

The Antecedents of Shared Leadership

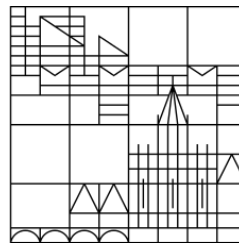
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Abstract

A comparatively large amount is known about shared leadership and its mainly positive effects on organizational and team outcomes. However, the antecedents of shared leadership have received less attention until now. This thesis reviews the existing literature to identify, summarize and present those antecedents in one model. Conceptual and empirical articles were included. No further inclusion criteria were applied as the number of results was already small enough. The samples were diverse, including students, single exceptional leaders, and full-time employees in different sectors. The results show that most research has been done at the team level. Intragroup trust ($\beta = .52, p < .01$), team member integrity ($b = .77, p < .01$), as well as vertical transformational and empowering leadership ($b = .75, p < .001$) are the strongest predictors of shared leadership in this category. The developed model highlights the importance of team characteristics. However, further research is needed to clarify the relationships among the identified antecedents and their interdependency. Also, replications and longitudinal studies are necessary to fortify the existing results, which will help practitioners to effectively implement shared leadership.

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1 Introduction

A look at the boards of today's international companies shows that shared leadership has found its way into reality. It is not only a conceptually developed leadership style that scholars like to investigate but an exercised form of leading organizations, as, for example at Dell or W. L. Gore & Associates (Pearce & Conger, 2003a; Pearce, Manz, & Sims, 2014). At Dell, the executive officers take on the lead in their particular areas of expertise so that they share responsibility with the chief executive officer (Dell GmbH, 2015). Despite this example from top-management level, shared leadership is currently more frequently found at lower levels, such as in product development teams (Pearce & Manz, 2005a).

As a comparatively new field of study, research into shared leadership is not yet very extensive and still in its infancy (Dinh et al., 2014). Hence, few scholars have attended to the study of the antecedents of shared leadership so far, which is the subject of this thesis. In addition, few theoretical rationales exist that explain how a particular antecedent leads to shared leadership. Therefore, this thesis gives a summarizing overview of the antecedents of shared leadership and tries to advance the theoretical understanding of the effectiveness of those predictors. Consequently, this thesis is guided by the question: What are the antecedents of shared leadership?

By this means, practitioners will gain a deeper knowledge of how to implement shared leadership practices in their companies. This is particularly desirable as shared leadership positively influences critical organizational outcomes such as performance (Ensley, Hmieleski, & Pearce, 2006) and effectiveness (Wang, Waldman, & Zhang, 2014). Moreover, it yielded more effective results than its hierarchical and more centralized counterparts (Pearce & Manz, 2014d; Pearce & Sims, 2002; Pearce, Yoo, & Alavi, 2004). Additionally, organizational structures are changing towards an increasing number of team-based units (Hoch, 2014; Morgeson, DeRue, & Karam, 2010; Zaccaro, Rittman, & Marks, 2001). This development derives partly from changes in how work is executed and from increasing demands for more equally distributed leadership (Pearce & Conger, 2003a). In sum, these changes in the work environment clear the way for shared leadership as a new, innovative and more effective way of leading teams and organizations.

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The summarizing model of the antecedents of shared leadership is developed via a literature review. Existing research on this topic is analyzed and the resulting antecedents are merged into one model. Both empirical research and conceptual articles are included to create a full picture. In the next chapter, the concept of shared leadership is defined and a short overview of the current state of research is given. The resultant research gap is added. Chapter three explains the method of this thesis in more detail regarding the chosen databases, search terms, and criteria for inclusion. Next, the results of the literature review are displayed. In chapter five, the identified antecedents are merged into one model and the theoretical underpinnings are explained. Finally, the thesis is concisely summarized, and limitations as well as directions for further research are outlined.

2 Shared Leadership: Definition, State of the Art and Research Gap

For a better understanding of the thesis' course, it is necessary to clarify its core concept, shared leadership. The existing literature on shared leadership employs various definitions. In the broadest sense, Pearce and Manz (2014c, p. xi) state that „[...] all leadership is shared leadership, it is simply a matter of degree - sometimes it is shared completely while at other times it is not shared at all.“. This quote shows that the content of shared leadership does not matter for them at all. It is not important, which leadership style a particular leader exercises, as long as the leadership role is shared within the team. Another example of a broad classification of shared leadership is illustrated by Wang et al.'s (2014) meta-analysis of the relationship between shared leadership and team effectiveness. They group shared leadership into three categories, each with its own indicators: shared traditional leadership, shared new-genre leadership, and cumulative, overall shared leadership. These two examples stress the need for further clarification of the definition of shared leadership, which will not be the purpose of the thesis, but emphasizes the novelty of research on this leadership style.

For a comprehensible and coherent basis, a more precise, well-known and often used definition by Pearce and Conger (2003a) will be applied to this thesis. They define shared leadership as a "[...] dynamic, interactive influence process among individuals in groups for

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which the objective is to lead one another to the achievement of group or organizational goals or both." (Pearce & Conger, 2003a, p. 1). This definition also determines the group or the team as the thesis' unit of interest.

In general, the study of shared leadership is comparatively new. Dinh et al.'s (2014) investigation of leadership-related articles in ten top-tier journals between 2000 and 2012 found 41 articles on the topic "participative, shared leadership", reflecting 5% of all articles. In comparison, there is considerably more research on other established leadership theories, such as "transformational leadership" (154 articles), or emergent theories, such as "strategic/top executive leadership" (92 articles) (Dinh et al., 2014). These findings illustrate once again the novelty and constant growth of research on shared leadership (Dinh et al., 2014; Gardner, Lowe, Moss, Mahoney, & Cogliser, 2010).

Most of the past and current publications on shared leadership deal with the outcome side and do not (or only sparsely) consider the factors leading to the emergence of shared leadership in teams. Wang et al.'s (2014) meta-analysis, for example, includes 42 independent samples, where the relationship to team effectiveness was examined. Their findings reveal an overall positive effect of shared leadership on team effectiveness, which differs in strength depending on contents. This positive effect of shared leadership is supported by many other studies as well, which investigate the relationship of shared leadership with both team and organizational outcomes (Carte, Chidambaram, & Becker, 2006; Ensley et al., 2006; Pearce & Sims, 2002).

Although research on shared leadership is fairly new, the existing studies and conceptual articles cover various settings. Up to now different forms of teams have been investigated, such as military teams (Ramthun & Matkin, 2014), board teams (Vandewaerde, Voordeckers, Lambrechts, & Bammens, 2011), virtual teams (Hoch & Kozlowski, 2014), new venture top management teams (Ensley et al., 2006), or parallel global teams (Cordery, Soo, Kirkman, Rosen, & Mathieu, 2009). The practice of shared leadership was also analyzed within several companies such as W. L. Gore & Associates, Herman Miller, and Southwest Airlines (Adams, Shipper, Manz, & Manz, 2014; Pearce, 2014; Shipper, Stewart, & Manz, 2014). So far, three

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broad measurement approaches of shared leadership exist: the questionnaire approach, the social network approach, and the actor-partner-interdependence-model (Piecha & Wegge, 2015). These examples highlight the breadth of research on shared leadership despite the novelty of this field.

As the aforementioned current state of research shows, few studies deal explicitly with the antecedents of shared leadership, which are necessary to implement this particular leadership style. Hence, there is a need to review those studies which investigate the antecedents of shared leadership, from which the mainly positive outcomes, for example, on satisfaction (Shamir & Lapidot, 2003), motivation (Carte et al., 2006), and performance (Ensley et al., 2006), derive. Currently, no summarizing model of those antecedents exists, though it would be useful and advantageous to systematize possible antecedents, thereby giving a comprehensive overview. In this thesis I attempt to close this research gap with a model that is applicable to more than one specific setting, advances the theoretical understanding and gives practitioners advice on how to implement a new and effective leadership style.

3 Method

3.1 Databases, Search Terms, and Other Restricting Criteria

The basis of this thesis is a literature review (Baumeister & Leary, 1997; Torraco, 2005). The antecedents identified by this means are merged into a summarizing model. To gain a broad overview and find as much literature as possible the following five databases were chosen: PsycINFO, PsycARTICLES, Business Source Premier (BSP), International Bibliography of the Social Sciences (IBSS), and EconLit. These databases cover different journals which include a psychological, management, and economic perspective, and hence ensure that important articles should not be missed. For example, eight of the ten top-tier journals mentioned in Dinh et al. (2014) are covered by this thesis' principal database, PsycINFO. The remaining two journals, *Organizational Behavior & Human Decision Processes* and *Organization Science*, are included in Business Source Premier. In addition, the selected

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search terms were also entered in the Social Science Research Network, which however did not yield any new results. Thus, this search will not be presented explicitly.

According to the definition of shared leadership used in this thesis, *shared leadership* and *distributed leadership* were selected as the main search terms. In the first step, these two terms were combined with *antecedents* and *predictors*. These combinations were entered in all of the five databases. The initial search with the search term *shared leadership AND antecedents* in the database PsycINFO yielded 16 results from which five empirical articles (Carson, Tesluk, & Marrone, 2007; Friedrich et al., 2014; Hoch, 2013; Small & Rentsch, 2010; Zhang, Waldman, & Wang, 2012) and one short literature overview from a miscellany (Wassenaar & Pearce, 2012) were chosen and included in the thesis. Searching in PsycARTICLES, IBSS, and EconLit. with the same search term was unsuccessful in identifying further relevant sources, whereas the same search in BSP discovered a relevant empirical conference paper (Zhou, 2013). Modifying the search term by using inverted commas around shared leadership did not yield any new results. The next three combinations (*shared leadership AND predictors*; *distributed leadership AND antecedents/predictors*) produced no further relevant sources either, except from one empirical article found in PsycINFO and BSP (Jain & Jeppesen, 2014). The use of inverted commas was likewise unsuccessful. A detailed presentation of the results in the individual databases is added in Appendix A.

Due to the small number of results in the first step of the literature review, the search was extended with the related search terms *collective leadership*, *collectivistic leadership*, and *team leadership*, each combined with *antecedents* and *predictors*, in the same databases. However, no new results were gained.

3.2 Alternative Ways of Identifying Literature

Four chapters of Pearce and Conger's (2003b) seminal book on shared leadership were reviewed, which propose conceptual models of shared leadership and mention antecedents, such as vertical leadership, team characteristics, or shared cognition (Burke, Fiore, & Salas,

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2003; Cox, Pearce, & Perry, 2003; Houghton, Neck, & Manz, 2003; Seers, Keller, & Wilkerson, 2003). With two seemingly important antecedents, *diversity* and *"self leadership"*, mentioned there and *"shared leadership"*, a new literature search was run in the five databases. Looking for *"shared leadership" AND diversity* in PsycINFO accounted for one relevant empirical result out of 19 hits (Muethel, Gehrlein, & Hoegl, 2012). Additionally, two conceptual articles were identified out of a total of nine hits in BSP (Muethel & Hoegl, 2010; Ramthun & Matkin, 2012). Searches in the other three databases did not yield any further relevant results. In a fourth step, *"shared leadership" AND "self leadership"* were entered in PsycINFO, which resulted in four relevant conceptual articles out of nine hits (Bligh, Pearce, & Kohles, 2006; Pearce & Manz, 2005a; Pearce & Manz, 2011b; Stewart, Courtright, & Manz, 2011). The same search term in the other four databases yielded no further relevant results.

The above identified overview by Wassenaar and Pearce (2012) contained six empirical sources that could be included (Balthazard, Waldman, Howell, & Atwater, 2004; Elloy, 2008; George et al., 2002; Konu & Viitanen, 2008; Ropo & Sauer, 2003; Wood, 2005). In a final step, searching in PsycINFO with the search terms *"shared leadership" AND emergence* yielded one additional relevant source out of 14 hits (Barnes, Humphreys, Oyler, Pane Haden, & Novicevic, 2013); there were no new results in the remaining three databases. In total 26 results were found, of which 15 were empirical and 10 conceptual, as well as one short literature overview.

3.3 Criteria for Inclusion

To be included in this thesis an article had to discuss or investigate antecedents of shared leadership, either conceptually or empirically. At first, only articles published after 2003 (the year the aforementioned definition of shared leadership by Pearce and Conger (2003a) was published) were included. At the end of the literature review, this criterion was reversed to possibly find more articles, which accounted for one additional source (George et al., 2002). Primarily, academic journal articles, monographs, and miscellanies are the type of source that should be included in the thesis. Conference papers were included, when they were accessible through the University of Konstanz and met the criteria regarding contents. Dissertations were

not considered. No other specifying selection criteria were used, such as methodological diversity, as this would have reduced the already small amount of applicable sources. However, the need to include methodologically diverse sources is acknowledged, as hypotheses are supported more strongly when different methods produce the same results (Baumeister & Leary, 1997). It should be noted though, that the identified relevant sources used different methodological approaches to investigate their antecedents of interest (see Appendix C). However, only diversity was examined by multiple researchers. For a critical examination of the applied methods see section 4.7.

