-0.04	0.30
+1 SD (6.69)	-0.04	0.05	-0.23	0.02
Passive Leadership (PL) & Absenteeism	*B*	*SE*	LL 95% CI	UL 95% CI
Conditional indirect effect at values of PL (bootstrap result)				
-1 SD (1.71)	-0.01	0.05	-0.21	0.04
M (2.85)	0.04	0.10	-0.13	0.28
+1 SD (3.98)	0.09	0.23	-0.31	0.62
Transformational Leadership & Work Engagement	*B*	*SE*	LL 95% CI	UL 95% CI
Conditional indirect effect at values of TFL (bootstrap result)				
-1 SD (4.62)	-0.18	0.07	-0.33	-0.07
M (5.44)	-0.10	0.04	-0.19	-0.03
+1 SD (6.25)	-0.02	0.04	-0.11	0.06
Transactional Leadership & Work Engagement	*B*	*SE*	LL 95% CI	UL 95% CI
Conditional indirect effect at values of TAL (bootstrap result)				
-1 SD (5.40)	-0.37	0.10	-0.58	-0.19
M (6.04)	-0.15	0.05	-0.26	-0.05
+1 SD (6.69)	0.07	0.05	-0.03	0.18
Passive Leadership & Work Engagement	*B*	*SE*	LL 95% CI	UL 95% CI
Conditional indirect effect at values of PL (bootstrap result)				
-1 SD (1.71)	0.07	0.07	-0.07	0.22
M (2.85)	-0.21	0.06	-0.34	-0.10
+1 SD (3.98)	-0.48	0.10	-0.70	-0.31

Note. N = 280 leaders/teams. Unstandardized regression coefficients are reported. Bootstrap sample size = 5,000. LL = lower limit; CI = confidence interval; UL = upper limit.

General discussion

As past age and leadership research is largely silent with regard to if and why (relatively) younger leaders may be in a deprived situation leading teams older than themselves, we set out to broaden first findings (e.g., Schreiber et al., 2015; Schreiber et al., 2014; Collins, et al, 2009; Kearney, 2008) by (1) specifically investigating the

effect of being/having a relatively younger leader, (2) taking an identified important mediator into account (Schreiber et al., 2015), and (3) focusing on strategies for younger leaders for overcoming their deprived situation by demonstrating adequate leadership behavior. In summary, we found that relatively younger leaders indeed are in a deprived situation compared to all other leaders by experiencing less acceptance and legitimacy as a leader and by displaying lower work engagement whereas at the same time, their team's demonstrating higher levels of absenteeism. Moreover, we found evidence that divergent leadership behavior can compensate or intensify for these negative effects of relatively younger leaders.

More specifically, we first found that teams led by leaders younger than the team show higher absenteeism than all other teams. Second, we discovered this negative effect did not only occur for the complete team but even so for the leader. Thus, we found that leaders leading teams older than themselves show lower work engagement and experience lower acceptance and legitimacy than all other leaders. Third, we discovered that the negative effect of having/being a relatively younger leader on absenteeism and work engagement is mediated by leaders' (perceived) lowered acceptance and legitimacy as a leader. Finally, we ascertained that leadership behavior is a double-edged sword as it could compensate for or intensify younger leader's negative outcomes depending on the concrete behavior and its level. Being more precise, leadership behavior moderates the negatively interaction between having/being a younger leader and absenteeism and work engagement so that this negative interaction is attenuated when leaders show higher (rather than lower) levels of transformational and transactional leadership behavior and strengthened when they apply higher (rather than lower) levels of passive leadership behavior. Furthermore, we found evidence for a moderated mediation of leadership behavior in the negative interaction between having/being a younger leader and leaders' beliefs of his/her acceptance and legitimacy on work engagement. Again, this interaction is attenuated when leaders demonstrating higher (rather than lower) levels of transformational and transactional leadership behavior and strengthened when they show higher (rather than lower) levels of passive leadership behavior.

In conclusion, we ascertained evidence that younger leaders – which are not provided with adequate age-based power and status and do not fit the group prototype nor the leader prototype – obtain noticeably lower results in terms of teams'

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absenteeism and leaders' work engagement. With our research, we can present further evidence for the compelling finding by Schreiber and colleagues (2015) that the negative effects of having/being a relatively younger leader not only apply to teams (increased absenteeism) but also to leaders themselves (lowered work engagement) – an effect that astonishingly is neglected in recent age and leadership research. Furthermore, with our findings we can also extend this research by pointing out that the effects we identified are driven by leaders' (perceived) acceptance and legitimacy and thus we can present further evidence from recent research (Schreiber et al., 2014; Schreiber et al., 2015) that firstly investigated this effect. Finally, we can additionally enhance previous research on age and leadership by (1) showing conditions under which divergent leadership behavior have the most advantageous effect and (2) by identifying an optimal fit between a leader's age, leader's behavior and his/her team. In the following section, we consider the theoretical and practical implications of our findings, discuss the strengths and limitations of our research, and outline some possibilities for future research.

Theoretical Implications and Contributions

Past research on age (diversity) and leadership was for many years characterized by showing main effects of age diversity in teams or in dyads (van Knippenberg et al., 2004; Van Knippenberg & Schippers, 2007) and by identifying good and poor leadership behavior to safeguard higher organizational outcomes in different diversity settings (e.g., Somech, 2006; Stewart, 2006; Kearney, 2008; Kearney & Gebert, 2009). However, despite the many fruitful findings and explanations past research provided, when examining our specific research question past age/leadership research and literature alone seem not able to explain if and why (relatively) younger leaders may be in a deprived situation and even more which concrete role (divergent) leadership behavior can play to survive or to fail as a younger leader. As such, our research followed former recommendations to (1) verify initial recent findings about age differences between leaders and teams by having a specific focus on the deprived younger leaders, to (2) broaden first recent findings by additional focus on moderating processes, and to (3) advance existent leadership literature by providing further insight into conditions under which divergent leadership behavior are likely to have the most advantageous effect. By focusing on relatively

younger leaders while integrating leadership behavior as an important moderating variable, we illustrated that leaders' work engagement, leaders' (perceived) acceptance and legitimacy, and teams' absenteeism is affected by showing good or poor leadership behavior. These findings contribute to existent theoretical approaches in several ways and expand past research.

First, we notably add to current leadership research and literature by examining the specific meaning of leadership behavior when considering leaders' and teams' age. By doing so, we were able to display that the actual shown leadership behavior judges over younger leaders' effectiveness and success. More specifically, we demonstrated that transactional leadership shows the most advantageous effect for relatively younger leaders whereas transformational leadership also demonstrations a positive effect. This importantly enhances one of the first research investigating age differences between leaders and teams and leadership by Kearney (2008). As he argued, transformational leadership behavior is assumed to unlikely engender positive effects when the leader is not older (than the team). His deduction is based on the argumentation that with an (relatively) older leader, the team is more open to a leader's transformational behaviors, because its members are more accepting of the leader's powerful and favored status and thus, identify more with the leader and assist the leader's vision, values, and ideas (Kearney, 2008). Based on his research focus (leaders being in the same age as the team compared to leaders being older than the team) and his results, he further reasoned that leaders of similar age as the followers are less likely to positively affect team performance through transformational behaviors (Kearney, 2008). However, in our study we were able to demonstrate that there are no significant differences between leaders equal in age to the team and leaders older than the team in terms of leaders' acceptance and legitimacy, leaders' work engagement, and teams' absenteeism. Moreover, with regard to transformational leadership, we are able to show support for our Hypothesis that also leaders younger than the team – that are provided with (perceived) lower levels of acceptance and legitimacy – benefit from transformational behaviors – which is largely contrary to Kearney's reasoning. Kearney (2008) further suggested that for leaders not older than the team contingent reward leadership – that is a part of transactional leadership – might be well advised as it has been shown to be nearly as effective as, and in some cases even more effective than, transformational leadership.

Our findings support those former mentioned findings and recommendations and show evidence that for younger leaders especially transactional leadership behaviors are beneficial. However, the differences in the moderating effect-sizes between transformational and transactional leadership might be explainable by following Kearney's (2008) argumentation about the ineffectiveness of transformational leadership behaviors when displayed by low accepted leaders. Thus, even if the result is not as Kearney (2008) reasoned – that is, younger leaders do not benefit at all from transformational behaviors – this leadership, although not the most advantageous, offers a helpful strategy for younger leaders. Hence, the more rational approach of transactional behaviors seems more successful for relatively younger leaders than the more charismatic approach of transformational leadership. As assumed, displaying passive leadership behavior strengthens the negative relationship between younger leaders and our measured outcomes and thus confirms its negative rating as poor leadership behavior.

In sum, our results highlight the general importance of leadership behavior as investigated in many past decades. With respect to our research focus, we can emphasize the importance of at least three divergent leadership behaviors to younger leaders, as they seem to be able to survive by showing high transactional / transformational leadership or to fail by showing high passive leadership as the concrete behavior attenuates or strengthens the negative effects of being relatively young as a leader.

