Predictors of successful leadership development:

What do follower proactivity, work engagement, and leader-member exchange quality (LMX-quality) in a blue-collar setting bring to the table?

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SUMMARY

The present thesis is a single case research in the automobile production in Germany. The aim of this case analysis is to identify predictors of successful leadership development, whereby especially the quality of leader-member exchange is investigated. The importance of leadership development in production increases due to progressive globalization, the development of blueprints as well as increasing span of controls and group diversity. In the light of changing contextual requirements for leaders and followers, a high-quality exchange relationship between the leader and the talent is a possible answer. To some extent, this thesis closes the research gap on predictors, which positively contribute to the leader-member exchange (LMX) relationship in production.

In the first study (Chapter 2), a qualitative method was applied with a deductive and inductive approach to develop a model of expected short-term and long-term behaviors of three different roles which are involved in leadership development. These roles are: Followers, leaders, and HR. Follower in this case study are identified talents or those who fulfill the conditions in terms of a professional education or show engagement "on-the-job" (e.g., a group speaker or process supporter role). Leaders are team leader in production, validating the potential of followers towards a further development for a first leadership position. HR represents HR Business Partners. Those are consultants of followers and leaders, process facilitators of the personnel development of talents in production, and responsible for concept and process-implementation. Verbal, paraverbal, and nonverbal predictors for future successful leadership behavior of talents were identified in assessment centers.

The second study (Chapter 3), a cross-sectional one, showed that employee proactivity is a short-term mediator, partially mediating the relationship between absorbed followers and high-quality exchange with leaders. "Absorption" is one of the three characteristics of work engagement, along with "dedication" and "vigor" (Schaufeli, Salanova, González-Romá, & Bakker, 2002), describing a state of full concentration and deepening in one's work whereby time passes quickly (p. 75). By applying a further model, the absorption level of followers in a longitudinal design was investigated. The partial mediation effect in Study 2 could not be replicated in a longitudinal design (Study 3). It could be indicated that followers with high absorption levels have a direct long-term impact on their LMX. However, no reciprocal effect could be found.

In Chapter 4, specific recommendations for practice are discussed by applying the developed model from Chapter 2. The application of the developed model, which shows the expected behaviors of the three roles and raises the awareness of expectations increases the quality of LMX and thus contributes to a successful leadership development in the long-term. Furthermore, the application of the model opens new ways of leadership development research, which are pointed out.

ZUSAMMENFASSUNG

Die vorliegende Dissertation ist eine Einzelfallanalyse in der Automobil-Produktion in Deutschland. Das Ziel dieser Fallanalyse ist die Identifizierung von Prädiktoren erfolgreicher Führungskräfteentwicklung, wobei speziell die Qualität der Führenden-Geführten-Beziehung untersucht wird. Führungskräfteentwicklung in der Produktion nimmt durch die fortschreitende Globalisierung, der Entwicklung von blueprints sowie zunehmenden Führungsspannen und Gruppendiversität eine wachsende Bedeutung ein. Aufgrund der sich verändernden kontextuellen Anforderungen für Führende sowie Geführte, ist ein qualitativ hoher Austausch zwischen der Führungskraft und dem Talent eine mögliche Antwort. In dieser Dissertation wird die Forschungslücke zu Prädiktoren, welche positiv zur Führenden-Geführten-Beziehung in der Produktion beitragen, ein Stück weit geschlossen.

In der ersten Studie (Kapitel 2) wurde qualitativ mit einer deduktiven und induktiven Herangehensweise ein Modell entwickelt, welches die erwarteten kurzfristigen und langfristigen Verhaltensweisen dreier verschiedener beteiligter Rollen in der Führungskräfteentwicklung aufzeigt: Mitarbeiter, Führungskräfte und HR. Mitarbeiter sind in dieser Fallstudie bereits identifizierte Talente oder solche, welche die Voraussetzungen i.S. einer fachlichen Ausbildung sowie Engagement "on-the-job" (z.B. eine Gruppensprecher oder Prozessunterstützer-Rolle) erfüllen. Führungskräfte sind die Teamleiter in der Produktion, welche Potentialaussagen bzgl. einer Hinentwicklung der Mitarbeiter auf eine erste Führungsposition tätigen. HR repräsentiert die HR Business Partner. Diese sind Berater der Mitarbeiter und Führungskräfte, Prozessbegleiter der Personalentwicklung der Talente in der Produktion und für die Konzeption und Umsetzung des Prozesses verantwortlich. Verbale, paraverbale und

nonverbale Prädiktoren für zukünftig erfolgreiches Führungsverhalten der Talente wurden in Assessment Centern identifiziert.

Die zweite Studie (Kapitel 3) zeigte, dass Mitarbeiter-Proaktivität kurzfristig und partiell den Zusammenhang zwischen absorbierten Mitarbeitern und hohem qualitativen Austausch mit der Führungskraft mediiert. Absorption ist eine der drei Charakteristika von Arbeits-Engagement, neben "dedication" und "vigor" (Schaufeli et al., 2002) und bezeichnet einen Zustand der vollen Konzentration und Vertiefung in die Arbeit, wobei die Zeit schnell vergeht (p. 75). In einem weiterführenden Modell wurde das Absorptions-Level der Mitarbeiter in einer Langzeitstudie untersucht. Dieser Mediations-Effekt aus Studie 2 konnte nicht in einer Langzeitstudie repliziert werden (Studie 3). Es konnte gezeigt werden, dass Mitarbeiter mit hohen Absorptions-Levels einen direkten langfristigen Einfluss auf ihre Führenden-Geführten-Beziehung haben. Ein reziprokaler Effekt wurde jedoch nicht gefunden (Studie 3).

Im vierten Kapitel werden spezielle Handlungsempfehlungen –unter Einbeziehung des entwickelten Modells aus Studie zwei– zur Umsetzung von Maßnahmen in der Praxis diskutiert. Die Anwendung des entwickelten Modells, welches die erwarteten Verhaltensweisen dreier Rollen aufzeigt und diesen bewusst macht, wird die Qualität der Führenden-Geführten-Beziehung steigern und somit langfristig zu einer erfolgreichen Führungskräfteentwicklung beitragen. Des Weiteren eröffnet die Anwendung des Modells neue Wege der Führungskräfteentwicklungsforschung welche aufgezeigt werden.

ABBREVIATIONS

Abbreviation	Explanation
AC	Assessment Center
CFI	Comparative Fit Index
CI	Confidence Interval
CIT	Critical Incident Technique
F	Follower
HR	Human Resources
L	Leader
LD	Leadership Development
LMX	Leader-member exchange
NV	Nonverbal
PC	Personal Computer
PV	Paraverbal
RMSEA	Root Mean Square Error of Approximation
SET	Social Exchange Theory
SRMR	Standardized Root Mean Square Residual
V	Verbal

GENERAL INTRODUCTION

How to be perceived as a promising talent for a leadership position out of a wide pool of followers, limited visibility, and exchange time with a leader? What are expected behaviors and how to increase the exchange quality between the follower and leader? In order to improve existing HR practices (Bowen & Ostroff, 2004) in leadership development (LD) processes, HR professionals have to build up on evidence-based management (e.g., Hamlin & Sawyer, 2007) and be able to explain conceptually what predictors of leadership behavior contribute to successful LD. Despite growing interest of LD in organizations (Hernez-Broome & Hughes, 2004), to the researchers knowledge, no research so far took on the challenge to investigate the intra- and interindividual predictors of successful LD within a blue-collar context. Thus, this dissertation thesis sheds light on key predictors in a LD-process of blue-collar workers by applying multiple research methods, providing theoretical and practical implications as well as outlining directions for future research.

This thesis is composed of *five Chapters*. In *Chapter 1* a review of the literature on blue-collar workers is provided. The relevance of the investigation of LD in the context of blue-collar workers is depicted and leadership development distinguished from leader development. The context of this case study is outlined and specifications of this PhD program described. The main focus hereby lies on the assessment center, which is the main element in the personnel development process as well as the diversity of blue-collar workers.

In *Chapter 2*, a qualitative approach was chosen to identify a broad range of expected behaviors for LD from the leaders viewpoint. A model of expected short-term and long-term behaviors of followers, as well as leaders, and HR derived

through a qualitative method with a deductive and inductive approach. In addition, verbal, paraverbal, and nonverbal predictors of talents were identified in assessment centers.

In *Chapter 3*, constructs of work engagement, personal initiative (PI), and LMX were investigated in-depth. A cross-sectional and longitudinal design was quantitatively applied to test if (a) the proposed rule of PI partially mediates the relationship between followers' work engagement and LMX and (b) reciprocal effects exist between followers' absorption and LMX.

In *Chapter 4*, various practical recommendations as voiced by leaders and related to the identified expected behaviors across three roles from Chapter 2 and 3 were outlined. The derived recommendations were then prioritized regarding their (a) need for implementation, (b) implementation possibilities, and (c) implementation time. Thus, an agenda for an increase of social exchange between the three roles is introduced.

Finally, in *Chapter 5*, results are summarized and synthesized. In addition, limitations and directions for future research are discussed and related to the derived conceptual model.

1 Review of Leadership Development Literature in the Context of Blue-Collar Workers

Before starting with the review of LD literature the construct of leadership is defined in a first step. Several definitions regarding leadership exist. Applying a chronological procedure, one definition of leadership dating back to over 5,000 years ago in the Indian philosophy is outlined. In one of the most famous Hindu texts of the Bhagavad Gita philosophy including leadership lessons (Rarick & Nickerson, 2008) Lord Krishna enlightens Prince Arjuna his duties in his role of a warrior and ruler. He understands leadership as demonstrating proactivity, fulfilling one's responsibilities and working for the value of the greater good (Brodbeck & Eisenbeiss, 2014). Comparing this definition to a review of definitions by Yukl (2009, p. 1) in the 21st century, the outcome of „greater good" shifted to „performance": „. . . most definitions share the assumption that it involves an influence process concerned with facilitating the performance of a collective task". Yukl (2009) further states that no "correct" definition of leadership exists, whereas it is only a matter of how beneficial it is in terms of rising practitioners and theorists understanding of effective leadership.

Starting with the review of LD literature in the context of blue-collar workers, the reader should reflect upon the following question: "Should we bother with blue-collar careers?" The possible two answers as outlined by Thomas (1989) are:

Answer 1: No. Blue-collar workers don't have careers, they have jobs. Jobs involve limited tasks and responsibilities. (…)

Answer 2: Yes, but toss out the normative, achievement-oriented model of careers. Develop instead an inclusive perspective that transcends the color of the collar and, in the process, seeks similarity in work experience over time while helping to explain differences. (p. 354)

As Thomas (1989) states the majority of readers would tempt to go with the first answer, not spending any longer time on this topic. But LD of blue-collar workers is important because followers' tasks are characterized by repetitive work steps, lower responsibility and social exchange compared to white-collar workers. Therefore, to prevent demotivation, organizations need to offer talented followers the chance to strive for a leadership position, including materialistic, psychological, and social benefits (Hennequin, 2007). On the other hand, organizations aim for a successful production system template (blueprint) with leaders who manage and develop followers in order to maintain and increase work engagement levels, thus fulfilling international customer demands.

The literature review further revealed that nowadays blue-collar workers research is mainly discussed in the broader context of *decent work*. Decent work is an employment that "respects the fundamental rights of the human person as well as the rights of workers in terms of conditions of work safety and remuneration. (. . .) respect for the physical and mental integrity of the worker in the exercise of his/her employment." (U.N. Committee on Economic, 2006). The growing interest in this area is mirrored in several intercultural studies with blue-collar workers in the context of the *job-demands-resources model* (Bakker & Demerouti, 2007). The job demands-resources model postulates that job demands and resources affect outcomes through processes of work engagement and job strain. For instance, studies in the context of blue-collar workers aim to identify predictors of absence duration and frequency (Bakker, Demerouti, De Boer, & Schaufeli, 2003), safety behaviors (Hansez & Chmiel, 2010; Michael, Guo, Wiedenbeck, & Ray, 2006), and others (e.g., Hu, Schaufeli, & Taris, 2011; Korunka, Kubicek, Schaufeli, & Hoonakker, 2009). In addition, the growing interest in decent work of blue-collar workers also relates to results

of an early research study by Blickle (1999). Blickle (1999) examined the professional ambitions and values of skilled workers and young craftsmen. Results showed that secure jobs as well as safe and healthy work conditions were of high value for young craftsmen. Thus, the stream of decent work sums up the aspirations of employees at work, going beyond safety demands in order to increase their working life.

Focusing on career research with blue-collar workers in the context of leadership and even more precisely, LD, fewer studies do exist (Baruch, Wordsworth, Mills, & Wright, 2016; Thomas, 1989). However, articles in which practitioners share their experience with offered trainings for production workers show that there is a high interest and engagement on the blue-collar workers side regarding advanced training (e.g., Wittstadt, 2007). In terms of leadership research, one research area examined blue-collar workers who established their own LD or careers by applying "sisu". "Sisu" is a root theme and a Finnish word and means "inner determination" (Lucas, 2002; Lucas & Buzzanel, 2004). The author investigated how blue-collar workers, in this case underground miners, construct a sense of pride through creating a status hierarchy around their work. This allows them establishing targets of success for themselves and co-workers (Lucas, 2002; Lucas & Buzzanel, 2004).

The literature review further revealed that several studies discuss the changes of the foremen role. Those changes are, for instance, affecting the role of the foreman, who is challenged with leading and motivating followers (Steppan, Afheldt, Engels, & Merklein, 1992). Reasons are developments in technology and work organization (Antoni, 1992), such as through the shift from industrial to lean manufacturing, requiring higher follower engagement and proactivity (Steppan et al., 1992). A second research stream examines the personality development in skilled industrial workers' biographies (Hoff, Lempert, & Lappe, 1991).

Reasons for scarce research in the field of LD of blue-collar workers might be that greater hindrances for data collection exist. In contrast, for example, data of attendance time, quality management, and accidents at work is automatically and electronically available. In terms of collection of data via surveys or interviews hindrances are: (a) that the majority of employee's works at the assembly line, not having access to a personal computer (PC) and (b) working in shifts, not allowing any time to fill out a survey or even participate in an interview. Thus, if the organization does not offer additional time for data collection, blue-collar workers have to fill out the survey during their short breaks. However, research and the generation of recommendations for action in LD of blue-collar workers is important as on the one side; followers' tasks are characterized by repetitive work steps, low responsibility, and social exchange compared to white-collars. Therefore, organizations have to offer talented followers the chance to strive for a leadership position, including materialistic, psychological, and social benefits (Hennequin, 2007), preventing demotivation. On the other side; organizations aim for a blueprint of a successful production system with leaders who are managing and developing followers to maintain and increase work engagement levels, fulfilling international customer demands.

1.1 Distinguishing Leadership Development and Leader Development

Due to main differences in research foci regarding development of leaders (Day, 2001), and their related methods, it is of high relevance to differentiate *leadership development* from *leader development* in a first step. Day (2001) differentiates both processes by four main comparison dimensions: capital type, leadership model, competence base, and skills. The differences are depicted in a concise summary overview (see Table 1).

Table 1

Summary of Differences between Leader Development and Leadership Development

(Day, 2001, p. 584)

	Development Target	
Comparison Dimension	*Leader*	*Leadership*
Capital Type	Human	Social
Leadership Model	Individual	Relational
	Personal power	Commitments
	Knowledge	Mutual respect
	Trustworthiness	Trust
Competence Base	Intrapersonal	Interpersonal
Skills	Self-awareness	Social awareness
	Emotional awareness	Empathy
	Self confidence	Service orientation
	Accurate self image	Political awareness
	Self-regulation	Social skills
	Self-control	Building bonds

Trustworthiness	Team orientation
Personal responsibility	Change catalyst
Adaptability	Conflict management
Self motivation	
Initiative	
Commitment	
Optimism	

The aim of human capital lies in the development of " . . . individual-based knowledge, skills, and abilities . . ." (Day, 2001, p. 584). As human capital is clearly defined in the job description of the aspired leadership role, thus not "unwritten", this study focuses on social instead of human capital. Tsai and Ghoshal (1998) outlined that social capital is a productive source, facilitating actions ranging from an individual's occupational talent (e.g., Marsden & Hurlbert, 1988) to the operations of an organization (Burt, 2009). Furthermore, social capital focuses on the enhancement of resource exchange and cooperation to give rise to organizational value (Bouty, 2000; Day, 2001; Tsai & Ghoshal, 1998). Nahapiet and Ghoshal (1997) determined three social capital dimensions: structural, relational, and cognitive. They theoretically explained how aspects of these dimensions contribute to the facilitation of resource exchange in organization (Nahapiet & Ghoshal, 1997). By applying LMX, this study focuses on the relational dimension of social capital and its contribution to LD. This leads to the next dimension of LD, the relational leadership model.

The relational leadership construct of LMX is the main interest of observations in this thesis regarding expectations between leaders and followers. LMX has emerged as a useful approach in order to study postulated linkages between processes and outcomes (Gerstner & Day, 1997). Those outcomes, which are based on the developed quality of the relationship between a leader and a follower, are linked to the individual, group, and organizational levels of the respective analysis (Gerstner & Day).

LMX is described by various long-term dynamics, as LMX-quality can range and develop from low (out-group) to high quality relationships (in-group) over time (Bauer & Green, 1996; Graen & Uhl-Bien, 1995). High LMX-quality is further characterized as long-term reciprocation and emotions of bilateral bonds, which develop into a transformational exchange over time (Graen & Uhl-Bien, 1995). The focus on LMX is based on the developmental stages of trust between the two roles. In contrast, the leader model, an individual one, bases, for instance, on personal power (Day, 2001). Thus, the third dimension, competence base, of leadership is interpersonal, not intrapersonal. Lastly, the skills dimension of the applied leadership concept is for example characterized by social awareness, in contrast to self-awareness, as well as social skills in contrast to self-regulation (Day, 2001). Especially, in the production, where diversity within the groups increases due to, for instance, social migrations, social awareness is of high relevance. Research shows that leaders social awareness, which is assumed to be a precondition for cross-cultural competencies, such as intercultural awareness, predicts followers perceived team performance (Groves & Feyerherm, 2011). Hence, due to the high importance of social exchanges at work, in the following, LD is conceptualized as a relational process. This relational process is

depicted in Brodbeck's model (see Figure 1) as a reciprocal influence process be-

tween leaders and followers.
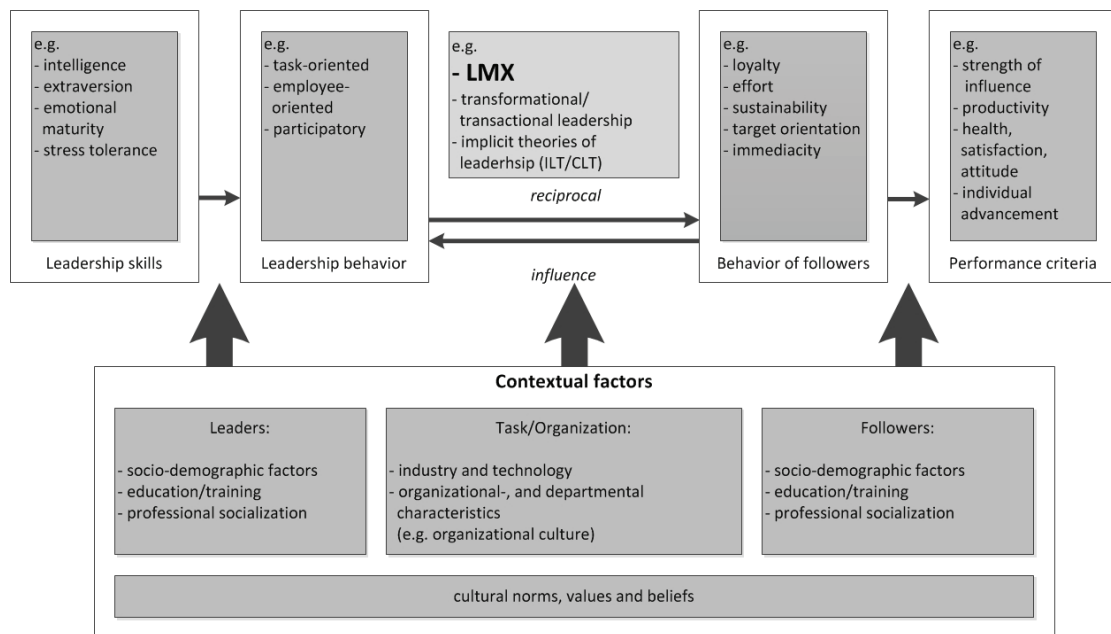
Figure 1. Recent approaches of leadership research with particular relevance to

intercultural or global contexts of personal leadership (Brodbeck, 2016, p. 16)

The aim of this study is to observe both development targets as described by

Day (2001), the leader and leadership. The development target of the leader, the in-

trapersonal development aspect, is measured with proactivity of followers who strive

for a leadership role. The development target of leadership, the interpersonal devel-

opment aspect, is measured with LMX-quality and work engagement. In addition, this

study examines the interplay between the three constructs of proactivity, work en-

gagement, and LMX (see Chapter 3 for definition).

The development target of LD is further linked to the underlying theory of this

thesis, the social exchange theory (SET) (Cropanzano & Mitchell, 2005). SET is de-

scribed as "...the most influential conceptual paradigms for understanding workplace

behavior" (Cropanzano & Mitchell, 2005, p. 874, see chapter 2). SET highlights that

under specific conditions interdependent relations are likely to create "high-quality

relationships" (Cropanzano & Mitchell, 2005, p. 875), such as LMX-quality under the aspect of leadership in organizations (Liden, Sparrowe, & Wayne, 1997).

1.2 Context of the Case Study

This thesis is a case study as it is an in-depth focused study of the group of potential (future) leaders that has been studied over time within its real-life context (Yin, 2013). More precisely, the qualitative part (Chapter 2) can be described as an "exploratory case study" (Yin, 2013). The interviews were conducted and analyzed with an exploratory research method. The aim of the interviews was to identify predictors of successful LD but also to develop a conceptual framework, which could be applied and tested in other organizational contexts. The quantitative part (Chapter 3) is a "single case research" (Bortz & Döring, 2013). Reasons are that it is conducted to test assumptions regarding characteristics or behaviors of the specific group of followers by a systematically collected quantitative set of data (Bortz & Döring, 2013).

A main reason for this case study was, that organizations are more and more interested in LD at the grassroots of leadership, in daily businesses at their specific industry sector, on-the-job. Therefore, this thesis applies the *contextual leadership theory* by taking into account the social context of (future) leaders (Dinh et al., 2014), such as organizational size (House & Aditya, 1997), as well as the emotional context, overcoming solely dyadic research foci. In addition, this thesis spends a main focus on the target group of blue-collar workers and contextual factors of high span of control (SOC) and restricted exchange time with leaders. Research in contextual factors, for instance, shows that a high SOC negatively impacts LMX (Schriesheim, Castro, & Yammarino, 2000; Schyns, Paul, Mohr, & Blank, 2005).

1.2.1 Assessment Center

This thesis was conducted as a research program including a PhD position within the automotive industry. The aim of the organization was to for the first time conduct a comprehensive analysis of the LD program for their blue-collar followers, including a development assessment center (AC) as an instrument in a life-long learning circle to become a foreman in production. Lifelong learning is defined as:

> Lifelong learning is the development of human potential through a continuously supportive process, which stimulates and empowers individuals to acquire all the knowledge, values, skills, and understanding they will require throughout their lifetimes and to apply them with confidence, creativity and enjoyment in all roles, circumstances, and environments. (Longworth & Davies, p. 22)

The AC is the "heart" or major milestone of the LD program. Due to the fact that HR names the development assessment center internally "AC", the same wording is applied in the following. The aim of the AC is to feed back detailed information to participants regarding their current work behavior. In addition, the feedback provided should encourage them to consider how they can develop behaviors they currently lack (Carrick, Chance, & Williams, 1999). Observers in the AC, who are team leaders in production, make decisions on career paths in terms of the confirmation or non-confirmation of participants potential for their first leadership level.

In Germany, the "Arbeitskreis Assessment Center e.V." developed "*Standards for Assessment Center Operations*". The "Arbeitskreis Assessment Center e.V." is a working group and association of experts working in industrial and service organizations (Böhme et al., 2004). Neubauer and Höft (2006) state that these standards do not

only serve as an orientation for apt AC practices but also as a benchmark. The benchmark allows reviewing the quality of the AC.

The lifelong learning circle allows several participation times of candidates in the AC if the condition of followers potential is given. The principle of the lifelong learning circle further builds up on research findings showing that leadership functions on the lower level are related to perceived higher learning support by the organization (Bergmann & Richter, 2003). Kern and Bergande (2012) also state that longer working lifetimes and the increasing lack of specialist workers require an adjustment of personnel development. This could be applied through a long-term focused personnel development, taking particular regard of the specific strengths and weaknesses of the employees (Kern & Bergande, 2012) through the tool of a development assessment center (AC) (Carrick et al., 1999). Rupp et al. (2006) point out that organizations have sedulously been in search for rich information as offered by development ACs as a way to foster their talent development.