4 Results

Six categories were identified in advance of the literature review to systematize the antecedents and capture all relevant aspects of an organization and its potential influencing factors: country-level antecedents, organizational environment, organizational antecedents, task, team, and individual characteristics. These categories are partly derived from the existing leadership literature and completed by my own considerations (Eisenbeiß & Giessner, 2012; Muethel & Hoegl, 2010). Appendix B shows a list of all conceptual and empirical antecedents and Appendix C the details of the included studies. At the end of each sub-section a table summarizes the identified antecedents.

4.1 Country-Level Antecedents

There is no empirical research, and only one conceptual article which deals with antecedents on the country-level and considers national differences (Muethel & Hoegl, 2010) (see Table 1). Muethel and Hoegl's (2010) model of country-level antecedents includes ten factors in three dimensions and follows Kostova's (1997) social institutional profile. The regulative dimension emphasizes the establishment, maintenance, and enforcement of a regulatory system comprising economic freedom, civil, and political liberties as the basic conditions for shared leadership. A positive relationship is also proposed for a society's learning orientation and shared leadership (Jha & Bhattacharyya, 2013), representing the cognitive dimension.

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High levels of a country's learning orientation make behaviors for shared leadership emergence more likely, such as the demonstration of initiative or the engagement in mutually influencing processes (Muethel & Hoegl, 2010). Finally, the normative dimension encompasses six different antecedents. Due to the limited scope of this thesis, no detailed explanation of how these six factors exactly lead to shared leadership can be displayed. However, it appears that the level of performance orientation, uncertainty avoidance, assertiveness, institutional collectivism, and humane orientation are positively related to shared leadership, whereas the level of power distance is negatively related (Muethel & Hoegl, 2010).

Table 1

Country-Level Antecedents of Shared Leadership

Positive relationship with shared leadership	Negative relationship with shared leadership	Mixed results / positive and negative relationship
Economic freedom* (Muethel & Hoegl, 2010)	Power distance* (Muethel & Hoegl, 2010)	-
Civil liberties* (Muethel & Hoegl, 2010)		
Political freedom* (Muethel & Hoegl, 2010)		
Learning orientation* (Muethel & Hoegl, 2010)		
Performance orientation* (Muethel & Hoegl, 2010)		
Uncertainty avoidance* (Muethel & Hoegl, 2010)		
Assertiveness* (Muethel & Hoegl, 2010)		
Institutional collectivism* (Muethel & Hoegl, 2010)		
Humane orientation* (Muethel & Hoegl, 2010)		

Note. * = conceptually-derived antecedent

4.2 Organizational Environment

An organization's environment has not yet attracted interest in the study of the antecedents of shared leadership. However, research on other leadership styles indicates the importance of industry characteristics on companies (Eisenbeiß & Giessner, 2012) (see Table 2). An industry categorizes similar organizations based on their products and labor markets (Eisenbeiß & Giessner, 2012; Stinchcombe, 1979). Antecedents of shared leadership may not work similarly in all industries, as organizations function differently. Industries can also determine a more or less responsive environment to shared leadership. Moreover, industrial constraints, such as the extent of global interconnectedness (Eisenbeiß & Giessner, 2012), can impede the emergence of shared leadership. In general, industries influence whether or not a company faces an unpredictable and rapidly changing environment. This in turn provides a basis for shared leadership as the single formally appointed leader might not be able to survey the complexity of the company's environment on his¹ own and act accordingly (Eisenbeiß & Giessner, 2012). Therefore, shared leadership can be a means of considering all relevant events and processes in the team's environment to be successful.

Table 2

Antecedents from the Organizational Environment

Positive relationship with shared leadership	Negative relationship with shared leadership	Mixed results / positive and negative relationship
		Industry characteristics* (Eisenbeiß & Giessner, 2012)

Note. * = conceptually-derived antecedent

¹ For the sake of simplicity and easier legibility, I only use the masculine form without meaning to exclude females.

4.3 Organizational Antecedents and Team Environment

Three antecedents of shared leadership were identified in empirical articles (Carson et al., 2007; Jain & Jeppesen, 2014), and another three in conceptual articles (Barnes et al., 2013; George et al., 2002; Pearce & Manz, 2011b). Firstly, external coaching plays an important role in the emergence of shared leadership in teams according to Carson et al. (2007). In particular, they perceive supportive external coaching (Morgeson, 2005) as encouragement of, and rewards for, team members for showing leadership actions, the building of shared commitment, and the clarification of ways to manage work appropriately (Carson et al., 2007). A team's internal environment was also investigated (see section 4.5.3). Both the descriptive statistics ($r = .37, p < .05$) and the regression analysis ($\beta = .26, p < .05$) support the positive relationship of external coaching and shared leadership. An additional analysis of the interaction term (internal team environment and external coaching) and shared leadership showed that high levels of external coaching can compensate for an unsupportive internal team environment (Carson et al., 2007). These findings highlight that an organization can actively promote shared leadership by providing teams with external coaching.

Next, Jain and Jeppesen (2014)² investigated distributed leadership in Indian organizations. Their developed questionnaire about the implementation of distributed leadership (13 items) was loaded towards four significant factors and explained 36.25% of variance. Two of these factors, horizontal structure and power sharing, apply to the organizational level. Horizontal structure refers to a supportive organizational environment where power distance is low and trust can be created; and power sharing to an organization which includes its employees in important organizational activities. The power in organizational decision-making is no longer restricted to those in formal leader positions but shared among all members of the organization (Jain & Jeppesen, 2014).

From a conceptual perspective, hierarchical embeddedness was emphasized as an important predictor for the emergence of shared leadership (Barnes et al., 2013). Based on the

² This study is included as the definition of distributed leadership accords with Pearce and Conger's (2003a) definition of shared leadership.

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examination of Jerry Garcia's³ leadership, Barnes et al. (2013) argue that the emergence of shared leadership requires powerful hierarchical leaders in view of weak incentives to share authority and power and unevenly distributed resources. In addition, those with hierarchical power would insist on their involvement in the shared leadership implementation process and challenge attempts to impair their influence without their participation. This conceptualization builds on a strong hierarchical leader who creates the environment for shared leadership. Shared purpose, social support, voice (Carson et al., 2007), and transparency are the hypothesized context factors, which eventually induce shared leadership.

Another conceptual antecedent stems from the investigation of a shared leadership concepts program (SLCP) in an organized care delivery system, which is based on an autonomy development model. This model encompasses three different antecedents of shared leadership competence, from which one - a responsive environment⁴ - applies to the organizational level (George et al., 2002). The results of three studies on the SLCP highlight increases in nurses' engagement in the leadership process, higher levels of nursing practice autonomy, and better patient outcomes (George et al., 2002). Hence, the positive impact of the three antecedents can be supported. However, it was not directly examined how and to what degree each antecedent influences shared leadership competence. Therefore, no conclusions can be drawn about the exact effects of the single antecedents.

Finally, in their article on corporate social ir-responsibility (CSIR) Pearce and Manz (2011b) investigate CEO need for socialized power. They propose that CEOs with high needs for socialized power are likely to develop shared, and also self-leadership in their top management team. This is due to their aspiration of developing the team or organization. According to Pearce and Manz (2011b) and Houghton et al. (2003) this aspiration is linked to empowering leadership behaviors, which facilitate the execution of self- and shared leadership. The relevance for the top management context was emphasized by Vera and

³ Jerry Garcia was the band leader of the rock band the Grateful Dead, which was highly successful from the 1960s to the middle of the 1990s. Garcia refers to his concept of leadership, namely a shared one based on trust, in several statements. He considered himself not as a leader to a great extent (Barnes, Humphreys, Oyler, Pane Haden, and Novicevic, 2013).

⁴ The responsiveness in this case is characterized by managers and nurse specialists, who know how to develop shared leadership, a rapid possible development for staff from novice to expert level, and shared governance decision making (George et al., 2002).

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Crossan (2004), who argue that an ideal leader would share the leadership of organizational learning as he experiences his own limitations. In the end, self- and shared leadership are seen as effective means against CSIR.

Table 3

Organizational Antecedents and Team Environment

Positive relationship with shared leadership	Negative relationship with shared leadership	Mixed results / positive and negative relationship
external coaching (Carson et al., 2007)	-	-
horizontal structure (Jain & Jeppesen, 2014)		
power sharing (Jain & Jeppesen, 2014)		
hierarchical embeddedness* (Barnes et al., 2013)		
responsive environment* (George et al., 2002)		
high CEO need for socialized power* (Pearce & Manz, 2011b)		

Note. * = conceptually-derived antecedent

4.4 Task Characteristics

Apart from two conceptually analyzed antecedents - urgency and complexity (see Table 4), no empirical research could be found for this category. Pearce and Manz (2005a) discuss five factors, inter alia urgency, which determine the appropriateness of self- and shared leadership. They state that in urgent situations, more traditional forms of leadership are appropriate due to a lack of time to develop shared leadership capacity (Pearce & Manz, 2005a). Nevertheless,

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they relativize their argument by indicating that few urgent situations normally arise, start-ups being the only exception. Hence, urgency can be seen as an obstacle to shared leadership.

The second mentioned task characteristic is complexity (Pearce & Manz, 2005a; Seers et al., 2003). Both articles point to the necessity and usefulness of shared leadership in highly complex situations, based on the assumption that a single person cannot know all the relevant facts to bring out a team's highest performance (Pearce & Manz, 2005a; Seers et al., 2003). Especially in the technology sector, different intellectual backgrounds are prevalent in teams, whose integration is necessary to achieve the best outcome. This is the ideal initial position for the establishment of shared leadership practices (Pearce & Manz, 2005a). Additionally, Seers et al. (2003) point to multiple tasks as facilitators of shared leadership. Both sorts of tasks are characterized by multiple exchange relationships and interdependencies among team members, so that the team relies on the complementary skills of its members (Seers et al., 2003). However, complexity is seen not as an antecedent, but as a moderator by Cox et al. (2003), who theorize that the effect of shared leadership on team responses and effectiveness is moderated by the level of task complexity. In sum, it is theorized that the less urgent and more complex a task is, the more likely it is that shared leadership emerges.

Table 4

Task Characteristics

Positive relationship with shared leadership	Negative relationship with shared leadership	Mixed results / positive and negative relationship
Complexity* (Pearce & Manz, 2005a; Seers et al., 2003)	Urgency* (Pearce & Manz, 2005a)	-

Note. * = conceptually-derived antecedent

4.5 Team Characteristics

This category contains the most identified antecedents, possibly due to the focus of shared leadership on teams. Scholars examined how diversity, personality and related aspects, relational processes within teams, the role of formal leadership, and certain boundary conditions influence the emergence of shared leadership (see table 5).

4.5.1 Diversity of socio-demographic factors and professions

Different aspects of diversity were examined by several scholars. Muethel et al. (2012) conducted a study of dispersed teams and revealed significant positive relationships with shared leadership emergence for both a high female-to-male ratio ($\beta = .28, p < .01$) and national diversity ($\beta = .30, p < .01$), and a negative one for a team's high mean age ($\beta = -.24, p < 0.05$) (Muethel et al., 2012). In contrast to these empirical findings, Ramthun and Matkin (2012) propose a negative relationship of cultural diversity in teams and shared leadership. Hence, the question arises as to which factors lead to the contradictory assumptions and results regarding national/cultural diversity.

Moreover, Konu and Viitanen (2008) investigated the emergence of shared leadership in Finnish social service and health care via self-evaluations of the managers. The results of their two estimated models show that women are more likely to establish shared leadership practices ($p < .001$) and that these practices are more likely to occur in larger management units (Pearson correlation $.19, p < .01$). An activity sector other than specialized medical care ($p < .001-.05$) and a professional background other than medical doctor ($p < .001-.05$) were statistically significant predictors of shared leadership as well. The remaining activity sectors and professional backgrounds, the manager's age, and work experience in their particular sector were not significantly related to shared leadership (Konu & Viitanen, 2008).

Finally, in their conceptualization of the role of shared leadership in new product development teams, Cox et al. (2003) highlight ability as an important antecedent to shared leadership. They propose that the emergence of shared leadership is more likely, the greater the team members' abilities.