Second, in addition to Schreiber and colleagues (2015), we further add to power/status and prototypicality research by showing additional evidence for younger leaders deprived situation compared to all other leaders. Similarly, our findings support their reasoning concerning younger leaders not being adequately provided with age-based power and status and in sum, being non-prototypical to the group and non-prototypical as a leader, whereas fulfilling one of these prototypicalities can compensate for not fulfilling the other. This confirms recent findings (Schreiber et al., 2015) and importantly assists to increase existent theories about prototypicality in the field of age, diversity, and leadership research. Moreover, as in line with Schreiber and colleagues (2015), we also found further evidence for the mediating role of leaders' acceptance and legitimacy and were thus able to justify and enhance their contribution to the implicit leadership theory (e.g., Bryman, 1987; Eden & Leviatan, 1975; Berger,

Cohen, & Zelditch, 1972), to van Knippenberg and Hogg's (2003) social identity perspective on leadership as well as to the social categorization perspectives (e.g., Byrne, 1971).

Third, in addition to Schreiber and colleagues (2015), we also followed Kearney's (2008) call for closer studying of age relations between leaders and followers and if and how age differences might affect organizational outcomes. Thus, with our research, we add further vital evidence to recent findings about why, how and when age differences between leaders and teams affect important organizational outcomes (Kearney, 2008; Schreiber et al., 2015) and we are able to confirm first findings and reasoning. Moreover, with our research we showed important conditions under which deprived younger leaders benefit or suffer from their situation by specifically investigating leaders' behavior. Hence, we increased significantly the current understanding about different age relations between leaders and teams and can offer conditions under which (relatively) younger leaders show improved or declined results. By this, we meaningfully add to past age (and diversity) research.

Fourth, we followed Schreiber and colleagues (2015) call for further investigating effects of relational differences between leaders and teams by focusing not just on team-level outcomes but also on relevant leader outcomes. By doing so, we are able to confirm their very first findings about the indication that relational (age) differences between the leader and the team are not just affecting team level outcomes but furthermore, perceptions and behaviors of leaders – and thus their effectiveness. As age, diversity, and leadership research in addition to team-level effects and outcomes also integrates effects on leaders and leader outcomes is, until now, very rare; we significantly add to those fields of research. With our findings, we can show further evidence for Schreiber and colleagues' (2015) reasoning that the processes and effects based on similarity/dissimilarity are also relevant for leader-follower differences, which is an important finding for leadership and diversity research. Hence further research on age, diversity, and leadership should pay more attention to this effect and investigate to a greater extent the results on leaders and teams separately. This finding becomes even more relevant as leaders hold a specific and powerful position within a team and are provided (compared to regular team members) with higher status, power and resources.

Finally, we significantly add to existent research about absenteeism and work engagement by presenting a unique condition (leaders' relative age) that seems to guarantee increased absenteeism and lowered work engagement. Moreover, we can increase current understanding of these outcomes by further showing that the observed negative effects are driven by leaders' (perceived) acceptance and legitimacy and by showing behavioral strategies that can compensate (or strengthen) the negative relationship between leaders' age and absenteeism/work engagement. More precisely, we are not just able to demonstrate that leaders' behavior can compensate (or intensify) for lowered work engagement but even so, that it can compensate for (or intensify) perceived lowered acceptance and legitimacy. Hence, we identified not just a moderating effect between our independent and dependent variable but also a moderated mediation by leadership behavior. However, for absenteeism we did not found this moderated mediation effect (just a simple moderation of leadership behavior and a simple mediation by leaders' acceptance and legitimacy) and moreover the effect of displaying higher transformational and transactional leadership and relatively less passive leadership was not strong enough to eliminate the increase in absenteeism completely – whereas it was for work engagement.

Practical Implications

Our research shows – in line with recent research from Schreiber and colleagues (2015) – that younger leaders are in a deprived situation and confronted with critical challenges that seriously threaten the success of their team and of their own career. As those leaders are prepared with less (age-based) status and power and as "double" non-prototypical leaders (Ryan & Haslam, 2007), they do not only have to fight against their out-group position within their team but also against strong, unfavorable leadership-attributions held by their team (Schreiber et al., 2015). Hence, (relatively) younger leaders need powerful strategies that allow them to maintain their leader position and to safeguard their own and their team's success by adequately influencing relevant variables such as their individual acceptance and legitimacy as a leader, team's absenteeism, and their own work engagement to at least ensure satisfactory levels of (team) performance. As our research has shown, one such powerful strategy to attain higher organizational outcomes for leaders and teams in the "younger category" is leadership behavior as it is a qualified variable to determine

younger leaders' survival or failure. Hence, we can formulate at least three managerial and organizational recommendations from our findings.

First, on the basis of past research, leadership behavior is identified as playing a crucial role in influencing teams and leveraging the effects of age diversity (Zaccaro et al., 2001; Kearney & Gebert, 2009; Janz et al., 2012), we are able to expand past findings with regard to leaders' and teams' relative age by showing evidence about leadership behavior's prominent role for leaders younger than their team. Thus, Human Resources Management departments should be aware of the powerful meaning of leadership behavior in general and pay sufficient attention to this variable not leaving it to chance, which behavior are common and trained in the organization or even more which leadership culture is existent.

Second, young candidates for supervisory positions and promotions should be examined with regard to their competency to adapt transformational and/or transactional leadership behaviors and receive leadership training that would support the development and the stabilization of such behaviors. Moreover, they should also be sensitized about the detrimental effects of poor leadership behavior such as showing passive leadership style. As our investigation shows, displaying transformational / transactional leadership behaviors and avoiding passive leadership behaviors then serves finally as a powerful strategy to increase younger leaders' effectiveness.

Third, as our research model builds on recent research by Schreiber and colleagues (2014; 2015) and our results about the negative relationship between younger leaders and organizational outcomes driven by leaders' lowered acceptance and legitimacy were in line with Schreiber and colleague's (2015), our further managerial recommendations connect directly to their work and thus follow them. Hence, activities that possibly increase the level of leaders' acceptance and legitimacy as a leader (e.g., the establishment of a standardized, clear, and openly communicated selection and promotion process for leader positions) and activities that are likely to increase leaders' ability to deal with the lack of age-based power and status cues and with being a "double" non-prototypical leader (e.g., by sensitizing leaders and providing information about the powerful impact that implicit leader and group prototypes, old-typed jobs, and possible behaviors will have on their capacity to successfully lead the team) should be developed and established in organizations (Schreiber et al., 2015) by Human Resources Management.

Limitations and Future Research

In spite of our having data collected by using tested and valid constructs/scales, basing our hypotheses on well-grounded theoretical assumptions, and including objective information, we recognize certain limitations of our investigation.

First, in our research we were not able to obtain separate data for leaders and team members for our objective dependent variable of absenteeism. This made it impossible to test differences between leaders and followers/teams as it might be of further interest if the higher levels of absenteeism in the "younger category" would be driven by the leaders or by the team members. Nevertheless, as we primarily were interested in the measurement of a team-level outcome – ideally an objective measurement – we decided to condone this limitation with regard to having at least one objective outcome measurement in our study. However, for future research we motivate researchers to pay more attention to this issue and reduce this limitation by obtaining more detailed information at the individual and team level by also collecting objective information.

Second, as we could take up some limitations from recent research (Schreiber et al., 2015) and improve past findings by investigating an increased number of leaders/teams in the "younger category" combined with a more quantitative research approach, we nevertheless still acknowledge limitations concerning our data sample and study design. Even if we were able to significantly increase the number of leaders/teams in the "younger category" up to 90 and investigate leaders' actual working situations combined with at least one objective outcome measurement (compared to recent research by Schreiber et al., 2015), it is still a relatively small number that was collected in just one single organization. Although it is the situation in many organizations that – until now – the "younger category" is more underrepresented, the question is whether our comparison would actually hold up in other companies and especially in those where younger leaders are more common. Furthermore, as the present data were cross-sectional, it is thus impossible to unambiguously interpret the results as indication causality. Even though our use of the term *effects* does imply causal relationships, we acknowledge the need for more evidence based on longitudinal or experimental research before the suggested pattern of causation is defendable. However, we compensate for these limitations by consciously connecting to recent research from Schreiber and colleagues (2014; 2015)

and in sum, we feel relatively secure that the main-pattern of the findings through all three investigations shows quite robustness particularly when considering the different methodological approaches.

Third, we assessed leaders' acceptance and legitimacy as well as the investigated leadership behavior only by means of their own supervisor ratings. Hence, we were unable to demonstrate that our perceptual measure is a valid predictor of the "objective" shown leadership behavior and acceptance and legitimacy as a leader. Whereas this does not invalidate the current research, future studies that include more objective measures, for instance by investigating the relevant variables at least by means of supervisors and by means of followers ratings, would provide confidence in the robustness of our findings.

Fourth, as we aimed to provide further support and additional insights to the first structural examination of age differences between leaders and teams (c.f., Schreiber et al., 2015) by exclusively focusing on the deprived relatively younger leaders and the role of leadership behavior, we did not set out to examine further possible moderator variables. We focused on behavioral strategies for younger leaders how to survive (or how to fail) in their deprived situation. By doing so, we importantly shed more light on the understanding under which conditions younger leaders experience mild, strong, or no negative outcomes. Nonetheless, there are other influencing variables that might also be important to investigate in this research context like various task types (e.g., Kearney & Voelpel, 2012; Jehn, Northcraft, & Neale, 1999; Mannix, & Neale, 2005) for instance. Hence, based on our findings and recent research from Schreiber and colleagues (2014; 2015), we challenge researchers to investigate possible effects of additional relevant moderating variables that have been identified in past research about age, diversity, and leadership. It seems apparent that those further variables and other prototypical attributes might have a meaningful influence on the investigated relationship between a leader's and a team's age and organizational outcomes.