Research (Rupp, Snyder, Gibbons, & Thornton, 2006) shows, that ACs offer acceptable criterion-related validity (Gaugler, Rosenthal, Thornton, & Bentson, 1987; Hunter & Hunter, 1984; Schmidt & Hunter, 1998). In addition, it offers incremental validity over and above that of cognitive ability tests, ratings of supervisor (Chan, 1996), and personality tests (Goffin, Rothstein, & Johnston, 1996). Organizations, which regularly conduct ACs, gain more sophisticated measures as they modify or add modules and thus considerate learning (Sessa, & London, 2015). For example, they can include different aspects, such as the performance of individuals, the average team performance, as well as organizational capabilities or resources and rules. In order to establish a lifelong learning culture they could add questions, such as those relating to the learning environment into their employee surveys, thus highlighting the

importance of this topic (Sessa, & London, 2015). The before mentioned steps would contribute and encourage to the facilitation of skill, knowledge, and aptitude achievements, thus finally reaching mastery and self-direction (Bond, 2015). In addition, society –and in this case study the organization– should make these systems available to employees who take on the role of learners but with flexibility and diversity (Bond, 2015).

However, HR personnel has to be aware of perceived barriers of blue-collar workers for a participation in lifelong learning activity, such as limited access to information (Fusch, 2000). Furthermore, the developmental AC should be only one of various modules of the lifelong-learning circle. This implies that accesses to other educational opportunities, contributing to the establishment of a "learning culture" (Fryer, 1997), are needed.

Early research by Woschnick and Konradt (1995) highlights the usability and effectiveness of the AC-instrument for production workers. However, a later study by Erten-Buch, Mayrhofer, Seebacher, and Strunk (2006) in personnel selection of skilled workers in production revealed that in England, Denmark, Netherlands, and Austria, application forms and individual interviews were still the main HR-instruments. ACs for blue-collar workers made up only 1,6 % to 3,6 % of the implemented instruments, followed by psychometric tests, references, and interview panels. In addition, longitudinal research by Winkler, Busch, Clasen, and Vowinkel (2015) indicates that changes in leadership behaviors, such as talents developed through feedback derived from AC participation, in return are precursors of improvements in job satisfaction and well-being of low-skilled workers.

The literature review of blue-collar workers further revealed that developments in technology and work organization (Antoni, 1992) lead to changes in the role

of the foreman. Foremen provide the interface between the technical-organizational working system "production" and the "personal-social" system of the workforce (Bullinger, 2002). Reasons for this are developments in technology and work organization (Antoni, 1992), such as through the shift from industrial to lean manufacturing, requiring greater follower engagement and proactivity (Steppan et al., 1992). The changing educational aspirations of young people that lead to an increased skilled-workers gap (Baethge, Baethge-Kinsky, & Kupka, 1998) is another argument for offering blue-collar workers developmental opportunities. Those changes also affect the role of the foreman, who is challenged with leading and motivating followers to develop proactive behaviors (Steppan et al., 1992). However, by implementing a life-long learning program the required changes of expected leadership behaviors of foremen could be tightly linked to expectations in the development AC.

Talents in the AC do not have an academic degree whereas a technical qualification. Their direct leaders in the production, the foremen –and in addition holding the role they want to achieve through participation in the LD program– do not observe in the AC. Whereas leaders, who are one level above, thus direct leaders of the foremen, are observers in the AC and were interviewed for this thesis.

1.2.2 Diversity

Due to globalization and shortage of specialists, leading to an increase of different nationalities working closely together at the assembly line, diversity becomes more and more important. Diversity management in the workplace setting is defined as negotiating interaction across culturally diverse groups, and contriving to get along in an environment characterized by cultural diversity (Walck, 1995). The workforce in production in this specific case study is characterized by four main nationalities, which are Germans, French, Turks, and Cameroonians. A foreman in production of

this specific case study leads on average 5,3 different cultures. The range of cultures lies between 2 to 10 in a group. These figures highlight the great interculturality and need for intercultural awareness and competency on both sides, leaders and followers.

Several standards were implemented in the LD program several years ago and account for various plants. As the organization is highly interested in followers' health in terms of a performance indicator in production, the survey included self-developed questions and several scales, such as work engagement (see theory section). Work engagement displays followers' health, a highly required construct in production, as followers have to cope with high physical strains. Thus, this thesis is representative due to research that is directly applied in the field. Further, the role of the researcher is a dependent one, with a temporary contract and no fixed one. The researcher is not the original developer of the LD-process, ensuring objectivity (Anderson, 2009).

This thesis bridges theory and practice, as it further adds knowledge to the practical side of LD by focusing on the specific context of blue-collar workers. The intercultural and global model of leadership by Brodbeck (2016) (see Figure 1) highlights the various leader and follower behaviors, which are exchanged between the two roles and influenced from different contextual factors, such as the industry and education. In order to provide a step by step development it is important that all participating parties that are exchanging are aware of expected and planned to be exchanged behaviors. This would minimize followers' learning fields and offers a good preparation for the first leadership role. However, as most research in LD focuses on white-collar workers and leadership models show that contextual factors, such as the industry, influence leader and follower factors, the derived recommendations of this

case study cannot be applied one-to-one as for white-collar workers or other production systems.

2 How Do Followers, Leaders, and Human Resources Exchange in Leadership Development? A Qualitative Study with Leaders (Study 1)

2.1 Summary

The interplay between the roles of leaders, followers, and Human Resources (HR) personnel was explored in the context of blue-collar work. This qualitative research focuses on followers' work engagement, which is theorized to be a requirement for high leader-member exchange quality (LMX-quality), which in return is a precondition for successful leadership development (LD). Expected leadership behaviors were deductively and inductively investigated from three different perspectives, namely: (a) followers, (b) leaders, and (c) HR personnel, and on the basis of their respective contributions to successful LD. Grounded theory, qualitative content analysis, and critical incident technique were applied to 10 semi-structured interviews with leaders. Long- and short-term verbal, paraverbal, and nonverbal follower behaviors were identified as predictors of successful leader behaviors. The application of the derived model will improve LD over time as the three involved parties will be aware of which leadership behaviors are expected from followers and which behaviors from leaders and HR personnel.

Keywords: leader-member exchange (LMX) quality, work engagement, leadership development (LD), blue-collar worker

2.2 Introduction

The adage that followers do not quit their companies but rather their leaders (Buckingham & Coffman, 1999) underpins the high relevance of social exchanges and their relation to LD. One crucial working behavior within social exchanges is work engagement. It is crucial as it reflects followers' health, which is vital in production due to high physical demands. This study explores if followers display and exchange work engagement during a LMX, as expected from those perceived as future leaders, and gain access to developmental resources. From the leaders' side and in line with Schaufeli et al. (personal communication, July 29, 2016) it is assumed that leaders' behaviors, such as work engagement, are crucial to increase followers' work engagement. This reciprocal exchange is due to an imitation of expected behaviors (e.g., Bavelas, Black, Lemery, & Mullett, 1990; Cropanzano & Mitchell, 2005).

The exchanges result in high LMX-quality, developing over time as an ongoing process. It is expected that LMX-quality depends on the exchange of work engagement as well as other behaviors. Thus, this study uses deductive and inductive methods to explore the different expected behaviors to establish high LMX-quality, the basis of LD. In addition, the study contributed to LD for blue-collar workers as LD practices are discussed primarily in white-collar settings in which only the approach but no systematic research exists (Hennequin, 2007; Winkler et al., 2015; Yukl, Gordon, & Taber, 2002).

2.3 Theoretical Background

Organizations invest a high effort in LD (Phillips & Phillips, 2016). However, depending on the leadership level and working context, expected behaviors differ (e.g., Müller & Turner, 2010; Mumford, Marks, Connelly, Zaccaro, & Reiter-Palmon, 2000). Similar to "psychological contracts" (Settoon, Bennett, & Liden, 1996) of

which the norm of reciprocity is the motivational foundation of every attitudinal or behavioral follower action at work, expectations between leaders and followers were investigated within LD. Therefore, the assumed expected follower behavior of work engagement was described, supposed to be a reciprocal positive work behavior that is exchanged within LMX. As LMX is characterized as a social exchange approach to leadership (Graen & Uhl-Bien, 1995) and this study identifies the exchanged behaviors that are most relevant to improve LMX, the constructs of interest are linked to Social Exchange Theory (SET; Cropanzano & Mitchell, 2005; see theory section).

2.3.1 Follower work engagement

Over time, work engagement is an increasingly applied indicator for occupational health and studies of perceived health (Rongen, Robroek, Schaufeli, & Burdorf, 2014; Sonnentag & Pundt, 2014; Winter, Feinstein, & Müller, 2015) in practice. It is defined as "a positive, fulfilling, work-related state of mind that is characterized by vigor, dedication, and absorption" (Schaufeli et al., 2002, p. 74). More precisely, Kahn (1990, p. 694) explains the unfolding of work engagement at work: "in engagement, people employ and express themselves physically, cognitively, and emotionally during role performance". This definition highlights that followers fully exert themselves and are psychologically existent at work in their roles. Research by Rich (2010) implies that there is a clear link between engagement and task performance. Organizations are particularly interested in gaining not only a motivated but also healthy and skilled workforce to achieve a long-term performance, sustainability, and thus organizational success (Harter, Schmidt, & Hayes, 2002).

Research shows that work engagement is associated with good physical health (Langelaan, Bakker, van Doornen, & Schaufeli, 2006; Seppälä et al., 2012), good mental health (Hakanen & Schaufeli, 2012; Kubota et al., 2011), and positive atti-

tudes and behaviors (Salanova & Schaufeli, 2008). Simultaneously, work engagement is associated with a reduced sickness absenteeism –with which especially productions systems are faced (Schaufeli, Bakker, & Rhenen, 2009). In addition, engaged followers' also strive for a reduction of various job stressors, such as interpersonal or career-related ones (Bakker, Van Emmerik, & Euwema, 2006; Bakker & Xanthopoulou, 2009). Furthermore, research by Bakker (2011) recommends to invest in this work behavior by offering an evidence-based model. Thus, work engagement is a valuable indicator for a healthy workforce and several empirical recommendations for an improvement in the context of the workplace exist.

From the leaders' side and in line with Schaufeli et al. (personal communication, July 29, 2016), it is assumed that leaders' behaviors, such as work engagement, are crucial to increase followers' work engagement. This reciprocal exchange is due to an imitation of expected behaviors (e.g., Bavelas, Black, Lemery, & Mullett, 1990).

2.3.2 LMX theory

Followers develop a unique dyad-level exchange relationship with the leader at work (Gerstner & Day, 1997). In contrast to other leadership theories, the focus does not lie on the observation of leader behavior but on interpersonal exchanges between leaders and followers (Brodbeck, 2008). Followers who are interested in seeking a leadership role can actively contribute to the development of this relationship by fulfilling the expected behaviors, as awaited from their leaders.

2.3.3 Linking work engagement with LMX

Work engagement can be conceptualized as an expectation from the leader's side in the social exchange process between followers and leaders. Leaders expect follower engagement to be displayed at work, indicating a high level of motivation, health, and positive working attitude. If this expectation is cultivated at work, follow-

ers learn from coworkers, who have high LMX or are in the talent pool, to adopt and exhibit this positive working attitude. They do so for instance, to fulfill their roles as promising candidates for an organizational LD program and to receive more exchange opportunities with their leaders. Hence, it is assumed that work engagement is an expected and desired work behavior and input, which followers should exhibit in exchange processes with their leaders. These expectations shape the quality of LMX over time.

During an exchange process between leader and follower the leader offers the follower resources to improve on the personal development. In return, followers have to fulfill leaders expectations, such as a fulfillment of rules (e.g., showing specific work behavior) at work. SET (Cropanzano & Mitchell, 2005) aims to analyze and unfold the exchanged rules and resources between the two roles at work. Therefore, the development target in terms of the development of high LMX is linked to the underlying theory of this thesis, the SET (Cropanzano & Mitchell, 2005).

2.3.4 SET

Three central propositions build up the SET and contribute to its power: *rules*, *resources,* and *relationships*. It is presumed that during the stages of LMX development the follower more and more learns which behaviors in terms of *rules* are expected by the leader and which *resources* are needed from the followers' side to establish high LMX-quality.

2.3.4.1 Rules. Emerson (1976, p. 352) described *rules* of exchange as a "normative definition of the situation that (. . .) is adopted by the participants in an exchange (. . .)." Cropanzano and Mitchell (2005, p. 874) went further and argue that *rules* of exchange are commonly described as a "series of interactions that generate obligations." From SET can be derived that interdependent transactions can generate

high-quality relationships (Cropanzano & Mitchell, 2005). In light of SET, work engagement is not only an expectation of the follower and leader, but might also be referred to as such a transaction. In the language of SET, work engagement can serve as a subject of a *rule* of exchange; on the one side, leaders hold and communicate expectations about the level of work engagement a particular follower should display, and on the other side, followers hold expectations about the level of work engagement that they should display in a particular leader follower relationship. The degree of mutuality of expectations is a precondition for LMX-quality and -development (Cropanzano & Mitchell, 2005).

2.3.4.2 Resources. The second proposition, building up on the exchange of *rules* of transactions, is the exchange of *resources*. Law-Penrose, Wilson, and Taylor (2015) describe that *resources* could be goods, service, information, and affiliation, which are developed or influenced from LMX. An ongoing exchange process and payback of *resources* exists as both roles believe in the value of *resources* (Macey, Schneider, Barbera, & Young, 2009). It is assumed that leaders expect the follower to exhibit positive emotions at work which will automatically influence the leader as they spill over due to the *emotional contagion effect* (Hatfield, Cacioppo, & Rapson, 1994), thus serving as a *resource*.

If both roles reached their goal and high LMX is established, the leader might offer the follower *resources*, such as useful information, increased visibility or career opportunities through the assignment of challenging tasks (Wilson, Sin, & Conlon, 2010). Hence, LMX can also be a valuable *resource* for followers (Law-Penrose et al., 2015). LMX as a *resource* can develop and range from low (out-group) to high quality relationships (in-group) across time (Bauer & Green, 1996; Graen & Uhl-

Bien, 1995), exceeding fiscal, temporary, and actual transfer of *resources* (Dansereau, Graen, & Haga, 1975).

Regarding the exchange of *resources* Macey and Schneider (2008) indicated that work engagement, being subject of a *rule*, is conceptualized as an extra-role-behavioral syndrome. This result implies that contextual factors, such as LMX, can influence it. Research indicates (Culbertson, Mills, & Fullagar, 2012) that support from others, such as the assumed *resource* of LMX, can decrease stress, evoking a follower's gains. Engaged followers continually work on their existing *personal resources* compared to non-engaged workers, broadening their thought-action repertoire and allowing them access to new *resources* at work (Schaufeli, 2012). Therefore, work engagement is considered as a requirement for essential (work) relationships. The outcome of a high quality exchange process of *rules* and *resources* is high LMX-quality. LMX in turn supports the follower in providing or facilitating the conservation of appreciated *resources*.

2.3.4.3 Relationships. The last proposition of SET is related to the relationships that arise from the exchange processes of *rules* and *resources* (Cropanzano & Mitchell, 2005). Recent research mainly applied SET at the workplace with the relational leadership theory of LMX (Martin, Guillaume, Thomas, Lee, & Epitropaki, 2016; Rosen, Harris, & Kacmar, 2011; Shore et al., 2004). Research shows that a part of the exchange process is that if the leader offers challenging tasks, autonomy, options to develop, and fair processes, the follower is thankful and pays back the leader, for instance, with the following behaviors: high trust (Bauer & Green, 1996) and organizational citizenship behavior (cf. Agarwal, Datta, Blake-Beard, & Bhargava, 2012; Bhal, 2006). In addition, Agarwal et al. (2012) claim that work engagement derives as an alternative way of reciprocation in form of followers' payback (see also

Downey, Werff, Thomas, & Plaut, 2015; Maslach, Schaufeli, & Leiter, 2001). If the relationship is characterized by low LMX (only) simple exchanges derive, falling below the contract of leaders and followers, whereas high LMX relationships are benefitting from liking each other and mutual respect (Dienesch & Liden, 1986; Van Dam, Oreg, & Schyns, 2008). Hence, the payback regarding the fulfillment of rules and transfer of resources is an ongoing reciprocal exchange process between followers and leaders. This process of reciprocity serves as the foundation of good workplace relationships, namely LMX.

Thus, in the present study, LD is conceptualized as a relational process, like LMX, in which *resources* and *rules* are exchanged. When linking work engagement with LD, research is still in its beginning (Schaufeli & Salanova, 2008b).

2.3.5 Aims of the present study

This research aims to investigate the theoretical expectation that work engagement functions as a social *rule,* which followers comply with to fulfill their leaders' respective expectations and to receive leader support. A conceptual model was developed to identify, by qualitative research, the generally expected behaviors leaders form for their followers to contribute to a successful LMX. Over time, LMX develops and it is assumed that this depends on the exchange of the rule work engagement and other inductively derived behaviors. It is supposed that organizations are aware of the precondition of high LMX for successful LD. As LMX develops over time and with it followers' social capital, this study aims to observe this development within a long-term process, called "lifelong learning" by organizations. Results of this deductive and inductive research are depicted in a model, which offers knowledge of *how* followers can get into the in-group of LMX. LMX is associated as a psychological process and precondition for developing social capital in terms of LD within an

organization. The application of the results of the model can lead to a common interpretation of expected and rewarded behaviors. Thus, this study aims to explain empirically *how* followers and leaders exchange in LD.

In this section, the literature of the assumed expected follower work engagement behavior and LMX was reviewed and both constructs linked. The theoretical links between work engagement and LMX were examined by drawing up on the doctrines of SET (SET; Cropanzano & Mitchell, 2005). Finally, after distinguishing *leadership* development from *leader* development, the constructs of work engagement, LMX, and the theory of SET were integrated in the framework of *leadership development*. To address the empirical and theoretical gaps regarding expectations for high LMX and LD in a blue-collar setting, the following two questions will be explored.

Research question 1. Do leaders expect followers to exhibit work engagement in terms of a rule to develop high LMX?

Research question 2. What behaviors do leaders expect from followers to be perceived as a potential top candidate –that is what are leader's expected rules and resources a follower should exhibit to increase LMX?

2.4 Methods

This study was underpinned by deductive and inductive methods: qualitative content analysis (Mayring, 2000) was applied to investigate research question 1 and grounded theory (GT; Glaser & Strauss, 1967) to explore research questions 2. Arguments for a combination of these methods are that a main quality of content analysis is the flexible application or combination of both, inductive or deductive approaches (Cho & Lee, 2014). Thus, an ongoing process was followed, from theory, educing deductive categories (Mayring, 2000) over empiricism to inductive derived codes (see Figure 2).

Theory
(from General)

Induction

Deduction

Empiricism
(from Special)
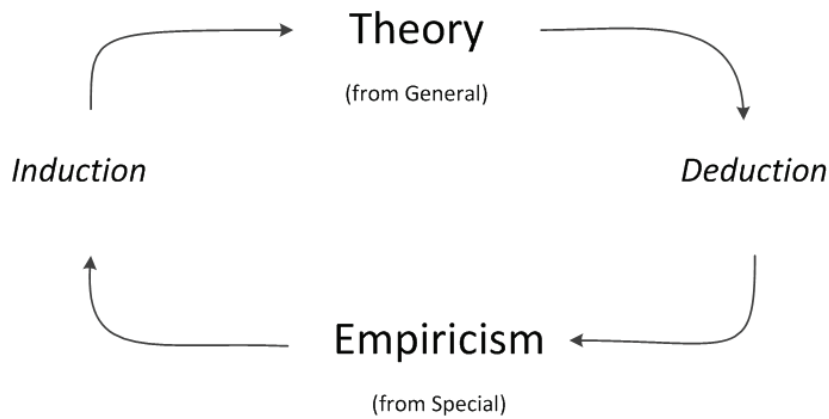
Figure 2. Adopted from "Internationale Führung. Das GLOBE-Brevier in der Praxis." *[International leadership. The GLOBE breviary in practice],* by Brodbeck (2016, p. 52)

Second, as this study could benefit from research in work engagement and LMX (deductive), prior understanding of the phenomenon of these behaviors (Elo & Kyngäs, 2008) in the context of LD in blue-collar settings is limited (inductive). However, the researcher of this study is aware of the danger of unconsciously testing hypotheses instead of a direct observation (Suddaby, 2006).

Though both methods follow coding processes, qualitative content analysis is focusing on category extraction from the data; not finding relationships between categories or theory development (Cho & Lee, 2014). Content analysis allows the extraction of manifest and latent content starting with predetermined codes or categories, based on literature (Kondracki, Wellman, & Amundson, 2002). GT is further characterized as a method for understanding social processes (Willig, 2009), based on a closely interrelation and mutual influence of data collection and analysis (Glaser & Strauss, 1967), such as added interview questions (see in-depths interview section). In addition, GT is common in leadership research (Klenke, 2008).

2.4.1 Methods of data collection

2.4.1.1 In-depth interviews. Critical incident technique (CIT; Flanagan, 1954) was applied in the interviews. CIT questions in the first part of the interviewer guide relate to leaders' opinion and experiences in relation to LD. The CIT implies the description of successful as well as less-successful situations of LD in order to identify useful predictors. These were used to identify dimensions that exist in the preparation for the first leadership role in various departments. Based on the answers, the interviewer asked about different influential factors and (economic) circumstances, which are relevant in those situations.

As the CIT's methodology suffers from retrospective data collection (e.g., memory biases), the interviewer additionally asked the interviewee about present and future situations of predictors in the preparation of the first leadership role in the department, offering diverse development situations including comprehensible reasons and predictors. At the end of the interview the interview-partner had the opportunity to place further questions to the interviewer.

2.4.1.2 Sample. Selection of interview partners was based on recommendations from different departments. Each department has its own HR business partner who contacted the department head after they were informed of the purpose and process of the study. The department head then recommended a leader who was usually also an observer in the AC in which the followers were participating in order to reach their first leadership role. In the scope of lifelong learning, followers could participate several times in the AC if still assessed as potential talents by leaders. The followers all aspired to future positions in the industry sector.

All interview partners were permanent leaders in the organization to ensure sufficient experience with LD in the preparation for the first leadership role and a

comparable context in which LD takes place. The condition for selection as an interview partner was at least five years experience as a leader as well as employee responsibility in the organization. In addition to leadership experience, work experience of 10 years was applied as a precondition to assure that the leader was well experienced with various leadership- and job situations. The mean age of interviewees was 50 years (SD=6.54) and 100 % were German nationals and male.

Interview partners were contacted via phone or email and received information concerning content and procedure of the interview. Solely leaders were recruited for the interviews to ensure extensive experience with predictors in terms of expected follower behaviors in the LD. Interviews were conducted by the author of this study, employed as an external PhD student in the organization. Following the approach by Wilhelmy, Kleinmann, König, Melchers, and Truxillo (2015), in line with *theoretical sampling* (Eisenhardt & Graebner, 2007), no decision on amount and type of data before data collection was made. Decisions regarding possible other interviewees were based on the work in progress.

All 10 interviews with the leaders were conducted over a period of three weeks. Participation in the interview study was voluntarily and interview partners did not receive any incentives. The interviewer informed the interviewees at the beginning of each interview about confidentiality and anonymity throughout the research process. Interviewees were encouraged to share their personal leadership experience with LD during their tenure within the organization. Demographics and context information were collected from the interviewees at the end of the interview. To ensure practicability as well as the completeness of all important information, all in-depth interviews were audio recorded (see also Wilhelmy et al., 2015). Audio-recordings were transcribed verbatim.

Interview duration varied between 45 and 120 min (70 min on average), depending on the leaders' time schedule intensity and experience in the topic. An interview guide containing open-ended questions was developed, assuring comparability of the interviews while maintaining flexibility in the conduction. In accordance with GT, the interview guide (see Appendix A) was piloted with three potential interview partners and expanded to include the expectation roles of leaders and the HR department.

2.4.1.3 Observations. The author conducted observations in the roles of (a) a silent observer and (b) neutral moderator in ACs with three aims: First, to identify overarching predictors of follower behaviors. Leaders might not always recognize or voice overarching predictors in bilateral settings, such as in the subsequent planned in-depth interviews, as they were more focusing on the individual to develop. The second aim was to support in the collection of important facets of the interview. The final aim was to receive results from personal exchanges about expected leadership behaviors between HR and production leaders, a factor that bilateral interviews could not offer.

A silent observer role was applied first for observations in two ACs to (a) gain initial insight into the key discussion points of potential future leaders, (b) develop questions for the next observation role, the moderation of observer conferences, which would stimulate assessors to more precisely describe the expected behaviors. Therefore, methods such as the (a) development of *questions for understanding* the expected leadership behavior, (b) *doubling* (Von Ameln & Kramer, 2007), and (c) *scaling* were used (von Schlippe & Schweitzer, 2003). Questions for understanding and doubling differ as doubling is not only the mirroring of what has been said by the observer, but linking it with a definition of the underlying leadership behavior and

translating the description of observations into a clear message (e.g., "he acts so cold and bossy in the exchange with followers" into "be more empathetic") (MISW, 2015). The method of scaling can be used to encourage the assessor to reflect on the intensity of the behavior (e.g., *low*, *high*, and *strong*), leading to a more precise definition and thus feedback for the AC participant. In eleven ACs, the author took in the role of a neutral moderator, moderating, synthesizing, and condensing descriptions of leaders observed behaviors.