4.5.2 Personality traits and related aspects

In his conference paper Zhou (2013) examined the relationship of personality traits to the team level and shared leadership. The hierarchical regression analysis produced mixed results. Significant positive relationships for a team's mean score of conscientiousness ($\beta = .28$, $p < .01$) as well as openness to experience ($\beta = .22$, $p < .05$) and shared leadership could be found. Contrary to the hypothesis, the mean score of agreeableness was negatively, though not significantly, related to shared leadership ($\beta = -.25$, ns). In addition, the mean scores of extraversion and emotional stability were not significantly related to shared leadership ($\beta = -.01$; $\beta = -.10$; both ns). Furthermore, team diversity on openness related negatively to shared leadership ($\beta = -.18$, $p < .05$) as diversity on extraversion did positively ($\beta = .23$, $p < .01$). No significant relationships of conscientiousness, emotional stability, and agreeableness diversity were found (Zhou, 2013). In sum, this study suggests that a team's high mean score on conscientiousness and openness to experience as well as extraversion diversity function as antecedents of shared leadership, whereas openness diversity was identified as an impediment.

Moreover, team member integrity was tested as an antecedent of shared leadership (Hoch, 2013). The data obtained were analyzed at the group level using structural equation modeling, and highlighted team member integrity as a significant predictor of shared leadership ($b = .77$, $p < .01$). This result is also reflected in the correlational analysis ($r = .32$, $p < .05$). Hence, Hoch (2013) illustrates that shared leadership works as an indirect effect between innovative behavior as a team outcome and team member integrity as a predictor.

Finally, interpersonal attraction is linked to the aforementioned Big Five personality traits and was proposed as a facilitator of shared leadership (Seers et al., 2003). It refers to the perception of other team members as likable and having favorable abilities (Feldman, 1973). Expectations of a team member's influence are based on these ratings and therefore affect to who is granted influence in a particular situation (Seers et al., 2003). Therefore, the Big Five's present distribution within a team could impact who is seen as likable and consequently who can exert influence.

4.5.3 Relational processes within the team

Team internal processes and circumstances are examined in several studies. Firstly, Friedrich et al. (2014) proposed a model of collective leadership⁵ and investigated three antecedents. Two of them apply to the team level: developed network and effective communication⁶. The correlational analysis indicated moderate to strong intercorrelations among all constructs, though the developed network construct was comparatively less strongly related to the other constructs. In the first step of the hierarchical regression the developed network construct was significantly related to collectivistic action and problem outcomes ($\beta = -.191, p < .05$), whereas effective communication yielded a positive but insignificant relationship ($\beta = .024, \text{Sig.} = .763$). The second step, in contrast, revealed that every construct includes significant sub-dimensions, such as communication norms ($\beta = -.206, p < .05$) and information gathering ($\beta = .389, p < .001$). An additional path analysis with collectivistic action as dependent variable confirmed the relevance of effective communication (coef. = .942, $p = .001$) as an antecedent, whereas the coefficient for the developed network construct was negative and not significant (coef. = -.552, $p = .250$). Summing up, the results on these two antecedents are ambiguous, yielding mixed support in the correlational, hierarchical regression, and path analysis.

Two more antecedents of shared leadership were investigated in a longitudinal study by Small and Rentsch (2010): team collectivism and intragroup trust. The hierarchical regression analysis approved the predicted positive relationship of team collectivism and shared leadership at Time 1 ($\beta = .30, p < .05$), however, not at Time 2. Therefore, the hypothesis concerning team collectivism could only be partially supported. On the contrary, the positive relationship of developed trust at Time 1 was significant at Time 2 ($\beta = .52, p < .01$) (Small & Rentsch, 2010). In sum, team collectivism and intragroup trust have been identified as positive antecedents of shared leadership, although the former is more important at earlier stages of teamwork and the significance of the latter is displayed at later stages.

⁵ Friedrich et al. (2014) study is included as their model of collective leadership reflects Pearce and Conger's (2003a) definition of shared leadership.

⁶ In this case a team's network refers to interconnectedness, familiarity, or information gathering behaviors; effective communication to a direction giving language, feedback exchange or communication norms (Friedrich et al., 2014).

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Furthermore, a team's internal environment comprising shared purpose, social support, and voice⁷ plays an important role in the emergence of shared leadership according to Carson et al. (2007). The results of the descriptive statistics show a positive and significant relationship between a team's internal environment and shared leadership ($r = .33, p < .05$), which was supported by the results of the moderated regression analysis ($\beta = .25, p < .05$, one-tailed). Thus, Carson et al. (2007) illustrate the positive influence of a team's internal environment on the level of shared leadership.

Finally, three more conceptual antecedents regarding relational processes within teams were proposed. Interdependence among team members (Pearce & Manz, 2005a), several sub-dimensions of shared mental models (Burke et al., 2003) as well as generalized exchange norms (Seers et al., 2003) are expected to facilitate shared leadership emergence. The explanation of the single relationships will be displayed in section 5.

4.5.4 The role of the formally appointed leader and horizontal structures

The aforementioned study by Hoch (2013) also investigated vertical transformational and empowering leadership as an antecedent of shared leadership, which is mentioned by Wood (2005). The results of Hoch's (2013) study confirmed the hypothesized positive relationship of vertical transformational and empowering leadership and shared leadership ($b = .75, p < .001$). In a similar vein, Wood (2005) argues that the experience of empowering team behaviors makes shared leadership more likely. His correlational analysis revealed strong significant relationships of empowering team behaviors and shared leadership (overall measure and dimensions). This relationship was supported by the regression analysis, both for overall shared leadership and the four shared leadership dimensions⁸ ($\beta = .38$ to $\beta = .57, p < .01$). These two studies illustrate that the empowering aspect of vertical leadership in particular positively affects shared leadership emergence.

⁷ Shared purpose refers to team members' "[...] similar understandings of their team's primary objectives" (Carson et al., 2007, p. 1222); social support to "[...] team members' efforts to provide emotional and psychological strength to one another" (Carson et al., 2007, p. 1222); and voice to "[...] the degree to which a team's members have input into how the team carries out its purpose" (Carson et al., 2007, p. 1222).

⁸ The four leadership dimensions are: joint completion of tasks, mutual skill development, decentralized interaction among personnel, and emotional support (Wood, 2005).

Contrary to Hoch (2013), Wood (2005) emphasizes the importance of a more horizontal team structure in leading to shared leadership emergence. However, the results of the hierarchical regression revealed a negative and insignificant relationship between a horizontal team structure and shared leadership (overall measure; $r = -.14$, $p < .05$, $\beta = -.08$, ns), which might be due to the use of a non-validated instrument for the assessment of the team structure. The only significant, but negative, relationship existed with the decentralized interaction dimension of shared leadership ($\beta = -.26$, $p < .01$). Wood (2005) offers several explanations for this apparently counter-intuitive finding, such as communication problems among team members. Hence, this finding indicates that flatter hierarchies seem to be less important in comparison to vertical empowering leadership as emphasized by Hoch (2013).

Zhang et al. (2012) regard informal leader emergence as an antecedent to shared leadership. The former is determined by leader-member-exchange (LMX) and team shared vision in their model. The hierarchical linear modeling supported team shared vision ($b = .16$, $p < .05$) as well as the interaction term (LMX and team shared vision; $b = .23$, $p < .01$) as antecedents of informal leader emergence; however, LMX was found to be insignificant ($b = -.01$, $p > .10$). Although the interaction term accounted only for additional 1.6% of the variance, this finding is in accordance with prior research and considered important (Zhang et al., 2012). This study shows that repeated informal leader emergence, determined by a shared vision and LMX, can lead to shared leadership within teams.

4.5.5 Boundary conditions

A team's proximity is addressed in a study by Balthazard et al. (2004) as an antecedent of shared leadership. Structural equation modeling revealed positive and significant path coefficients in support of the hypothesis that face-to-face interaction is more likely to produce shared transformational leadership than virtual communication (performance: $p.c. = .04$, $t = 4.16$, $p < .001$; synergy: $p.c. = .04$, $t = 4.24$, $p < .001$) (Balthazard et al., 2004). This study illustrates that a certain degree of proximity is needed to establish shared leadership, whereas Cox et al. (2003) propose the reverse. They assume that physical dispersion has positive

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effects on shared leadership emergence (see section 5.5). More research is needed to clarify whether or not proximity facilitates or impedes shared leadership.

Next, in a case study on the Lahti Symphony Orchestra Ropo and Sauer (2003) investigated the development of partnerships over a period of ten years as a means towards shared leadership. Over time leadership was shared among musicians, the General Manager, the Chief Conductor, and the orchestra's partners. They conclude that “[...] the orchestra's leadership was significantly broadened and strengthened through shared leadership as the partnerships evolved” (Ropo & Sauer, 2003, p. 54), thereby emphasizing the length of interactions or teamwork as a critical predictor of shared leadership.

Finally, two more conceptually-derived antecedents act as boundary conditions in shared leadership establishment. In dependence on the time factor, Cox et al. (2003) propose that a team's maturity⁹ positively influences the development of shared leadership behaviors in teams. Here, time is regarded as a critical factor as Cox et al. (2003) state that a team's maturity needs time to grow. Contrary to Konu and Viitanen's (2008) findings, Cox et al. (2003) propose a negative effect of team size on shared leadership. They emphasize the threshold where the size of a team becomes inefficiently high. In this case replications and further studies are necessary to determine the ideal team size.

⁹ Maturity comprises “[...] team functioning and interpersonal dynamics” (Cox, Pearce, and Perry, 2003, p. 63), such as familiarity or the extent of relational norms.

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Table 5

Team Characteristics

Positive relationship with shared leadership	Negative relationship with shared leadership	Mixed results / positive and negative relationship
High female-to-male ratio (Konu & Viitanen, 2008; Muethel et al., 2012)	High mean age (Muethel et al., 2012)	Activity sector & professional background (Konu & Viitanen, 2008)
National diversity (Muethel et al., 2012)	Cultural diversity* (Ramthun & Matkin, 2012)	Big Five (Zhou, 2013)
Size of management unit (Konu & Viitanen, 2008)	A team's mean score on agreeableness, ns (Zhou, 2013)	Developed network (Friedrich et al., 2014)
Ability* (Cox et al., 2003)	A team's mean score on emotional stability, ns (Zhou, 2013)	Effective communication (Friedrich et al., 2014)
A team's mean score on conscientiousness (Zhou, 2013)	A team's mean score on extraversion, ns (Zhou, 2013)	Team collectivism (Small & Rentsch, 2010)
A team's mean score on openness (Zhou, 2013)	Team diversity on openness (Zhou, 2013)	Team size* (Cox et al., 2003)
Team diversity on extraversion (Zhou, 2013)	Horizontal team structure (Wood, 2005)	Proximity (Balthazard et al., 2004; Cox et al., 2003)
Team member integrity (Hoch, 2013; Small & Rentsch, 2010)	LMX via informal leader emergence, ns (Zhang et al., 2012)	
Interpersonal attraction* (Seers et al., 2003)		
Intragroup trust (Small & Rentsch, 2010)		
Team internal environment (Carson et al., 2007)		
Interdependence* (Pearce & Manz, 2005a)		

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Shared cognition*

(Burke et al., 2003)

Generalized exchange

norms*

(Seers et al., 2003)

Vertical transformational and

empowering leadership

(Hoch, 2013; Wood, 2005)

Team shared vision via

informal leader emergence

(Zhang et al., 2012)

Time

(Ropo & Sauer, 2003)

Maturity*

(Cox et al., 2003)

Note. ns = not statistically significant; * = conceptually-derived antecedent

4.6 Individual Characteristics of Team Members and Leaders

Four antecedents at the individual level were identified empirically: professionalism, work commitment, self-leadership, and a leader's skills and abilities (Elloy, 2008; Friedrich et al., 2014; Jain & Jeppesen, 2014). As a complement four conceptually proposed antecedents will be displayed, which refer to a leader's characteristics and to properties of the team members (Barnes et al., 2013; George et al., 2002).

Jain and Jeppesen (2014) mention two critical factors in the implementation of distributed leadership which apply to the individual level, namely professionalism and work commitment. Professional work behavior is necessary to eliminate selfish attitudes which would harm the organization. Therefore, each employee needs to adhere to the organizational values and beliefs in order to establish mutual respect and interdependence. Moreover, an organization needs the commitment of every employee to establish distributed leadership

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practices (Jain & Jeppesen, 2014). The combination of these two factors should create positive attitudes towards distributed leadership among individual employees, thereby facilitating its implementation.