Finally, as we set out to examine the possible moderating role of divergent leadership behavior for (relatively) younger leaders, we did not hypothesize and thus not investigate if younger leaders in general show more good or poor leadership behavior as this was not the aim of our research. However, based on the variable intercorrelations (see Table 1) of our study, one could argue that being a younger

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leader is significantly related to being a more passive leader, which in turn is demonstrated in our investigation as a behavioral strategy that clearly leads to failure as a younger leader. Hence, if leaders in the "younger category" significantly more often show poor leadership behavior (e.g., passive leadership) or even more if such poor behaviors are the most common behaviors among younger leaders, this will dramatically heighten our findings. As this is a very interesting first indication about specific shown leadership behaviors of younger leaders, we challenge researchers to further investigate this aspect and to expand current age and leadership research and literature.

In sum, future research should pay attention to the aforementioned limitations and expand initial findings about the meaning of leaders' (relative) age for organizations, teams and leaders themselves by doing more research about deprived younger leaders and the circumstances under which they suffer more ore less from their situation and also why. However, it is important to note that in our investigation, we made use of independent data sources (in other words, objective absence information, objective leader age, objective team age), which limits potential interpretational problems, and that the entire sample with 280 leaders (considering age- and absenteeism-information from 280 teams with nearly 3,000 followers) is quite large. Thus, connecting the findings and result pattern in our study to recent findings form Schreiber and colleagues (2014; 2015), we feel relatively secure with our approach and do not believe our results are exclusively limited to the restrictions we underlie in the study design, in the archival data, and in the number of participants/younger leaders.

Conclusion

In our research, we set out to examine if (relatively) younger leaders are in a comparatively deprived situation and how important the concrete leadership behavior can be for them compared to other leaders. In this respect, our research presents one of the first structural investigations with regard to which specific role different leadership behavior can explicitly play for younger leaders. By focusing especially on the younger leaders and three distinctive leadership behaviors, we were able to (1) explain that, why, and how younger leaders suffer from their age and moreover to (2) show strategies for younger leaders how to survive (or to fail) in their deprived situation.

Finally, we (3) were able to importantly contribute to different leadership research by showing when different forms of leadership behavior unfold their greatest effect when considering leaders' and teams' ages.

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CHAPTER 5

Conclusion

This thesis started out to investigate whether age dissimilarity (or similarity) between a leader and a team influences teams' and leaders' success and when so, which effects do occur and why do they appear. Hence, the main goal of the thesis is to gain fundamental knowledge about the effects of different possible leader age-team age combinations (respectively: leader's relative age) and by this to contribute to the understanding of age differences between leaders and teams for successfully and effectively leading teams. By doing so, this thesis and its findings importantly contribute to existing theorizing and research about age, diversity, and leadership in various ways.

The first empirical study revealed – from a leader perspective – that it is not identical if leaders are younger than the led team, (almost) equal in age with the team, or older than the led team with regard to successful teamwork. Hence, this first study has shown an initial picture that leaders younger than their team were in a clearly detrimental situation compared to leaders that are the same age or older than their respective team. For instance, those leaders experience and describe more conflicts with and within the team and lowered acceptance and legitimacy in their position as a leader. Results allow the assumption that this detrimental situation of a relatively younger leader is not just challenging for the leader himself/herself – and has thus detrimental effects to his/her effectiveness and success – but also for the team and its effectiveness. Finally, this study also identified further relevant variables in the context of a leader's relative age and allows (based on its explanatory method) the development of a first research model that shows pertinent moderating and mediating variables. In sum, this study found first evidence for the relevance of a leader's relative age and identifies further important variables – such as salience of age, leader's acceptance and legitimacy, and leadership behavior – that can explain how and why especially younger leaders seem to suffer from their age compared to all other leaders.

The second empirical study focused on a quantitative investigation of a part of the research model developed in the first study. As predicted, we found evidence for a main effect in the relationship between a leader's relative age and team's turnover and

absenteeism by a statistical analysis of extensive archival team-data. When teams are led by a relatively younger leader, these teams show significantly higher turnover and absenteeism than all other teams (that are led by leaders in the same age or older). Moreover, the two extensive vignette studies – from a leader's and from a follower's perspective – further supported this result pattern. In sum, these two studies found additional evidence for our predictions and confirmed the detrimental situation of being (as a leader) and having (as a team) a relatively younger leader with regard to important organizational outcomes such as job satisfaction, turnover intention, and team performance. Finally, this study also showed evidence for our predictions about the mediating effects of age-salience and chiefly of a leader's acceptance and legitimacy. Hence, results support the conclusion that relatively younger leaders suffer most severely from a lack of power and status cues and from their doubled non-prototypicality, leading to worst outcomes as compared to all other leaders. In sum, this study importantly sheds light on understanding if, why and how relatively younger leaders (and their teams) suffer from this leader age-team age combination and why other leaders do not.

The third empirical study focused on the deprived relatively younger leaders and on leadership behavior as a powerful strategy how they can survive or entirely fail. However, this study – based on an additional methodological approach – also reproduces result patterns from the first and second empirical study (that is, younger leaders obtain lower work engagement and their teams higher absenteeism compared to all other leaders and – in addition – there are no significant differences between leaders equal in age to the team and leaders that are older than their team). Moreover, also with this study we can show evidence for the mediating effect of a leader's acceptance and legitimacy in the relationship between a leader's relative age and important organizational outcomes (team's absenteeism, leader's work engagement). That is, the negative differences in outcomes between relatively younger leaders and all other leaders can be explained by a leader's belief in his/her lowered acceptance and legitimacy. As the main objective was to investigate a leadership behavior's (moderating) role, we found evidence that rational (transactional) and charismatic (transformational) leadership behaviors can compensate for younger leaders lowered outcomes when these leaders show higher rather than lower levels of those behaviors, whereas the negative outcomes were strengthened when they show high passive

leadership behaviors rather than low. In addition to these conditional direct effects and in line with our predictions, we also obtained at least one conditional indirect effect of leadership behavior; that is the relationship between leaders' relative age and leadership behavior is mediated by leaders' perceptions of acceptance and legitimacy.

In times of aging societies and thus aging workforces, understanding the influence of age similarity and dissimilarity between a leader and his/her team (respectively: leader's relative age) on teams' and leaders' effectiveness becomes increasingly important for organizations. In fact, with increasing life expectancy and increasing retirement ages people need to work until a higher age whereas at the same time more and more of the large baby-boomer generation reach retirement age. Finally, these conditions lead to increasing mean ages and consequently, to an older workforce in organizations. However, at the same time, the ages when people first enter into supervisory positions (or are promoted into higher management positions) have not significantly changed in the past decades. As leaders hold a specific and powerful position within a team and influence important team processes, the understanding of how leaders' relative age affects the effectiveness of the entire team can contribute to the improvement of detrimental situations, especially in an changing environment as previously described. Hence, this thesis contributes with its findings significantly to the understanding of how leaders' relative age effects important organizational outcomes (leaders' and teams' effectiveness) and finally, on coping with important challenges resulting from aging societies and workforces.

Even if all three empirical studies at first view show results that may be supposed and expected, occasionally socio-scientific and psychological research imply self-assurance. Such research verified or falsified assumptions, because something, that commonly is believed and assumed, therefore must not be true. Not before the causation is identified and named, will it be possible to really understand the if, why, and how and hence, to counteract any effects. By doing so, this thesis shows by using a multi-methodological approach that relatively younger leaders indeed are in a detrimental situation by displaying lowered effectiveness – as their respective teams too – and it offers explanations why and how as well as a first strategy to cope with this challenge.

In reality, relatively younger leaders suffer from violating existent age and status norms and finally, from breaching the group-prototype and the leader-prototype,

and thus from being a doubled non-prototypical leader. As this result is robust through all empirical studies, it is also a relatively secure finding that being/having a leader in the same age as the team or older than the team does not lead to negative effects on important organizational outcomes. This result pattern is interesting as just relatively younger leaders suffer from their age, but solely this group of leaders is declared to be growing significantly in organizations. As younger leaders show lowered job satisfaction, lowered work engagement, and increased turnover intention, this thesis is a warning signal for organizations and academia to devote more attention to relatively younger leaders and how to attenuate their detrimental effects on leaders' effectiveness. Moreover, as the teams that are led by a younger leader also showed lowered job satisfaction, lowered team performance, increased turnover intention, increased turnover, and increased absenteeism, the situation for organizations is basically of a dramatic nature.

However, this thesis also offers a first explanation concerning the how and the why of being/having a younger leader leads to decreased leader and team effectiveness. As the mediating effect of the salience of age is not extensive, a leader's acceptance and legitimacy acts as a powerful mediator and explains important underlying processes of the relationship between being relatively young as a leader and important organizational outcomes. By this, relatively younger leaders essentially suffer from their lowered acceptance and legitimacy as a leader and hence, offering academia and organizations a first lever for supporting those leader age-team age combinations by developing actions that may capable of increasing younger leaders lowered acceptance and legitimacy.