Observers in the AC were two hierarchical lines above the participants and did not lead participants beforehand, ensuring a neutral role. In line with AC standards (Kleinmann, 2003) and based on evidence-based practice (Lievens, 2001) observers were trained by an industrial and organizational psychologist (I-O) at the beginning of the AC. Training was conducted in determining whether the participant would contribute to a high future LMX and in categorizing observed participant behaviors in specific leadership rubrics on the observer-sheet.

After ACs were completed, observers met to discuss observations. The aim of these discussions was to increase objectivity and decide on career paths. The observer conferences at the end of the ACs lasted between 90 and 180 min. The resulting document of the observer conference, a condensed feedback sheet for each participant, served as information for the planned in-depth interviews. In total, 31 feedback sheets were collected. Themes and categories derived from the analysis of the observed verbal (V), paraverbal (PV), and nonverbal (NV) behaviors were used to triangulate findings from the in-depth interviews.

2.4.2 Methods of data analysis

The data collected in interviews and observations was analyzed using both qualitative content analysis and GT. Data analysis comprised five steps: (a) content

analysis of the interviews, (b) triangulation analysis of observations, (c) second rater, (d) interrater reliability check as well as (e) AC member checks. The results of the data analysis were used to construct a conceptual framework explaining expected behaviors in social exchanges across three roles in the context of LD.

The rater is an I-O PhD level student who participated in a half-day training session conducted by a lecturer in the master's program in qualitative data analysis. The fact that the coder also conducted the in-depth interviews and observations increases acquaintance and absorption in the data. Transcription of interviews led to 101 double-spaced pages. The coding software MAXQDA (VERBI, 1989-2016) was used for data analysis.

2.4.2.1 Analysis of in-depth interviews. After interviews were transcribed they were literally translated by a native speaker, following the transcription rules of Schmidt, Fornaro, French, and Ulrich (2009, See Appendix A). First, the author analyzed the transcriptions. A qualitative data analysis approach was followed, as described by Creswell (2002, p. 236), including six steps (p. 237): Collecting, preparing, reading, coding, coding for descriptions and starting the process all over again (iterative). The coding of categories was attributed to two different category dimensions of (a) content, allowing information regarding the type or character of the statement and (b) polarity. Consequently, the polarity of categories was appraised. The collection of different polarities and thus cases enables the development of complexity and range of variation of the underlying research phenomena (Flick, 2007). The polarity of the outcome LMX was appraised as "positive", "negative" or "neutral".

2.4.2.2 Triangulation analysis of observations. Second, the summarized behaviors identified in the ACs were analyzed and triangulated with interview results. As a result of the intensive observer discussions in the observer conference, the iden-

tified strength, learning fields, and development recommendations for followers were in a condensed format. Following the method by Wilhelmy et al. (2015) and a review in qualitative leadership research (Parry, Mumford, Bower, & Watts, 2014), triangulation was applied across the 10 interviews as the author integrated AC results. The technique of triangulation itself was used in the observer conference, implying that different investigators and sources (departments), namely leaders of other departments than participating followers, a HR Business Partner, a works council representative, (and a moderator), participated in the conference. The works council participates to ensure objectivity standards and is not involved in decision-making processes and therefore not added as a further role. Observer agreements and differences in assessments across their individual feedback sheets were exchanged and discussed to find out if they led to the same categories of behaviors (Willig, 2009). The author further categorized the offered useful insights on the feedback sheets of the ACs into V, PV, and NV behaviors, and integrated them in the system of categories. Throughout the whole process of observing, interviewing, and coding, the author was sensitive to the way the codings related to current research and in turn how these research findings could be helpful in detecting and labeling new categories (Locke, 2001; Wilhelmy et al., 2015).

2.4.2.3 Team discussions. Third, in a tandem with the second rater, new categories, descripted and underpinned with example quotes, were identified. Resulting changes in categories were documented (Wilhelmy et al., 2015). Fourth, the focus was placed on linkages of the different categories to the outcome of LMX, allowing a shift from the description to a concept (Schilling, 2006; Wilhelmy et al., 2015). Therefore, the author returned to transcripts with an HR colleague to study which categories were mentioned in a way that shaped a collective subject across each in-

depth interview. Following Mey and Dietrich's (2016) recommendations of applying the methodology of GT from text to image, generative questions were applied to describe the object and context of this research as precisely as possible.

2.4.2.4 Interrater agreement. Fourth, an independent coder from the organization coded the whole data set after running training in the categorization system. The second rater was not involved in the execution of this research thesis in order to assure independence. The rater was holding a neutral function, thus was and is not working in the HR department or departments of interviewees, and was familiar with the process of qualitative data analysis. The evolving categorization system of the second rater was discussed and inconsistencies analyzed until solved. In order to measure the clarity of the overall categorization system and accuracy of codings, interrater reliability was applied (Miles, 2007). Interrater reliability was measured by accounting the percentage agreement of codings, which was 81,1 %. According to Klenke (2008), an agreement above 80 % ensures reliability for further evaluations.

2.4.2.5 Member checks. Following the method by Wilhelmy et al. (2015), the last step entails a communication validation, also known as respondent validation. This implies that 10 interviewers were asked via phone to give feedback on the derived categories, allowing for their input (Bluhm, Harman, Lee, & Mitchell, 2011). By going back to members of the original departments, this method confirms that the resulting categories are based on the records (Lincoln & Guba, 1985; Yanow & Schwartz-Shea, 2006). The overall response rate was 70 %, because leaders are very restricted by the tight working schedule in production. The call started with an overview of the derived categories from the interviewer's side. After this, the interviewer asked interviewees to voice their thoughts to what extent the categories mirror an appropriate conceptualization of perceived *rules* and *resources* of the respective system.

More precisely, what *rules* and *resources* a follower should adopt to increase LMX and become a leader over the long-term. This step also included the discussion of favorite categories in terms of best describing the derived follower behavior. Third, interviewers should give feedback regarding a merging, deletion, division or addition of the categories. Finally, confirmed categories as well as discussion points were incorporated in the categorization system.

2.5 Results

2.5.1 Overview

This study shed light on the LMX and LD-process from three perspectives: (a) *followers,* (b) *leaders themselves,* and (c) *HR personnel*. Findings from in-depth interviews were triangulated with observations in order to create a holistic image of LMX.

2.5.2 Interview findings

Nine categories were identified to describe how followers, leaders, and HR contribute to a high LMX and LD, namely proactivity, work engagement, mentoring, networking, LMX, transparency, social acceptance, attractiveness of the leadership role, and diversity (see Table 2). These categories were organized in three different perspectives: (a) leaders' expectations of behaviors exhibited by successful followers, (b) their own behaviors as well as (c) HR behaviors contributing to high LMX-quality and over time to a successful LD-process (see Table 2). All leaders argued that the identified categories inhibit both *rules* and *resources* having the same value in the LD-process, so that no differentiation is outlined in the following (despite an explanation of the difference between *rules* and *resources* for leaders).

Table 2

How followers, leaders, and HR contribute to high LMX and LD, as experienced by

leaders

Roles	*Categories*
a. Follower behaviors	A1. Proactivity
	A2. Work engagement
	A3. *Mentoring*
	A4. *Networking*
b. Leader behaviors	B1. LMX
	B2. *Mentoring*
	B3. *Networking*
c. HR behaviors	C1. Transparency
	C2. Social acceptance
	C3. Attractiveness of leadership role
	C4. Diversity
	C5. *Mentoring*
	C6. *Networking*

Notes: Subcategories of follower behaviors that are printed in *italics* are common to all three roles.

Concerning the labeling of the derived expectations, the words *practices*, such as mentoring and (leadership) *behaviors* are used interchangeably. Behaviors are shared expectations over all roles, such as mentoring and networking (see Table 2), and were thus found to be important as they interlink all roles.

2.5.3 Observation findings

Observations revealed a total 21 short-term V, PV, and NV expected follower behaviors, as experienced from leaders and HR in the ACs. Identified behaviors are short-term as leaders and HR see only a snapshot (one-day) of followers' behaviors from other departments in the AC whereas long-term behaviors of interviews are based on long-term experience in the LD-process in their own departments. NV behaviors range from body language, such as eye contact, to situational calmness. One identified PV behavior is, for example, the use of voice to express emotions. The ability to reflect and self-marketing (equal to "impression-management"; however this is the terminus used in the organization of interest) are examples of V behaviors.

2.5.4 Triangulation

Triangulation revealed that the four identified expected followers' behaviors of proactivity; work engagement, mentoring, and networking were confirmed in the interviews. Networking behavior in the ACs was mostly reported as a strength whereas in the interviews it is mostly discussed in terms of a learning field, leading to a strength over time. Contrarily, mentoring was categorized as a development recommendation in the ACs and in the interview as a learning field, developing to a strength over time. Regarding derived short-term behaviors from the ACs, all verbal behaviors could be confirmed in interviews. PV and NV behaviors were not mentioned by the interviewer and due to the focus on verbal ones in the interview, were not confirmed. Thus, short-term observations in the ACs expand the model via PV and NV behav-

iors, as experienced by leaders and HR. Interviews expand it with derived expectations for the roles of leaders and HR, as experienced by leaders.

2.5.5 Conceptual model

Based on the observations and interviews, a conceptual model of the association between LMX and LD was developed (see Figure 3). The model consists of the three perspectives that were captured in both interviews and observations. It demonstrates how followers (F) with a talent status, leaders (L), and HR can contribute –as experienced by leaders– to the increase of LMX and a successful LD-process. Behaviors are identified through long-term (derived via interviews, quadrangle) and short-term (derived via ACs, pyramid) behaviors. The overlap of the HR- and L- roles shows what motivates leaders to participate in LD, as well as HR –as expected from the leaders side: resource management and networking. Short-term follower behaviors of the ACs are categorized into V-, PV-, and NV behaviors and displayed in the pyramid in Figure 3.
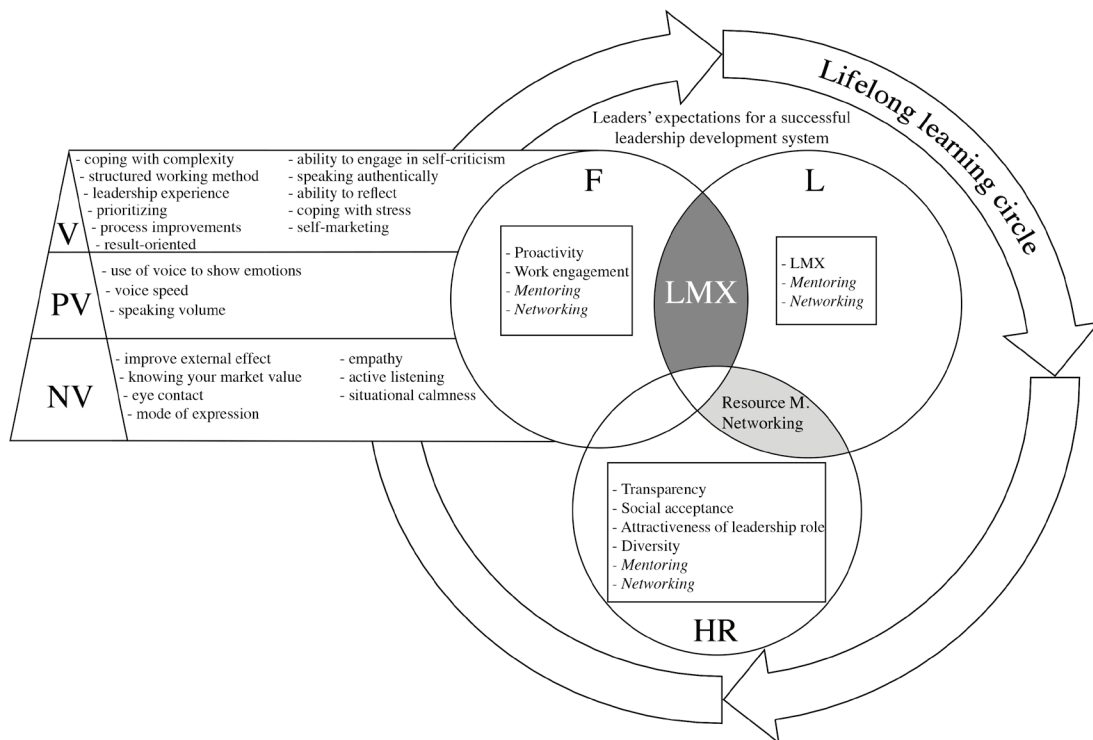
Figure 3. The conceptual model: Social Exchange Theory in Leadership Development across three roles. F = Follower role, L = Leader role, HR = Human Resources role, LMX = Leader-member exchange, V = verbal behaviors, PV = paraverbal behaviors, NV = nonverbal behaviors.

Based on communication behaviors by Mehrabian (1971), three short-term behaviors were depicted as a pyramid: The base with the highest impact on communication are the seven derived NV behaviors. The second layer of the pyramid shows the three identified PV behaviors. The top illustrates the 11 categories of V behaviors. Those short-term behaviors are flowing into the circle of long-term behaviors (identified in the interviews) as they support the exhibition of long-term behaviors.

The subcategories mentoring and networking emerged across all three parties (see Table 2). Followers are expected to participate in mentoring to gain *learning opportunities*, as one leader said in the interview[1]: "If someone did not pass the AC, I found the mentoring very helpful" (Interviewee 1[2]; F Behavior 1b). However, in terms of further expectations regarding this development instrument, leaders have more expectations of themselves in the role of a mentor, namely increasing followers' *visibility* and to fulfilling the demands of being a *role model* (see Table 3). Expectations towards HR in relation to mentoring are solely mentioned in terms of *crosstalk* and *visibility* (see Table 3).

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[1] For the sake of brevity, quotes supporting these categories are not presented for all categories but are available from the author upon request.

[2] Quotes are labeled with participant code number. They are followed by the indicator for follower behavior (F Behavior), leader Behavior (L Behavior) or HR behavior and the related coding number as listed in the associated tables. For polarity categorization, only negatively coded (neg.) were cited. More detailed information about any quotes presented in this article is available from the author upon request.

Focusing on the next identified category, networking is identified as a main strength and can be described as: An important *resource* to develop social capital to receive further information benefits in an organization (e.g.: "Networking [to exchange information], group dynamics and so on…"; Interviewee 6; F Behavior; 2b). Leaders with high networking skills not only know *what* and *how* to do to solve a task, but also *who* to contact (Day, 2001) to solve problems, recruit new project partners or gain a broader access to information (Burt, 2009). In terms of networking, leaders' expectations towards their followers and themselves are equivalent (see Table 3; 2 a-c). In addition, the author experienced in several AC discussions and decisions that networking behavior is a strong advantage as it trumps human capital many times. For instance, if a learning field of *coping with complexity* (see Figure 1; V) was identified, such as analyzing a great amount of information and developing action points and decisions, participants who argued that they are aware of this learning field (V: *ability to reflect*) and would know *who* to contact for help in developing a solution, or delegate to an expert, instead of solving the task on their own, thus applying networking behavior, had better ratings compared to followers who had greater learning fields in the NV behavior of *empathy,* such as when speaking with a subordinate.

Table 3

Expectations *imposed by leaders on followers, themselves, and HR: An overview of the identified subcategories of mentoring and networking.*

Category: 1. Mentoring

Subcategories	Followers	Leaders	HR

1a. Crosstalk	X	X	X
1b. Learning opportunities	X	X	
1c. Exchange time/staff ap-praisal	X	X	
1d. Feedback	X	X	
1e. Visibility		X	X
1f. Role modeling		X	

Category: 2. Networking

2a. Crosstalk	X	X	X
2b. Information benefits	X	X	
2c. Projects	X	X	X

2.5.6 How followers apply behaviors

2.5.6.1 What are leaders' expectations how followers could contribute to successful LMX and LD? Leaders' answers in the interviews were analyzed to understand how followers contribute to high LMX in their development process for a leadership role. Interview analyses revealed a structure of how followers apply behaviors to be identified as high potential candidates for leadership positions in production (see Table 4).

Table 4

Expectations imposed by leaders on followers: An overview of the identified catego-

ries

Categories	*Subcategories*
1. Proactivity	1a. Personal initiative
	1b. Future focused
	1c. *Process improvement*
	1d. *Extra-roles*
	1e. Change-oriented
	1f. Self-starting
	1g. *Interest*
	1h. *Extra-hours of work*
2. Work engagement	2a. Vigor
	2b. Dedication
	2c. Absorption
3. Mentoring	3a. Crosstalk
	3b. Learning opportunities
	3c. Exchange time/staff appraisal

	3d. Feedback
4. Networking	4a. Crosstalk
	4b. Information benefits
	4c. Projects

Notes: Subcategories of follower behaviors regarding proactivity that are printed in italics are new in comparison to Parker, Bindl, and Strauss (2010, p. 828), these are self-starting, change oriented, and future focused and Frese and Fay (2001) with personal initiative.

Interestingly, it is identified that the majority of leaders expected followers to act proactively, and go the extra-mile in terms of a another year in the lifelong learning circle leading to a second participation in the AC, due to the high amount of learning fields as identified by the leaders in the AC. For instance, one leader said in the interview: "Yes, I can give you a whole list [of required and expected behaviors], but the key factor is the personal initiative of the follower, . . ." (Interviewee 2, F Behavior 1a).

Thus, compared to the expected role of work engagement as a healthy follower behavior, assumed to be especially important in the production including high physical demands, the motivational aspects in terms of innovative behaviors at work are expected to be of higher relevance for leaders. More particularly, the initiative to spend *extra-hours of work* on professional development over the trainings offered by HR were mentioned and communicated by followers in relation to a successful entry for a leadership role: ". . . but one has to undergo constant training, because nothing comes from nothing. One should work on it constantly and continue one's education and at this point I often give hope that one day the opportunity [for a leadership vacancy] could present itself" (Interviewee 8[2], F Behavior 1h). The predicted follower

behavior of work engagement could be confirmed as data from interviews revealed codings for all three subscales of *vigor, dedication*, and *absorption*. Especially the energized work engagement component of *vigor* was mentioned several times, supporting the deductive positive effect approach of an expected healthy follower, e.g.: "One has to be burning for the task" (Interviewee 7, F Behavior 2a) and an example for *dedication* is ". . . from the leaders I know, I can say that they do it [their job] out of conviction" (Interviewee A, F Behavior 2b).

Two further inductively derived categories for expected follower behaviors contributing to high LMX are mentoring and networking. First of all, mentoring and LMX constructs have to be distinguished: The definition of mentoring is a "one-on-one relationship between a less experienced and a more experienced person [that] is prototypically intended to advance the personal and professional growth of the less experienced individual" (Wanberg, Welsh, & Hezlett, 2003, p. 39). Thus, the focus on mentoring in comparison to LMX (see theoretical background section) is the focus on differences in experiences, not mainly on dyadic relationships that grow over time.

Research by Scandura and Schriesheim (1994) shows that leaders differentiate between mentoring relationships and LMX, whereas followers do not, supporting the study's findings as data is collected from leaders. This is again proven by Thibodeaux (1996), who found that followers experiencing high LMX also experience high supervisory mentoring relationships. In contrast, Schriesheim and Castro (1995) indicated that followers or mentees are able to differentiate between LMX and mentoring when the mentor is the direct leader, which is mostly the case in this sample, as no formal mentoring instrument is implemented.

McManus (1997) concluded from these studies that there are three main factors which researchers have to be aware of when discriminating between LMX and

mentoring: First, whether the perspective of the follower or leader is applied, second, whether the leader inhibits the mentor role or another individual and third, whether the discrimination depends on the separate observation of the three mentoring types. These main factors receive special attention in this study as solely leaders, not followers, were interviewed and their role –mentor or leader– was related to their category in the data analysis process.

2.5.7 How leaders apply behaviors

2.5.7.1 What are leaders' expectations of themselves for successful LMX and LD? Even though leaders have several expectations regarding follower behaviors, LD is considered a two-way process. This means they also know they have to contribute to the development via a *high LMX-quality* and share the same identified behaviors, such as mentoring and networking (see Table 2). That is the reason why in the study's model, LMX itself is developed as a category and not only as an outcome category and incorporated into the role of leader (see Figure 3 & Table 2). However, some expected behaviors regarding mentoring are expanded in comparison with those expected from followers (see Tables 4 & 5).

Table 5

Expectations imposed by leaders on themselves: An overview of the identified categories

Categories	*Subcategories*
1. LMX	1a. *Visibility*
	1b. *Feedback*

1c. *Learning opportunities*

1d. *Role modeling*

1e. Offering advice

1f. *Exchange time/staff appraisals*

2. Mentoring   2a. *Learning opportunities*

2b. Crosstalk

2c. *Visibility*

2d. *Exchange time/staff appraisal*

2e. *Role modeling*

2f. *Feedback*

3. Networking   3a. Crosstalk

3b. Information benefits

3c. Projects

Notes: Subcategories of follower behaviors that are printed in *italics* are common to both the LMX and mentoring categories.

A strong hierarchical system and long reporting lines characterize the investigated organization. Due to this system, leaders know from their own career that *visibility* is necessary to show followers' performance. However, it is not possible to offer the follower possibilities to perform in all committees with all relevant managers of the hierarchy in order to reach visibility. Thus, leaders are in charge of providing them with visibility: "Yes, as a part of the leadership evaluation and development

process. In this process even the higher hierarchy looks at the talent and I think it is very good how the roles are allocated there" (Interviewee 6, L Behavior 1a). One key behavior of high LMX-quality is the *feedback* exchanged between leaders and followers, e.g., ". . . and that you are holding up a mirror to them" (Interviewee 5, L Behavior 1b), contributing to followers' development. Next to offering feedback, leaders also see themselves in charge of for creating *learning opportunities*, together with the followers (e.g., "Then we made an individual development plan, which is not so easy, because there first has to be a [job rotation] vacancy"; Interviewee 3, L Behavior 1c). Regarding the identified LMX behavior of *role modeling*, leaders also critically mention the danger of having the wrong *role models* for LD, which might discourage talents in their development (e.g., "Because if employees see that the leader is suffering, how can I then train the leader so that the employees do not notice the suffering?"; Interviewee A, L Behavior 1d). For the common goal of LMX, leaders expect from themselves to *offer followers' advice* (e.g., "I give the talent advice on how to present themselves, that it is a competition and that no one receives preferential treatment on the "talent market""; Interviewee 2, L Behavior 1e) and similar to mentors *exchange time* (e.g., "So we had conversations with the candidate, these are with the immediate and second-tier manager"; Interviewee B, HR Behavior 1f).

Focusing on mentoring, leaders are further aware that they not only have to act as role models but also have to take on and put *learning opportunities* into practice (e.g., "If the leader xy calls me and wants to develop people, then we will manage it somehow"; Interviewee 7, L Behavior 2a). Leaders further know that HR is not in charge when it comes to the point of arranging *exchange time* in a precisely-timed work schedule as in production, instead they have to act: "The mentor-leader topic is not formally established, it is improvised and not channeled . . . a conversation is then

conducted ad hoc and in my case I conduct conversations regularly." (Interviewee 4, L Behavior 2d). In addition, offering a well-prepared *feedback*, at the beginning and end of a job rotation, involving all feedback givers, is also a challenge for leaders and requires a high level of coordination with mentors. Nonetheless, leaders are aware of it: "And they wanted to do it [offering feedback] very well and they even said that they do not know if they can do it the same way again next time, as it [the feedback session] takes a long time during training and requires a lot of energy and that they [the other leaders] also underestimated that" (Interviewee 3, L Behavior 1b & 2f).

In conclusion, even though Godshalk and Sosik (2007) argued that leadership and mentoring are clearly distinct from each other, it was found that LMX and mentoring are complementary forms of development, as they share several subcategories (see Table 5). A derived differentiation is that the subcategory *offering advices* (1e) appeared solely in the LMX category and *crosstalk* in the mentoring category (2b; see Table 5). One reason for the appearance of *offering advice* in the LMX but not mentoring category is that even though LMX is a two-way process, leaders and followers do not act on the same level. Followers need leaders who have greater work experience, in order to learn and grow with them through the exchange of advice: "I provide [the follower] with impetus and that is personally important to me." (Interviewee 2; L Behavior 1e). *Crosstalk* appeared only in the mentoring category, e.g.: "And I think that crosstalk would be better suited, would be a more structured process [for the participants and us]. There could be multiple leaders participating" (Interviewee A; F Behavior 3a; L Behavior 2b).

2.5.8 How are expected followers' and leaders' behaviors interrelated?

In addition, findings show that the expected proactivity of followers is influencing the engagement level of followers' participation in mentoring, as mentees have

to proactively find their own mentor. This is in line with previous research by Liang and Gong (2013), indicating that *personal initiative* positively effects on mentoring.

Focusing on the identified subcategories of *mentoring*, in the role of a mentor the leader further recommends the follower to expand the exchange system and gain insights from other expected behaviors of the management circle:

> . . . at the fireside chats. I always say it does no harm to attend as many fire side chats as possible and I encourage candidates to sometimes have a conversation with supervisors at higher levels, to find out their expectations for a leader. (Interviewee 5; F Behavior 3a)

A further identified subcategory of mentoring is using of *learning opportunities*; as leaders claim that it is an expected behavior from followers and leaders (e.g., ". . . to arrange meetings with me and during this meetings they are assigned specific tasks and they have to complete those tasks and think about them"; Interviewee 4; F Behavior 3b).