Moreover, self-leadership is seen as an antecedent of shared leadership. This relationship was proposed by Bligh et al. (2006) who argue that the development of self-leadership skills is likely to increase the engagement of team members in shared leadership by creating higher levels of team trust, team potency, and team commitment. Elloy (2008), in turn, examined six self-leadership behaviors. The results of the hierarchical regression analysis yield a positive effect of training on self-rehearsal ($\beta = .14, p = .00$) and of team communication ($\beta = .58, p = .00$) and job influence ($\beta = .14, p = .02$) on self-observation (Elloy, 2008). These results emphasize that team training, increased team communication and an enhanced delegation of relevant decisions within the team foster self-leadership skills of employees and therefore shared leadership. These positive relationships between self- and shared leadership are also displayed in Houghton et al.'s (2003) model on SuperLeadership and self-leadership strategies, which sees self-leadership processes as team member reactions to vertical leadership. The different self-leadership strategies, in turn, can positively influence the self-efficacy beliefs for sharing leadership, and consequently induce positive attitudes towards shared leadership. Hence, shared leadership processes are facilitated (Houghton et al., 2003). Additionally, Stewart et al. (2011) emphasize a reverse connection between self- and shared leadership in their review. According to them, shared leadership also provides a platform for self-leadership (Stewart et al., 2011).

Furthermore, the third hypothesized antecedent in Friedrich et al.'s (2014) article pertains to the individual level: a leader's social and problem-solving skills and abilities, such as intelligence, creativity, expertise, and perspective taking. Their positive relationship to the use of collective leadership actions was supported by the correlational and hierarchical regression analysis ($r = .33, p < .05$; $\beta = .17, p < .05$). However, only two out of four sub-dimensions - intelligence (Sig. = .035) and leadership expertise (Sig. = .000) - were significantly related to collectivistic action. The additional path analysis also supported the hypothesized relationship (Coef. = .659, $p = .036$). Overall, the analyses showed that a leader's skills and abilities are an important antecedent to collectivistic actions and therefore shared leadership. However, the

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results indicate that problem-solving skills are more important than social skills in promoting collectivistic actions. This topic is also raised by Barnes et al. (2013). They propose that a leader needs authentic, transformational, and servant characteristics to establish shared leadership. These characteristics are socialized charisma (servant and transformational component) to prevent manipulation and exploitation of the employees, and self-awareness (authentic component), which is important in the interaction with followers (Barnes et al., 2013).

Finally, the autonomy development model in George et al.'s (2002) article (see section 4.3) referred to two individual characteristics as antecedents of shared leadership as well: motivation and self-efficacy in shared leadership skills. These two factors comprise “[...] goal setting, role playing, peer feedback, and clinical application” (George et al., 2002, p. 47) and thus are assumed to develop shared leadership competence.

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Table 6

Individual Characteristics of Team Members and Leaders

Positive relationship with shared leadership	Negative relationship with shared leadership	Mixed results / positive and negative relationship
Professionalism (Jain & Jeppesen, 2014)	-	-
Work commitment (Jain & Jeppesen, 2014)		
Self-leadership (Bligh et al., 2006; Elloy, 2008; Houghton et al., 2003; Stewart et al., 2011)		
A leader's skills and abilities (Friedrich et al., 2014)		
Socialized charisma* (Barnes et al., 2013)		
Self-awareness* (Barnes et al., 2013)		
Motivation* (George et al., 2002)		
Self-efficacy* (George et al., 2002)		

Note. * = conceptually-derived antecedent

4.7 Examination of the Empirical Studies' Methodology

In the following, critical aspects and limitations of the studies are displayed to facilitate the evaluation of the results. Firstly, the generalizability of several findings is impaired by two factors. On the one hand, three studies used student samples (Balthazard et al., 2004; Carson et al., 2007; Small & Rentsch, 2010), which are not proven to render outcomes that can be generalized towards the population. On the other hand, partially or fully cross-sectional research designs were applied (Carson et al., 2007; Hoch, 2013; Wang et al., 2014; Wood,

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2005; Zhang et al., 2012), which impedes definite conclusions about causality. However, two longitudinal studies could be included (Ropo & Sauer, 2003; Small & Rentsch, 2010), which allow generalizable conclusions.

Furthermore, certain sample characteristics are of importance. A small number of study participants (Jain & Jeppesen, 2014) as well as lack of gender diversity within the samples are regarded as limiting factors (Hoch, 2013; Konu & Viitanen, 2008). The majority of studies were conducted with U.S.-American participants (Barnes et al., 2013; Elloy, 2008; Friedrich et al., 2014; George et al., 2002; Wood, 2005); two studies with Chinese (Zhang et al., 2012; Zhou, 2013), one with Indian employees (Jain & Jeppesen, 2014) and two studies in Finland (Konu & Viitanen, 2008; Ropo & Sauer, 2003). As the cultural background could influence the effectiveness of antecedents, further research is needed which compares the same predictors in different cultural settings (Zhang et al., 2012). Another sample characteristic pertains to the team type. In most studies only one type of team could be investigated, such as software-development teams (Muethel et al., 2012), which impedes the drawing of generalizations.

Thirdly, the studies' methods include limitations as well. On the one hand, some measures are too broadly operationalized, such as Carson et al.'s (2007) network density approach (Hoch, 2013). On the other hand, they do not capture important elements, such as the effects of cultural distance, which are not considered in Muethel et al.'s (2012) measure for national diversity, or they miss a wider perspective (Konu & Viitanen, 2008). Also problematic is the use of non-validated instruments, which could explain absent or insignificant relationships (Wood, 2005). Moreover, the identification of exceptional leaders as study objects could be biased (Barnes et al., 2013; Friedrich et al., 2014). Possible mono-method bias (Elloy, 2008) as well as the low internal consistency of Konu and Viitanen's (2008) shared leadership sum score represent further limitations. Overall, these problems highlight several areas for improvement and necessitate caution in the interpretation of the study results.

5 A Team-Level Model of the Antecedents of Shared Leadership

The results of the literature review show that research on the antecedents of shared leadership beyond the team-level is scarce. Therefore this thesis' model (see Figure 1) concentrates on team characteristics, encompassing most antecedents due to their apparent importance in the emergence of shared leadership. The sub-categories from section 4.5 are readopted in the model to provide a comprehensible overview.

In the following, this thesis tries to demonstrate why a particular antecedent leads to shared leadership. Here, a noticeable fact appears from the exploration of the theoretical reasoning in the included studies. As scholars in the field also complain, there is a lack of profound theoretical underpinning, which would explain the effectiveness of a particular antecedent (Muethel & Hoegl, 2013). They state that shared leadership has only been seen through two perspectives so far, namely a social network perspective and a leadership style perspective.

5.1 Diversity of Socio-Demographic Factors and Professions

Muethel et al. (2012) argue from a behavioral perspective that a high female-to-male ratio is favourable for shared leadership emergence, as women exert more participative and integrative leadership. For example, they care for higher levels of information sharing and promote attitudes and activities of knowledge-sharing. All these factors are important in the emergence of shared leadership and outweigh the negative effects of stereotypes about women (Muethel et al., 2012). The empirical confirmation of Muethel et al.'s (2012) reasoning was supported by Konu and Viitanen's (2008) findings, although they do not give a proper explanation for why women are more likely to exert shared leadership. They merely point to the fact that gender might be connected to professional background as the people in professions with high shared leadership scores were mainly women. Additionally, they mention that due to their less hierarchical organization, certain activity sectors, such as social service administration, lay the ground for teamwork, participation, and innovation (Konu & Viitanen, 2008).

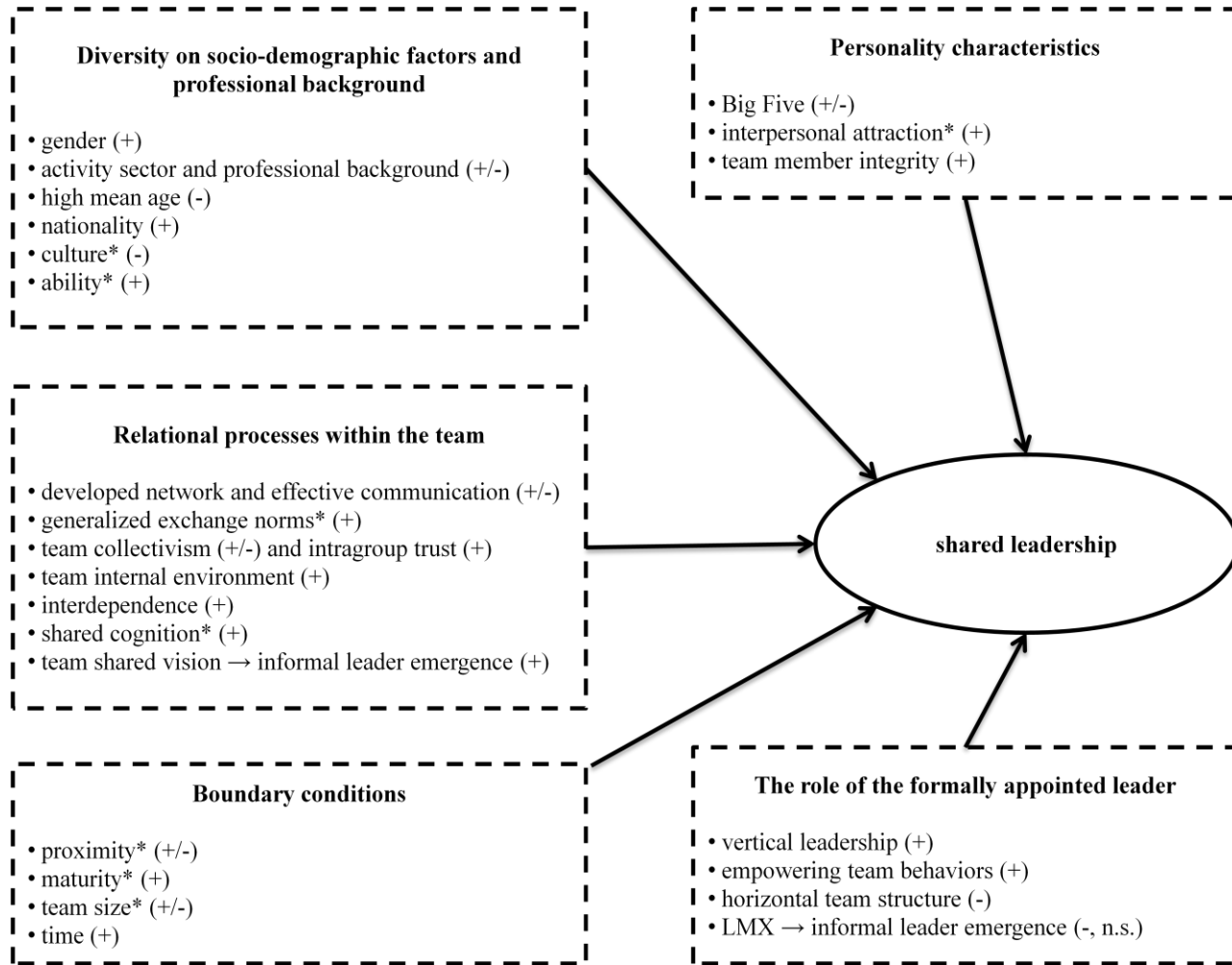


Figure 1. A Team-Level Model of the Antecedents of Shared Leadership. Conceptually-derived antecedents are marked with an asterisk. “+“ indicates a positive influence on shared leadership emergence, “-“ a negative one. Own illustration.

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Furthermore, a high mean age relates negatively to shared leadership, as older employees associate leadership with formal hierarchy. Conversely, their younger counterparts are more open to new forms of leadership and information sharing processes. They are also able to adapt more rapidly to organizational changes and to collaborate easily in complex environments. This negative effect of a high mean age was supported in Muethel et al.'s (2012) study. In contrast to this perspective, Konu and Viitanen's (2008) results point to the irrelevance of a manager's age in relation to shared leadership practices. Unfortunately, these authors did not explore the reasons for age not playing a role in their study (Konu & Viitanen, 2008). One possible solution might be that the role of age is context specific and is less relevant in the health care service.

Moreover, shared leadership is induced by national diversity if seen through an information-processing perspective. Through the participation of different people with diverse skills and abilities in the leadership process, the team's problem solving and creativity can be enhanced. Contrary to this point of view, the social categorization theory perspective states that people prefer working together with colleagues who are similar to themselves, thereby forming in- and outgroups. However, this surface-level diversity may not be as important in the context of dispersed teams, so that shared leadership is affected positively by national diversity, which was confirmed by empirical results (Muethel et al., 2012).