Lastly, with the identification of leadership behavior – that acts as a forceful moderator in the interaction between a leader's age and organizational outcomes – this thesis offers a powerful and important strategy for the deprived relatively younger leaders. With showing transformational and especially transactional leadership behaviors, relatively younger leaders can survive their deprived situation, whereas passive leadership behaviors strengthen the negative effects. These findings are in different ways highly interesting for academia and practitioners. First, this thesis identifies and finds evidence for the importance of leadership behavior and its specification especially for (relatively) younger leaders and that differentiated forms of leadership behavior are capable of strengthening or attenuating the negative effects of

being/having a leader younger than the team. Second, it further contributes to leadership research by identifying conditions under which certain leadership behaviors unfold their greatest effect or not. For instance, transactional leadership seems even more promising for relatively younger leaders than transformational leadership. Third, it shows evidence for leadership behavior being a relevant and important lever of leaders' and teams' effectiveness. Finally, the results give a first indication that there might be a significant relationship between a leader's relative age and the displayed leadership behavior.

Based on this thesis and its empirical findings, research should investigate closer further effects of a leader's (relative) age on a leader's and a team's effectiveness. For instance, additional relevant variables that earlier age, diversity, and leadership research has identified such as relationship conflicts, diversity beliefs, or task types should be investigated. Moreover, also the aforementioned indication of a possible relationship between a leader's age and the displayed leadership behavior urgently needs more attention.

However, in future studies the limitations of this thesis should also be addressed. Firstly, researchers are prompted to investigate the effects not just in one single organization with one specific age- and leadership-culture. Secondly, for the results it might be relevant in which organizational culture studies were conducted; so it would be important to replicate this research also in younger and more dynamic organizations where relatively younger leaders are more common. It might be of importance in which organizational context and culture such younger leaders act and, therefore, this variable should be urgently examined. Thirdly, even if this thesis is based on extensive field studies, the number of teams and leaders in the "younger condition" should in future research be increased to stabilize findings. Fourthly, when larger data samples are available, researchers should investigate the meaning of leadership tenure in this context as this might be a further very relevant variable.

In summary, throughout this thesis I (we) observed the meaning of a leader's relative age on a leader's and a team's effectiveness by using a multi-methodological research approach. As the presented empirical field studies showed evidence that a leader's age displays relevance for important organizational outcomes, the main finding that relatively younger leaders are in a deprived situation and provoke lowered outcomes compared to all other leaders becomes increasingly important in times of

aging workforces. Many questions for organizations, practitioners, but especially also for age, diversity, and leadership research have been answered, and future work will contribute to a further and fuller understanding of some still open questions.

Appendix

A – Interview Guideline Semi-Structured Interviews Study 1 (Qualitative Study)

Interview Guidelines

Age Diversity and Teams

Semi-Structured Interviews at EnBW AG
February I March I April
2011

Date

1. Demographic Data (5 min.)
General data is used to control the sample. The importance of the respondent as an expert for this study should be emphasized.

To begin with I would like you to introduce yourself. Perhaps you can simply tell me about yourself and your career.

Gender	Male / Female	Age	
Position in the company		Leader responsibilities	Yes / No
EnBW Company			
Number of years employed by EnBW?			
Length of the team leader position?			
Is this your first team leader position?			
Are you the leader of more than one team? If so how many?			
What is/are the size(s) of the team(s) you lead?			

2. Introduction and Overview (10 min.)

Classification of the current awareness of demographic change and its consequences for the company.

1. What does demographic change mean to you?
2. How strongly do you think EnBW will be affected by demographic change?
   - Could you provide some examples for the specific risks you see within the organization?
   - concerning key functions?
3. Which challenges and possibilities do you see for the different companies of EnBW as a result of demographic change?

3. Working Groups/Teams (15 min.)

Data concerning the team's demographic structure can be used to classify the answers into the different types: age heterogeneous / age homogeneous teams.

Which age groups would you call young / middle aged / older?
4. If you think about your team, would you describe the team members' demographic data for me:
   - What is the team's age and gender composition?
   - Which education levels do the team members have?
5. Can you recall any situations in the team that developed owing to the differences between the members?
   - Which differences between the members were the cause?
   - Also conflicts?
   - Was age the trouble spot?
6. Can you recall any incident in which older or younger employees had difficulties integrating into existing teams owing to age differences?
   - How were the problems solved? What is your opinion on how they should be solved?

4. Functionality of the Working Groups/Teams (15 min.)

Used to question subjective perceptions of age diversity.

7. What, in your opinion, is an advantage of teams that are diversified in age?
   - And what is a possible disadvantage?
8. Are older employees perceived differently to younger employees? In which ways?
9. Are you older or younger than the average age of the members of your team?
   - Is this difference more advantageous or more disadvantageous?
10. Do you prefer working with a team of a specific age group or more in teams that include members of various age groups?

- Why?

11. Does age play a role when selecting new employees?
    (Do you employ people who are 50+? Why?)

---

5. Motivation (20 min.)

This should determine the indicators that help one to evaluate the success of age-diverse teams.

---

12. Which factors influence team processes?
    (Please name all that those you can think of.)
13. Which criteria do you use to evaluate your team / the success of its work?
14. Can you name an example when age diversity had or could have had an effect on the team's performance?
15. Which incentives or circumstances motivate or are attractive for team members?
    - Why these?
16. In your experience:
    What are the reasons for decreases in an employee's motivation or performance?
    - Are there different reasons for older and younger employees?

---

6. Additional Information (10 min.)

Here, the interviewee should have the opportunity to draw personal conclusions and perhaps to add further thoughts or to talk about other topics.

---

17. Is there anything that has not been covered or that you would like to add?
18. Do you think this interview has covered all the important aspects of age diversity in teams? If not, which aspects do you feel were missing? Is there anything else you would like to say about the topic?
19. What would you estimate is the average age of your team?

---

7. Quantitative Questions (5 min.)

This part should determine the extent to which the answers from the qualitative area are the same and which three important factors are chosen.

---

20. The following two pages list possible important factors. Please choose the *three most important ones*.

Factors that influence the relationships within teams and the relationships between the team and the leader	Working atmosphere	
	Handling / Recognition of diversity	
	Leadership behavior	
	Communication	
	Relationships	
	Goal and task orientation	
	Trust	
	Time and opportunity for exchanges	
	Acknowledgement / Recognition	
	Personality	
	Networking ability	
	Development possibilities	
	Team size / fluctuation	
	Knowledge transfer	
	Environment: resources, organizational Structure, organizational culture	
	Task allocation	
	Working conditions	
	Task complexity	
	Support of innovations	
	Performance orientation	

Team performance indicators	Productivity	
	Effectivity	
	Quality	
	Overall performance	
	Frequency of mistakes	
	Customer satisfaction	
	Diminished performance	
	Quality of decisions	
	Team improvement / learning processes	
	Absenteeism / times absent	
	Profit	
	Team turnover	
	Knowledge exchange	
	Mutual support	
	Subjectively perceived job performance	
	Subjectively perceived work success	
	Learning process	
	Innovation	

B – Scenario Description for Study 2a (Follower View)

The following excerpt describes a fictional work-life situation. Please read it carefully and try to imagine yourself in the described situation. Please remember that you are the person described and therefore, the main focus. It would be good if you tried as much as possible to put yourself in this situation and to imagine this in real life. Several questions will be posed after the text and should be answered in the context of the work situation that is described. Please imagine the following:

You work in a large company of the automotive branch in Germany that organizes its employees in teams. You work in a team that is responsible for the preparation as well as the actual quality control and final inspection of a certain production sector. Your team must work together closely in order to be successful. The team consists of you and nine other members. All the members of the team are between the ages of **20 and 30** / **40 and 46** / **50 and 65**. The team is led by a manager who has had such a position **for many years** / **for a few years** / **for a few months** and is **55** / **43** / **30** years old. Trust, open communication channels and mutual support within the team, but also between the team and the leader, are of utmost importance to reach the production goals.

We would ask you now to answer the following questions while bearing in mind the work situation that was described above. Please try to evaluate or assess the statements from the perspective of a team member in the situation. Please picture how you would feel about and evaluate daily work in such a situation.

C – Scenario Description for Study 2b (Leader View)

The following excerpt describes a fictional work-life situation. Please read it carefully and try to imagine yourself in the situation described. Please remember that you are the person described and therefore, the main focus. It would be good if you tried as much as possible to put yourself in this situation and to imagine this in real life. Several questions will be posed after the text and should be answered in the context of the work situation described. Please imagine the following:

You work in a large company of the automotive branch in Germany that organizes its employees in teams. You are **55** / **43** / **30** years old and have led a team **for many years** / **for a few years** / **for a few months** in this company. For some time, you have been the leader of a team that is responsible for the preparation as well as the actual quality control and final inspection of a certain production sector. Your team must work together closely in order to be successful. It consists of 10 employees all between the ages of **20 and 30** / **40 and 46** / **50 and 65** and you as the leader. Trust, open communication channels and mutual support within the team, but also between the team and you, its leader, are of the utmost importance to reach the production goals.

We would ask you now to answer the following questions while bearing in mind the work situation that was described above. Please try to evaluate or assess the statements from the perspective of the leader in the situation. Please picture how you would feel about and evaluate daily work in such a situation.