Networking, the next subcategory of the identified required follower behavior, offers examples of how exchanges between both followers and leaders is necessary for a successful LD-process, e.g.: "And I think that crosstalk would be better suited, would be a more structured process [for the participants and us]. There could be multiple leaders participating" (Interviewee A; F Behavior 4a; L Behavior 3a). As derived from the literature, information benefits are one *resource* (Law-Penrose et al., 2015). This research shows that this behavior can result from networking with coworkers and leaders (e.g.: "I think this is a very important topic. Methods are taught and guys will communicate and build networks for the future" (Interviewee 10; F Behavior 4b). The expected behavior of networking leads to the fulfillment of a very important rule in terms of a module that followers have to pass but which is not yet formerly mandatory

in the LD-process: job rotations. The organization counts on followers' and leaders' proactivity in terms of gaining access to job rotation opportunities, which require project management behavior from followers. Project management is mainly required as a very efficient on-the-job development technique in job assignments (Day, 2001), e.g.: "Networking for job assignments would also be quite useful" (Interviewee 3; F Behavior 4c; Table 4). Thus, follower networking is very important, providing access to further development opportunities and offering a thorough preparation for the leadership role. However, downsides of networking behaviors are micro-politics. Micro-politics are the daily strategies of getting ideas accepted, which appeals to be a career-relevant topic, builds up power, and should not be intended as gender neutral (Neuberger, 1995, p. 14). With this perspective, politics and power become essential variables to describe organisational leadership reality (e.g., decision-making, formulation of rules, distribution of tasks, etc.…) (Winkler, 2010). Another disadvantage of networking is that a strong network not only offers team spirit, support, and emotional well-being. It is also demanding and if a high homogeneity of members exists, and depending on the number and quality of information, it could impede problem solutions (Rastetter & Cornils, 2012).

2.5.9 How are expected leaders' and HR behaviors interrelated?

One result of the mentoring analysis was that some interviewers stated that a thorough structured mentoring program in which HR would take on a leading role through a matching of mentors and mentees would contradict with the expected follower behavior of *proactivity*. For example, one leader said: "A mentor, that would be like giving them preferential treatment" (Interviewee 1, HR Behavior 5b, neg.; Table 5).

Regarding mentoring and its subcategory *role modeling*, leaders critically highlight that mentors have to inhibit behaviors that are traits and not states, as HR training cannot develop mentors for *role modeling*:

> How capable are the leaders of being mentors and there is certainly training required for that, but often it is the nature of people which is more important and training does not help. I keep an eye on it, that those who are good mentors are used as such more often and if necessary even change their shift. (Interviewee 4, L Behavior 2e)

The large number of codes in the networking category (of followers and leaders), make the advantages of this behavior clear, such as through *information benefits* for leaders: "Now we have networks throughout the country and now we are looking at how processes are implemented in the various factories, and then we'll do a bit of benchmarking and that is important in gather new ideas" (Interviewee 9; L Behavior 3b). A further advantage of leaders participating in networking is the option to offer them action learning in the form of *projects* (e.g., "We have achieved a lot recently and have a good system of regulations and opportunities to be deployed in other locations, either selectively or temporarily"; Interviewee 9, L Behavior 3c).

2.5.9.1 How HR Applies Behaviors

2.5.9.1.1 What are leaders' expectations on how HR could contribute with their practices to successful LMX and LD? Albeit some leaders argue that HR should not be involved in the search for a suitable mentor, as well as that mentoring trainings offered by HR are not required, leaders have great expectations regarding HR, as outlined in Table 6.

Table 6

Expectations imposed by leaders on HR: An overview of the identified categories

Categories	Subcategories
1. Transparency	1a. Exchange between production and HR
	1b. Resource Management
	1c. Access to information
	1d. Exchange in the production departments
2. Networking	2a. Crosstalk
	2b. Projects
3. Social ac-ceptance	-
4. Attractiveness of the leadership role	
5. Mentoring	5a. Visibility
	5b. Crosstalk
6. Diversity	-

Focusing on what is expected from HR (see Table 6), four new categories compared to the roles of follower and leader were derived: Transparency, social acceptance, attractiveness of the leadership role, and diversity, distinguishing the role of

HR. Leaders expect HR to play the role of an interface, increasing transparency regarding the leadership process through an exchange with production to improve the overall process. Over the years, an improvement is perceived in the process and thus *exchanges between production and HR* (e.g., "So it [the process] is clearer than four or five years ago and there is a stringency in it"; Interviewee A, HR Behavior 1a). However, several unfulfilled expectations still exist, such as transparency regarding resource management: " . . . do I have transparency regarding candidates with confirmed talent who are working in other plants?" (Interviewee A, HR Behavior 1b). The high interest in increased transparency is underlined by clear process improvement recommendations related to resource management:

> . . . in such a diagram, where the weaker candidates are at the bottom left and those who are shortly before the AC and may need a little guidance regarding leadership techniques are at the top right. I also make sure that there are no extreme vertical promotions and no exaggerated passing maneuvers and that the process is fair and that the candidates have experience and have at least rotated within the department before. (Interviewee 2, HR Behavior 1b)

or the *exchange between production and HR*:

> And regarding this development topic one could also provide the opportunity to exchange ideas and to hear different opinions and I think it is important to adjust one's own behavior as a leader through such a workshop and to hear how things are done in other departments. (Interviewee 4, HR Behavior 1a).

To increase the networking behavior of followers, leaders expect from HR to set strict standards regarding *projects* abroad: ". . . establish a rule, for example that each follower who wants to become a leader has worked at least two months outside of their own department" (Interviewee 7, HR Behavior 2b). In terms of mentoring, results show that leaders have different viewpoints regarding their expectations concerning HR support in mentoring. One interviewee for instance claimed that HR could support in terms of increasing *visibility* " . . . and it does not help at all if the leader promotes their own follower but others don't" (Interviewee 2; L Behavior 5a). However, modules already implemented by HR, providing a *crosstalk* and the option for followers to find a mentor were praised (e.g., " . . . they have different modules which have to be completed, such as fireside chats" (Interviewee 5; HR Behavior 5b).

One very sensitive behavior expected from HR behavior is the social acceptance regarding the LD-process, especially the AC, which is based on standards upon which all agree: "I think the assessment center is very important, at least in terms of leveling out the requirements it makes a great contribution. It was much worse in the old days . . . but the social- and leadership skills should be the same everywhere. Thus, I am very glad, that it is taking place in this manner." (Interviewee 2; HR Behavior cat. 3) and " . . . the assessment center is an important module in the formation of leadership development" (Interviewee 4; HR Behavior; cat. 3).

Regarding attractiveness of the leadership role (see Table 6), interviewees voiced critical concerns relating to spans of control (SOC): "We perceive that spans of control do not fit due to cutbacks in filling vacancies and people are permanently suffering from work overload." (Interviewee 1; HR Behavior; neg.; cat. 4). High SOCs are leading to less exchange time per follower and a more reactive than proac-

tive leadership style. In general, interviewees raised several issues regarding salary claims in relation to job requirements and comparisons to white-collar workers.

In light of the inductively derived expected behavior of diversity becoming increasingly important due to globalization and shortage of specialists, the need to observe followers' awareness of diversity in the AC, has been embraced, for instance: " . . . that really is a topic, like generation management . . . " (Interviewee 6; HR Behavior, cat. 6), or " . . . the external employees, initially experience great difficulties with the internal structures . . . " (Interviewee 9; HR Behavior; cat. 6).

2.5.9.2 What Motivates Leaders to Develop Followers. Besides the proven expectation of the interviewer that interviewees not only participate in LD to do their job but also hold it dear to their heart (e.g., " . . . one [follower] needed two years [to develop] . . . and then he called me and proudly said he passed the AC and that made me really happy as well"; Interviewee 5), a particular interest applied to two other goals. These goals are derived from analyses and are described in the following: Resource management and networking.

Leaders apply *resource management* in terms of a sufficient pool of candidates, enabling them to develop experienced successors. Therefore, they call for a transparent rotation platform: "When I think about it now, I feel that there was the tendency in the past that when there was a need of leaders, it was easier for me to draw from my own talent pool." (Interviewee 1). "Therefore, it would be best to know how many [talents] in which department can be rotated for what period of time." (Interviewee 8). As this goal implies a recommendation and assignment for HR, it is depicted as a shared goal of the two roles of HR and L (see Figure 3).

The second goal leaders want to reach through participating in LD is networking. Leaders want to achieve several goals through networking: First, the potential

talent can use these networks in the future, such as leaders use it to develop talents in terms of finding rotation possibilities (Interviewee 10; F Behavior 4b). Second, they can also improve working conditions (". . . that a good network exists, with process supporters and the deputies of the leaders, in order to decrease the workload"; Interviewee 1). Third, they recommend developing an international network of talents to create a blueprint of the production system (Interviewee 9; L Behavior 3b). Fourth, leaders also expect networking behavior from HR, allowing an efficient exchange in terms of information on standards and planned changes in the LD. This is supported by the derived subcategory *exchange between production and HR* (Table 6; HR Behavior 1a). Thus, networking –in terms of exchanges between production and HR– is depicted as a shared second goal of HR and leaders (see Figure 3). More importantly, leaders also rank networking above existing processes established by HR:

> The foreman in the hosting department asked a foreman in our department and that is how it's usually done. I first talk to my colleagues, because I know that they will provide good support. And without networking it does not work. It would be more complicated with xy rounds and the HR department, we are more successful this way. (Interviewee 3)

In conclusion, several identified behaviors were found –conceptualized in categories or subcategories. The three roles are intertwined as depicted in Table 3 for the practices of *mentoring* and *networking*. Furthermore, the identified short-term NV behavior *sensitivity of experiencing others* is not illustrated in Figure 3 as it was decided that this behavior is related to the identified and depicted short-term behaviors of *ability to reflect* (V) and *empathy* (NV). This methodological decision is in line

with the definition of *empathy* by Starcevic and Piontek (1997) as *self reflection* behavior is a part of the process of *empathy*.

2.6 Discussion

By applying deductive and inductive approaches and a triangulation of results Study 1 did not only identify *how* followers' behaviors, but also leaders' and HR behaviors are preconditions for the development of high LMX-quality and a successful LD. First, focusing on the research question if leaders expect followers to exhibit work engagement in terms of a *rule* to develop high LMX, work engagement is confirmed as an expectation in LMX and thus LD. However, the inductive approach of this research revealed that leaders spend more attention on followers' *proactivity* when selecting and developing followers. From a job demand view this result seems to be surprising as it is assumed that less innovative follower behavior is required in blue-collar contexts, compared to other sectors. Though the broad range of proactivity subcategories, ranging from the deductive subcategory of followers' *personal initiative* (1a; Frese & Fay, 2001) to the inductive one of *extra-hours of work* (1h; Table 4), taught otherwise. One argument for this variety of subcategories of proactive behaviors could be that they are related to expectations derived from the strategy of the organization, striving for a blueprint of the production system on which *self-starting* and *future-focused* talents are essential.

Second, out of the wide pool of derived behaviors of the three roles it is first discussed *why* leaders did not expect to exhibit *work engagement* by their own. This result is not in line with the study's expectation of an ongoing reciprocal exchange of *rules* and *resources*. One argument why leaders solely set the *rule* of healthy and positive work behaviors towards followers is the perception of being *dedicated* at work and exhibiting high levels of energy is obvious to leaders and not mentionable.

A second argument is that leaders in the production field see themselves as a *role model* more related to exchange "formal" *resources*, such as information but not "informal" *rules*, such as work engagement.

Third, the derived *attractiveness of the leadership role* is discussed as an expected behavior of HR with a worthwhile amount of codes. Applying a chronological viewpoint, it is of main relevance to mention that in recent decades a political and scientific debate of the changing educational aspirations of young people started, provoking an increased skilled workers gap (Baethge et al., 1998). Surprisingly, no arguments of the inductively derived expectation of *attractiveness of the leadership role* in terms of the future of blue-collar jobs were forwarded in relation to changes of young peoples orientations. Nor were arguments mentioned in the face of todays digitalization and its potential decrease of jobs due to, for instance, robotization (Peláez & Kyriakou, 2008).

Contrarily, leaders highlight the danger of high SOC of the leadership role, being a key factor of a decrease in the *attractiveness of the role* and source of burnout. These answers sensitize for the social capital as they prefer more exchange time with followers, thus social exchanges that are highly valued by talents to become a leader and should be preserved by HR. The preservation would facilitate in turn resource management in terms of a sufficient pool of interested talents.

Fourth, it was investigated what motivates leaders to participate in LMX and LD, despite the high workload and SOC. Results show that *networking*, next to the more obvious goal of *resource management*, arises as a valued output of leaders' participation. Networking is grounded in the establishment of social exchanges with others, to achieve access to *resources*, such as information or exchange of *rules* and *resources* (e.g., a leader uses the contact to another department to start a job rotation for

the own talent). As mentioned previously, AC results revealed that *networking* behavior even overtrumps individual skill development, highlighting a shift to relationship building in the LD (Day, 2001). Furthermore, the identified goal of networking of leaders participation in LD is in line with research by Hernez-Broome and Hughes (2004), stating a rising perception of the resonance with others in leadership.

2.6.1 Implications for theory

Vital contributions to the literature could be derived. First, the thorough aggregation of expected behaviors and practices in LD expand the former review of Day's (2001) main selected ones. All six practices as summarized by Day (2001, p. 588), ranging from (360°-degree) feedback to action learning, were –to the researchers knowledge– for the first time confirmed in a blue-collar context within a lifelong learning circle. Second, scholars have to pay attention to the great complexity regarding the involved *multiple roles* (horizontal expansion) in the LD, as well to subroles (vertical expansion). A greater complexity in terms of several roles (horizontal expansion) in the LD would, for instance, allow research in the agreement ratings of the participating roles on the identified expected leadership behaviors influencing LMX-quality and finally LD (e.g., Godshalk & Sosik, 2000; Markham, Yammarino, Murry, & Palanski, 2010; Matta, Scott, Koopman, & Conlon, 2015). This study revealed that even within an identified role, such as followers' expectations, vertical expansion of the role into subcategories would contribute to a more specific identification and differentiation of expectations (e.g., (non) confirmed AC participants). Third, theories should include the crucial role of *time* to contribute to an in-depth investigation of LD, as short-and long-term results revealed different expected follower behaviors.

2.6.2 Potential limitations

Besides derived important findings into *how* followers affect on LMX; as perceived by leaders, and *what motivates* leaders to participate in the LD, some limitations have to be outlined. Even though new perspectives and research questions can be achieved through qualitative research (Cassell & Symon, 2011) due to *small sample size* the generalizability of insights might be restricted (Lee, Mitchell, & Sablynski, 1999). In addition, *heterogeneity of the sample* is restricted as all leaders were male. Regarding the interviewing format the study was solely based on *one format* (face-to-face), limiting the development of a comprehensive model of *rules* and *resources*, such as applied in combination with other formats (e.g., telephone, video, and panel interviews). However, several multiple qualitative methods were applied, such as in-depths interviews, observations in ACs, personal exchanges with HR, and analyses of informational material. The *retrospective interview technique* is another limitation, as interview partners have to remember events of their past. It is possible that not all predictive follower behaviors of LMX and LD come up to their minds. However, through querying particularly positive or negative events of their past, such as by applying CIT, the risk of not remembering is minimized (Gremler, 2004).

2.6.3 Implications and propositions for future research

This study derives several implications for research and practice. With the development of the model this study first wants to increase researchers' and practitioners' *awareness of the complexity* of expectations regarding behaviors, which are developed across three roles. The application of the model will finally outline practical recommendations to all three parties, which could then for example be used for consultancy processes in organizations. However, attention has to be paid to the applica-

bility to other contexts as this case study has been specifically applied in the automobile production context with blue-collar workers.

Second, from a practitioner's view, where it is of primary relevance that the LD-process is steadily revised and adapted to internal and external changes, this framework sensitizes for the participation of all involved parties when it comes to changes, such as re-defined leadership behaviors or implementation of standards in form of modules in the process. The complexity in regards of its inductively derived roles of this framework also implies that it is of high relevance to in a first step *discuss*, together with all roles, on the emerged behaviors. In a second step, it is important to *reflect* on the effectiveness of the expected behaviors with all roles (e.g., the different expectations regarding a matching system for mentoring), related to an improvement of the LD-process. Third, the *cooperation* of roles should include pilots to, for instance, test rearrangements of LD-modules and again responsibilities of the roles in regard to follow-up processes. Finally, all levels of management should actively support the well-defined leadership behaviors. The last step relates to *training and development* fostering an awareness of LMX and its role in LD and the development of a suitable structure enabling followers and leaders to interact meaningfully at work.

2.7 Conclusion

In sum, the testing, expansion, and adjustment of the model is appreciated by those involved in the process. The confirmed expected deductive follower behavior of work engagement and prospective inductive behaviors in future research are also viewed positively. Hopefully, researchers are inspired to participate in the LD by the challenge related to the propositions resulting from this great range of derived short- and long-term expected behaviors and motivations. The identified behaviors enhance the model of social exchange processes across three roles in the LD.

2.8 From Qualitative to Quantitative Research

In Chapter 2 the interplay between the roles of leaders, followers, and HR personnel was explored in the context of blue-collar work. By applying a qualitative method with a deductive and inductive approach, results revealed a conceptual model of SET in LD across three roles. Out of the three roles in LD, Chapter 3 focuses on the target group, the follower. The organization aims to analyze followers' health and innovative work behaviors in production over time, to increase LMX and establish a successful leadership development process. The identification of practical implications, which are related to the individual, team, and organizational level, is a further aim. Three constructs of the target group were selected, which seem to be of main relevance in terms of expected key drivers within LD: Followers proactivity and work engagement as well as the shared identified motivation of LMX-quality, motivating followers and leaders to participate in LD. Therefore, the interplay between follower absorption, an under-researched subscale of work engagement, proactivity, and LMX is quantitatively analyzed in Chapter 3, using a cross-sectional and longitudinal mediation model and the alternative model of a cross-lagged panel study.

3 How Absorbed Followers at Work Shape the Quality of Leader-Member Exchange (LMX): Cross-Sectional and Longitudinal Analyses with Blue-Collar Workers (Studies 2-3)

3.1 Summary

The relationships between follower absorption (a subscale of work engagement), leader-member exchange (LMX), and personal initiative (PI) are examined in short- and long-term exchange processes in blue-collar working contexts. It is hypothesized that follower PI mediates the relationship between follower absorption and

LMX. Two studies were conducted in production; a cross-sectional (Study 2) and a longitudinal one (Study 3). The longitudinal study included two research models: The first one is a replication of the cross-sectional mediation in Study 2 in a longitudinal design and the latter one a cross-lagged panel study. PI appears to act as a short-term mediator, partially mediating the relationship between absorption and LMX (Study 2), whereas it could not be confirmed as a longitudinal mediator (Study 3). A direct relationship between follower absorption and LMX over the course of one year was demonstrated (Study 3). The presented findings are integrated with and discussed relative to previous research, and practical implications are described.

Keywords: absorption, leader-member exchange (LMX) quality, personal initiative (PI), blue-collar worker

3.2 Introduction

Work engagement has become an increasingly applied indicator for occupational well-being in worldwide employee surveys and studies of perceived health (Rongen et al., 2014; Sonnentag & Pundt, 2014; Winter et al., 2015). González-Romá, Schaufeli, Bakker, and Llorens (2006) consider work engagement an antipode of burnout. It is an indicator for emotional and behavioral changes at work (Bakker & Demerouti, 2008) and displays incremental validity over job attitudes (Christian, Garza, & Slaughter, 2011, p. 120).

This research program explores work absorption, a subscale of the work engagement construct. Absorption is "characterized by being fully concentrated and deeply engrossed in one's work, whereby time passes quickly" (Schaufeli et al., 2002, p. 75). In contrast to the other two work engagement subscales, vigor and dedication, absorption is under-researched and often not considered as a core dimension of work engagement (e.g., Langelaan et al., 2006; Llorens, Schaufeli, Bakker, & Salanova, 2007). The vigor and dedication subscales overlap with several other constructs, for example, intrinsic motivation (Deci & Ryan, 1985), job involvement (Brown, 1996), and organizational identification (Viljevac, Cooper-Thomas, & Saks, 2012). Absorption is distinctive from other similar constructs, such as flow and workaholism (see theory section). To offer more specific and practical implications, a separated observation of absorption is recommended (Kaiseler, Queiros, Passos, & Sousa, 2014; Nerstad, Richardsen, & Martinussen, 2010), as conducted by Rothbard (2001).

Apart from absorbed followers, organizations are increasingly required to develop high exchange quality between followers and leaders. Organizations with high LMX are characterized by a participative change culture, due to information, involvement, and trust between followers and leaders, established via social exchange

processes (Van Dam et al., 2008). Followers staffed with PI at work are more likely to transport their positive absorption into exchange processes with their leaders. While research focuses on leaders' positive work behaviors in social exchange (Gooty, Connelly, Griffith, & Gupta, 2010), less is known about followers' behaviors associated with LMX. This applies in particular to the influence of followers' PI and absorption on LMX.

Studies 2 and 3 in this Chapter examine this interplay of PI and absorption on LMX by drawing upon social exchange theory (SET; Cropanzano & Mitchell, 2005). SET is applied for two reasons: Firstly, it is assumed that in a globalized world with increasing span of control (SOC) and limited time for leaders, followers rather than leaders have more often become the starting point of reciprocity. This research program contributes to the current gap of SET research by focusing on the influence of a follower's, rather than a leader's, emotions on LMX. SET allows an in-depth investigation of the influence of a follower's positive emotions on LMX via its three foundational ideas –*rules, resources,* and *relationships* (see theory section). Secondly, a high interest in social exchange research exists, illustrated by an increase of the application of LMX in primary and secondary research (Anand, Hu, Liden, & Vidyarthi, 2011; Antonakis, 2014; Martin et al., 2016).

3.3 Theoretical Background

In this section, the literature pertaining to follower absorption is reviewed and absorption is distinguished from other similar constructs, such as flow and workaholism. The theoretical links between absorption, PI, LMX, and SET are subsequently explained.

3.3.1 Follower absorption at work

Follower absorption can be conceptualized as an expectation in the social exchange process between followers and leaders. Followers, for example, learn from coworkers, who already have high LMX, to adopt and exhibit absorption to fulfill their role as a healthy and motivated worker and to get in closer contact with their leaders. Leaders, for example, expect follower absorption to be displayed at work, indicating a high level of engagement.

As a part of work engagement, absorption comprises mainly *intrinsic regulation* (van Beek, Hu, Schaufeli, Taris, & Schreurs, 2012), where work activities are experienced as enjoyable, interesting, and satisfying (Gagné & Deci, 2005). The characteristics of absorption might lead to concept overlap with "flow experience" (Csikszentmihalyi, 1997) and "workaholism" (Spence & Robbins, 1992). Hamari, Shernoff, Rowe, Coller, Asbell-Clarke, & Edwards (2016, p. 171) describe flow as the "integration of work and play" (see also Csikszentmihalyi, 1997). Workaholism can be defined as an experience of inner compulsion to work harder and "avoid negative feelings" (van Beek et al., 2012, p. 47).

Both, flow and absorption are mental states. However, flow is more ephemeral while absorption is more enduring (Hallberg & Schaufeli, 2006). Flow applies to any area of life, whereas absorption particularly applies to the work domain (Mauno, Kinnunen, & Ruokolainen, 2007). In contrast to flow, absorption is conceptualized as a relatively stable, individual, affective-motivational and positive state (Schaufeli et al., 2002). In contrast, recent research shows that absorption is a varying state, receptive to daily changes (Culbertson et al., 2012). While workaholism is characterized by high effort with negative affect, absorption exhibits positive affect (Bakker & Oerlemans, 2011). Thus, workaholism leads to negative consequences at work, while ab-

sorption leads to positive consequences such as well-being (Bakker & Oerlemans, 2011).

It is predicted that workaholism, an introjected regulation (van Beek et al., 2012), and flow, an egocentric experience-quality, are both endogenous variables. Rather than being affected by social exchange, they are an outcome thereof. Both are developed through inner follower motivational processes. Absorption is also an endogenous construct as it is a positive emotion and not stable. Research also indicates the construct as a mediator (Salanova, Agut, & Peiró, 2005; Salanova & Schaufeli, 2008) as well as an extra-role-behavioral syndrome (Macey & Schneider, 2008), supporting its endogeneity. It is determined by both individual and contextual factors (Hobfoll, 1989). Absorption is an expected and desired work behavior and input, which followers should exhibit in exchange processes with their leaders. These expectations shape the quality of LMX over time. The four characteristics of absorption therefore are: an appearance in the work domain, a stable state, high levels of well-being, and endogeneity.

3.3.2 Follower proactivity at work

In times of globalization, high levels of adaption and change-oriented workforce behavior are increasingly required, rendering follower proactivity. Proactive behavior is: ". . . [an] anticipatory action that employees take to impact themselves and/or their environments" (Grant & Ashford, 2008, p. 8). Thus, proactive behaviors have important effects on individuals and on organizations (Grant & Ashford, 2008). Tornau and Frese (2013) found that two proactivity concepts, namely proactive personality (Bateman & Crant, 1993) and personal initiative (Frese & Fay, 2001), are treated as functionally equal. Therefore, the term personal initiative (PI) is applied.