Additionally, the negative relationship of cultural diversity and shared leadership is based on the assumption that multiculturalism can lead to team internal conflicts and challenges, which affect team cohesion and communication negatively. These latter factors are important, in addition to lateral influence in shared leadership emergence, as the critical social interaction or the ability to exert influence can be impeded by a lack of them (Cox et al., 2003; Ramthun & Matkin, 2012).

Finally, Cox et al. (2003) highlight the role of ability in shared leadership emergence. Ability encompasses a mix of collective functional and technical knowledge as well as interpersonal and leadership skills. This mix is essential in allowing team members to advance their own and collective skills, thereby making vertical leadership redundant and promoting shared

leadership. They also mention in a critical manner that individualism and deficient conflict resolution skills may pose challenges to shared leadership emergence.

5.2 Personality Traits and Related Aspects

Zhou's (2013) hypotheses about the Big Five and shared leadership build on prior research, which has drawn a relationship between a certain number of personality traits and leadership emergence (Judge, Bono, Ilies, & Gerhardt, 2002). As the former is seen as necessary for shared leadership, and people with certain personality traits are assumed more likely to exercise leadership according to trait theory, the Big Five can be considered as antecedents of shared leadership. For the effective functioning of the team, similar and diverse traits are crucial. Hence, the diversity of personality traits can facilitate or hinder shared leadership emergence (Zhou, 2013). Unfortunately, only a team's mean score on conscientiousness and openness to experience as well as a team's diversity in extraversion could be empirically supported as antecedents of shared leadership (Zhou, 2013).

The relationship of interpersonal attraction and shared leadership is underpinned by Feldman's (1973) work on the dispersion of power. He ascertained that increasing levels of interpersonal liking are associated with greater dispersion of power. Hence, the more favorably team members rate and like each other, the more dispersed power is within the team, which facilitates shared leadership emergence. Personality traits play a role here inasmuch as they build the basis for expectations of the potentially exerted influence of a particular team member (Seers et al., 2003).

Finally, team member integrity is associated with shared leadership for two reasons. Its synonym, social responsibility, relates to reliability, which is important for predictability in long-term relationships. This helps in establishing reciprocity and works against exploitative individual behaviors. Secondly, high levels of team member integrity point to trustworthiness, which is important for sharing information within the team, a necessary requirement for shared leadership (Hoch, 2013). In general, team member integrity relates to shared leadership

as it shifts the reference from the individual to the team level (Chan, 1998; Hoch, 2013). This relationship was supported by Hoch's (2013) study.

5.3 Relational Processes Within the Team

Several variables, such as familiarity or information gathering, demonstrate a team's internal connectedness through a developed network. The latter helps in establishing shared leadership as it facilitates knowledge-sharing and increases the awareness of other team members' skills. Therefore, the leadership role can be transferred to the team member with the most relevant skills (Friedrich et al., 2014). Additionally, effective communication can induce shared leadership because the team members are then able to identify who the person with the needed expertise is and which problems need to be solved. Thereby, direction-giving language creates a shared awareness of the team's situation and an empathetic language facilitates the trust of other team members. In doing so, a basis for shared leadership emergence is formed (Friedrich et al., 2014). These two factors were empirically examined, but only partially supported.

Based on social exchange theory, Seers et al. (2003) argue that each team member can develop reciprocal relationships with all team members due to generalized exchange. This allows team members to influence the whole group, at least to a certain degree. Generalized exchange norms now provide a framework in which leadership can be shared and reinforced within teams. Hence, “[...] shared leadership should become an implicit, common expectation of group members” (Seers et al., 2003, p. 93).

Moreover, shared leadership is aided by team collectivism as cooperation and interaction within a team are higher when it is composed of more collectivistic oriented individuals. Prior research has shown that a collectivistic orientation also leads to higher in-group harmony (Earley & Gibson, 1998) and more interdependent behaviors (Driskell & Salas, 1992), which are necessary for shared leadership to flourish. Unfortunately, this relationship was only partially supported empirically (Small & Rentsch, 2010). In this context, intragroup trust appears as an important and empirically supported antecedent to shared leadership too (Small

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& Rentsch, 2010). This is because trust is defined as “[...] the willingness to be vulnerable to the actions of another party” (Mayer, Davis, & Schoorman, 1995, p. 712). If the team members trust each other, they will take the risk of being influenced by other members as leaders, or they will risk being rejected when they want to fulfill the leader role. Hence, a reciprocal relationship is also possible, so that intragroup trust is fortified when a particular person takes on the lead and acts consistently and reliably (Small & Rentsch, 2010).

The relevance of a team's internal environment is emphasized as it creates an ambience where individual team members are willing to influence and to be influenced by others through adopting the leadership role. This willingness is heightened by the three aspects of a team's internal environment: shared purpose, social support, and voice. Shared purpose ensures the team's focus on common goals and thus increases commitment and motivation. Social support establishes a team climate of appreciation and encouragement so that a mutual valuation of individual performance is possible, which makes cooperation more likely. As voice fosters participative behaviors within a team, the levels of commitment and involvement increase. All these factors facilitate shared leadership emergence, which was supported by Carson et al.'s (2007) study.

Furthermore, the importance of the relationship between interdependence and shared leadership is especially highlighted in team-based organizational structures. The higher the interdependence among team members, the more shared leadership is needed. This is due to the more complex tasks of today's workplace, which require employees with different skills and abilities to work interdependently together to achieve the best team output (Pearce & Manz, 2005a).

Burke et al.'s (2003) model of shared cognition brings together four factors, which mutually influence each other and eventually lead to leadership transference and shared leadership acceptance. These drivers are situation assessment, metacognition, (shared) mental models, and member attitudes. They help in establishing shared leadership through developing a collective understanding of team tasks, team members' roles within the team, one's own cognitive processes, and a collective belief of the team's ability to achieve group tasks (Burke

et al., 2003). This relates to the functional approach in team leadership, which emphasizes that leadership is “[...] a generic set of responses” (Burke et al., 2003, p. 106) dependent on a particular situation. Key leadership tasks and functions need to be carried out, however not necessarily by the same person. Hence, the leadership role can be shared (Burke et al., 2003).

In dependence on the aforementioned shared mental models, shared team vision induces informal leader emergence and therefore shared leadership by creating a shared purpose (Carson et al., 2007) and enhancing the commitment and motivation of team members. Influence attempts are accepted and carried out when they are in accordance with the common goals and help to accomplish them more effectively (Zhang et al., 2012). This impact of a team's shared vision was empirically examined and supported (Zhang et al., 2012).

5.4 The Role of the Formally Appointed Leader and Horizontal Structures

Vertical leadership in the form of transformational and empowering behaviors promotes shared leadership through employee empowerment. The latter fosters the self-leadership, self-efficacy and the development of team members (Bandura, 1997; Manz, 1986) through teamwork, collaboration, and encouragement (Hoch, 2013; Wood, 2005). Empowered employees recognize the individual contributions of their team members, which leads to greater investment in leading the group to task accomplishment (Wood, 2005). The transformational part is important as it creates a shared vision, collaboration, and coordination among the team members and motivates them to achieve team or organizational goals (Hoch, 2013). All of these factors are crucial components of effective shared leadership. Hence, the more collaboration, encouragement, etc. are increased, the more likely shared leadership emerges. This relationship has already been empirically tested and supported (Hoch, 2013; Wood, 2005).

Contrary to the emphasis on verticality above, a horizontal team structure can be influential in shared leadership emergence (Wood, 2005). It allows for more diffused influence and guidance among team members, as the focus is less on one person who leads in a top-down manner. The oversight of this single person is replaced by mutual influence, which facilitates

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shared leadership. The associated freedom to express one's own opinion contributes to team members stepping up and adopting the leadership role when they are regarded as the best qualified in a particular situation (Wood, 2005). However, the empirical findings showed that a horizontal team structure is not, or is negatively related to shared leadership. According to Wood (2005) this could be due to the more influential role of team behaviors and possible communication problems within the team.

Finally, informal leader emergence is positively influenced by LMX. The former in turn, when iterated according to new tasks, can induce shared leadership, which was supported by empirical findings (Zhang et al., 2012). LMX theory states that the relationships, differing in quality, between a formal leader and his employees result in more information and privileges for those employees with a high-quality relationship. Through their improved access to crucial resources, they are better able and more motivated to take over the leadership role internally (Zhang et al., 2012).

5.5 Boundary Conditions

Certain boundary conditions are necessary for shared leadership emergence. Spatial distance is contemplated from two differing perspectives. On the one hand, physical distance is regarded as an impeding factor to shared leadership as social cues cannot be established, communication is complicated, and trust-building processes are reduced when face-to-face and virtual teams are compared, which was demonstrated by Balthazard et al. (2004). On the other hand, shared leadership is fostered by geographical dispersion according to Cox et al. (2003). This contradictory proposition stems from the assumption that shared leadership provides better coordination and control in a dispersed team than an individual leader would be able to achieve. Additionally, new communication technologies will help in working together simultaneously, reduce physical distance and therefore facilitate shared leadership (Cox et al., 2003).

In dependence on time as an antecedent, more mature teams should be more likely to display shared leadership as the necessary interpersonal dynamics, such as a general ease in

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translating team interaction into performance outcomes, can be established over time. Maturity is a process divided into several stages, which leads to performance improvements each time. At the beginning, for example, familiarization is required to build a better initial position for shared leadership emergence (Cox et al., 2003).

Furthermore, the length of teamwork and the team's size are considered important antecedents to shared leadership. In their qualitative study Ropo and Sauer (2003) showed that, over a period of ten years, the partnerships evolved from one-time projects to long-term commitment. This emphasizes that shared leadership needs time and can be neither established ad hoc nor imposed on an existing (team) structure. Partnerships and teams need time to develop a shared vision and a trusting relationship for shared leadership to work effectively (Ropo & Sauer, 2003).

Finally, team size constitutes an ambiguous antecedent. Findings show that larger management units display greater levels of shared leadership (Konu & Viitanen, 2008). However, it should be considered that a team needs not only to be large enough to pool all relevant skills and abilities, but also small enough to retain close relationships. If the latter criterion is not fulfilled, the exertion of lateral influence, which is the core of shared leadership, will be more difficult (Cox et al., 2003).

6 Conclusion

This thesis explored the various antecedents of shared leadership. Its goal was to develop a summarizing model which comprises the already investigated predictors of shared leadership. The presented results show that several scholars have dealt with and identified multiple antecedents. As most of the antecedents apply to the team-level, this thesis' model only incorporates them (see Figure 1). However, organizational antecedents and individual characteristics were also examined. So far, conceptualizations only exist in the areas of country-level antecedents, organizational environment, and task characteristics. In sum, this thesis's model represents a systematized illustration of the current state of research concerning the antecedents of shared leadership at the team-level, and therefore provides a starting point for further research in this field. Additionally, it provides practitioners with a useful overview of the variables they need to consider when they plan to establish shared leadership.

Despite the identification of the various antecedents, this thesis is not without limitations. Most of the included antecedents are examined in only one study, apart from some diversity characteristics. Hence, no replications or studies using other measures and methods exist, which could strengthen the current findings (Baumeister & Leary, 1997), indicating an area for further research.

Secondly, so far, studies on shared leadership mainly discuss its positive outcomes and neither consider possible negative ones, nor team members' possible rejection of shared leadership initiatives (Muethel & Hoegl, 2013; Piecha & Wegge, 2015). Without illuminating the negative side, and thereby the obstacles to shared leadership, no complete and qualified picture of shared leadership emergence exists. In the studies included few obstacles (such as a high mean age or a highly urgent task) were mentioned. In particular, practitioners need to know both sides of the coin, namely what measures foster shared leadership emergence and which obstacles need to be eliminated.

Additionally, the appropriateness of shared leadership for different organizational levels and in different team types needs to be considered. In spite of the overall positive findings of

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shared leadership on organizational outcomes, there are studies which found no effect of shared leadership on success and performance (Boies, Lvina, & Martens, 2010; Mehra, Smith, Dixon, & Robertson, 2006). This indicates the need for further research not only on the antecedents of shared leadership but also on its outcomes in order to assess its effectiveness appropriately.

Fourth, there is the limited scope of this thesis. Hence, the study results were displayed as concisely as possible, which might sometimes require the reader to gather information from the Appendix or the original texts. Although the literature search was conducted in five important databases with several different search terms, relevant articles could have been missed. Unpublished studies, working papers, and dissertations were also excluded, which might have yield further insights that could not be displayed here, and counter the publication bias. Therefore, this thesis makes no claim to be comprehensive.