D – Follower Questionnaire for Study 2a

RUPRECHT-KARLS-
UNIVERSITÄT
HEIDELBERG

Fakultät für Wirtschafts- und Sozialwissenschaften

Alfred-Weber-Institut für Wirtschaftswissenschaften

Behavioral Economics

Prof. Dr. Christiane Schwieren

Dipl. Betriebsw. (FH) Sven Schreiber MBA

Vielen Dank, dass Sie an unserem Forschungsprojekt zum demografischen Wandel in Kooperation mit der EnBW teilnehmen. Alle Angaben, die Sie im Rahmen der Befragung machen, werden vertraulich behandelt und bleiben anonym. Der Datenschutz und die Sicherheit Ihrer Befragungsdaten sind durch den Einbezug des Betriebsrates, des Datenschutzbeauftragten und der IT-Sicherheit der EnBW stets und in vollem Umfang sichergestellt.

Zunächst bitten wir Sie um einige _statistische Angaben zu Ihrer Person_ und _Ihrer aktuellen Arbeitssituation bei der EnBW_, um uns eine genaue wissenschaftliche Analyse aller Fragebögen zu ermöglichen.

Wir möchten Sie an dieser Stelle nochmals ausdrücklich darauf hinweisen, dass alle Ihre Daten streng vertraulich behandelt sowie anonym gespeichert und weiterverarbeitet werden. Es werden darüber hinaus keine Informationen über Sie persönlich oder Ihren Fragebogen an die EnBW oder einzelne Mitarbeiter des Unternehmens weitergegeben. Das Vorgehen und die Durchführung dieser Befragung sind in enger Abstimmung sowohl mit dem Betriebsrat/ Sprecherausschuss, der IT-Sicherheit als auch dem Datenschutzbeauftragten der EnBW erfolgt.

1. Wenn Sie als Mitarbeiter die Altersstruktur Ihres aktuellen Teams bei der EnBW betrachten, wie würden Sie dieses, im Vergleich zum Alter Ihrer aktuellen Führungskraft, einschätzen:

   ☐ definitiv jünger
   ☐ eher jünger
   ☐ eher gleich alt
   ☐ eher älter
   ☐ definitiv älter

2. Wie ähnlich sind sich die Mitarbeiter in Ihrem aktuellen Arbeitsteam bei der EnBW in den Aspekten…

	überhaupt nicht verschieden				komplett verschieden
	1	2	3	4	5
… Alter					
… Geschlecht					
… Bildung					
… Werte					

3. Bitte geben Sie an, seit wie vielen Jahren Sie bereits bei der EnBW beschäftigt sind: _____

4. Bitte geben Sie Ihr Alter in Jahren an:_____

5. Bitte geben Sie Ihr Geschlecht an: ☐ männlich ☐ weiblich

6. Bitte geben Sie Ihren höchsten Bildungsabschluss an:

   ☐ Ohne Abschluss
   ☐ Allgem. Schulabschluss
   ☐ Berufsausbildung / Lehre
   ☐ Nichtakademische Weiterbildung (z.B. Meister, Techniker, etc.)
   ☐ Hochschulausbildung / Studium / Promotion

Der nun folgende Text beschreibt eine **fiktive Situation aus dem Arbeitsleben**. Bitte lesen Sie diesen sehr aufmerksam durch und **versuchen Sie sich in die beschriebene Arbeitssituation hineinzuversetzen**. Bitte beachten Sie, dass Sie selbst dabei die beschriebene Person sind, die im Mittelpunkt der Betrachtung steht. Versuchen Sie sich daher so gut Sie können sich in die im Text beschriebene Situation hineinzuversetzen und sich diese in der Praxis vorzustellen. Im Anschluss an den Text werden Ihnen einige **Fragen** gestellt, die Sie bitte **stets im Kontext der beschriebenen Arbeitssituation beantworten**.
Stellen Sie sich bitte folgendes vor:

Szenario-Beschreibung: „jünger", „gleich alt" oder „älter" !!!

Bezugnehmend auf die zuvor beschriebene Arbeitssituation bitten wir Sie nun, die folgenden Fragen zu beantworten. **Bitte versuchen Sie stets aus der beschriebenen Situation heraus als Mitarbeiter in dieser Situation die Aussagen zu bewerten bzw. einzuschätzen**. Stellen Sie sich dazu auch vor, wie Sie die tägliche Arbeit in solch einer Situation empfinden und einschätzen würden.

Bitte beantworten Sie möglichst alle Fragen, denn nur so können relevante wissenschaftliche Forschungsergebnisse gewonnen werden! Bedenken Sie auch, dass es bei der Beantwortung der einzelnen Fragen kein „richtig" oder „falsch" gibt.

		sehr unwahrscheinlich						sehr wahrscheinlich
7.	Wie wahrscheinlich ist es, dass Sie im nächsten Jahr nach einer Stelle außerhalb dieses Unternehmens suchen werden?	1	2	3	4	5	6	7

		nie						immer
8.	Wie oft denken Sie darüber nach, Ihre Stelle in diesem Unternehmen aufzugeben?	1	2	3	4	5	6	7

		sehr ungern						sehr gerne
9.	Wenn Sie die Möglichkeit hätten, wie gerne würden Sie eine neue Stelle finden?	1	2	3	4	5	6	7

		sehr unwahrscheinlich						sehr wahrscheinlich
10.	Wie wahrscheinlich ist es, dass Sie im nächsten Jahr nach einer neuen Stelle innerhalb des Unternehmens, aber außerhalb ihres derzeitigen Teams suchen werden?	1	2	3	4	5	6	7

		nie						immer
11.	Wie oft denken Sie darüber nach, Ihre Stelle in diesem Team aufzugeben und in einem anderen Team des Unternehmens zu arbeiten?	1	2	3	4	5	6	7

		sehr ungern						sehr gerne
12.	Wenn die Möglichkeit bestünde, wie gern würden Sie weiterhin im selben Unternehmen aber einem anderen Team arbeiten?	1	2	3	4	5	6	7

13. Im Allgemeinen arbeite ich gerne mit dieser
    Führungskraft.

    1   2   3   4   5   6   7

14. Im Allgemeinen mag ich meine Arbeit nicht.

15. Insgesamt bin ich mit meiner Arbeitsstelle zufrieden.

16. Altersvielfalt ist für Teams von Vorteil.

17. Ich finde Altersvielfalt gut.

18. Ich arbeite gerne in/mit Gruppen aus verschiedenen
    Altersgruppen.

19. Ich bin von Altersvielfalt begeistert.

20. Wenn ich unser Team beschreiben sollte,
    fällt mir sofort die Altersstruktur ein.
    (z.B. drei junge und zwei ältere Kollegen).

21. Mir ist der Altersunterschied zwischen mir und meiner
    Führungskraft deutlich bewusst.

22. Ich denke manchmal über die Unterschiede zwischen
    „Jüngeren" und „Älteren" nach.

23. Bei Entscheidungen bezüglich unserem Team (z.B. zur Aufgaben-
    verteilung) wird das unterschiedliche Alter der Teammitglieder
    berücksichtigt.

24. Wenn Probleme in unserem Team auftreten, hat das auch etwas
    mit dem Altersunterschied zwischen dem Team und unserer
    Führungskraft zu tun.

25. In unserem Team wird das unterschiedliche Alter der Führungskraft
    angesprochen.

26. Bei der Entscheidungsfindung wägt die Führungskraft
    meines Teams vorsichtig alle Informationen ab,
    die von Teammitgliedern vorgebracht werden.

27. Unser Team und unsere Führungskraft ergänzen sich,
    indem sie offen ihr Wissen miteinander teilen.

28. Die Führungskraft meines Teams wägt vorsichtig
    alle Möglichkeiten ab, um die optimale Entscheidung/Lösung
    zu finden.

29. Die Führungskraft meines Teams entwickelt Ideen und Lösungen,
    die besser sind als Ideen und Lösungen anderer Führungskräfte.

Wir möchten Ihnen an dieser Stelle die Möglichkeit geben das zu Beginn beschriebene Szenario nochmals vor Augen zu führen.

Der folgende Text beschreibt daher nochmals **dieselbe fiktive Situation aus dem Arbeitsleben, die Sie schon zu Beginn des Fragebogens gelesen haben**. Bitte **lesen Sie diese nochmals** sehr aufmerksam durch und **versuchen Sie sich in die beschriebene Arbeitssituation hineinzuversetzen**. Im Anschluss an den Text werden Ihnen abschließend nochmals einige **Fragen** gestellt, die Sie bitte **stets im Kontext der beschriebenen Arbeitssituation beantworten**.

Stellen Sie sich bitte folgendes vor:

Szenario-Beschreibung: „jünger", „gleich alt" oder „älter" !!!

	trifft überhaupt nicht zu						trifft voll und ganz zu
30. Ich bin mir sicher, dass meine Führungskraft immer versuchen wird, mich fair zu behandeln.	1	2	3	4	5	6	7

31. Meine Führungskraft würde nie versuchen, sich durch Täuschung der Mitarbeiter einen Vorteil zu verschaffen.

32. Ich habe volles Vertrauen in die Integrität meines Vorgesetzten.

33. Ich fühle große Loyalität für meine Führungskraft.

34. Ich würde meine Führungskraft in fast jedem Notfall unterstützen.

35. Ich habe ein starkes Loyalitätsgefühl meiner Führungskraft gegenüber.

36. Meine Führungskraft behandelt mich fair.

37. In zwischenmenschlichen Beziehungen behandelt mich meine Führungskraft fair.

38. Die Art, wie mich meine Führungskraft behandelt, ist fair.

39. Ich möchte, dass er/sie weiterhin Führungskraft des Teams bleibt.

40. Ich akzeptiere ihn/sie als Führungskraft.

41. Er/sie verdient es, Führungskraft zu sein.

42. Ich heiße es nicht gut, dass er/sie Führungskraft ist.

	nicht viel					sehr viel	
43. Wie viele persönliche Unstimmigkeiten gibt es zwischen Ihnen/Ihrem Team und Ihrer Führungskraft?	1	2	3	4	5	6	7

44. Wie oft regen sich Sie/Ihr Team während der Zusammenarbeit mit der Führungskraft auf?

45. Wie viele emotionale Konflikte gibt es zwischen Ihnen/Ihrem Team und Ihrer Führungskraft?

	trifft überhaupt nicht zu						trifft voll und ganz zu

Meine Führungskraft…

	1	2	3	4	5	6	7

46. erfüllt oder übertrifft seine Ziele.