Frese, Kring, Soose, and Zempel (1996) conceptualized PI as a behavior going beyond performance goals and thus exchange expectations of the leader. They further describe PI as a behavioral "syndrome" (Frese et al., p. 38), sensitizing for its double nature of dispositional and behavioral tendencies. PI as a state is also behavioral and can be influenced by the environment. Due to this double nature, it is assumed that a follower's absorption influences a follower's PI, leading to variances over time.

Absorbed and proactive followers have an effect on their leaders. Research indicates that followers, exhibiting absorption and PI, start positive gain spirals at work (Hakanen, Perhoniemi, & Toppinen-Tanner, 2008). The underlying mechanism of this spiral is SET, resulting in a high LMX.

3.3.3 LMX theory

LMX is a relationship between a leader and the associated follower. Followers develop a unique dyad-level exchange relationship with the leader (Gerstner & Day, 1997). As a relational construct, LMX is sensitive to dynamic changes over time. In contrast to other leadership theories, the focus does not lie on the observation of leader behavior but on interpersonal exchanges between leaders and followers (Brodbeck, 2008). Reasons for the desirability of this behavior on the followers' side are: the desire to initiate or increase the exchange with leaders, to be perceived as healthy workers, and to actively contribute to a positive team climate. The exchange between followers and leaders evokes emotions (Hobfoll & Shirom, 2001). Research shows that a follower's abilities, behaviors, and emotions can influence behaviors of the leader (Giessner, Van Quaquebeke, van Gils, van Knippenberg, & Kollée, 2015).

As it is of primary relevance that expectations regarding work behaviors be exchanged between leaders and followers, it is proposed that LMX theory is the particular, special SET, which is important when referring to absorption. Thus, in the fol-

lowing, SET propositions are outlined and related to the concepts of interest, absorption, PI, and LMX.

3.3.4 SET

SET contains three central propositions, contributing to the theory's power: *rules*, *resources* and *relationships,* which were described in Chapter 2. The first one is an exchange of *rules* between the two roles.

3.3.4.1 Rules. In light of SET, absorption is not only an expectation of the follower and leader, but might also be referred to as a transaction. Thus, absorption is the subject of a *rule* of exchange and expectation between leaders and followers, a precondition for LMX development, to which both roles must adhere (Cropanzano & Mitchell, 2005).

3.3.4.2 Resources. In addition to the exchange of *rules* of transactions, SET postulates an exchange of *resources*. *Resources* can be goods, services, information, and affiliation, influenced or developed from LMX (Law-Penrose et al., 2015). If high LMX is established, leaders offer *resources*, such as an increased visibility, career opportunities or important information (Wilson et al., 2010). Thus, LMX itself, is an important *resource* for followers (Law-Penrose et al., 2015). The *resource* of LMX can range and develop from low (out-group) to high quality relationships (in-group) over time (Bauer & Green, 1996; Graen & Uhl-Bien, 1995), going beyond fiscal, temporary, and actual transfer of *resources* (Dansereau et al., 1975).

By focusing on the exchange of *resources,* it must be pointed out that absorption, subject of a *rule,* is conceptualized as an extra-role-behavioral syndrome (Macey & Schneider, 2008), that can be influenced from contextual factors –such as leadership and use of *resources*. The influence of the assumed *resource* of LMX on absorp-

tion can reduce stress and evoke a follower's gains (Culbertson et al., 2012). Absorption is considered as a precondition for essential (work) relationships (Hobfoll & Shirom, 2001). The outcome, LMX-quality, provides or facilitates the conservation of appreciated *resources*.

3.3.4.3 Relationships. The third proposition of SET links to *relationships* that emerge from the exchange of *rules* and *resources* (Cropanzano & Mitchell, 2005). Current research mostly discusses SET in regard to workplace relationships (Martin et al., 2016; Rosen et al., 2011; Shore et al., 2004), such as LMX. A leader offers options to develop, challenging tasks, autonomy, and fair processes in annual assessments. Followers in return feel grateful and payback leaders for instance via high trust (Bauer & Green, 1996). As stated in Chapter 2, Agarwal et al. (2012) argue that work engagement is another way to reciprocate in form of a payback by a follower (see also Downey et al., 2015; Maslach et al., 2001).

3.3.5 LMX and contextual leadership theories

The exchange between followers and leaders evokes emotions (Hobfoll & Shirom, 2001). Research shows that a follower's abilities, behaviors, and emotions can influence behaviors of the leader (Giessner et al., 2015). Again as in Chapter 2, this Chapter contributes to *contextual leadership theories* by taking into account the social context of (future) leaders (Dinh et al., 2014) through highlighting the importance of specific emotional follower behavior in contextual production settings with high SOC.

3.3.6 Research objectives

The main aim of this research is the investigation of relationships between absorption, PI and LMX and equip followers, who are challenged by high SOC with useful *rules and resources*, such as absorption, adopting a *resource* and *relationship-based view*.

The first objective is to test the theoretical expectation that the mental state of absorption emerges from a social *rule,* which followers comply with to fulfill their leaders' expectations and receive good leader support. The second objective is to establish the extent to which LMX serves as a *resource* for followers who perceive or anticipate respective benefits. Investigating PI as a *resource* for followers, developing an individual gain spiral (Hakanen et al., 2008), together with their absorptive behavior at work, is the third objective of the present research program. The fourth objective is to adding to *contextual leadership theory* via examining the effects of followers' emotional behavior on LMX in specific contextual production settings with high SOC over a one-year period.

According to researchers' knowledge, no cross-sectional or longitudinal study hitherto examined the effects of extra-role behavior of absorption on LMX. However, longitudinal research is essential for testing relationships between absorption, LMX and PI, thus decreasing internal validity of the results (Saunders, Lewis, & Thornhill, 2009).

3.3.7 Follower's absorption at work and personal initiative

Based on the first idea of SET, an exchange of *rules*, it is assumed that a follower's absorption, being part of a *rule,* predicts increased follower's PI. The relationship between absorption and PI can be explained by linking SET with the *broaden-and-build-theory* of positive emotions (Fredrickson, 2001). This theory (Fredrickson, 2001) contains propositions that positive emotions –such as absorption– broaden individuals' temporary thought-action reserve, shaping long-term individual *resources*. Highly absorbed followers, feeling confident and positive at work, not only "work hard", but also "play hard" by acting proactively and testing ideas. Research supports a positive link between a follower's work engagement and PI (Schaufeli et al., 2001;

Sonnentag, 2003), the latter serving as a *resource* for followers with a long-term focus.

3.3.8 Mediating role of a follower's personal initiative

Sonnentag and Pundt (2014) explained that followers, characterized by high positive affect and enthusiasm (Watson, Clark, & Tellegen, 1988), search for situational exchange possibilities (Gorman et al., 2012). Followers want to reduce various job stressors, such as interpersonal and career-related ones via exchanging their positive emotions with leader (Bakker et al., 2006; Bakker & Xanthopoulou, 2009), thus leading to an increase in LMX-quality over time. It is assumed that a highly absorbed follower, with positive affect spilling over to the leader, has an *emotional contagion effect* (Hatfield et al., 1994). Relating to research in motor mimicry (e.g., Bavelas et al., 1990) –leaders "automatically mimic and synchronize [positive follower absorption] (. . .) to converge emotionally" (Hatfield, Cacioppo, & Rapson, 1992, pp. 153-154). Thus, an absorbed follower proactively cultivates high LMX-quality.

Work engagement –and thus absorption– is an adaptive behavior and absorbed followers " . . . select and proactively work to create the environment in which these behaviors will be encouraged and supported" (Macey & Schneider, 2008, p. 21). It is supposed that PI acts as a mechanism, by being a *pre-conditional resource* that a follower uses to open the door to establish high LMX. Research partly supports PI as a mechanism by showing that leader-follower congruence in the construct of PI relates to higher LMX-quality (Zhang, Wang, & Shi, 2012). To the author's knowledge, no mediating effect of a follower's PI has been indicated previously.

H1: Follower's personal initiative mediates the relationship between a follower's absorption and a follower's perceived LMX.

3.4 Overview of the Studies

The goal of the following two studies is to examine the general hypothesis that a follower's degree of absorption effects a follower's perceptions of LMX. They also serve to examine the assumed short- and/or long-term mediation effects of a follower's PI within the relationship between follower's absorption and LMX perception.

Different methods were used to test these hypotheses. In Study 2 of this Chapter a cross-sectional mediation analysis was used to identify PI to mediate the link between absorption and LMX. To replicate the potential mediation effect of followers' PI, Study 3 of this chapter was conducted with a longitudinal design. In line with SET, highlighting reciprocal exchanges of *rules*, Study 3 of this chapter was used to test the potential reciprocal relationship between LMX and absorption over time.

3.4.1 Study 2

In the following, the procedure, sample, measures, and control variables are described before results are displayed.

Procedure

In Study 2 of this chapter, a cross-sectional design was adopted and self-report questionnaires were distributed paper-pencil to followers without a corporate email address and online for others, to measure the study variables. The questionnaire briefly outlined the aim of the survey and addressed a participation time of max. 10 min. Followers' answers were matched via codes to ensure anonymity.

Sample

The data reported in this case study was collected as part of a larger data collection (at more points in time). Findings from the data collection are reported in the

following two studies. Study 2 focuses on variables absorption, proactivity, and LMX; while the longitudinal cross-lagged model in Study 3 focuses on variables absorption at T1 and T2 and LMX at T1 and T2.

After excluding participants answering only once or using incomplete codes (not specifying all six characters), complete data at Time 1 (T1) were available for 374 out of 565 followers. Matching of T1 and Time 2 (T2) data via a self-created respondent code yielded to a final sample size of $N = 114$. Respondents were construction workers without a university degree. The majority of 114 followers were male (96 %) and between 26 and 40 years old (54 %). Of the remainder, 34 % were between 41 and 55, 10 % were less than 25, and 2 % were more than 56 years old. Overall, most of the respondents had tenure between 11 and 25 years (49 %), merely 5 % less than three years. Regarding SOC, 50 % worked in teams of 11 to 50, 20 % in teams over 50 followers.

Measures

LMX was measured on the seven-item LMX scale (Graen & Uhl-Bien, 1995)*,* applying the German version of Schyns (2002). The seven items assess respondents' perceptions of their relationship with their leaders on a 5-point Likert-type scale with question-specific labels (for the sample item, 1 = *not at all* to 5 = *fully*). One exemplary item for the LMX scale is "How well does your leader understand your job problems and needs?" (Graen & Uhl-Bien, 1995, p. 237). Cronbach's Alpha coefficient was $\alpha = .91$ (T1) and .90 (T2), indicating a good internal consistency (Streiner, 2003).

Followers' absorption at work was assessed with the subscale absorption of the short Utrecht Work Engagement Scale (UWES-9), based on the 17-item original scale (UWES-17) (Schaufeli, Bakker, & Salanova, 2006). The two items assess re-

spondents' perceptions of absorption at work on a 5-point Likert-type scale with question-specific labels (for the sample item, 1 = *never* to 5 = *always*). The two items are "I am immersed in my job" and "I get carried away when I am working" (Schaufeli et al., 2006, p. 714). Cronbach's Alpha coefficient was α = .87 (T1) and .91 (T2), also indicating a good internal consistency.

Two out of three items on the short absorption subscale were omitted: Firstly, since all followers work in assembly line shifts where work steps are "just in time", the item "I feel happy when I am working intensely" (Schaufeli et al., 2006, p. 714) was removed from the questionnaire, as followers cannot control their intensity. Secondly, time restrictions in production are a major challenge to research as followers had to answer the items during a compulsory 20 min break.

PI was rated with the German version of the subscale *Self-reported initiative,* developed by Frese et al. (1997; 7 items, 5-point Likert-type scale) with question-specific labels (for the sample item, 1 = *strongly disagree* to 5 = *strongly agree*). Reliability measures range between .81- .84, (Frese et al., 1997, p. 149). An example item is: "Whenever something goes wrong, I search for a solution immediately". Satisfactory evaluations of regression assumptions regarding normality, homoscedasticity, linearity, and multi-collinearity absence were achieved.

Control Variables

In all analyzes, control variables of age, gender, tenure, and span of control (SOC) were applied. The examination of the control variable of SOC was of high interest, due to higher SOC for blue-collar compared to white-collar workers. Moreover, Bauer and Green (1996) found that the importance of the exchanged *resources* in a LMX relates to relationship tenure. Two criteria for inclusion of those variables applied. Firstly, since they had already been controlled for a follower's absorption or

LMX T1, the controls should be included if they were significantly related to the outcome in T2, above the respective T1 opposite construct. Secondly, that the included control variable changed the link between the independent variable at T1 and the dependent one at T2. Results revealed that none of the control variables showed a significant relationship to LMX T2 or absorption T2, above that of LMX T1 or absorption T1, respectively. Therefore, control variables were excluded from final analyses (cf. Pundt & Herrmann, 2015; Trougakos, Hideg, Cheng, & Beal, 2014). Hypothesis 1 was tested employing ordinary least squares (OLS) regression by applying the conditional process modeling program and macro PROCESS for SPSS (Hayes, 2012).

Results

In the following, descriptive statistics, confirmatory factor analysis (CFA) and tests of hypotheses are described.

Descriptive Statistics

The descriptive statistics, reliabilities, and correlations of the observed variables are displayed in Table 7.

Table 7

Means, standard deviations, correlations and reliabilities for the variables included in the analysis of Study 2.

Variables	M	SD	1	2	3
1. Absorption	3.63	.77	(.86)		
2. PI	4.19	.47	.41***	(.83)	

Variables	Mean	SD	1	2	3
3. LMX	3.51	.87	.38***	.25***	(.92)

CFA

A CFA with followers' absorption, - PI, and - perceptions of LMX, modeled as manifest indicators, were tested and proved to be distinctive. Results show that the three-factor model provided a good fit to the cross-sectional data: $\chi 2$ (5) = 9.04, *p* < .05; comparative fit index (CFI) = .97; root-mean-square error of approximation (RMSEA) = .046; standardized root-mean-square residual (SRMR) = .035. Generally, models with fit indices > 0.90 and RMSEA < 0.08 demonstrate a good fit (Hoyle, 1995).

Tests of Hypotheses

The mediation model of the cross-sectional data was tested via bootstrapping with 5000 repetitions, as recommended by Hayes (2009), building a 95 % confidence interval (CI) (c.f. Hayes, 2012). Results show a strong positive relationship between absorption and PI (ß = .24, *p* < .001) (see Table 8), supporting Hypothesis 1.

Table 8

Results of mediation regression analysis

Variables	Model 1 PI	Model 2 LMX
1. Absorption	.24***	.34***
2. PI		.24*

| **3. R^2** | .17 | .18 |

More importantly, results of bootstrap analysis revealed that the 95 % bias-corrected CI for the size of the indirect effect does not include zero (indirect effect = .06; BCa 95 % CI = [.0077; .1194]), suggesting that PI mediated the relationship between absorption and LMX. Finally, as shown in Table 8, the direct effect of absorption on LMX was statistically significant (ß = .34, $p < .001$). As follower's PI is influenced by follower's absorption and in addition follower's perception of LMX is influenced by follower's PI, but at the same time follower's absorption has a direct effect on LMX, which is not intervened by PI, a partial mediation appeared. Overall, the mediation model explained approximately 18 % of the variance in LMX (see Figure 4).
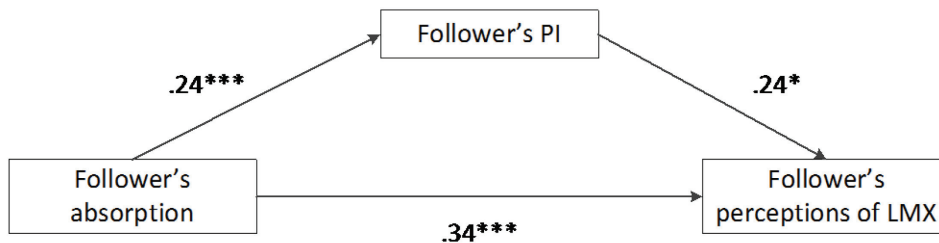
Figure 4. Mediation model. $N = 374$. Bootstrapping 5,000 repetitions (standardized path coefficients) *$p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Results of the cross-sectional model show that PI partially mediated the relationship between absorption and LMX. However, this LMX development is due to the influence of various long-term dynamics between followers and leaders, as LMX-quality can range and develop from low (out-group) to high quality relationships (in-

group) over time (Bauer & Green, 1996; Graen & Uhl-Bien, 1995). High LMX-quality is further described as long-term reciprocation and emotions of bilateral bonds, which develop into a transformational exchange over time (Graen & Uhl-Bien, 1995). Thus, a longitudinal design is applied in Study 3 of this chapter, investigating PI as an assumed longitudinal mediator.

3.4.2 Study 3

Study 3 of this chapter aims to confirm the associations between absorption, PI, and LMX through a longitudinal research by disentangling cause and effect (cf. Salanova & Schaufeli, 2008) and addressing the unfolding of LMX over time (Park, Sturman, Vanderpool, & Chan, 2015).

A highly absorbed follower has a positive effect that spills over to others, including the leader. Therefore, Study 3 of this chapter aims to examine the contextual variable of time and how a follower's positive emotions at T1 relate to LMX at T2, assuming that time positively contributes to the relationship.

H2: Follower's absorption is positively related to LMX.

Gerstner and Day (1997) suggested that research should focus on dispositional characteristics that can impact LMX (e.g., Bernerth, Armenakis, Feild, Giles, & Walker, 2007). Due to the characterization of PI as a "self-starting, future focused and change oriented behavior" (Parker et al., 2010, p. 828), it is assumed that PI actively influences –from the follower's perspective– and shapes LMX in the long term. This has been supported by Zhang et al. (2012), reporting that the more congruent a follower's and a leader's PI levels are, the higher the LMX. In addition, Zhang et al. (2012) found an asymmetrical incongruence effect, when a follower's PI was lower than a leader's, leading to lower follower's LMX as compared with higher follower's PI. Strictly speaking, results show that in organizations a follower cannot be proactive

enough to establish high LMX (Zhang et al., 2012). Nonetheless, Zhang et al. (2012) did not observe these congruency effects longitudinally. Therefore, Study 3 of this chapter builds up on the asymmetrical findings of Zhang et al. (2012), by applying a longitudinal design, highlighting the great impact of a follower's PI on LMX over a one year time span.

H3: Follower's personal initiative is positively related to LMX.

The *broaden-and-build-theory* by Fredrickson (2001) can be linked to SET: Positive emotions of highly absorbed followers at work broaden individuals' temporary thought-action reserve and shape their long-term individual resources. This means that PI is founded on a follower's positive emotions. A follower who is "equipped" with high absorption will act proactively during setbacks. A proactive follower uses high work absorption, subject to a rule over time (Fredrickson, 2000). Research by Hakanen et al. (2008), indicate a highly absorbed follower gains more initiative over time.

It is further assumed that absorption affects LMX fully through PI over time, as followers search for situational exchanges (Gorman et al., 2012). If a highly absorbed follower shows PI in exchanges by rethinking processes in organizations, exchange quality with the leader increases over time. Exchange increases because a follower not only fulfills tasks in a good mood, but also contributes to organizational innovations. Furthermore, in a globalized economy, leaders do not only need highly engaged employees. They also need highly proactive employees to establish a high-performing team, willing for instance to work longer.

Again it is assumed that a highly absorbed follower displays positive emotions, which perform as part of a *rule* in this relationship, increasing a follower's visi-

bility and action repertoire. But PI is also needed to increase LMX over time, thus acting as a *resource* for a follower for this long-term process in terms of a mediator.

H4: Follower's personal initiative mediates the relationship between a follower's absorption and LMX over time.

Procedure

The procedure and variables for Study 3 of this chapter were the same as in Study 2 of this chapter.

Results

Descriptives, CFA, and tests of hypotheses are described in the following.

Descriptive Statistics

Descriptive statistics, coefficient alphas, and zero-order correlations for the variables are included in Table 9.

Table 9

Means, standard deviations, correlations and reliabilities for the variables included in the analyses of Study 3 with two longitudinal research models.

Variables	M	SD	1	2	3	4	5	6
1. Absorption T1	3.71	.76	(.87)					
2. Absorption T2	3.68	.79	.59***	(.91)				
3. PI T1	4.25	.47	.32***	.33***	(.84)			
4. PI T2	4.27	.46	.23*	.45***	.71***	(.81)		

5. LMX T1	3.59	.85	.36***	.21*	.20*	.11	(.91)	
6. LMX T2	3.63	.81	.39***	.45***	.24*	.28**	.54***	(.90)

Notes: N = 114; PI = Personal Initiative; LMX = Leader-member exchange. T1 = Time 1. T2 = Time 2, measured 12 months after T1. Reliability coefficients (Cronbach's Alpha) appear in parentheses along the diagonal; * *p* < .05 (two-tailed test); ** *p* < .01 (two-tailed test); *** *p* < .001 (two-tailed test).

Tests of Hypotheses

Hypotheses 2, 3, and 4 predicted that PI mediates the relationship between absorption and LMX. To test these hypotheses, a path analysis with the predictor of a follower's absorption (T1), the mediator of a follower's PI (T2), and the outcome variable of a follower's perceptions of LMX (T2), was conducted, while controlling for the effects of a follower's PI (T1) on a follower's PI (T2), and of a follower's perceptions of LMX (T1) on a follower's perceptions of LMX (T2). In line with Study 2 of this chapter, bootstrapping (5000 repetitions) was performed (Hayes, 2009)*,* building a 95 % CI (c.f. Hayes, 2012). Figure 5 presents the results.
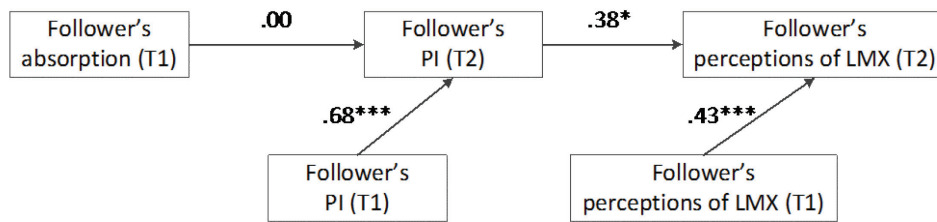
Figure 5. Mediation model. *N =* 114. All Time 1 predictors were allowed to correlate in this model. These correlations are not displayed for the ease of presentation. * *p* < .05, ** *p* < .01, *p* *** < .001

Following recommendations by Beauducel and Wittmann (2005), the most important fit indices are: $\chi^2(3) = 5.23$, n.s.; RMSEA = .081; CFI = . 984; SRMR = .042. This model already indicated the best fit compared to others, but is still not satisfactory. A non-significant path from absorption (T1) to PI (T2) was found. In addition, a significant path from PI (T2) to LMX (T2) with a path coefficient of .38 (p < .05) is shown. These findings support Hypothesis 3, as a follower's PI is significantly related to LMX. However, findings cannot confirm Hypothesis 2, due to a non-significant link between absorption and PI and Hypothesis 4, the likewise non-significant mediation of PI between absorption and LMX.

Since no significant findings for the longitudinal mediator of PI were found in Study 3 of this chapter, the next step is the more detailed examination of the relationship between a follower's absorption and LMX within a second research model of this study, without the mediator of PI. Therefore, the assumed reciprocal relationship between a follower's absorption and LMX were tested over time.

3.4.3 Study 3: Cross-lagged panel design

LMX-quality is influenced by various dynamics over time, ranging and developing from low to high quality relationships (Bauer & Green, 1996; Graen & Uhl-Bien, 1995). Thus, in line with previous research findings (Park et al., 2015), it is assumed that LMX develops over time.

H5: LMX T1 positively impacts on LMX T2.

Follower Absorption at Work

It is assumed that followers can learn to reframe stressful situations and manage themselves and their environment over time by showing positive emotions. Instead of worrying they rather dive deep into their work, reducing stress (Rani & Saro-

ha, 2015). Thus, it is predicted that followers increase their absorbed behavior over time to cope with stress.

Research has shown the affective state of work engagement is thought of as a persistent mental state (Schaufeli & Bakker, 2010; Schaufeli et al., 2002). However, most longitudinal research, as stated in Seppälä et al.'s (2015) study, applied to a time frame above one year, up to seven years and most studies included white-collar participants. Only one study in Seppälä et al.'s overview (2015, p. 362) was conducted with blue-collar workers, with almost 90 % females, whereas participants in this research are mostly male (Mauno et al., 2007), contributing to *contextual leadership theory*.

H6: Follower's absorption T1 positively impacts on a follower's absorption T2.

LMX as a Predictor of Follower Absorption at Work

Since absorption is conceptualized as an extra-role-behavioral syndrome (Macey & Schneider, 2008), it is assumed that the predicted *resource* of LMX influences it, reducing a follower's stress (Culbertson et al., 2012). First research in this area was conducted in social interaction (Peeters, Buunk, & Schaufeli, 1995), followed by positive effects of social support on work engagement (Bakker et al., 2006; Caesens, Stinglhamber, & Luypaert, 2014).