The studies included in this thesis highlight two more general limitations of this field of research and simultaneously give directions for further research. On the one hand, the lack of a profound theoretical underpinning was illustrated. On the other hand, ambiguity prevails upon the definition of shared leadership. A considerable number of researchers refer to Pearce and Conger's (2003a) definition. However, there is no agreement on a standard definition regarding contents, formality, and the degree of distribution of shared leadership.

The aforementioned limitations already point out implications and directions for further research. The current state of the art necessitates a more detailed investigation of the interplay between the different antecedents. It would be helpful to know which antecedents are the most effective and the most relevant ones. Practical advice could be gained from investigating the dependencies among antecedents, so that it will become clear which antecedents affect others and to what degree. These aspects highlight the need for comparative studies on the different antecedents of shared leadership. Moreover, in areas where currently only conceptually-derived antecedents exist, empirical studies should be conducted to clarify the role of, for example, country-level antecedents or task characteristics, in the emergence of shared leadership.

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Furthermore, the limitations of the single studies clearly indicate the need for longitudinal studies as shared leadership is seen as an emergent process (Carson et al., 2007). Further empirical investigations should examine the same antecedents in different job and team types as well as different industries and cultural settings to allow for generalizations of the results. Finally, the lack of examination of obstacles to, and negative outcomes of, shared leadership provides the opportunity for future research. Only these findings will make the investigation of antecedents of shared leadership complete.

III Appendix A: Search Protocol

Date	Database	Search term(s)	Hits	Time period	Relevant results
07.11.2014	PsycINFO	shared leadership AND antecedents <i>modification: "shared leadership" AND antecedents → no further relevant results</i>	10 academic journal articles 4 dissertations 2 books	2002-2014 No earlier publications	Carson et al. (2007) [e] Hoch (2013) [e] Small and Rentsch (2010) [e] Friedrich et al. (2014) [e] Wassenaar and Pearce (2012) [r] Zhang et al. (2012) [e]
07.11.2014	PsycARTICLES	shared leadership AND antecedents <i>modification: "shared leadership" AND antecedents → no further relevant results</i>	1 academic journal article	2010	Small and Rentsch (2010) [e]
07.11.2014	Business Source Premier	shared leadership AND antecedents <i>modification: "shared leadership" AND antecedents → no further relevant results</i>	11 academic journal articles 6 conference papers	2002-2014	Carson et al. (2007) [e] Hoch (2013) [e] Friedrich et al. (2014) [e] Zhang et al. (2012) [e] Zhou (2013) [e]
07.11.2014	International Bibliography of the Social Sciences	shared leadership AND antecedents <i>modification: "shared leadership" AND antecedents → no further relevant results</i>	6 scholarly journals	2007-2014 No earlier publications	Carson et al. (2007) [e]
07.11.2014	EconLit.	shared leadership AND antecedents <i>modification: "shared leadership" AND antecedents → no further relevant results</i>	-	-	-

07.11.2014	PsycINFO	shared leadership AND predictors <i>modification: "shared leadership" AND antecedents → no further relevant results</i>	10 dissertations 6 academic journal articles 1 book	2006-2014 No earlier publications	Carson et al. (2007) [e] Hoch (2013) [e]
07.11.2014	PsycARTICLES	shared leadership AND predictors <i>modification: "shared leadership" AND predictors → no further relevant results</i>	1 peer reviewed journal	2002	-
07.11.2014	Business Source Premier	shared leadership AND predictors <i>modification: "shared leadership" AND predictors → no further relevant results</i>	5 academic journal articles	2006-2014 No earlier publications	Carson et al. (2007) [e] Hoch (2013) [e]
07.11.2014	International Bibliography of the Social Sciences	shared leadership AND predictors <i>modification: "shared leadership" AND predictors → no further relevant results</i>	3 scholarly journal articles	2009-2014 No earlier publications	-
07.11.2014	EconLit.	shared leadership AND predictors <i>modification: "shared leadership" AND predictors → no further relevant results</i>	-	-	-
07.11.2014	PsycINFO	distributed leadership AND antecedents <i>modification: "distributed leadership" AND antecedents → no further relevant results</i>	1 academic journal article 2 dissertations	2006-2014 No earlier publications	Carson et al. (2007) [e]

07.11.2014	PsycARTICLES	distributed leadership AND antecedents <i>modification: "distributed leadership" AND antecedents → no further relevant results</i>	-	-	-
07.11.2014	Business Source Premier	distributed leadership AND antecedents <i>modification: "distributed leadership" AND antecedents → no further relevant results</i>	2 academic journal articles	2007-2014 No earlier publications	Carson et al. (2007) [e]
07.11.2014	International Bibliography of the Social Sciences	distributed leadership AND antecedents <i>modification: "distributed leadership" AND antecedents → no further relevant results</i>	1 scholarly journal article	2011	-
07.11.2014	EconLit.	distributed leadership AND antecedents <i>modification: "distributed leadership" AND antecedents → no further relevant results</i>	-	-	-
07.11.2014	PsycINFO	distributed leadership AND predictors <i>modification: "distributed leadership" AND predictors → no further relevant results</i>	4 academic journal articles 1 dissertation	2006-2014 No earlier publications	Carson et al. (2007) [e] Jain and Jeppesen (2014) [e]

07.11.2014	PsycARTICLES	distributed leadership AND predictors <i>modification: "distributed leadership" AND predictors → no further relevant results</i>	1 academic journal article	2002	-
07.11.2014	Business Source Premier	distributed leadership AND predictors <i>modification: "distributed leadership" AND predictors → no further relevant results</i>	3 academic journal articles	2006-2014 No earlier publications	Carson et al. (2007) [e] Jain and Jeppesen (2014) [e]
07.11.2014	International Bibliography of the Social Sciences	distributed leadership AND predictors <i>modification: "distributed leadership" AND predictors → no further relevant results</i>	2 scholarly journal articles	2007-2011 No earlier publications	-
07.11.2014	EconLit.	distributed leadership AND predictors <i>modification: "distributed leadership" AND predictors → no further relevant results</i>	-	-	-
13.11.2014	PsycINFO	collective leadership AND antecedents <i>modification: "collective leadership" AND antecedents → no further relevant results</i>	9 academic journal articles 3 dissertations 1 book	1995-2014 No earlier publications	Friedrich et al. (2014) [e] Hoch (2013) [e]

13.11.2014	PsycARTICLES	collective leadership AND antecedents <i>modification: "collective leadership" AND antecedents → no further relevant results</i>	1 peer reviewed journal article	2002	-
13.11.2014	Business Source Premier	collective leadership AND antecedents <i>modification: "collective leadership" AND antecedents → no further relevant results</i>	5 academic journal articles 1 conference paper abstract	2002-2013 No earlier publications	Hoch (2013) [e]
13.11.2014	International Bibliography of the Social Sciences	collective leadership AND antecedents <i>modification: "collective leadership" AND antecedents → no further relevant results</i>	6 academic journal articles	2005-2013 No earlier publications	-
13.11.2014	EconLit.	collective leadership AND antecedents <i>modification: "collective leadership" AND antecedents → no further relevant results</i>	-	-	-
13.11.2014	PsycINFO	collective leadership AND predictors <i>modification: "collective leadership" AND predictors → no further relevant results</i>	5 academic journal articles 4 dissertations	2002-2013 No earlier publications	Hoch (2013) [e]

13.11.2014	PsycARTICLES	collective leadership AND predictors <i>modification: "collective leadership" AND predictors → no further relevant results</i>	1 peer reviewed journal article	2002	-
13.11.2014	Business Source Premier	collective leadership AND predictors <i>modification: "collective leadership" AND predictors → no further relevant results</i>	2 academic journal articles	2002-2013 No earlier publications	Hoch (2013) [e]
13.11.2014	International Bibliography of the Social Sciences	collective leadership AND predictors <i>modification: "collective leadership" AND predictors → no further relevant results</i>	6 academic journal articles	2007-2013 No earlier publications	-
13.11.2014	EconLit.	collective leadership AND predictors <i>modification: "collective leadership" AND predictors → no further relevant results</i>	-	-	-
13.11.2014	PsycINFO	collectivistic leadership AND antecedents <i>modification: "collectivistic leadership" AND predictors → no further relevant results</i>	2 academic journal articles 1 book	2012-2014 No earlier publications	Friedrich et al. (2014) [e]
13.11.2014	PsycARTICLES	collectivistic leadership AND antecedents	-	-	-
13.11.2014	Business Source Premier	collectivistic leadership AND antecedents	1 academic journal article	2014 No earlier publications	Friedrich et al. (2014) [e]

13.11.2014	International Bibliography of the Social Sciences	collectivistic leadership AND antecedents	-	-	-
13.11.2014	EconLit.	collectivistic leadership AND antecedents	-	-	-
13.11.2014	PsycINFO	collectivistic leadership AND predictors	1 academic journal article	2012	-
13.11.2014	PsycARTICLES	collectivistic leadership AND predictors	-	-	-
13.11.2014	Business Source Premier	collectivistic leadership AND predictors	-	-	-
13.11.2014	International Bibliography of the Social Sciences	collectivistic leadership AND predictors	-	-	-
13.11.2014	EconLit.	collectivistic leadership AND predictors	-	-	-
13.11.2014	PsycINFO	"team leadership" AND antecedents	6 academic journal articles 5 dissertations	1995-2014 No earlier publications	Carson et al. (2007) [e] Hoch (2013) [e] Friedrich et al. (2014) [e]
13.11.2014	PsycARTICLES	"team leadership" AND antecedents	-	-	-
13.11.2014	Business Source Premier	"team leadership" AND antecedents	4 academic journal articles 1 conference paper abstract	2003-2013 No earlier publication	Carson et al. (2007) [e] Hoch (2013) [e]
13.11.2014	International Bibliography of the Social Sciences	"team leadership" AND antecedents	1 academic journal article	2009	-
13.11.2014	EconLit.	"team leadership" AND antecedents	-	-	-
13.11.2014	PsycINFO	"team leadership" AND predictors	4 academic journal articles 4 dissertations	2009-2014 No earlier publications	Carson et al. (2007) [e] Hoch (2013) [e]

13.11.2014	PsycARTICLES	"team leadership" AND predictors	-	-	-
13.11.2014	Business Source Premier	"team leadership" AND predictors	8 academic journal articles	1999-2014 No earlier publications	Carson et al. (2007) [e] Hoch (2013) [e]
13.11.2014	International Bibliography of the Social Sciences	"team leadership" AND predictors	1 academic journal article	1999	-
13.11.2014	EconLit.	"team leadership" AND predictors	-	-	-
17.11.2014	PsycINFO	"shared leadership" AND diversity	10 academic journals 9 dissertations		Muethel et al. (2012) [e]
17.11.2014	PsycARTICLES	"shared leadership" AND diversity	1 academic journal article	2010	-
17.11.2014	Business Source Premier	"shared leadership" AND diversity	9 academic journal articles	2005-2014	Muethel et al. (2012) [e] Muethel and Hoegl (2010) [c] Ramthun and Matkin (2012) [c]
17.11.2014	International Bibliography of the Social Sciences	"shared leadership" AND diversity	3 academic journal articles	2010-2013	Muethel and Hoegl (2010)
17.11.2014	EconLit.	"shared leadership" AND diversity	1 academic journal article	2011	-
16.11.2014	PsycINFO	"shared leadership" AND "self leadership"	9 academic journal articles	2005-2012 No earlier publications	Bligh et al. (2006) [c] Pearce and Manz (2005a) [c] Pearce and Manz (2011b) [c] Stewart et al. (2011) [c, r]
16.11.2014	PsycARTICLES	"shared leadership" AND "self leadership"	1 academic journal article	2010	-
16.11.2014	Business Source Premier	"shared leadership" AND "self leadership"	10 academic journal articles	2005-2014	Bligh et al. (2006) [c] Pearce and Manz (2005a) [c] Pearce and Manz (2011b) [c] Stewart et al. (2011) [c, r]

16.11.2014	International Bibliography of the Social Sciences	"shared leadership" AND "self leadership"	1 book chapter 2 academic journal articles	2003-2011	Houghton et al. (2003) [c] Pearce and Manz (2011b) [c] Stewart et al. (2011) [c]
16.11.2014	EconLit.	"shared leadership" AND "self leadership"	-	-	-
16.11.2014	PsycINFO	"shared leadership" AND "emergence"	8 academic journal articles 5 dissertations 1 book	2005-2014	Barnes et al. (2013) [c, e] Carson et al. (2007) [e] Zhang et al. (2012) [e]
16.11.2014	PsycARTICLES	"shared leadership" AND "emergence"	2 academic journal articles	2010-2014	-
16.11.2014	Business Source Premier	"shared leadership" AND "emergence"	6 academic journal articles 4 conference paper abstracts	2005-2014	Carson et al. (2007) [e] Zhang et al. (2012) [e]
16.11.2014	International Bibliography of the Social Sciences	"shared leadership" AND "emergence"	-	-	-
16.11.2014	EconLit.	"shared leadership" AND "emergence"	-	-	-