47. erledigt seine Aufgaben zeitgerecht.

48. stellt sicher, dass die Produkte und Serviceleistungen des Teams den Qualtitätstandards entsprechen oder sie übertreffen.

49. reagiert schnell auf auftretende Probleme.

50. ist eine produktive Führungskraft.

51. löst erfolgreich solche Probleme, die unsere Arbeit behindern.

Mein Team…

52. leistet quantitativ viel.

53. leistet qualitativ viel.

54. bringt ein gewisses Maß an Leistung.

Ab hier können die Teilnehmer im Fragebogen nicht mehr zurückspringen und Änderungen vornehmen oder die Szenariobeschreibung lesen.

Zum Ende des Fragebogens bitten wir Sie nun abschließend noch um die Beantwortung folgender **Fragen** die sich explizit **auf die eingangs beschriebene hypothetische Arbeitssituation beziehen** und NICHT auf Sie persönlich.

55. In der beschriebenen hypothetischen Arbeitssituation ist meine Führungskraft …

	trifft überhaupt nicht zu						trifft voll und ganz zu

a) … älter als ich und meine TeamkollegenInnen

	1	2	3	4	5	6	7

b) … im gleichen Alter als ich und meine TeamkollegenInnen

c) … jünger als ich und meine TeamkollegenInnen

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HEIDELBERG

Vielen Dank für Ihre Teilnahme an der

Forschungsstudie „Altersvielfalt bei der EnBW" !

E – Leader Questionnaire for Study 2b

RUPRECHT-KARLS-

UNIVERSITÄT

HEIDELBERG

Fakultät für Wirtschafts- und Sozialwissenschaften

Alfred-Weber-Institut für Wirtschaftswissenschaften

Behavioral Economics

Prof. Dr. Christiane Schwieren

Dipl. Betriebsw. (FH) Sven Schreiber MBA

Zunächst bitten wir Sie um einige *statistische Angaben zu Ihrer Person* und *Ihrer aktuellen Arbeitssituation bei der EnBW*, um uns eine genaue wissenschaftliche Analyse aller Fragebögen zu ermöglichen.

Wir möchten Sie an dieser Stelle nochmals ausdrücklich darauf hinweisen, dass alle Ihre Daten streng vertraulich behandelt sowie anonym gespeichert und weiterverarbeitet werden. Es werden darüber hinaus keine Informationen über Sie persönlich oder Ihren Fragebogen an die EnBW oder einzelne Mitarbeiter des Unternehmens weitergegeben. Das Vorgehen und die Durchführung dieser Befragung sind in enger Abstimmung sowohl mit dem Betriebsrat/ Sprecherausschuss, der IT-Sicherheit als auch dem Datenschutzbeauftragten der EnBW erfolgt.

1. Wenn Sie als Führungskraft die Altersstruktur des aktuell von Ihnen geführten Teams/Arbeitsgruppe bei der EnBW betrachten, wie würden Sie sich im Vergleich dazu einschätzen:

   - ☐ definitiv jünger
   - ☐ eher jünger
   - ☐ eher gleich alt
   - ☐ eher älter
   - ☐ definitiv älter

2. Wie ähnlich sind sich die Mitarbeiter in Ihrem aktuellen Arbeitsteam bei der EnBW in den Aspekten…

	überhaupt nicht verschieden				komplett verschieden
	1	2	3	4	5
… Alter					
… Geschlecht					
… Bildung					
… Werte					

3. Bitte geben Sie an, seit wie vielen Jahren Sie bereits bei der EnBW beschäftigt sind: _____

4. Bitte geben Sie an, seit wie vielen Jahren Sie bereits Führungskraft sind: _____

5. Bitte geben Sie Ihr Alter in Jahren an:_____

6. Bitte geben Sie Ihr Geschlecht an: ☐ männlich ☐ weiblich

7. Bitte geben Sie Ihren höchsten Bildungsabschluss an:

   - ☐ Ohne Abschluss
   - ☐ Allgem. Schulabschluss
   - ☐ Berufsausbildung / Lehre
   - ☐ Nichtakademische Weiterbildung (z.B. Meister, Techniker, etc.)
   - ☐ Hochschulausbildung / Studium / Promotion

Der nun folgende Text beschreibt eine **fiktive Situation aus dem Arbeitsleben**. Bitte lesen Sie diesen sehr aufmerksam durch und **versuchen Sie sich in die beschriebene Arbeitssituation hineinzuversetzen**. Bitte beachten Sie, dass Sie selbst dabei die beschriebene Person sind, die im Mittelpunkt der Betrachtung steht. Versuchen Sie sich daher so gut Sie können sich in die im Text beschriebene Situation hineinzuversetzen und sich diese in der Praxis vorzustellen. Im Anschluss an den Text werden Ihnen einige **Fragen** gestellt, die Sie bitte **stets im Kontext der beschriebenen Arbeitssituation beantworten**.
Stellen Sie sich bitte folgendes vor:

Szenario-Beschreibung: „jünger", „gleich alt" oder „älter" !!!

Bezugnehmend auf die zuvor beschriebene Arbeitssituation bitten wir Sie nun, die folgenden Fragen zu beantworten. **Bitte versuchen Sie stets aus der beschriebenen Situation heraus als Führungskraft in dieser Situation die Aussagen zu bewerten bzw. einzuschätzen**. Stellen Sie sich dazu auch vor, wie Sie die tägliche Arbeit in solch einer Situation empfinden und einschätzen würden.

Bitte beantworten Sie möglichst alle Fragen, denn nur so können relevante wissenschaftliche Forschungsergebnisse gewonnen werden! Bedenken Sie auch, dass es bei der Beantwortung der einzelnen Fragen kein „richtig" oder „falsch" gibt.

		sehr unwahrscheinlich						sehr wahrscheinlich
8.	Wie wahrscheinlich ist es, dass Sie im nächsten Jahr nach einer Stelle außerhalb dieses Unternehmens suchen werden?	1	2	3	4	5	6	7

		nie						immer
9.	Wie oft denken Sie darüber nach, Ihre Stelle in diesem Unternehmen aufzugeben?	1	2	3	4	5	6	7

		sehr ungern						sehr gerne
10.	Wenn Sie die Möglichkeit hätten, wie gerne würden Sie eine neue Stelle finden?	1	2	3	4	5	6	7

		sehr unwahrscheinlich						sehr wahrscheinlich
11.	Wie wahrscheinlich ist es, dass Sie im nächsten Jahr nach einer neuen Stelle innerhalb des Unternehmens, aber außerhalb ihres derzeitigen Teams suchen werden?	1	2	3	4	5	6	7

		nie						immer
12.	Wie oft denken Sie darüber nach, Ihre Stelle in diesem Team aufzugeben und in einem anderen Team des Unternehmens zu arbeiten?	1	2	3	4	5	6	7

		sehr ungern						sehr gerne
13.	Wenn die Möglichkeit bestünde, wie gern würden Sie weiterhin im selben Unternehmen aber einem anderen Team arbeiten?	1	2	3	4	5	6	7

	trifft überhaupt nicht zu						trifft voll und ganz zu
	1	2	3	4	5	6	7

14. Im Allgemeinen arbeite ich gerne mit diesem Team.

15. Im Allgemeinen mag ich meine Arbeit nicht.

16. Insgesamt bin ich mit meiner Arbeitsstelle zufrieden.

17. Altersvielfalt ist für Teams von Vorteil.

18. Ich finde Altersvielfalt gut.

19. Ich arbeite gerne in/mit Gruppen aus verschiedenen Altersgruppen.

20. Ich bin von Altersvielfalt begeistert.

21. Dieses Team leistet quantitativ viel.

22. Dieses Team leistet qualitativ viel.

23. Dieses Team bringt ein gewisses Maß an Leistung.

24. Wenn ich unser Team beschreiben sollte, fällt mir sofort die Altersstruktur ein. (z.B. drei junge und zwei ältere Kollegen).

25. Mir ist der Altersunterschied zwischen mir und meinem Team deutlich bewusst.

26. Ich denke manchmal über die Unterschiede zwischen „Jüngeren" und „Älteren" nach.

27. Bei Entscheidungen bezüglich meinem Team (z.B. zur Aufgaben-verteilung) wird das unterschiedliche Alter der Teammitglieder berücksichtigt.

28. Wenn Probleme in unserem Team auftreten, hat das auch etwas mit dem Altersunterschied zwischen mir und dem Team zu tun.