While focusing on SET and its second idea of *resource* exchange, followers' expectations of the transmission of *resources* play a major role and should be considered in relation to work engagement (Rayton & Yalabik, 2014). This is addressed by LMX theory, assuming that followers and leaders within a high LMX have a specific reciprocal understanding of the individual goals- and values system of the other person, even though they might be different (Krishnan, 2004). It is hypothesized that a

high LMX, based on the exchange of *rules*, such as the normative definition of absorption at work, in turn strengthens the positive and absorbed follower behavior.

Recent research (Little, Gooty, & Williams, 2016) showed that leader's emotion strategies can influence LMX, be perceived by followers, and lead to an increase of positive outcomes (e.g., job satisfaction). Hence, it is assumed that a follower's perceived LMX aimed to minimize a follower's negative emotions, thus increasing a follower's perceived absorption over time.

H7: LMX T1 positively influences a follower's absorption T2.

The exchange and payback of *resources* is an ongoing exchange process –as described via SET– because both roles believe in the value of *resources* (Macey et al., 2009). Additional arguments for this longitudinal linkage were: (*a) absorbed followers' search for situational exchange possibilities* and (*b) emotional contagion effect* (see Study 2 of this chapter). Another reason for an increase of LMX through a follower's absorption over time might be that followers showing positive feelings at work are deeply engrossed in their work, resulting in fewer errors, and attain *(c) higher visibility* with their leaders. Higher visibility could also be attained through *(d) perceived higher similarity* with highly absorbed members (Murphy & Ensher, 1999; Waismel-Manor, Tziner, Berger, & Dikstein, 2010).

H8: Follower's work absorption T1 positively influences LMX T2.

It is hypothesized, that a follower's perceptions of LMX and a follower's absorption are reciprocally related over a time span of 1-year. Figure 6 illustrates the

hypotheses, theoretical model, and empirical approach of Study 3.
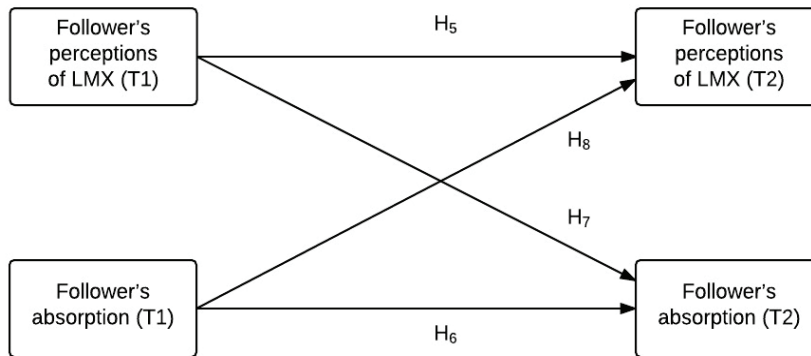
Figure 6. Theoretical model for the relationship between a follower's perceptions of LMX and a follower's absorption.

Procedure

The procedure for Study 3 was the same as in Study 2 of this chapter, extended by applying two measure points (time lag of 1 year), as done before in the mediation model of Study 3. The time lag of one year was applied, as talent status of participants is assessed every year. Variables in Study 3 were the same as in Study 2, without PI. Measures are described as in Study 2.

Results

In the following, descriptives, the design and structural equation modeling (SEM) for testing the hypotheses are described.

Descriptive Statistics

Descriptive statistics, reliabilities, and correlations of the observed variables are displayed in Table 9.

Design

The second research model of Study 3 aims to explore the reciprocal effects of a follower's perceptions of LMX on followers' absorption. To test the hypotheses, a cross-lagged panel design with two waves was conducted, as common in research (Eby, Butts, Hoffman, & Sauer, 2015; Pundt & Herrmann, 2015). The panel allows assessing the direction of these effects (see Figure 6). In addition to the analysis of LMX stability and absorption throughout the year, one lag measures the effects of LMX T1 on absorption T2, while controlling for absorption T1 and regressing absorption T2 on LMX T1. The second lag assesses how absorption T1 affects LMX T2, while regressing LMX T2 on absorption T1 and controlling for LMX T1.

Development of a Follower's Perceptions of LMX over time

With respect to Hypothesis 5, results indicate that LMX was relatively stable over a time lag of 12 months. Results of the test-retest correlation between LMX at T1 and LMX at T2 were $r = .54$ ($p < .001$). Thus, Hypothesis 5 is confirmed.

Development of a Follower's Absorption over time

Testing Hypothesis 6, test-retest correlation between absorption T1 and absorption T2 revealed a $r = .59$ ($p < .001$). Therefore, Hypothesis 6 is confirmed.

Reciprocal Effect of a Follower's Perceptions of LMX and a Follower's Absorption

The SEM technique in AMOS (Version 22; Arbuckle, 2013) was applied to test the cross-lagged panel with the assumed reciprocal relationships of a follower's perceptions of LMX and a follower's absorption over one year. SEM technique calculates path coefficients for each of the four lags between the constructs of LMX and

absorption, additionally specifying fit indices (Weiber & Mühlhaus, 2014). Figure 7 shows the tested SEM. A follower's perceived LMX and absorption for T1 and T2 are represented as latent constructs. LMX is represented by 7, absorption by 2 items, indicating the LMX-scale and partly the work engagement subscale of absorption.
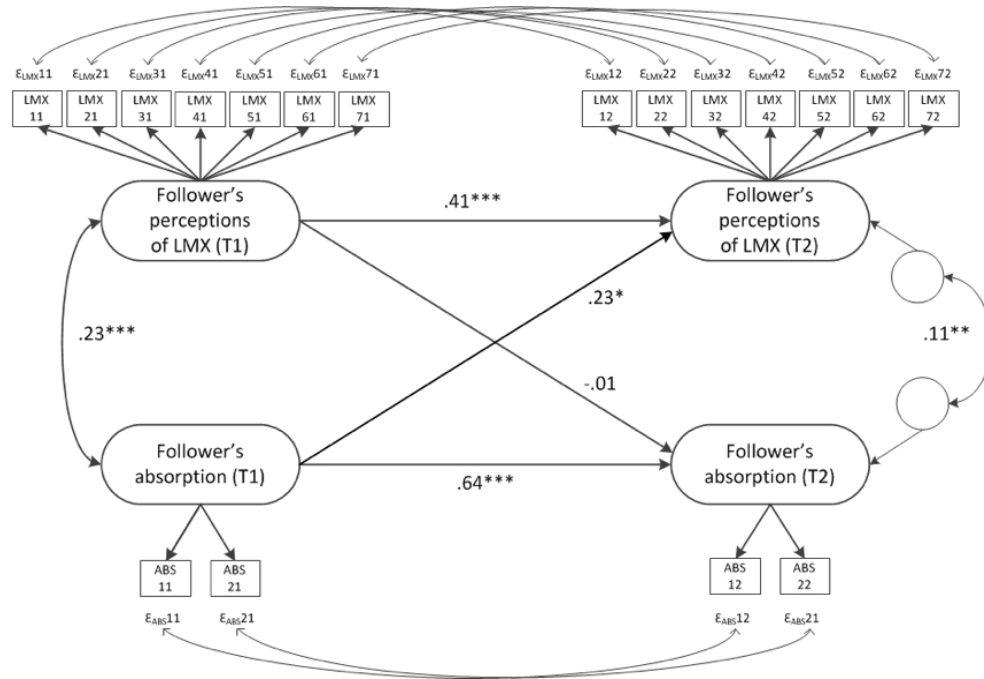
Figure 7. Structural equation model for the relationship between a follower's perceptions of LMX and a follower's absorption. $N = 114$, T1 = Time 1, T2 = Time 2, * $p < .05$, ** $p < .01$, *** $p < .001$. Standard coefficients are shown.

The most important fit indices are: $\chi^2 (120) = 199.08$, $p < .001$; RMSEA= .076; CFI= .945; SRMR= .066. Generally, models with fit indices > 0.90 and RMSEA < 0.08 demonstrate a good fit (Hoyle, 1995). Even though Hu and Bentler (1999) recommend a stricter cutoff value of < .06 for the RMSEA, due to a small sample size ($N = 114$), and in line with a good SRMR (0.066) fit of < .08; as suggested by Hu and

Bentler (1999), and with the recommended cutoff value of .10 for RMSEA for a bad fit (Browne & Cudeck, 1993), the author is confident in applying the model.

Hypothesis 7 predicted a positive relationship between LMX T1 on absorption T2. Results cannot confirm this hypothesis, indicated by a non-significant negative path coefficient of -.01 from LMX T1 to absorption T2 and a significant path coefficient from absorption T1 on absorption T2, with .64 ($p < .001$). With respect to Hypothesis 8, a positive relationship between absorption T1 and LMX T2 was predicted. Even though LMX T1 explained a substantial amount of variance in LMX T2 with a path coefficient of .41 ($p < .001$), absorption T1 was significantly and positively related to LMX T2 with a path coefficient of .23 ($p < .05$). Thus, Hypothesis 8 is supported. To conclude, no significant reciprocal but a special direct effect of a follower's absorption at work at T1 on a follower's perceptions of LMX at T2 was indicated, as shown in Figure 7.

3.5 General Discussion

Past research on social exchanges in organizations has been fruitful, but this literature has focused on leaders' rather than followers' behaviors in terms of expected *rules* and *resources* on LMX. In a cross-sectional design, the assumed resource of follower's PI partially mediates the positive relationship between a follower's absorption and a follower's perceptions of LMX (Study 2). However, over time, a follower's PI is not a sustainable *resource* used by followers to increase followers' relationship-quality with leaders (Study 3). Results of the second research model of Study 3 did not confirm a reciprocal effect between a follower's absorption and LMX but a direct relationship between a follower's absorption, positively and significantly influencing LMX over time.

Concerning results of Study 2, scant attention has been given to the mediator of a follower's PI because this effect has not been confirmed in Study 3. Thus, an explanation could be that a follower's PI is not a mechanism by which a follower's absorption relates to a follower's perceptions of LMX in the long term; it is rather an effective but momentary key driver of the working relationship.

However, reasons for the predicted but non-significant mediation effects in Study 3 could be: Firstly, a concept overlap between PI and absorption exists. Macey and Schneider (2008) found that PI is categorized as one of the elements of trait and behavioral engagement, not state engagement. This supports Tornau and Frese's (2013) belief of relating PI concepts to engagement concepts, as studies indicating overlaps do exist (cf. Macey & Schneider, 2008; Salanova & Schaufeli, 2008). Secondly, leaders only support a follower's PI when they feel responsible for constructive change (Fuller, Marler, Hester, & Otondo, 2015), are not restricted by a high SOC.

Another reason for the non-significant effect of a follower's PI as a mediator in the longitudinal design might be that research in positive affect, which is similar to follower absorption, also shows curvilinear effects on PI (Lam, Spreitzer, & Fritz, 2014). This implicates that solely intermediate levels of absorption influence a follower's PI.

Focusing on Hypothesis 5 in Study 3, findings show a significant test-retest correlation of LMX over 12 months ($r = .54$), displaying a slight increase over time, in line with the assumption of changes of the construct throughout a year and supporting Hypothesis 5. However, those are relatively stable for blue-collar workers with high seniority, not indicative of a honeymoon period (Fichman & Levinthal, 1991).

The significant Hypothesis 6 supports the conceptualization of a follower's absorption as an affective-motivational state with again significantly test-retest corre-

lations of $r = .59$ ($p < .001$). The major finding of a special direct effect of a follower's absorption T1 on a follower's perceptions of LMX T2 (cf. Hypothesis 7 and 8) seems implausible from an LMX perspective and prior findings. Those state that mutual relationships increase a follower's work engagement over time (e.g., Christian et al., 2011). However, the contributions mentioned in the following section, such as the special setting of this research program, could be inferred as reasons.

3.5.1 Contribution and research implications

This research leads off, offering empirical support for a significant relationship between a follower's absorption T1 and a follower's perceptions of LMX T2 over time (Hypothesis 8; Study 3). An explanation for this link is that it is one of the rare studies conducted in production with blue-collar workers (e.g., Lorente, Salanova, Martinez, & Vera, 2014; Oren, Tziner, Sharoni, Amor, & Alon, 2012; Schaufeli et al., 2006), contributing to *contextual leadership theory.* Thus, due to higher SOC in the production, not "classical" LMX has been observed, as this contextual setting relates to fewer or insufficient social exchanges compared to white-collar sections. In addition, research (Schriesheim et al., 2000; Schyns et al., 2005) indicates that a high SOC negatively impacts on LMX. Moreover, findings show that blue-collar workers with high tenure were not in a socialization process any more in the organization, indicated by a non-significant effect of LMX on absorption over time. Consequently, this research contributes to *contextual leadership theory* by focusing on different tenure and follower culture/status (blue-collar).

Secondly, derived from research findings (e.g., Schaufeli & Bakker, 2001; Schaufeli & Bakker, 2003; Smulders, 2006), stating that followers with high control, such as entrepreneurs, show higher engagement levels, compared to less-educated followers (i.e., blue-collar workers), results relate to the *survival of the fittest theory*

(Huxley, 1902). The theory highlights that solely those blue-collar workers with high (developed) absorption "survive", i.e. stay in production over longer periods, shaping LMX-quality. Thirdly, followers with a positive affect and healthy appearance positively shape the exchange process with their leaders, having higher visibility in a large team, increasing exchange situations (Haynie, Cullen, Lester, & Svyantek, 2014).

One explanation of the non-significant link between a follower's perceptions of LMX T1 on - absorption T2 (Hypothesis 8 in Study 3) might be that absorption is not representative of the work engagement scale to the same extent as vigor and dedication. This is supported by Mauno et al. (2007), stressing immense potential for the non-core dimension of work engagement (cf. Llorens et al., 2007). Secondly, the non-significant H8 can be explained by Fiedler's *contingency approach* (1964). Leaders in production, burdened with a high SOC, adopt a task-oriented and less relationship-focused leadership style, due to high task structure and position power (Schriesheim, Tepper, & Tetrault, 1994).

3.5.2 Limitations

While this research program has several strengths, a number of limitations need to be mentioned: Firstly, LMX and absorption were tested solely from followers' perspective. Thus, common source bias cannot be obviated (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003; Podsakoff, MacKenzie, & Podsakoff, 2012). Sonnentag and Pundt (2014) also call for research including both leader and follower ratings to gain both views of the reciprocal relationship. Although there is only a medium-sized agreement between leaders and followers about the level of LMX (Sin, Nahrgang, & Morgeson, 2009), the amount of agreement itself embraces important information about the relationship quality and is used in empirical studies (Schyns & Day, 2010).

However, two arguments reduce the limitation of common method bias: First-ly, a longitudinal design with two measurement points was applied, reducing the probability of common method bias (Podsakoff et al., 2003). Secondly, followers have a high seniority, leading to increases in the agreement ratings of leaders and fol-lowers (Hock-Peng, Nahrgang, & Morgeson, 2009).

Self-report measures lead to another limitation which might be cross-paths inflations (Ouweneel, Le Blanc, & Schaufeli, 2012). In addition, the time lag of one-year might have been too long, as studies show weekly changes in LMX and work engagement (Bakker & Bal, 2010; Liden, Wayne, & Stilwell, 1993). Size and homo-geneity of the sample ($N = 114$) can also be stated as a limitation, as the majority of workers in the production were male and Mauno et al. (2007) showed that women felt more absorption than men. Regarding PI and its "double nature" (Tornau & Frese, 2013) it has not been methodologically distinguished.

Results of the cross-sectional mediation model revealed a partial mediation. However, complete mediation is the preferred result because with a partial mediation the researcher has not 100 % correctly proofen the hypothesis and should ideally go on with in-depth analyses (Hayes, 2013).

3.5.3 Future research

There are several directions for future research: Firstly, research could assess followers and leaders for both constructs, so that common source bias are not applica-ble, expanding practical implications and striving for a complete picture of LMX (e.g., Gerstner & Day, 1997; Graen & Uhl-Bien, 1995; Scandura & Schriesheim, 1994). In addition, ratings of both roles would support research in the *emotional con-tagion effect* (Bakker et al., 2006), through the observation of how leaders' and fol-

lowers' PI congruence relates to LMX-quality over time, expanding Zhang et al.'s research (2012), which applied solely a single time wave.

Secondly, research should focus on the identification of further key drivers for an increase of LMX-quality over time. The aim is to create a "tool-box" for practice, which is now filled with the approved *rule* of absorption, increasing LMX-quality over time. Thirdly, research should specifically observe why PI is not a longitudinal but rather a cross-sectional mediator, proposed as an important mechanism in relating absorption to LMX-quality.

Focusing on the non-significant relationship between LMX on absorption (Hypothesis 7), the question arises if absorption is not a state but a trait that cannot be learned or trained; see Sonnentag (2003) and Sonnentag, Dormann, and Demerouti (2010) on "trait-like work engagement" (Seppälä et al., 2015, p. 361).

3.5.4 Practical implications

To increase LMX-quality in the short-term (e.g., short-term project), the identified mediator of PI could be enhanced through three different levels of antecedents (Shin & Kim, 2015): At the organizational level, perceived organizational support and, at the job characteristic level, a change of distal variables, such as an increase of job autonomy (Axtell & Parker, 2003; Shin & Kim, 2015), increases PI. Feedback and individual development possibilities are additional top-down interventions (Bakker & Demerouti, 2008; Halbesleben, 2010). At the individual level, employees can be trained by HR to act proactively (Kirby, Kirby, & Lewis, 2002), making process improvements to drive organizational change.

Interventions to increase a follower's absorption could be implemented at the individual, team, or organizational level (Schaufeli, 2012). At the individual level, e.g., the cultivation of optimism could be trained via online coaching (Rampersad,

2008). From a health perspective, part-time programs or time keepers, to drive recovery increases absorption (Sonnentag, 2003). Team-based interventions for an increase of absorption, less costly than individual ones and useful in production because job positions are rotated autonomously by the team, could be a sensitization of followers and leaders to the contagiousness principles of absorption in the LMX process via training (Sonnentag & Pundt, 2014). Training for leaders would focus on leader's sensitivity via their reflection processes on biases at work, to differentiate between and increase a follower's absorption (Sonnentag & Pundt, 2014). At the organizational level, management should take into account organizational conditions or standards which influence high LMX development (Sonnentag & Pundt, 2014).

3.6 Conclusion

Social exchange processes between leaders and followers at work have taken center stage in leadership literature. Yet very little is known regarding the impact of a follower's emotions and anticipatory actions on the exchange quality with the leader over time. Drawing upon SET, this research program shows that a blue-collar follower can actively shape the relationship quality to the leader and thus influence work environment over time by showing high absorption, which is part of a crucial *rule* (Cropanzano & Mitchell, 2005; Hobfoll, 1989) in this exchange process. Conversely, high LMX is not the (only) precondition or *resource* for a healthy and absorbed follower over a one-year period. The results, consistent with the applied argumentation of this study, show that a follower's PI is a *resource* at work and short-term mediator of the relationship between a follower's absorption and LMX.

4 Recommendations for Actions Across the Roles of Followers, Leaders, and Human Resources

4.1 Summary

In the following, recommendations, which were derived from qualitative and quantitative data of the three roles of followers, leaders, and HR, are outlined. The aims of these recommendations are to (a) increase transparency regarding information of the holistic leadership development program (LD program) as provided by HR personnel and to (b) assure a greater exchange between the roles of followers, leaders, and HR with respect to the program. A (c) regular evaluation of the AC regarding the fulfillment of standards is an additional aim. Thus, these research findings should improve the working lives of the three roles of followers, leaders, and HR. The recommendations embrace for instance the implementation of a *job rotation portal*, an *individual road map* as well as a revision of *appraisal meetings*. Lastly, a prioritization for the derived 24 recommendations in terms of the (a) need for implementation, (b) implementation possibility, and (c) implementation time is undertaken. This prioritization offers an agenda for an increase of social exchanges between the three roles to improve the LD-process.

Keywords: recommendations, leader-member exchange (LMX) quality, prioritization, implementation

4.2. Towards the Improvement of Leadership Development: Tools and Ideas

The overarching aim of all following recommendations is to outline tools and ideas that support the systematic unfolding of (future) leaders potential (Becker, 2002). Tools and ideas for an improvement are based on collected data of 10 interviews with leaders, surveys with followers as well as exchange with other HR coordinators from other plants.

4.2.1 Transparency in Leadership Development Program

First, recommendations for an increase of transparency regarding information of the holistic leadership development program (LD program) are outlined. This transparency refers to the general LD-process, procedures employed in the assessment centers (ACs) as well as resource management.

Results of the survey revealed that followers want to receive more information about the LD-process prior to their AC participation. They are interested in LD steps undertaken after AC participation, whether they are related to a non-confirmation or confirmation of their potential in the AC. In order to increase transparency, a short presentation (e.g., a *refresher)* should be given by HR prior to AC participation, pointing out LD program steps and rules. A refresher would ensure a clear explanation and communication of goals and general rules of the LD program. In addition, the personal exchange between HR personnel and followers allows answering further queries of the followers on time, and thereby increasing the quality of exchange between the two roles.

Leaders also proposed to HR to *increase transparency of the procedures in the AC*, especially regarding the observer conference in which the leaders make the decision on the confirmation or non-confirmation of a talent's potential. Leaders are often approached by their talents asking for information on how the AC is conducted.

Leaders are unsure which procedures are allowed to share with the talents and which are not. An intensified exchange of AC information between the three roles of followers, leaders, and HR would increase the social acceptance of the AC and strengthen the talents' trust in the process. This is of high relevance, as the AC is a major challenge for blue-collars in comparison to white-collars. White-collars have a higher probability to receive personal information about ACs from their social exchanges or even participated once in it in comparison to blue-collars, where the instrument is less common (Erten-Buch et al., 2006).

Some leaders further requested to increase the *transparency of (human) resource management* of talents in the production. Leaders currently do not have insights into resource planning which hinders the development of talents to ensure professional succession planning. A recommendation would be to share the reports HR personnel provides to the plant manager with the relevant production leaders. Those reports include numbers on resource, such as the number of current talents and retiring personnel, offering them the opportunity for resource planning.

4.2.2 Job rotation portal.

The implementation of a *job rotation portal* across all participating plants was also raised by participants. This would on one side increase transparency of available candidates for job rotations as provided by HR personnel, as well as enhance the exchange between followers, leaders, and HR. One plant has already implemented such a job rotation portal to improve the matching process of job rotation candidates to vacancies and appraised it as a positive tool in terms of a "best practice sharing" to achieve transparency in job rotation and stimulate exchange. The „best practice sharing" HR plant recommends to schedule two meetings per year for the job rotation portal, allowing a profound preparation and feedback process of two annual job rota-

tions per candidate. The job rotation portal is organized by HR, that invites all leaders to share details about current talents in their departments as well as search for talents in terms of job rotations. This allows a professional and timely preparation for all participants and a structured process.

For a preparation of the job rotation portal meeting HR encourages the invited leaders to discuss their talent's learning fields and strengths with the talent in order to find a suitable job rotation vacancy. The discussion should also consider which time and department for a job rotation would suit both. Lastly, a time frame for an AC participation should be scheduled. A template sheet provided by HR in an e-mail should be filled out, describing (a) learning fields, strengths, and qualifications of a talent who is searching for a job rotation as well as a request for the AC participation and/or (b) a job description of a potential job rotation position. Finally, after listing the results and agreements of the aspects mentioned before, both roles sign the sheet. In order to increase follower's commitment s/he is in charge to send the completed sheet to the responsible HR coordinator of the specific plant.

Each year, another HR coordinator of another plant is responsible for the planning, holding, and wrap-up of the two job rotation meetings, assuring a fair rotation principle across the plants and distribution of responsibility. After receiving the completed templates from the talents, the responsible HR coordinator prepares a tall poster on which a matrix is depicted, including potential job rotation candidates, their AC date, and potential job rotation positions across all plants (see Figure 8). Participants of the job portal meetings are all HR coordinators of the various plants and leaders who either have talents who are searching for a job rotation or offer a job rotation. Reasons for the participation of all HR coordinators are to first, increase transparency and to be acquainted with the talent pool across all plants. Second, HR coor-

dinators could apply the derived model of expected leadership behaviors across the three roles (see Chapter 2) and together with other participants contribute to a professional discussion of the learning fields and strengths of the talents by aligning them with the identified behaviors in the model. Third, they might also know and could contribute to the discussions by describing their impressions of the development progress of talents from exchanges in the development groups or personal bilateral development talks.

The responsible HR coordinator moderates the job rotation portal. The discussion of facts and requests, which were summarized by the leaders and followers prior to the meeting, aims to lead to the best "candidate-job-rotation-position-fit".

			Plant x, dep.: A		Plant y, dep.: B		Plant z, dep.: C		…
	Names	AC dates in 2017:	Job rotation vac. 1	Job rotation vac. 2	Job rotation vac. 3	Job rotation vac. 4	Job rotation vac. 5	Job rotation vac. 6	…
Dep.: A	Tal. 1:	dd.mm.yyyy		x					…
	Tal. 2:	dd.mm.yyyy			x				…
Dep.: B	Tal. 3:	dd.mm.yyyy	x						…
	Tal. 4:	dd.mm.yyyy						x	…
…	…	…	…	…	…	…	…	…	…

Figure 8. Best practice sharing result: Example of a job rotations portal matrix as a discussion platform and exchange between followers, leaders, and HR. *dep. = department; tal. = talent; vac. = vacancy*

Results of the discussions are documented in the matrix and sent to all participating leaders across the plants afterwards. The resulting matrix is also forwarded to other HR personnel, being in a coordinating function in the LD program, and those who might not be able to take part during the meeting but were invited for. Personnel changes for the planned job rotations are documented in the IT systems from HR personnel. In addition, this matrix –excluding the information on the AC date to avoid agreements of future AC candidates which could result in an unfair competition– could be shared with talents if they agreed during their first meeting with the leader for a preparation and signed their shared consent on the sheet which has been sent to the HR coordinator. This will additionally allow and increase networking between the talents.