Note. [e] = empirical result; [c] = conceptual result; [r] = review

IV Appendix B: List of all Conceptual and Empirical Antecedents

Country-Level Antecedents	- regulative, cognitive, and normative antecedents (Muethel & Hoegl, 2010)
Organizational Environment	- industry characteristics (Eisenbeiß & Giessner, 2012)
Organizational Antecedents and Team Environment	<ul style="list-style-type: none"> - external coaching (Carson et al., 2007) - horizontal organizational structure and power sharing (Jain & Jeppesen, 2014) - CEO need for socialized power (Pearce & Manz, 2011b) - hierarchical embeddedness (Barnes et al., 2013) - vertical leadership (Cox et al., 2003) - responsive environment (George et al., 2002)
Task Characteristics	<ul style="list-style-type: none"> - urgency (negatively related) (Pearce & Manz, 2005a) - complexity (Pearce & Manz, 2005a; Seers et al., 2003)
Team Characteristics	<ul style="list-style-type: none"> - diversity on nationality, age, gender, culture (Cox et al., 2003; Konu & Viitanen, 2008; Muethel et al., 2012; Ramthun & Matkin, 2012; Zhou, 2013) - activity sector and professional background (Konu & Viitanen, 2008) - ability (Cox et al., 2003) - Big Five (Zhou, 2013)

<p>Team Characteristics (continued)</p>	<ul style="list-style-type: none"> - team member integrity (Hoch, 2013) - interpersonal attraction (Seers et al., 2003) - developed network and effective communication (Friedrich et al., 2014) - generalized exchange norms (Seers et al., 2003) - team collectivism and intragroup trust (Small & Rentsch, 2010) - team internal environment (Carson et al., 2007) - interdependence (Pearce & Manz, 2005a) - shared cognition (e.g. shared team mental models, collective efficacy/orientation) (Burke et al., 2003) - vertical leadership (Hoch, 2013; Wood, 2005), empowering team behaviors (Wood, 2005) - horizontal team structure (Wood, 2005) - LMX and team shared vision → informal leader emergence (Zhang et al., 2012) - team size (Cox et al., 2003; Konu & Viitanen, 2008) - proximity (Balthazard et al., 2004; Cox et al., 2003) - time (Ropo & Sauer, 2003) - maturity (Cox et al., 2003)
<p>Individual Characteristics of Team Members and Leaders</p>	<ul style="list-style-type: none"> - motivation and self-efficacy (George et al., 2002) - self-leadership (Elloy, 2008; Houghton et al., 2003; Stewart et al., 2011); → team cognitive-based trust, team potency, team commitment (Bligh et al., 2006) - self-awareness, socialized form of charisma (Barnes et al., 2013)

Note. * = conceptually-derived antecedent

V Appendix C: Details of the Studies Included in Chapter 4 (in chronological order)

Title / author(s) / year of publication	Topic / relevant research question(s) / hypothesis(es)	Method	Sample	Results	Limitations
Developing staff nurse shared leadership behavior in professional nursing practice (George et al., 2002)	Nursing Practice Autonomy Development Model: motivation + self-efficacy in shared leadership skills + behavior change supported by a responsive environment → shared leadership competence study purposes: understand processes and outcomes of participation in the SLCP	study 1: quasi experimental pre-test post-test design	study 1: 30 proficient or expert nurses, 15 nurses for the control group	- (sustained) increases in nurses' leadership behavior and autonomy	- not explicitly stated
		study 2: descriptive pre-test post-test design with multiple groups over time → self-and observer assessment	study 2: 412 nurses from 100 patient or ambulatory care units; final sample: 140 nurses; average participation rate: 45%	- improved patient outcomes (linked to increases in leadership behavior)	- particularity of the SLCP vs. generalizability
		study 3: 3 individual interviews	study 3: 24 nurses randomly selected from the 120 participants of the SLCP sessions in late 1996 or early 1997		
		measures: study 1: Smola Assessment of Leadership Inventory (SALI)			
		study 2: The Leadership Practices Inventory-Individual Contributor Self or Observer + Nursing Activity Scale	all 3 studies: similar demographics, mainly females, 17 years work experience		

<p>Self-leadership and SuperLeadership: The heart and art of creating shared leadership in teams (Houghton et al., 2003)</p>	<p>vertical leadership processes → self-leadership processes → self-efficacy beliefs for sharing leadership roles → positive attitudes toward shared leadership → shared leadership processes</p>	<p>conceptual article</p>	<p>-</p>	<p>-</p>	<p>-</p>
<p>Toward a model of shared leadership and distributed influence in the innovation process (Cox et al., 2003)</p>	<p>two groups of antecedents: (1) vertical leadership: team formation, boundary management, leadership support, empowerment (2) team characteristics: proximity, ability, team size, diversity, maturity</p>	<p>conceptual article</p>	<p>-</p>	<p>-</p>	<p>-</p>
<p>Can team members share leadership? (Seers et al., 2003)</p>	<p>facilitators of shared leadership: - task requires role differentiation and multiple exchange relationships - larger group size, up to the</p>	<p>conceptual article</p>	<p>-</p>	<p>-</p>	<p>-</p>

- point where coordination requires formalization
- higher ratings of each other's abilities to contribute toward goal
- high interpersonal attraction
- generalized exchange norms

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<p>The role of shared leadership in enabling shared leadership and team adaptability (Burke et al., 2003)</p>	<p>Shared cognition</p> <ul style="list-style-type: none"> - situation assessment - metacognition - shared (team/situation) mental models - member attitudes (collective efficacy and collective orientation) - open climate 	<p>conceptual</p>	<p>-</p>	<p>-</p>	<p>-</p>
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P 1 / 2 / 4 / 5: shared metacognition → shared team / situation mental models → leadership transfer

P 6 / 10: collective efficacy / orientation → leadership transfer

P 7 / 9: collective efficacy / orientation → shared leadership acceptance

P 11: open climate → shared leadership acceptance

Partnerships of orchestras: Towards shared leadership (Ropo & Sauer, 2003)	<ul style="list-style-type: none"> - leadership in an arts organization - development of partnerships in order to survive - How are partnerships established and evolve? - What kind of people/leadership is required? - implications? 	expert interviews of approximately 2 hours, study of documents concerning the partnership development over a period of 10 years	General Manager of the Lahti Symphony orchestra + two representatives of partnering firms + mayor of the orchestra's home city	“We conclude that the orchestra's leadership was significantly broadened and strengthened through shared leadership as the partnerships evolved.” (Ropo & Sauer, 2003, p. 54)	<ul style="list-style-type: none"> - not explicitly stated - single case study (-) versus longitudinal design (+)
Shared leadership and group interaction styles in problem-solving virtual teams (Balthazard et al., 2004)	H 1: Face-to-face teams will be more likely to demonstrate higher levels of shared TFL than virtual teams. (→ proximity)	"Ethical Decision Challenge": a structured problem-solving exercise used for management development and team building in classroom and corporate settings	336 MBA and senior graduate students in multiple sections of a Management Information Systems course	H1: supported in relation to performance: path coef. = 0.4, $t = 4.16, p < .001$ in relation to synergy: path coef. = 0.4, $t = 4.24, p < .001$	<ul style="list-style-type: none"> - short duration consensus type task - student sample
		measure for shared TFL: 8 statements from the MLQ			
		structural equation modeling (Partial Least Squares)			

<p>The new silver bullets of leadership: The importance of self- and shared leadership in knowledge work (Pearce & Manz, 2005a)</p>	<p>five factors influence the appropriateness of self- and shared leadership: urgency (-), employee commitment (outcome of shared leadership), creativity, interdependence (+), complexity (+)</p>	<p>conceptual article</p>	<p>-</p>	<p>-</p>	<p>-</p>
<p>Determinants of shared leadership in management teams (Wood, 2005)</p>	<p>behaviors in a team and structure of a team: influencing the willingness of team members to share leadership</p> <p>H 1 / 2: Team members who experience more empowering team behaviors / more horizontal team structure will be more likely to share in leadership of their teams.</p>	<p>Shared Leadership Perception Survey; Leadership Behavior Questionnaire IV</p> <p>→ survey</p> <p>controls: age, ethnicity, gender, and educational attainment</p>	<p>members from top management teams from churches with three or more full-time vocational pastors within the Independent Christian Churches and Churches of Christ → 200 pastors</p>	<p>H1: supported ($r = .58, p < .01$; $\beta = .57, p < .01$ → shared leadership overall measure)</p> <p>H2: not supported ($r = -.14, p < .05$; $\beta = -.08, ns$ → shared leadership overall measure)</p>	<ul style="list-style-type: none"> - possibly common method variance - cross-sectional design - non-valid instrument to assess team structure

<p>The importance of self- and shared leadership in team based knowledge work (Bligh et al., 2006)</p>	<p>P 1 / 2 / 3: Higher levels of self- leadership will be significantly and positively related to higher levels of team cognitive-based trust / team potency / higher levels of team commitment.</p>	<p>conceptual article</p>	<ul style="list-style-type: none"> - assumption of existing team and organizational incentives to encourage team building - necessary conditions for the relationship between shared and self- leadership: peer-based performance assessments and team level rewards 		
<p>Shared leadership in teams: An investigation of antecedent conditions and performance (Carson et al., 2007)</p>	<p>H1: An internal team environment consisting of shared purpose, social support, and voice is positively related to the level of shared leadership in a team.</p>	<p>team performance: rated by end users/clients of the teams → 7 items shared leadership: via a social network approach by using density → members rated each other internal team environment: 10 items consisting of 3</p>	<p>59 consulting teams comprised of MBA students (n=348) team size: 4-7 members (mean: 5.93) gender: 67% male mean age: 29 years (24-42 years)</p>	<p>team size → shared leadership: $\beta = .37, p < 0.01$ internal team environment → shared leadership: $\beta = .25, p < 0.05$ external coaching → shared leadership: $\beta = .26, p < 0.05$</p>	<ul style="list-style-type: none"> - partially cross-sectional design - student sample - possible common source variance for internal team environment and shared leadership - limitation of the

	<p>H2: External team coaching is positively related to the level of shared leadership in a team.</p> <p>H3: Team coaching by an external leader interacts with the internal team environment in predicting shared leadership: coaching is more strongly related to shared leadership when the internal team environment is unsupportive.</p>	<p>separate subscales coaching: 3 item scale</p> <p>control variables: effects of team size, project demands, gender diversity, and race diversity</p> <p>regression analysis: step 1 → all control variables step 2 → internal team environment and coaching step 3 → interactions</p>	<p>ethnic background: 56% white, 33% Asian, 5% black, 5% Hispanic</p> <p>task: real consulting projects</p>	<p>interaction effect between internal team environment and coaching → $\beta = - 4.06, p < 0.05$</p> <p>H1, H2, and H3: supported</p>	<p>network density approach: no specification of leadership and leadership behaviors</p>
<p>The relationship between self-leadership behaviors and organization variables in a self-managed work team environment (Elloy, 2008)</p>	<p>self-leadership behaviors: rehearsal, self-goal setting, self-criticism, self-reinforcement, self-expectation, and self-observation</p> <p>team communication + job influence + training → self-leadership → shared leadership</p>	<p>survey over three days</p> <p>different scales for self-leadership, supervisory trust, decision-making, feedback, and team goal setting</p> <p>hierarchical regression analysis</p>	<p>141 employees of a non-union paper mill in a rural northwestern region of the USA</p>	<p>training relates significantly to self-rehearsal: $\beta = .14, p < .00$</p> <p>team communication and job influence relate significantly to self-observation: $\beta = .58, p < .00$ $\beta = .74, p < .00$</p>	<ul style="list-style-type: none"> - cross-sectional-design - self-reported data - monomethod bias: simultaneous measurement of independent and dependent variable(s)