29. In meinem Team wird das unterschiedliche Alter angesprochen.

Wir möchten Ihnen an dieser Stelle die Möglichkeit geben das zu Beginn beschriebene Szenario nochmals vor Augen zu führen.
Der folgende Text beschreibt daher nochmals **dieselbe fiktive Situation aus dem Arbeitsleben, die Sie schon zu Beginn des Fragebogens gelesen haben**. Bitte **lesen Sie diese nochmals** sehr aufmerksam durch und **versuchen Sie sich in die beschriebene Arbeitssituation hineinzuversetzen**. Im Anschluss an den Text werden Ihnen abschließend nochmals einige **Fragen** gestellt, die Sie bitte **stets im Kontext der beschriebenen Arbeitssituation beantworten**.
Stellen Sie sich bitte folgendes vor:

Szenario-Beschreibung: „jünger", „gleich alt" oder „älter" !!!

30. Mein Team stellt hochqualitative Produkte und Serviceleistungen her.

31. Mein Team schließt Arbeiten fristgerecht ab.

32. Mein Team bemüht sich, hohe Qualitätsstandards zu erreichen und aufrecht zu halten.

33. Ich bin zufrieden mit der Qualität der Arbeit meines Teams.

34. Bei der Entscheidungsfindung wägen die Mitglieder meines Teams vorsichtig alle Informationen ab, die von Teammitgliedern vorgebracht werden.

35. Die Mitglieder meines Teams ergänzen sich, indem sie offen ihr Wissen miteinander teilen.

36. Die Mitglieder meines Teams wägen vorsichtig alle Möglichkeiten ab, um die optimale Entscheidung/Lösung zu finden.

37. Die Mitglieder meines Teams entwickeln Ideen und Lösungen, die besser sind als Ideen und Lösungen eines Einzelnen

38. Ich glaube, mein Team ist sich sicher, dass ich immer versuchen werde es fair zu behandeln.

39. Ich glaube, mein Team geht davon aus, dass ich nie versuchen würde mir durch Täuschung des Teams und von Mitarbeitern einen Vorteil zu verschaffen.

40. Ich glaube, dass mein Team volles Vertrauen in meine Integrität hat.

41. Ich glaube, dass mein Team große Loyalität für mich fühlt.

42. Ich glaube, dass mein Team mich in fast jedem Notfall unterstützen würde.

43. Ich glaube, dass mein Team ein starkes Loyalitätsgefühl mir gegenüber hat.

44. Ich glaube, mein Team möchte, dass ich weiterhin Führungskraft des Teams bleibe.

45. Ich glaube, mein Team akzeptiert mich als Führungskraft.

46. Ich glaube, in den Augen meines Teams verdiene ich es, Führungskraft zu sein.

47. Ich glaube, mein Team heißt es nicht gut, dass ich Führungskraft bin.

	nicht viel					sehr viel	

48. Wie viele persönliche Unstimmigkeiten gibt es zwischen Ihnen und Ihrem Team?

1   2   3   4   5   6   7

49. Wie oft regen Sie sich während der Zusammenarbeit mit Ihrem Team auf?

50. Wie viele emotionale Konflikte gibt es zwischen Ihnen und Ihrem Team?

	trifft überhaupt nicht zu						trifft voll und ganz zu

51. Ich bin mir sicher, dass mein Team
immer versuchen wird, mich fair zu behandeln.

    1   2   3   4   5   6   7

52. Mein Team würde nie versuchen, sich durch
Täuschung ihrer Führungskraft einen Vorteil zu verschaffen.

53. Ich habe volles Vertrauen in die Integrität meines Teams.

54. Ich fühle große Loyalität für mein Team.

55. Ich würde mein Team/meine Mitarbeiter in fast jedem Notfall unterstützen.

56. Ich habe ein starkes Loyalitätsgefühl meinem Team
gegenüber.

Ab hier können die Teilnehmer im Fragebogen nicht mehr zurückspringen und Änderungen vornehmen oder die Szenariobeschreibung lesen.

Zum Ende des Fragebogens bitten wir Sie nun abschließend noch um die Beantwortung folgender **Fragen,** die sich explizit **auf die eingangs beschriebene hypothetische Arbeitssituation beziehen** und NICHT auf Sie persönlich.

57. In der beschriebenen hypothetischen Arbeitssituation sind meine Mitarbeiter insgesamt …

	trifft überhaupt nicht zu						trifft voll und ganz zu

    1   2   3   4   5   6   7

(a) … älter als ich

(b) … (etwa) im gleichen Alter als ich

(c) … jünger als ich

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Forschungsstudie „Altersvielfalt bei der EnBW" !

F – Questionnaire for Study 3

RUPRECHT-KARLS-UNIVERSITÄT HEIDELBERG

Fakultät für Wirtschafts- und Sozialwissenschaften

Alfred-Weber-Institut für Wirtschaftswissenschaften

Behavioral Economics

Prof. Dr. Christiane Schwieren

Dipl. Betriebsw. (FH) Sven Schreiber MBA

Vielen Dank, dass Sie an unserem Forschungsprojekt zum demografischen Wandel in Kooperation mit der EnBW teilnehmen. Alle Angaben, die Sie im Rahmen der Befragung machen, werden streng vertraulich behandelt und bleiben anonym. Der Datenschutz und die Sicherheit Ihrer Befragungsdaten sind durch den Einbezug des Betriebsrates, des Sprecherausschusses, des Datenschutzbeauftragten und der IT-Sicherheit der EnBW stets und in vollem Umfang sichergestellt.

Wir bitten Sie, möglichst ehrlich und offen die Fragen der Studie zu beantworten, denn nur so können Zusammenhänge wissenschaftlich korrekt analysiert und bewertet und die richtigen Schlussfolgerungen aus den aggregierten Gesamtergebnissen gezogen werden.

Bitte bewerten Sie in diesem Teil des Fragebogens zunächst einige Aussagen zu sich selbst in Ihrer Rolle als Führungskraft.

Bitte beantworten Sie möglichst alle Fragen, denn nur so können relevante wissenschaftliche Forschungsergebnisse gewonnen werden! Bedenken Sie auch, dass es bei der Beantwortung der einzelnen Fragen kein „richtig" oder „falsch" gibt.

	trifft überhaupt nicht zu						trifft voll und ganz zu

1. Ich ermuntere meine Mitarbeiter, unabhängige Denker zu sein.　　　1　2　3　4　5　6　7

2. Ich stelle sicher, dass Bedingungen und Ressourcen derart sind, dass meine Mitarbeiter ihre Arbeit gut machen können.

3. Ich beteilige meine Mitarbeiter an Entscheidungen, die ihre Arbeit betreffen.

4. Ich bin sehr kritisch gegenüber neuen Ideen.

5. Ich ermuntere meine Mitarbeiter, ihr Potential zu entwickeln.

6. Ich kann Andere für meine Ideen begeistern.

7. Ich glaube, mein Team möchte, dass ich weiterhin Führungskraft des Teams bleibe.

8. Wenn nötig, bin ich hart.

9. Ich spreche mit meinen Mitarbeitern über die für sie wichtigen Werte und Überzeugungen.

10. Ich stelle sicher, dass meine eigenen Interessen gebührend berücksichtigt werden.

11. Ich habe eine Vision und Vorstellung von der Zukunft.

12. Probleme müssen chronisch sein, bevor ich etwas unternehme.

13. Ich fordere meine Mitarbeiter heraus, über Probleme auf neuen Wegen nachzudenken.

14. Ich glaube, mein Team akzeptiert mich als Führungskraft.

15. Ich versuche, nicht involviert zu werden, wenn zeitaufwendige Sachen anstehen.

16. Ich delegiere herausfordernde Verantwortlichkeiten an meine Mitarbeiter.

17. Ich stelle sicher, dass Vereinbarungen eingehalten werden.

18. Ich zeige, dass ich von meinen Idealen, Überzeugungen und Werten überzeugt bin.

19. Ich glaube, in der Realität, kann nur eine einzelne Person die Führungsrolle übernehmen.

20. Ich bin immer auf der Suche nach neuen Möglichkeiten 1 2 3 4 5 6 7
    für die Organisation.

21. Ich zeige, dass ich fest daran glaube: „wenn es nicht
    kaputt ist, repariere es nicht".

22. Ich mobilisiere ein kollektives Gefühl für die Mission oder
    die Aufgaben.

23. Ich behalte die Kontrolle und übernehme Verantwortung,
    wenn es schwierig wird.

24. Leute können sich darauf verlassen, dass ich
    Verpflichtungen erfülle.

25. Es kann mir geglaubt werden und man kann sich darauf
    verlassen, dass ich mein Wort halte.

26. Ich glaube, in den Augen meines Teams verdiene ich es, Führungskraft zu sein.

27. Ich schätze klare Argumente und faire Bezahlung sehr.

28. Ich kritisiere meine Mitarbeiter nicht ohne guten Grund.

29. Ich erlaube keine Unterschiede in Meinungen, nachdem
    Entscheidungen einmal getroffen worden sind.

30. Solange die Arbeit Mindeststandards erreicht, vermeide ich es,
    Verbesserungen herbeizuführen.

31. Ich lasse meine Mitarbeiter wissen, was ich von ihnen erwarte.

32. Ich bemühe mich um ein kollegiales Arbeitsverhältnis
    mit meinen Mitarbeitern.

33. Ich konsultiere meine Mitarbeiter, wenn es ein Problem gibt.

34. Ich glaube, mein Team heißt es nicht gut, dass ich Führungskraft bin.

35. Ich informiere meine Mitarbeiter darüber, was getan werden muss
    und wie es getan werden soll.

36. Ich bemühe mich, mit kleinen Aufmerksamkeiten eine
    angenehme Atmosphäre in der Gruppe zu schaffen.

37. Ich höre aufmerksam den Ideen und Vorschlägen meiner
    Mitarbeiter zu.

38. Ich bitte meine Mitarbeiter, die üblichen Regeln und Vorschriften
    zu befolgen.

39. Ich sage etwas, das meine Mitarbeiter persönlich verletzt.

40. Ich treffe Entscheidungen ohne Absprache mit meinen Mitarbeitern.

41. Ich erkläre, welchen Leistungsstandard wir von meinen
    Mitarbeitern erwarten.

42. Ich helfe meinen Mitarbeitern mit Problemen umzugehen,
    die sie bei der erfolgreichen Ausführung ihrer Arbeit behindern.