In total, the best practice sharing and implementation of the job rotation portal across all plants leads to a "higher quality than quantity" of job rotations. The reason is the prior description of the job rotation position by the searching leader, leading to a more intense development of talents, higher perceived responsibility of the leader, and a better fit of candidates to the vacancies. Leaders, for instance, voiced their concerns in the interviews that job rotations are not a "panacea" for LD. This is based on leaders impressions that AC candidates who participated in several job rotations do not necessarily show a higher performance in the AC compared to those with less job rotations. It is assumed that it highly depends on the quality of the matching of talents to job rotation positions, the LMX with the job rotation leaders, talents proactivity, and scaffolding during the rotation.

Another advantage of the job rotation portal is the increased transparency of potential successors and the overall transparency of the LD-process. From HR perspective, working load is decreased as decisions and matching processes are aggregated within a single intense meeting. In sum, the prior mentioned advantages of the job rotation portal do not only increase the *networking* between all three roles, but also lead to the development of additional social capital (Day, 2001). The described process in this section serves to increase *LMX-quality* before and after the job rotation meeting and additionally improves *resource management* through an intense "candidate-job-rotation-position-fit". Thus, this instrument fulfills the prior identified three motivations (networking, LMX-quality, and resource management) of followers, leaders, and HR to participate in LD (see Chapter 2; Figure 3). In addition, it can be assumed that the *social acceptance* of the holistic LD program and its validity are strengthened, as the effectiveness of this instrument highly depends on the contribution of all roles involved.

4.2.3. Individual road map.

The second tool recommended for a greater exchange between followers, leaders, and HR with respect to the LD program is the development of an *individual road map* with all roles (see Figure 9). The individual road map is an agreement form, including all instruments leading to a successful participation in the AC and preparation for the first leadership role. The road map ensures transparency of planned development steps and responsibilities. This means that it can be used as a preparation by the follower for the on-the-job assignment and by the leader for the job rotation portal. The map not only offers orientation for the follower, but also for leaders and HR, decreasing the need for coordination right at the beginning of the LD-process and facilitating the daily work and thus LD-process in total. A further function of the map is

that it serves as a "working template". This means, that results of every feedback round are integrated in it and the next steps revised, adjusted or cancelled. The latter one being the case when potential of the talent has been withdrawn.
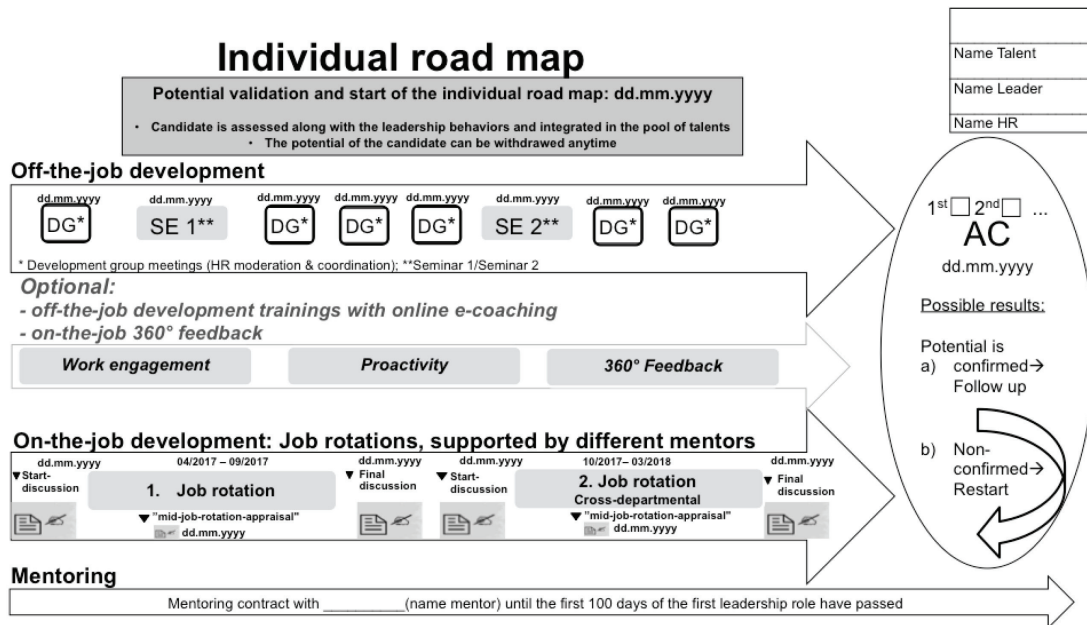
Figure 9. Individual road map template for the development of talents

It is suggested that from the moment of the inclusion into the LD program through assessing a follower as being suitable for a leadership role, the leader should develop this individual road map, together with the talent. Thus, the road map also functions as an instrument to increase LMX-quality as information about learning fields and resources, such as access to seminars and job rotations, are exchanged between the roles. Afterwards, this road map should be discussed with the responsible HR coordinator of the plant in terms of the planning and registration to different off- and on-the-job assignments.

Several recommendations are outlined in the following regarding further process improvements *before* the AC participation of the talent, as depicted in the road map (see Figure 9). Development steps are structured into *off-the-job* and *on-the-job*

development instruments. Off-the-job development instruments are development group meetings, which are conducted by HR. During those development group meetings talents act as reflecting groups, providing mutual advice and support in terms of the improvement of their leadership behaviors and exchange their experiences at work. Further off-the-job development instruments are seminars, which are ranging from personality- to skills training. *On-the-job development instruments* are job rotations, which are supported by mentoring. Starting with off-the-job instruments, one module of the LD program is the active participation in development group meetings for talents, which are carried out by the responsible HR coordinator at the specific plant. Over the last years followers motivation to participate in these groups decreased. From HR side it is proposed that this decrease of motivation is linked to the fact that followers do not exchange with their leaders about the content and individual learning progress within the group, indicated by a low LMX-quality regarding this development instrument.

A recommendation is that HR personnel instruct talents in the first development group meeting to arrange a starting and final meeting with their leader, timely linked to the first and last development group meeting. During these meetings the learning content of these development group meetings, as well as the progress in the individual learning areas of the talent are discussed. These meetings would increase LMX-quality as it allows the talent to have a regular exchange of experiences collected in these groups. This in turn offers the leader the opportunity to get a feeling for the talent's "motivation" to become a leader and learning progress within the group.

The leader would then be able to compare the information regarding the development of competencies, leadership behaviors, and impression regarding the talent's motivation with the own past experience in these development groups. This in

turn allows the leaders to offer the talent advices. The advices could either support the talent on their further way to a leadership position or not. The latter one could lead to a personal warning or decision of the leader, which speaks against the further development of the talent towards a leadership position due to a lacking progress within the learning areas or non-existing or low motivation. Again the individual road map could serve as a working template and discussion platform during this LMX regarding the participation of the talent in the development group meetings for talents. In addition, the leader could arrange a meeting with HR to carefully exchange the own impression of the talents development progress based on the reports of the talents with the impressions of HR observing the talents performance during the development group meetings.

Focusing on the *on-the-job development* instruments and *job rotations*, the participation of each talent in at least two job rotations could be set as a *compulsory standard*. Two job rotations are recommended from another business unit of the organization, which already run several evaluations of their LD program for blue-collars. Since job rotations involve high costs for the department, as they have to find a deputy for the rotating talent, leaders suggest two instead of three rotations. Rotations could last for a minimum period of two to three or six months –depending on the learning fields of the talent–, as a preparation for a first time participation in the AC. A second standard could be the conduction to undertake one of the job rotations in another plant. This would increase the comparability of talents' performance across all plants in the ACs, allowing them to get to know other departments and leadership styles. Thus, the implementation of the standard offers talents the opportunity to build up a cross-departmental network and increase their visibility in terms of being potential candidates for future vacancies.

Regarding the development instrument of *mentoring*, leaders described that newly appointed leaders, also called "freshers", are often overstressed due to the major challenges in the new role related to a high span of control and responsibilities. Relating this role-change to theory, Figure 10 (Brown, 2008) shows that followers move from a *comfort* to a *stretch zone* when being nominated as a leader in the production. The personal and confidential exchange with their prior mentor could protect them from moving into the *panic zone* due to work overload or insufficient time for reflection. Reflection is required for intentional learning (Boud, Keogh, & Walker, 2013; Darwin, 2000) and exchange with others, such as their mentor, on their first experiences in their new role supports the reflection process. In case that the "fresher" is already in the panic zone and experiences anxiety- related blockages to learning, the mentor could act as a trainer and offer the mentee strategies to overcome this blockade (Palethorpe & Wilson, 2011). Kram (1985) also proposes an initiation phase from six months to a year for a mentoring relationship, supporting an expansion of the mentoring time. Research (Eby, Allen, Evans, Ng, & DuBois, 2008) further indicates that workplace mentoring improves situational satisfaction and interpersonal relationships of the follower.
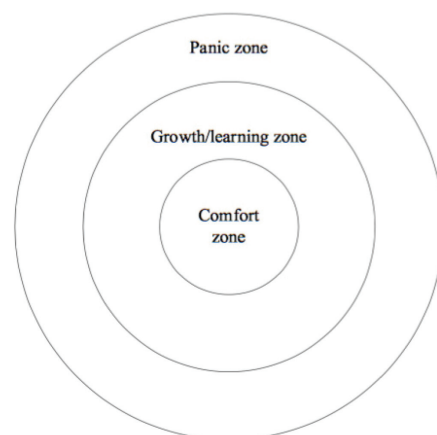
Figure 10. Comfort zone model. Adapted from Brown (2008, p. 2)

Therefore, a derived recommendation is to *expand the mentoring time frame* and offer "freshers" the opportunity to exchange with their personal mentors (not the ones mentoring during job rotations), to receive advices from their role models during the first 100 days of the challenging leadership function.

4.2.4 Optional development instruments.

In addition to the implemented *on- and off-the-job* development instruments *optional* development instruments are recommended, derived from the results of this research program (see Chapters 2 and 3). Those are *trainings* for work engagement, proactivity, and 360° feedback (see Figure 3). The first recommendation for an optional development instrument links to the results of this thesis showing that followers work engagement is identified as an expected leadership behavior in the production, positively influencing LMX. Thus, training for blue-collar workers to develop and support engagement behavior at work is recommended. Buettner, Shattell, and Reber (2011), for instance, recommend nurses, also working in shift times as blue-collar workers in this study, to improve their engagement in leisure time activities for a healthier work-life-balance, which might in turn increase work engagement. A specific recommendation is to increase employees' self-efficacy beliefs in order to improve work engagement. This relates to Bandura's Social Cognitive Theory (SCT), stating that self-efficacy influences employees' behaviors, feelings, thinking, and emotions, lying at the core of human agency (Schaufeli & Salanova, 2008a). Research by Llorens et al. (2007) shows that self-efficacy boosts and is an outcome of engagement. Particularly blue-collar workers could benefit from self-efficacy trainings in times of academization and self-definition by degrees. In addition, job rotations at the assembly line increase engagement levels. Research highlights the motivating potential of job resources through this instrument (Schaufeli & Salanova, 2008b). Contrari-

ly, research for white-collar workers focuses for instance on training methods, such as mindfulness training, sessions of e-coaching and supporting elements, as well as a buddy system (van Berkel, Proper, Boot, Bongers, & van der Beek, 2011).

As research indicates that work engagement is an indicator for (perceived) health (e.g., Hakanen & Schaufeli, 2012; Langelaan et al., 2006; Rongen et al., 2014; Sonnentag & Pundt, 2014; Winter et al., 2015) the training could be conducted as part of the occupational health management of the organization. Nowadays, an increase of mental illnesses or the more open handling with them (Werther & Jacobs, 2014) lead to a rise of occupational health programmes in organizations (Hahnzog, 2014). An example is a seminar for leaders in which they are confronted with their health and discuss, share, and learn about stress reduction at work (Maes & Boersma, 2004). One aim of the training would be to increase followers' awareness of the impact of their work engagement behavior on leader-follower relationships. It is assumed that the learning effects of this optional work engagement training would over time improve followers' health, LMX, and LD.

Regarding the second identified predictor for higher LMX-quality, proactivity, trainings related to this work behavior for both, followers and leaders, should be applied with care. A result in Chapter 3 revealed that proactivity is rather a momentary, than a long-term key driver, linking follower absorption to LMX. However, a recommendation voiced by HR personnel relates to advantages of long-term personal initiative (PI). HR personnel recommend talents to show more PI and request personnel development talks with the responsible HR business partner on a regular base. Focusing on the AC participation, the talks offer the talent the opportunity to ask for feedback after the talk, as the HR personnel could conduct the meeting in a similar form as an interview in the AC, thus could be used as a 360° instrument for the follower.

But also after being nominated as a leader HR positively recognizes if leaders from the production are proactively starting to exchange with HR and together regularly reflect on their development and discuss further career options. An alternative could be to use the personnel development talk as a condition for the access to a mentor or other off-the-job developments. Ghosh (2014) further states that proactive followers have a higher probability to benefit from mentoring, especially when it comes to career strategizing. This supports again that an additional mentor, besides the one for the job rotations (see Figure 9) could be highly valuable for the talent. Thus, HR personnel should also be proactive in terms of establishing a developmental work environment in which mentors receive appreciation and recognition for their valuable exchange with the mentee (Ghosh, 2014).

4.2.4.1 360° feedback. A further recommended possible instrument in addition to the AC-feedback and annual appraisal of the talent is the 360° feedback. HR could recommend, encourage, train, and accompany followers to use the 360° feedback. The 360° feedback is also known as multi-rater or multi-source feedback, a complementary development tool, which is recommended by Sarges (2006). Other feedback givers could be team members, subordinates (bottom-up), and colleagues, working in upstream or downstream processes or also customers.

An advantage in comparison to the feedback of the AC is that feedback is not based on simulative and systematic exercises but on real and daily work exchange situations over a longer time period. This allows collecting feedback of sustainable leadership behaviors. The 360° feedback is based on a multi-perspective approach, allowing the follower and the leader to confirm or correct results of the AC, as well as allowing the discussion of new facets of the follower, derived from different viewpoints of the 360° feedback. Due to shift work and limited time in the production the feed-

back would also contribute to the learning process of the talent if it is offered verbally and not in writing. Regarding the number of feedback givers it is recommended to ask those who had sufficient exchange time with the talent, thus it is not restricted. By applying 360° feedback it is of main relevance to use this instrument solely for development goals, not for administrative consequences (e.g., raises, promotions, etc.), to avoid that the follower attacks the feedback whereas interprets it as a "gift" and being receptive to it (Maylett, 2009).

However, meta-analytical research findings by Smither, London, and Reilly (2005) show that a followers improvement with ratings from 360° feedback is generally small. It is larger if the follower perceives a need for a behavior change and believes that it is feasible, reacts positively to feedback, and takes actions to improve performance, based on appropriate goals (Smither et al., 2005). It is suggested to further follow the sample design decisions by Bracken and Rose (2011, p. 186), related to four essentials in effective 360° feedback processes: „(1) relevant content, (2) credible data, (3) accountability, and (4) census (organizationwide) participation" (p. 186) for a successful change in the organization. Brett and Atwater (2001), for instance, showed that less favorable ratings were linked to beliefs that feedback was less accurate as well as to negative reactions. In turn, negative reactions and perceptions that feedback was less accurate related to perceived lower usefulness of the feedback. Finally, the facilitator perceived those participants as less development-focused who found feedback less useful (Brett & Atwater, 2001).

The considerable effort by conducting the 360° feedback and possible distortions in the ratings can be pointed out as other disadvantages (Michaelis, Vasilev, & Rainer, 2014). Vinson (1996) also discusses the downsides of 360° feedback and highlights that there are often conflicting opinions, not offering the option to determi-

ne the right feedback. If conducted too many times, raters could suffer from "survey fatigue" (Vinson, 1996).

Focusing on digitalization within the company, it is of main relevance to try to exploit the full potential of new technologies (Werther & Woschée, 2016). An example would be to offer blue-collar workers the possibility to participate in a 360° feedback via an App on their smartphone or tablet. This would be of main relevance as so far not all blue-collar workers have access to a personal computer (PC) at any time. Whereas one PC is available for one team, not offering followers the time in short shift breaks to participate until the due date, thus cannot offer timely processing of the 360° feedback.

Nevertheless, besides the opportunities of new technologies, the real challenges are those related to organizational and cultural change (Werther & Woschée, 2016) in terms of a feedback culture. It is of main relevance that the trend of digitalization and feedback does not neglect the personal reciprocal exchange (Bock, Werther, & Woschée, 2016). Neuberger (2000) further argues that not performance, skills or actions are assessed within a 360° feedback whereas relationships and their development. Thus, communication and leadership in the analog reality (Bock et al., 2016), regarding the results of a 360° between the leader and the follower.

In terms of relationships, Neuberger (2000) sensitizes that the instrument and thus feedback releases energy as followers respond in an emotional way to either positive or negative feedback. This energy could be used in a positive and constructive way to reach individual and organizational goals, or in a negative way. Examples for a negative use of the energy, as offered by Neuberger (2000), would be a shifting of responsibilities, pursuing the own interests, concealing deficiencies, and attaining own advantages up to a boycott of this instrument/ritual. One possibility to prevent a

boycott would be to conduct the 360° feedback anonymously during the first rounds, facing resentments and fears.

In addition, and especially in production, foremen might fear a "payback" in terms of a negative feedback from followers. Reasons could be less offered personal exchange time or other management decisions up on which followers do not agree. The role of the foreman in the production is sometimes described as a "sandwich" position as s/he has to implement decisions taken by higher management on which s/he as well as his/her followers might not agree upon. Thus, it is important that the consequences of a negative feedback and (non) anonymity are discussed before implementing and conducting a 360° feedback. However, concerning anonymity, the aim would be to develop a free and open approach for exchanging opinions among each others (Neuberger, 2000).

If changes in the feedback culture, such as a more frequent and thorough feedback which is based on multiple sources is triggered, it is proposed that LMX-quality increases and thus improvement of LD. The aim would be to establish the 360° feedback as a ritual within the organization. Rituals are formalized social institutions, processed in a standardized form (trigger situation, participants, roles, actions, situation design, and used materials are exactly described) where the motivs of participation are not the primary aim but the realization of a social function (Neuberger, 2000).

4.2.5 Appraisal interview.

Focusing on the aforementioned *appraisal forms*, in the following several recommendations linked to the planning, organizing, and content of appraisal interviews are outlined. First the focus is placed on regular appraisal interviews, such as in relation to a job rotation. Later on, improvements for appraisal interviews within the scope of AC feedback are outlined.

4.2.5.1 Increase time for appraisal interviews. First, HR could support and encourage production leaders to receive more time or specific scheduled time frames from higher management to conduct employee appraisal meetings with their talents. This would lead to an improvement of LMX-quality over time. Due to time restrictions and high coordination effort to find free time frames, leaders reported in interviews that for instance appraisals with all three roles after the end of a job rotation cannot be realized in every case. It can be quite challenging to organize an appointment with all at the same time, the home department's and job rotation department's leader and of course the follower as well. It is suggested to schedule an appraisal directly before the start of a job rotation as well as a back-up meeting to ensure that both leaders can discuss the performance of the employee together.

4.2.5.2 Mid-job-rotation-appraisal. Second, regular appraisals would also help to solve a misfit between the tasks offered in the job rotation and followers learning fields. This misfit has been voiced in the exchange with HR by several talents. For instance, followers were sometimes employed in job rotations to replace personal capacity. Those job positions are often characterized by non-challenging tasks, not serving for a followers' development in the preparation for a leadership position. Therefore, and relating to the first recommendation to plan appraisal meetings ahead, it is suggested to conduct a mid-job-rotation-appraisal with the three roles, as depicted in Figure 9. A mid-job-rotation-appraisal would also allow to control if the follower is "on track" with the minimization of learning fields and improvement in leadership behaviors.

4.2.5.3 Sound preparation of appraisals. Third, to assure a sound preparation on both sides for the appraisal meetings, especially as for the majority of blue-collar workers those formal meetings are not common, a greater exchange between the talent, leader, and HR is needed. For instance, the leader could hand over a preparation checklist to the follower, prior to the meeting. This preparation checklist could include a selfdiagnosis of the potential as offered by Flato and Reinbold-Scheible (2007, pp. 77-78). The checklist offers hints and orientation for LD, which are based on the support and assessment of this group of talents (Flato & Reinbold-Scheible, 2007). The included check of self-motivation is the base for the development talk between the talent and leader as well as HR personnel (Flato & Reinbold-Scheible, 2007). In addition, HR could offer leaders a refresher seminar, sensitizing for the "do's and don'ts" in conducting appraisal interviews. A good preparation on both sides will contribute to a structured process and save time during the meeting.

4.2.5.4 Leaders tasks in the appraisal. In case the follower is not in an incremental process in which s/he lifts the capacity of the individual development to a level where it would not stand otherwise, resources are needed, such as the assistance of a more experienced individual (Wood, Bruner, & Ross, 1976). Solutions are, for instance, a re-structuring of the team, providing the talent the support of a qualified co-worker. A mentor could be another solution, providing specific dyadic exchanges, affecting the quality of, e.g., a mentoring relationship, when those exchanges are cumulated over time (Eby, 2012), lifting the follower to the next learning stage. All these tasks mentioned before, could be taught within appraisal interview refresher training for leaders.

Furthermore, the quality of exchange during appraisal meetings could be improved. This counts for the personal annual meeting between the leader and the fol-

lower; but also for the appraisal meetings before and after job rotations with the leader of the other team where the job rotation is planned. It is recommended –and therefore relates to Social Exchange Theory (SET) (Cropanzano & Mitchell, 2005)– that the appraisal should be used to openly discuss which resources should be exchanged between the roles, applied, and aligned to the learning fields and strengths of the follower. Another key driver for an increase of LMX-quality is to openly discuss in how far the follower adopts to the leadership behaviors (status quo) and where the leaders wants the follower to be, in terms of an improvement in the specific behaviors within a specific time. Thus, the appraisal meeting assures that the available resources are efficiently exchanged and used between the roles (Stöwe & Beenen, 2009). The aspects mentioned before could also be taught in the refresher training for leaders.

4.2.5.5 Evaluation sheet. In the following, recommendations for an improvement of the evaluation sheet –that is used in the appraisal interviews– are outlined. The sheet usually includes key facts of the planned job rotation, learning fields, and the description of a planned off-the-job seminar. However, early research by Drucker (1954) states that the leadership model "Management by Objectives" (MbO) and with it clearly defined goals are needed. The well-known "SMART" concept serves for the formulation of measurable objectives and is a formula that both participants can remember easily (Stöwe & Weidemann, 2005). By applying this formula, leaders as well as followers should define "**s**pecific", "**m**easurable", "**a**ssignable", "**r**ealistic", and "**t**ime-related" goals. In terms of "realistic" goals, it is important to mention that the leader and the follower together have to discuss in which period ("time-related") the follower should achieve this goal but not being too slack with the definition of the time frame due to the possibility of a second participation in the AC (lifelong learning process).

In order to create a greater alignment of the business strategy of the organization or team strategy with the individual goals of the follower, the feedback sheet in the appraisal interview could also provide an annual priority theme on the first side, reminding both roles to integrate it in their agreements. Referring back to the identified leadership behavior of diversity from qualitative analyses in this thesis (see Chapter 2) and the fact that the workforce in the production becomes more and more diverse, diversity could also be a strategic development topic. Intercultural awareness and competence trainings or learning a new language could be goals, which are linked to this strategic topic. Researchers (Scandura & Lankau, 1996) also recommend to link diversity, which is grasped in the culture of the organization, to LMX, in order to establish an effective LD. The ranking of Dinh et al. (2014) extensive qualitative review of leadership theories, ranks leadership and diversity at 5th, highlighting the need for a higher focus on greater social tolerance and opportunities within the workforce.

In general, a differentiation into indicative targets, general aims, and more detailed targets on the evaluation sheet would provide certain standardization. For instance, an indicative target could be to improve follower's self-marketing in terms of appearing as a potential future leader. The general aim would be to increase follower's visibility, an identified expected leadership behavior in the conducted interviews of this research project (see Chapter 2). A more detailed target and description to improve self-marketing would be to take on projects in which several presentations and reportings during shop-floor-managements are needed. This approach would stimulate the goal setting process and avoid missing target relevance, unclear and / or vague goals and avoid an agreement as a farce (Müller, 2010).

As LMX is identified as a main predictor of a successful LD-process in this thesis, follower's contribution for an increase of LMX-quality over time should be

discussed and defined on the sheet. An example could be the identification of misleading communications between the leader and the follower in the past. Solutions could for example be a more precise agreement of tasks or pertinent questions of the follower to clarify given tasks or expected leadership behaviors.