Shared leadership in Finnish social and health care (Konu & Viitanen, 2008)	purpose of the study: investigate “[...] how shared leadership practices differ among female and male managers, managers in diverse sectors, managers from different professional backgrounds and among managers of different ages and work experiences” (Konu & Viitanen, 2008, p. 30)	questionnaires linear and hierarchical regression	433 middle-level managers in social and health care in municipalities and municipal federations, response rate of 62%	“Shared leadership was mainly practised by those female managers without a medical doctor's professional background in large organizations of primary health care and social service administration. There was no connection between a manager's age and work experience and the occurrence of shared leadership practices.” (Konu & Viitanen, 2008, p. 28)	<ul style="list-style-type: none"> - not explicitly stated - evaluation based on manager's own responses - questionnaire neglects a wider perspective - moderate response rate - largely female sample - lower consistency of the shared leadership sum score
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Shared Leadership in Teams: A matter of distribution (Small & Rentsch, 2010)	H 3a: Team collectivism is positively related to shared leadership.	one semesterlong business simulation of 8 quarters of simulated business	280 junior- and senior-level business majors enrolled in a required core business course at a large public university in the USA	team collectivism → shared leadership: positive at Time 1 ($\beta = .30, p < 0.05$); negative at Time 2 ($\beta = .19, ns$)	- student sample (but: experimental situation with high fidelity regarding key characteristics)
	H 3b: Intragroup trust developed during early team interactions is positively related to shared leadership exhibited later in the team's life.	trust: at time 1; 5 item intragroup trust scale (Simons & Peterson, 2000) collectivism: 6 items derived from Wagner (1995) team performance: multiplication of 8 performance indicators shared leadership: network centralization using SNA, 12 items	gender: 57% male ethnic background: 86% Caucasian mean age: 22 years team size: 4-5 (in total 60 teams) prior leadership experience: 86%	intragroup trust developed at Time 1 was positively related to shared leadership at Time 2: $\beta = .52, p < 0.01$	
		controls: team size, gender diversity, and race diversity		H 3a: partially supported H 3b: supported	
		H 3 tested with hierarchical regression analysis			

<p>Cultural and societal influences on shared leadership in globally dispersed teams (Muethel & Hoegl, 2010)</p>	<p>country-level antecedents of shared leadership: P 1a-1c: regulative dimension: economic freedom, civil liberties, political liberties P 2: cognitive dimension: learning orientation P 3a-3f: normative dimension: performance orientation, power distance, uncertainty avoidance, assertiveness, institutional collectivism, humane orientation</p>	<p>conceptual article</p>	<p>-</p>	<p>-</p>	<p>-</p>
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<p>Leadership centrality and corporate social irresponsibility (CSIR): The potential ameliorating effects of self and shared leadership (Pearce & Manz, 2011b)</p>	<p>P 3a: The higher the CEO need for socialized power the more likely self-leadership will flourish in the TMT. P 3b: The higher the CEO need for socialized power the more likely shared leadership will flourish in the TMT.</p>	<p>conceptual article</p>	<p>-</p>	<p>-</p>	<p>-</p>	
<p>Self-leadership: A multilevel review (Stewart et al., 2011)</p>	<p>self-leadership at individual and team levels → outcomes → internal forces → external forces (shared leadership) → cross-level issues</p>	<p>literature review of research on self-leadership in the past 30 years from 2011</p>	<p>not obviously stated in the text → identification of the included studies is not displayed</p>	<p>external force → leadership: shared leadership → self-leading employees “[...] step forward to offer leadership for others or lead[ing] themselves to step back and allow others to lead” (Stewart et al., 2011, p. 206) → connection of self-leadership and work related issues</p>	<p>-</p>	<p>- critique of the included studies at the end of each subsection + research guidelines for further research (e.g. studies outside the USA in more collectivistic cultures are necessary) - no critique on the review itself</p>

<p>A multilevel investigation of leader-member-exchange, informal leader emergence, and individual and team performance (Zhang et al., 2012)</p>	<p>informal leader emergence as an antecedent to shared leadership</p> <p>H1: LMX is positively related to a team member's emergence as an informal leader as perceived by peers.</p> <p>H2: Team shared vision is positively related to informal leader emergence at the individual level.</p>	<p>multisource data, collected at 3 points in time</p> <p>survey</p> <p>LMX: Graen and Uhl-Bien's (1995) LMX-7 scale</p> <p>team shared vision: 3-item measure developed by Pearce and Ensley (2004)</p> <p>informal leader emergence: social network measurement approach (Carson et al., 2007)</p>	<p>employees in customer service teams at a service center of a large telecommunications company in China</p> <p>416 employees in 81 teams (Time 1)</p> <p>manager ratings for the 81 teams (Time 2)</p> <p>361 employees in 74 teams (Time 3)</p>	<p>LMX → leader emergence: $\beta = -.01, p < .10$</p> <p>team shared vision → individual leader emergence: $\beta = .16, p < 0.05$</p> <p>H1: not supported</p> <p>H2: supported</p> <p>zero-order correlations: informal leader emergence is positively related to team tenure and LMX</p>	<ul style="list-style-type: none"> - partially cross-sectional design - a reverse/reciprocal relationship between LMX and leader emergence is possible too - low association between prior and subsequent job performance - Chinese cultural setting might impede generalizations
		<p>hierarchical linear modeling</p>			

<p>Socio-demographic factors and shared leadership behaviors in dispersed teams: Implications for human resource management (Muethel et al., 2012)</p>	<p>H 2a: A teams' high female-to-male ratio positively relates to shared leadership behaviors in dispersed teams.</p> <p>H 2b: A teams' high mean age negatively relates to shared leadership behaviors in dispersed teams.</p> <p>H 3: National diversity positively relates to shared leadership behaviors in dispersed teams.</p>	<p>unit of analysis: team shared leadership: multi-item measures, assessed by team members, four items for team-directed behaviors, three items for self-directed behavior</p> <p>national diversity: Blau's (1977) index (1 Σp2)</p> <p>team effectiveness: 3 items from Hoegl and Gemuenden (2001)</p> <p>controls: project type, project length, number of sites, frequency of face-to-face meetings, number of isolated team members, and task interdependence</p> <p>hierarchical multiple regression analysis</p>	<p>96 geographically dispersed software project teams from 36 companies</p> <p>answers from 96 team leaders and 63% of the team members (337)</p> <p>average team size: 8.27</p> <p>average sites per team: 2.86</p>	<p>model 4: high female-to-male ratio relates positively to team-shared leadership</p> <p>model 4: high mean age relates negatively to team-shared leadership</p> <p>model 4: national diversity relates positively to shared leadership</p> <p>H 2a: supported</p> <p>H 2b: supported</p> <p>H 2c: supported</p>	<ul style="list-style-type: none"> - focus on software development teams - cross-sectional design - the index used for measuring national diversity does not consider effects of cultural distances - focus on socio-demographic issues - no detailed explanation of how different characteristics of dispersed collaboration affect the relationship between shared leadership behaviors and team performance
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<p>Multicultural shared leadership: A conceptual model of shared leadership in culturally diverse teams (Ramthun & Matkin, 2012)</p>	<p>P 1: Cultural diversity in teams is negatively related to shared leadership.</p> <p>P 2a/b: intercultural competence as a mediator between cultural diversity in teams and shared leadership</p>	<p>conceptual article</p>	<p>-</p>	<p>-</p>	<p>-</p>	
<p>Shared leadership and innovation: The role of vertical leadership and employee integrity (Hoch, 2013)</p>	<p>H 2a: Vertical empowering and transformational leadership will be positively associated with shared leadership.</p> <p>H 3a: Team member integrity will be positively associated with shared leadership.</p>	<p>shared leadership + employee integrity: rated by team members</p> <p>vertical transformational and empowering leadership + innovative behavior: rated by team leaders</p> <p>direct consensus model</p> <p>transformational leadership: 6 items</p> <p>empowering leadership: 12 questions</p> <p>integrity: 8 items</p> <p>adapted from Dineen, Lewicki, and Tomlinson (2006)</p>	<p>43 work teams comprising 184 team members + team leaders from two different companies</p> <p>mean age: 23 years</p> <p>mean tenure: 1.13 years</p> <p>team leader mean age: 30 years</p> <p>team leader mean tenure: 3.46 years</p> <p>gender: 89% male (members); 98% (team leaders)</p>	<p>vertical transformational and empowering leadership → shared leadership: $b = .75, p < 0.001$</p> <p>team member integrity → shared leadership: $b = .77, p < 0.01$</p>	<p>-</p> <p>-</p> <p>-</p>	<p>cross sectional data</p> <p>largely male sample</p> <p>broad measure of leadership based on multiple approaches</p> <p>only one personality variable</p>

		analyses on the group level with structural equation modeling innovation: 9-item scale by Janssen (2000)			
Shared leadership in teams: An empirical study of dispositional antecedents (Zhou, 2013)	H 1-4: A team's mean score on extraversion / conscientiousness / emotional stability / openness to experience will positively relate to the level of shared leadership.	Big 5: Chinese Version of the NEO-Five Factor Inventory (12 items)	154 entrepreneurial team = 516 entrepreneurs average age: 28 years	H 1 / 3 / 5: not supported H 2 / 4: supported H 7 / 9: supported	- not explicitly stated - conference paper
	H 5: A team's mean score on agreeableness will not significantly relate to the level of shared leadership.	hierarchical regression analysis	gender: 42% female, 58% male	H 6 / 8 / 10: not supported	
	H 6-8: Team diversity on conscientiousness / openness to experience / emotional stability will negatively relate to the level of shared leadership.		10 teams with only two members each were dropped → 144 teams		
	H 9-10: Team diversity on extraversion / agreeableness will				

	positively relate to the level of shared leadership.			
Transcending the power of hierarchy to facilitate shared leadership (Barnes et al., 2013)	<p>hierarchical embeddedness</p> <p>powerful, hierarchical leaders</p> <p>authentic leadership components: e.g. self-awareness</p> <p>transformational leadership components: charisma</p> <p>servant leadership components: socialized form of charisma</p> <p>reference to Carson et al. (2007)</p>	<p>case study, conceptual paper</p> <p>examination and interpretation of the experiences and expressed beliefs of Jerry Garcia of the Grateful Dead</p>	<p>“Our conceptualization posits that a powerful, hierarchical leader is needed to enact an environment/context for shared leadership to take place, and that the antecedents for the enactment of this environment are shared purpose, social support, voice, and transparency. Specifically, we are proposing that an authentic, transformational leader, with socialized charisma, and with servant qualities could create the environment for shared leadership to emerge, [...]” (Barnes et al., 2013, p. 753)</p>	<ul style="list-style-type: none"> - single historical case study - biased selection of subject - reasonable applicability?

<p>Collectivistic leadership and George C. Marshall: A historiometric analysis of career events (Friedrich et al., 2014)</p>	<p>H 3: A leader's possession of both social and problem-solving skills and abilities will be positively related to the use of collectivistic leadership actions.</p>	<p>historiometric case analysis approach: quantitative analysis of historical records concerning notable individuals subject: George Catlett Marshall</p>	<p>102 leadership events or critical incidents from seven scholarly historical biographies</p>	<p>developed network: $\beta = - 0.19$, Sig. = .039 leader skills and abilities: $\beta = .174$, Sig. = .046 effective communication: $\beta = .024$, Sig. = .763</p>	<ul style="list-style-type: none"> - single case study using secondary sources - focus on a "notable" leader → limiting generalizability
	<p>H 4: The development of a team's network will be positively related to the use of collectivistic leadership actions.</p>	<p>content coding with a rating system by Yammarino et al. (2010a, 2010b)</p>		<p>“Regressing collectivistic actions on the ratings for effective communication, developed network, and leader skills and abilities resulted in a sizeable and significant multiple R and R2 change ($R^2 = .59$, $p \leq .001$; $R^2_c = .53$, $p \leq .001$), indicating that collectivistic actions may be predicted by these constructs.” (Friedrich et al., 2014, p. 462)</p>	
	<p>H 5: Effective communication within a team will be positively related to the use of collectivistic leadership actions.</p>	<p>development of a scoring system performance scales rating by three judges</p>			

Conceptualizing and implementing the distributed leadership practices in Indian organizations: Preliminary findings (Jain & Jeppesen, 2014)	RQ2: What are the issues and challenges involved in implementing DL practices in Indian organizations?	stage I: qualitative phase: open-ended questions in a personal interview stage II: two questionnaires referring to the conceptualization gathered from stage I	stage I: 60 middle-level executives working in private sector and multinational corporations stage II: 180 middle-level managers from private, public, and multinational organizations in the capital region of Delhi (India) across various industrial sectors	stage I: DL = decentralized decision making, empowerment, involvement and participation of all employees, an environment of individual autonomy, trust, and team spirit exploratory factor analysis: horizontal structure, professionalism, work commitment, and power sharing are important pre-conditions in the implementation of DL → reliability coefficients between 0.62 and 0.66 and all eigenvalues of at least 2.3 [meets the Kaiser criterion (Kaiser, 1960)]	<ul style="list-style-type: none"> - exploratory results and preliminary findings - small sample size (limited to young managers)
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Note. ns = not statistically significant

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