43. Ich bitte meine Mitarbeiter, Vorschläge beizutragen, wie bestimmte Aufgaben ausgeführt werden können.

44. Ich erläutere generell, was von meinen Mitarbeitern im Job erwartet wird.

45. Ich nehme Rücksicht auf die Bedürfnisse meiner Mitarbeiter.

46. Ich bitte meine Mitarbeiter, Vorschläge zu machen, welche Aufgaben verteilt werden sollen.

Im nun folgenden Teil des Fragebogens möchten wir Sie bitten, einige Fragen zu sich selbst als Person zu beantworten.
<u>Bitte beantworten Sie möglichst alle Fragen,</u> denn nur so können relevante wissenschaftliche Forschungsergebnisse gewonnen werden! Bedenken Sie, dass es auch bei der Beantwortung dieser Fragen <u>kein „richtig" oder „falsch"</u> gibt.

	trifft überhaupt nicht zu						trifft voll und ganz zu

47. Bei meiner Arbeit bin ich voll überschäumender Energie.   1   2   3   4   5   6   7

48. Beim Arbeiten fühle ich mich fit und tatkräftig.

49. Im Allgemeinen arbeite ich gerne mit meinem Team.

50. Ich bin von meiner Arbeit begeistert.

51. Meine Arbeit inspiriert mich.

52. Wenn ich morgens aufstehe, freue ich mich auf meine Arbeit.

53. Im Allgemeinen mag ich meine Arbeit nicht.

54. Ich fühle mich glücklich, wenn ich intensiv arbeite.

55. Ich bin stolz auf meine Arbeit.

56. Während ich arbeite, vergesse ich alles um mich herum.

57. Insgesamt bin ich mit meiner Arbeitsstelle zufrieden.

58. Während ich arbeite, vergeht die Zeit wie im Fluge.

	sehr unwahrscheinlich						sehr wahrscheinlich

59. Wie wahrscheinlich ist es, dass Sie im nächsten Jahr nach einer Stelle außerhalb dieses Unternehmens suchen werden?   1   2   3   4   5   6   7

	nie						immer

60. Wie oft denken Sie darüber nach, Ihre Stelle in diesem Unternehmen aufzugeben?   1   2   3   4   5   6   7

	sehr ungern						sehr gerne

61. Wenn Sie die Möglichkeit hätten, wie gerne würden Sie eine neue Stelle finden?   1   2   3   4   5   6   7

	sehr unwahrscheinlich						sehr wahrscheinlich

62. Wie wahrscheinlich ist es, dass Sie im nächsten Jahr nach einer neuen Stelle innerhalb des Unternehmens, aber außerhalb ihres derzeitigen Teams suchen werden?

1 2 3 4 5 6 7

	nie						immer

63. Wie oft denken Sie darüber nach, Ihre Stelle in diesem Team aufzugeben und in einem anderen Team des Unternehmens zu arbeiten?

1 2 3 4 5 6 7

	sehr ungern						sehr gerne

64. Wenn die Möglichkeit bestünde, wie gern würden Sie weiterhin im selben Unternehmen aber einem anderen Team arbeiten?

1 2 3 4 5 6 7

Im nun folgenden Teil des Fragebogens möchten wir Sie bitten, einige Aussagen zu bewerten, die sich mit Ihrem Team befassen. Die Einschätzung bezieht sich auf die Organisationseinheit (Team), der Sie disziplinarisch (ggf. fachlich) vorstehen.
Bitte beantworten Sie möglichst alle Fragen, denn nur so können relevante wissenschaftliche Forschungsergebnisse gewonnen werden! Bedenken Sie, dass es auch bei der Beantwortung dieser Fragen kein „richtig" oder „falsch" gibt.

	trifft überhaupt nicht zu						trifft voll und ganz zu

65. Ich bin mir sicher, dass mein Team immer versuchen wird, mich fair zu behandeln.

1 2 3 4 5 6 7

66. Mein Team würde nie versuchen, sich durch Täuschung ihrer Führungskraft einen Vorteil zu verschaffen.

67. Ich habe volles Vertrauen in die Integrität meines Teams.

68. Teammitglieder setzen oft neue Ideen um, um die Qualität unserer Produkte und Serviceleistungen zu erhöhen.

69. Dieses Team kümmert sich wenig um neue und alternative Arbeitsmethoden und –prozesse.

70. Teammitglieder entwickeln oft neue Serviceleistungen, Methoden oder Prozesse.

71. Dieses Team ist innovativ.

72. Wenn ich unser Team beschreiben sollte, fällt mir sofort die Altersstruktur ein. (z.B. drei junge und zwei ältere Kollegen).

73. Mir ist der Altersunterschied zwischen mir und meinem Team deutlich bewusst.

74. Ich denke manchmal über die Unterschiede zwischen „Jüngeren" und „Älteren" nach.

75. Bei Entscheidungen bezüglich meinem Team (z.B. zur Aufgabenverteilung) wird das unterschiedliche Alter der Teammitglieder berücksichtigt.

   1   2   3   4   5   6   7

76. Wenn Probleme in unserem Team auftreten, hat das auch etwas mit dem Altersunterschied zwischen mir und dem Team zu tun.

77. In meinem Team wird das unterschiedliche Alter angesprochen.

nicht viel   sehr viel

78. Wie viele persönliche Unstimmigkeiten gibt es zwischen Ihnen und Ihrem Team?

   1   2   3   4   5   6   7

79. Wie oft regen Sie sich während der Zusammenarbeit mit Ihrem Team auf?

80. Wie viele emotionale Konflikte gibt es zwischen Ihnen und Ihrem Team?

trifft
überhaupt nicht
zu

trifft
voll und ganz
zu

81. Ich glaube, mein Team ist sich sicher, dass ich immer versuchen werde es fair zu behandeln.

   1   2   3   4   5   6   7

82. Ich glaube, dass mein Team große Loyalität für mich fühlt.

83. Ich glaube, mein Team geht davon aus, dass ich nie versuchen würde mir durch Täuschung des Teams und von Mitarbeitern einen Vorteil zu verschaffen.

84. Ich glaube, dass mein Team mich in fast jedem Notfall unterstützen würde.

85. Ich glaube, dass mein Team volles Vertrauen in meine Integrität hat.

86. Ich glaube, dass mein Team ein starkes Loyalitätsgefühl mir gegenüber hat.

Abschließend bitten wir Sie um einige _statistische Angaben zu Ihrer Person_, um uns eine genaue wissenschaftliche Analyse aller Fragebögen zu ermöglichen.

Wir möchten Sie an dieser Stelle nochmals ausdrücklich darauf hinweisen, dass alle Ihre Daten streng vertraulich behandelt sowie anonym gespeichert und weiterverarbeitet werden. Es werden darüber hinaus keine Informationen über Sie persönlich oder Ihren Fragebogen an die EnBW oder einzelne Mitarbeiter des Unternehmens weitergegeben. Das Vorgehen und die Durchführung dieser Befragung sind in enger Abstimmung sowohl mit dem Betriebsrat/ Sprecherausschuss, der IT-Sicherheit als auch dem Datenschutzbeauftragten der EnBW erfolgt.

58. Wenn Sie als Führungskraft die Altersstruktur des aktuell von Ihnen geführten Teams/ Arbeitsgruppe bei der EnBW betrachten, wie würden Sie sich im Vergleich dazu einschätzen:

    ☐ definitiv jünger
    ☐ eher jünger
    ☐ eher gleich alt
    ☐ eher älter
    ☐ definitiv älter

59. Haben Sie bereits vor dem 01.07.2013 ihr aktuelles Team geführt?

    ☐ ja   ☐ nein

60. Bitte geben Sie an, seit wie vielen Jahren Sie bereits Führungskraft sind: ____

61. Bitte geben Sie Ihr Alter in Jahren an: ____

62. Bitte geben Sie Ihr Geschlecht an: ☐ männlich   ☐ weiblich

63. Bitte geben Sie Ihren höchsten Bildungsabschluss an:

    ☐ Ohne Abschluss
    ☐ Allgem. Schulabschluss
    ☐ Berufsausbildung / Lehre
    ☐ Nichtakademische Weiterbildung (z.B. Meister, Techniker, etc.)
    ☐ Hochschulausbildung / Studium / Promotion

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UNIVERSITÄT
HEIDELBERG

Vielen Dank für Ihre Teilnahme an der

Forschungsstudie „Altersvielfalt bei der EnBW" !