In sum, it is assumed that the actual evaluation sheet for blue-collar workers at the organization is probably held in an understated and rather unstandardized format, in order to not overload leaders and followers with bureaucracy whereas offering a semi-structured guide and allowing pleasant conversation. However, the target agreement form could be provided in a more standardized way as based on previous recommendations, providing higher levels of orientation, commitment and thus being further developed to an even stronger value adding instrument of LD.

4.2.5.6 Benefits of improved regular appraisals. Several benefits of the conduction of regular appraisal meetings derive (Hossiep, Bittner, & Berndt, 2008): During the appraisals the leader is intensively involved with the objectives and tasks of the follower and gets to know the perspective of the follower. Furthermore, leaders will gain insights into the plans and intentions of followers, an individual feedback about their own leadership and an increased acceptance as leaders. When conducting an appraisal in the context of a job rotation it is suggested that all three roles meet in person. Due to time restrictions leaders reported that sometimes only the two leaders exchange about the performance of the follower via phone. Advantages of a meeting with all three roles in person instead of only an exchange with the two leaders are to (a) conduct a transparent process for all roles and thus commitment instead of fears on the talent's side. Further, it is (b) a great development opportunity for the talent to receive feedback from two leaders. A participation of all roles also (c) avoids misunder-

standings through an open and direct discussion and exchange of information about atmospheric aspects, as well as solutions of conflicts.

On the corporate side, advantages of regular appraisals are an increase in the quality of work results through improved cooperation and increase of leadership culture. In addition, organizations are profiting due to an increasing qualification of talents as well as opportunity for effective succession planning. Consequently, the appraisal meeting contributes to the in Chapter 2 (see Figure 3) identified *resource management* as a shared motivation of HR personnel and leaders to participate in LD. All these aspects and the focus on followers' objectives serve to improve LMX in the LD-process and thus the progress of the talent. The regular exchange will support followers' and leaders' development equally and controls the expected leadership behaviors of the follower (Proske & Reiff, 2008). The appraisal meeting offers great opportunities to realize all of the mentioned herein benefits and should therefore be good prepared, implemented, and evaluated, such as done by HR or through this thesis.

4.2.5.7 AC feedback meeting. In order to increase exchange between the three roles of followers, leaders and HR, it is further suggested to invite HR for the AC feedback meeting not only after a non-confirmation of potential in the AC ("Restart", see Figure 9); but also when talent's potential has been confirmed in the AC ("Follow up"). This assures a regular exchange between the three roles, being it an increase of exchanged information regarding new available on- and off-the-job assignments or possible (job rotation) vacancies. HR could also contribute to the meetings with information about changes in the LD program, in return leading to an adjustment of the road map.

4.2.6 Applying standards of the AC and review of job description.

The next recommendations relate to a regular evaluation of the "heart" or major milestone of the LD program, the AC. HR should be *familiar with and apply the "Standards for Assessment Center Operations"*, as derived from the working group and association "Arbeitskreis Assessment Center e.V." By applying the standards, transparency and clarity for leaders, who are in the role of decision-makers, will increase, as well as for followers and HR who are also involved in the process (Neubauer & Höft, 2006).

If HR openly shares the results of the crosschecks with the AC standards and communicates recommendations for action to followers and leaders, the overall acceptance of the AC method will rise (Neubauer & Höft, 2006). Table 10 shows the results of the first crosscheck of AC standards with the current AC within the organization:

Table 10

Results of the first crosscheck of AC standards as outlined by the "Arbeitskreis Assessment Center e.V." (Böhme et al., 2004) and the current AC for blue-collar worker

Standards	*Status*
1. Mission statement & networking	F
2. Job and requirement analysis	NF
3. Exercise design	F
4. Observation and evaluation	F
5. Observer selection and preparation	F
6. Preselection and preparation	F
7. Preparation and implementation	F

8. Feedback and follow-up measures	F
9. Evaluation	F

The overview of the benchmark results of the AC in Table 10 shows that all of the 9 standards, except standard 2, the *job and requirement analysis*, are fulfilled. The reason for the non-fulfillment is that discussions with HR personnel revealed that a job description for the definition of the salary level does exist. However, due to changes in the job profile over the last years this is no longer accurate in terms of expected leadership behaviors. This is in line with research by Antoni (1992) discussing the changes of the foremen role in the industry in recent decades as a result of developments in technology and work organization.

Further reasons, claimed by HR, are an increase in managerial tasks, higher span of controls as well as higher claims in terms of innovative thinking and diversity. The changes build the base of a recommended adjustment and clarification of the requirements of the leadership role. A second reason for a not fulfilled job and requirements analysis is that in the past, during the development of the AC, several steps were guided by best practices of the AC from a higher leadership level (white-collar workers) within the organization. But the job profiles between the two leadership levels do have severe differences, which should be addressed in the development of requirements in the AC of blue-collar workers. Several scholars also encourage the development of company-specific procedures, such as the AC, which is based on specific leadership behaviors for the target group of blue-collar workers (Böhme et al., 2004; Bolte & Sünderhauf, 2005; Schuler & Stehle, 1983), in order to increase the social validity of participants (Lattmann, 2013), supporting the following recommendation.

A derived recommendation is to analyze current requirements of the job (Ulich, 2011) as a foremen and leader in the production in terms of a *re-adjustment of the job description*. Therefore, in a first step, a small group of job holders, the foremen, as well as leaders of the foremen could describe separately the job requirements with the use of criteria lists (Spieß & von Rosenstiel, 2010). Results could be visualized in form of a profile and in a second step, foremen and leaders come together and discuss their results until consent is reached (Spieß & von Rosenstiel, 2010). In addition, they could compare and integrate their results with the identified and expected leadership behaviors stated in Chapter 2 and 3. In a third step, the group of foremen and leaders could relate the result with the organizational future strategy and discuss which job requirements remain unchanged or changed due to an in- or decrease of importance. The final catalogue of requirements in turn has to be integrated in trainings and other personnel development instruments (Spieß & von Rosenstiel, 2010).

Another best practice sharing derives from a diploma thesis of a cross unit of the organization. Additionally or instead of using a criteria list (first step) for the job requirements the critical incident technique (CIT; Flanagan, 1954) could be applied. The CIT (Flanagan, 1954) could be used to collect workplace-specific or task-specific behaviors (Schuler & Funke, 1995). Furthermore, interview results from Chapter 2 revealed that more precisely leadership behaviors are mentioned from the interviewees.

4.2.7 AC observer nominations.

Leaders recommendation regarding the selection of new observers for the AC is a *nomination based on decisions in the management rounds* of the higher leadership level. Previously, leaders could proactively engage as observers in the AC, without being nominated from others in a first step. However, leaders argue that those managers have larger networks and leadership experience, ensuring a higher quality in the selection of appropriate role models, representing the organization and mirroring expected leadership behaviors. The recommendation is that all managers participating in the management round should make a profound and accurate decision regarding who will be a future observer during the meeting, increasing the responsibility in the selection of new observers in the AC.

4.2.8 Extension and intensification of observer training.

A further request for an improvement of the observer training is to intensify the training of the written allocation of observations to the leadership behaviors on the evaluation sheet. This would improve the discussions in the observer conference and increase the decision quality of the observers. The intensification of the training is linked to a further recommendation voiced by leaders to expand the observer training, after being nominated as an observer, from a half-day to a one-day training. However, research contradicts with the effectiveness of a longer training. Woehr and Arthur (2003) indicated improvements in construct validity for the within-dimension rating but Lievens and Conway (2001) a stronger one for shorter trainings. Therefore, it is recommended to pilot a longer training session in order to reveal which duration is more effective. Lastly, leaders recommended offering voluntarily participations in online observer trainings. Trainings would serve as a "refresher" for those who have not been participating in the AC for more than a year.

4.2.9 Review of the AC design.

Recommendations from leaders referring to the AC design are a reduction of the AC duration, an increase of simulated social exchange situations in the AC, and improvement of the AC's reputation. Observers experience that too much time for a one-day AC is spent for each candidate. This might have negative effects on their concentration during the observer conference. A recommendation is the developing and testing of shorter designs or alternatively a two-days design with a higher ratio of candidates. Concerning the ratio of participants and observers, an early meta-analysis revealed that most organizations apply a ratio of 2:1 and higher, not 1:1 as currently applied in the organization (Gaugler, Rosenthal, Thornton, & Bentson, 1987, p. 496).

The recommendation of more interaction with the candidate and a greater number of situations in which leadership skills can be assessed and less analytics could be addressed by: Either a reduction of analytical exercises and increase of those involving social exchange or a deletion of analytical exercises and additional imple-mentation of (an) exercise(s) requiring more social skills of the candidate. However, it has to be mentioned, that interview results in terms of leaders' opinions regarding this shift to more social exchange exercises in the AC are highly divided. In contrast, sur-vey results with self-developed questions in this research program revealed that across all exercises in the current AC the staff appraisal reached the highest value in terms of simulating expected leadership behaviors. Hence, changes of AC exercises have to be applied with care and in close alliance and exchange with all involved roles.

In order to improve the AC's reputation among participants, the moderator of the AC could place a stronger focus on the learning fields of the (non-) confirmed par-ticipants and sensitize observers to connect to them during the observer conference.

With this a more developmental and motivating feedback could be provided to the participants within their feedback talks after the AC.

Furthermore, they could make use of an "on/off the job" – toolbox, offering several evidence-based practices to improve talents LD (Flato & Flato, 2013), additionally to the derived individual development recommendations in the AC. With this the AC candidate would have the possibility to discuss AC results, together with the leader of the home department, aligning them with development options out of the tool-box, offered by the AC observer.

In terms of resource management, leaders recommended HR to run regular analyses to test their hypothesis that an increase of talents with confirmed potential and high mobility in terms of a flexibility to work in another plant is required for future staff planning. The reason for this hypothesis is that some leaders experienced that confirmed talents got frustrated and demotivated, as they had to wait for several years until nominations took place due to a surplus of staff at their home plant.

In general, and in line with research by Day (2001), it is recommended to link networking and mentoring activities within the organization. This would lead to an integrated LD-system covering all facets of assessment, challenge, and support. By incorporating these linked processes within the context of, for instance, a job rotation, the bond between leader development and leadership development can be enhanced (Day, 2001).

4.3 Prioritization of Recommendations

The derived variety of recommendations is not effective without a justified prioritization regarding the implementation of described tools or further adjustments of the LD-process. Therefore, recommendations are assessed in terms of their esti-

mated (a) *need for implementation*, thus their proposed effectiveness, (b) *implementation possibilities,* and (c) *implementation time* (see Table 11).

Prioritization of recommendations is accomplished by the author of this case study, based on results of collected data. The estimated (a) need for implementation and (b) implementation possibilities are assessed on a scale from 1 to 5 (1 = *lowest* to 5 = *highest)*. Implementation time (c) is weighted with a scale ranging from 1 = *immediately* to 5 = *above 12 months* (2 = *3 months*; 3 = *6 months*; 4 = *9 months*) and related to estimated time for compulsory decisions from management, staff-, as well as top-down and bottom-up communication needed for the change management process that is related to the implementation.

Table 11

Overview of the resulting prioritization of recommendations

Recommendations	(a) need for impl.	(b) impl. possibility	(c) impl. time
1. Refresher prior to AC	3	4	2
2. Transparency of AC procedures	3	5	3
3. Transparency of resource management	2	5	3
4. Job rotation portal	5	3	5
5. Individual road map	5	5	1
6. LMX for development group meetings	4	4	1
7. Job rotation standards	5	5	3
8. Extension of mentoring time frame	4	5	1
9. Work engagement training	4	4	5

10. Proactivity training	3	3	5
11. 360° feedback	3	4	2
12. Increase time for appraisal interviews	3	4	2
13. Mid-job-rotation-appraisal	3	3	3
14. Preparation for appraisal meetings	2	4	2
15. Appraisal interview refresher training	2	4	4
16. Improvement of the evaluation sheet	3	4	3
17. AC feedback meeting with HR	4	4	1
18. Standards for AC operations	5	3	5
19. Job analysis	5	3	5
20. Observer nomination	3	4	2
21. Review observer training	3	3	2
22. Reduction AC duration	5	3	3
23. Review AC exercises	4	3	5
24. "On/off the job" – toolbox	3	4	5

Notes: Impl. = Implementation, also in terms of applying standards, (re-) adjustments, expansions of instruments or procedures or conductions within the LD-process. Recommendations are ordered as described in the prior text description. The six underlined recommendations are described in more detail.

Out of the previously described 24 recommendations the six with the highest prioritization in terms of a (a) need for implementation will be explained in more detail. The six recommendations are (see Table 11): the implementation of job rotation portal (4) and individual road map (5) tools, the implementation of job rotation standards (7), the application of German standards of the AC (18), the conduction of a job analysis (19), and a reduction of the AC duration (22).

4.3.1 Job rotation portal.

Starting with the job rotation portal (see Table 11), a best practice sharing re-
sult, due to the fact that no link between the quantity of job rotations and talent's per-
formance in the AC exists, a higher matching quality, exchange regarding the tasks of
the job rotation position and transparency of available positions, hence exchange be-
tween the three roles is needed. The (b) implementation possibility was ranked with a
three as the plant, which already implemented the portal, reported that the conduction
highly depends on the personnel capacity of the responsible HR employee and contri-
bution of followers, leaders, and other HR coordinators, collecting the required sheets
needed for a preparation of the meeting from their respective plants and supporting in
the follow-up process. Implementation time (c) is ranked with a five, meaning above
12 months are needed. Reasons for this time frame are the same as mentioned for the
(b) implementation possibility. An additional reason is that the portal starts at the be-
ginning of every year with the first of in total two meetings. This schedule is related
to the annual appraisal interviews and nomination of talents who enter the LD-
process. Thus, the implementation of the portal needs a long preparation time and is
linked to a specific starting date defining the 12 months of implementation time.

4.3.2 Individual road map.

The individual road map (see Table 11) is assessed with the highest (a) need
and (b) possibility for implementation. One reason is the result of the semi-
standardized interviews with leaders. The result indicated that LMX is an essential
predictor for successful LD. It is assumed that the individual road map serves as a
very useful tool and contract to, on the one hand, start LMX through the first meeting
of the leader and talent. During this meeting they discuss on the developmental mile-
stones of the talent that are defined on the sheet, prior to AC participation. On the

other hand, it defines a time line and process of further LMX, thus increasing LMX-quality over time. Moreover, exchange with HR is growing through the scheduled developmental groups and additional developmental talks with HR. This road map could be easily sent via email to talents and leaders with further instructions by HR, justifying the immediately implementation time. Additionally, the template can be addressed within the observer training, development groups, and trainings as offered by HR.

4.3.3 Job rotation standards.

Job rotation standards (see Table 11) again are assessed with the highest (a) need and (b) possibility for implementation, and an implementation time of six months. The high need and possibility links to the fact, that in the AC candidates of various plants are participating. Even though the I-O psychologist and HR moderator sensitizes the observers to not compare their observations and assessments between candidates, this subjective bias cannot be fully eliminated. Therefore, it is a fairness procedure to implement the same job rotation standards across all involved plants, offering the candidates the same options to gain experiences on the job and preparation for the AC and thus leadership role. In addition, standards would contribute to the recommended implementation of the job rotation portal, as all requests and searches for job rotations can be summarized across the plants and ensuring the same conduction of job rotations for all plants. However, implementation time is assessed with six months as not only management and leaders have to discuss on the conditions (e.g., two to three or six months for a job rotation) but also on barriers and challenges related to staff shortages for the time the talent leaves the home department. Moreover, the starting time is linked to the job rotation portal, starting at the beginning of each year.

4.3.4 Standards for AC operations.

The application of German standards of the AC (see Table 11), is assessed with the highest need for implementation and a 12 months implementation time. The possibility for implementation is ranked with a three. Focusing on the AC standard nine, the evaluation of the AC, an *ongoing evaluation of the AC* in a routine from two to five years, as fulfilled with this research program as a starting point, is recommended. Reasons for the lower possibility of implementation are related to personnel capacity. In this case of a research program a PhD student was hired to start the evaluation process. Nevertheless, when aiming to evaluate the AC on a regular base and in order to increase the validity and experience as well as qualifications for AC conductions within a blue-collar setting, it is recommended to assign this task to an I-O psychologist with a permanent contract, decreasing the training period and ensuring a more intense network between the other HR coordinators which are also permanent employees of the organization.

On the other side, hiring an external PhD student offers the advantage to undertake a more objective analysis while assessing the current AC with the AC standards. In addition, a psychologist can be hired; who might offers more profound empirical background of ACs, compared with internal HR personnel with different academic backgrounds. Reasons for the high implementation need were mentioned in the introduction of AC standards as a recommendation before. The long implementation time frame is linked to personnel decisions as this task has to be allocated to an existing job position, such as the responsible HR coordinator of the plant or consents of the management and works council are needed for the recruitment of a PhD student, as well as training time which is required for the new employee.

4.3.5 Job analysis.

The recommendation of a job analysis (see Table 11) received the same valuations as the previously described standards for the AC. The high need derives from the fact that job requirements changed but might not be mirrored in the job description and AC exercises, nor are they integrated in other modules of the LD. The possibility was ranked in the middle as groups of foremen as well as leaders of the foremen have to be temporally exempted to do the analyses, discuss their findings and support in the revision of the actual job profile, AC exercises, and LD modules. As this change management process –and with it several steps of social exchanges between several roles as well as a decision making– requires quite a lot of time, it is assessed with a one year for re-adjustment.

4.3.6 Reduction AC duration.

The last highly prioritized recommendation in terms of the high value for a need for adjustment is the reduction of the AC duration (see Table 11). The high need of this adjustment derives from various conducted ACs exceeding the 10th working hour, thus violating internal working time policies. Further arguments were voiced by leaders and previously mentioned. The same saying that was addressed to the instrument of job rotations can also be mentioned for the AC duration: "more quality than quantity". Leaders requested to be able to observe more social exchanges and with it leadership behaviors of the candidates and less analytical exercises or AC situations. The possibility of an adjustment was assessed with a three (see Table 11) as the elaborations of various alternative AC designs show that either cutbacks in terms of the validity of lasting exercises have to be accepted, due to time reductions, or the validity of the AC in general as fewer exercises decreases it. With fewer or shorter exercises observers will have less situations to assess and form a thorough opinion on the can-

didate. However, a high-quality observer training and well-moderated observer conference could compensate these limitations. Due to the perceived high need for an adjustment regarding the reduction of the AC design the adjustment time is assessed with six months, accounting for all plants.

4.4 Conclusion

To conclude, this case study and with it the various methods of data collection and analysis resulted into a wide range of recommendations. It is important to note that every organization and industry is characterized by distinct management practices (Cappelli & Crocker-Hefter, 1996). Therefore, these derived recommendations in the LD of blue-collar workers could shape the core experiences determining the organizations competitiveness (Cappelli & Crocker-Hefter, 1996). The prioritization of the 24 recommendations revealed and introduced an agenda for an increase of social exchanges between the three roles for an improvement of the LD-process for this particular case.

5 Synthesis and Overall Conclusion

In dynamic times as now, characterized by progressive globalization, increasing span of controls and group diversity, engaged followers are a critical competitive advantage. In order to establish a successful production system template (blueprint), it was stipulated that leaders have to manage and develop highly engaged followers at work in order to fulfill international customer demands. Results of this case study showed, however, that engaged followers are the ones who are in an active role: Engaged followers at work are not solely healthy workers (Hakanen & Schaufeli, 2012; Kubota et al., 2011; Langelaan et al., 2006; Seppälä et al., 2012), but also spill over their emotions (Culbertson et al., 2012; Hatfield et al., 1994), such as to leaders (see Study 3). Thus, the Spillover of positive attitudes and behaviors (Salanova & Schaufeli, 2008), such as work engagement of followers at work, positively influences the quality of the relationship between followers and leaders (LMX).

The increase of research articles in the field of LMX, which is continuing in the 21st century (Day & Miscenko, 2015), underlines the many valuable contributions of LMX theory in comparison to less actively researched theories of leadership (e.g., contingency and behavioral theories) (Day & Antonakis, 2012). The aim of this case study was to expand the current state of research on work engagement, link it to LD with a main focus on LMX in a blue-collar setting, as well as identifying other key drivers of LMX and thus LD.

First of all, results of the three studies were described and summarized in an integrated perspective. Afterwards, practical implications were outlined. Limitations in terms of the executed studies were discussed as well as implications for future research shown.

5.1 Summary of the Main Results

Results revealed that LMX, which is based on social capital, is the main motivation of not only followers, but also for leaders in order to successfully develop talents in production (see Figure 3). The qualitative study (Chapter 2; Study 1) focused on the various expected behaviors a follower should exhibit in order to increase LMX and contribute to a successful LD. Study 1 unfolded the LMX and LD-process from three perspectives: (a) *followers,* (b) *leaders themselves,* and (c) *HR personnel.* Results from in-depth interviews were triangulated with observations to create a holistic image of LMX. Behaviors are identified through long-term (derived via interviews, see Figure 3 quadrangle) and short-term (derived via ACs, see Figure 3 pyramid) behaviors. Observations revealed a total of 21 short-term V, PV, and NV expected follower behaviors, as experienced from leaders and HR in ACs. Thus, the derived conceptual model offers knowledge of *how* followers in this specific case can get into the in-group of LMX and *what* motivates the three parties to contribute to the lifelong LD-process.

In the quantitative studies (Chapter 3), the interplay between the assumed key predictors of proactivity and absorption, a subscale of work engagement, was investigated to improve LMX. In contrast to the qualitative Study 1, the focus was on self-ratings of followers in terms of their absorption, PI and LMX levels instead of leaders and HR ratings. The *intrapersonal* development aspect, a characteristic of *leader development,* was measured with followers' proactivity, actively striving for a leadership role in the future. The *interpersonal* development aspect, a characteristic of *leadership development*, was measured with LMX-quality and work engagement.

Quantitative results showed that follower proactivity is a short-term mediator, mediating the relationship between absorbed followers and high-quality exchange

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with leaders. However, the longitudinal mediation could not confirm followers PI as a long-term resource. By testing an additional research model (cross-lagged panel), it could be indicated that followers, exhibiting high absorption levels, have a direct long-term impact on their LMX-quality. No reciprocal effect could be confirmed with the cross-lagged panel.

Additionally, specific 24 recommendations for practice (Chapter 4) were of-fered, relating to the qualitatively developed model from Chapter 2 and quantitative results from Chapter 3. Out of those recommendations, six with the highest prioritiza-tion in terms of a need for implementation were explained in more detail. Those ranged from a job rotation portal to a reduction of the AC duration for this single case study of blue-collar workers.

5.2 Practical Implications

Results of Studies 1 to 3 led to various practical implications –as outlined in Chapter 4 in the scope of 24 specific recommendations– for an improvement of LMX and thus LD. However, it is important to note that those 24 recommendations were specifically derived for this case study and could solely be offered as *optional* rec-ommendations for other organizations and thus settings. Therefore, this case study contributed to LD for blue-collar workers as LD practices are mainly discussed in white-collar settings where the approach but no systematic research exists (Hennequin, 2007; Winkler et al., 2015; Yukl et al., 2002). The qualitatively devel-oped conceptual model of leadership in Study 1 could, for instance, be applied in trainings to increase the awareness of followers, leaders, and HR in terms of specifi-cally expected behaviors in the lifelong learning process. In addition, it could serve for a thorough preparation for all three parties regarding the heart of the LD-process,

the AC, in terms of increased awareness of expected behaviors. Nevertheless, further practical implications are outlined in the following, applying to all organizations.

Generally applying to all organizational contexts, LD-processes of every management level should be analyzed on a regular basis. Similar to the method of continuous analysis of production processes, this method should be applied to other LD processes for an increase in quality and optimization where needed. As described in Chapter 2, adaptations of the LD-process in terms of internal and external changes are necessary by all parties involved. The suggested steps for a revising and adaption of the LD-process are: *discussion*, *reflection*, *cooperation* of roles (e.g., through pilots), and finally a *training and development* (see Chapter 2).

Another practical and strategic implication to enhance employees work engagement levels would be to benchmark against present "best practices" in employee engagement worldwide (Miller, 2014). In addition, Miller (2014) outlined ten best practices for employee engagement enhancement which could be applied in the organization. Those range from a "strategic imperative" (1), to "rewards, recognition, and career path development" (5). Best practice number five implies showing followers how they can realize their personal career potential, including their career path and expected behaviors to fulfill their goals. A mentor could, for instance, work out the career path together with the talent by relating to expected behaviors.

Best practice number seven, "the enablement and empowerment", is a strategic lever. This lever relates to the roles of HR and management of the organization who could, for instance, flatten organizational structures, enriching this leadership level as in the scope of faster decision-making processes. Another interesting shared best practice is to focus on the development of "First Line Managers" (10) (Miller, 2014). Due to their position, first line managers best understand not only followers',

but also customers' needs and wants by knowing their specific characteristics. There-fore, it is important that this role does not just perceive training in traditional man-agement tasks, but also leadership, including, for instance, the monitoring of employ-ee engagement.

One instrument or tool for international comparisons of engagement levels could be the Gallup research studies (Organization, 2015). The annually conducted studies are based on worldwide interviews. Those results could serve as a benchmark for recommended organization's employee engagement plans. Miller (2014) recom-mends those plans to develop structured and formalized programs in order to improve not only work engagement but also employee recognition in the workplace.

Focusing on *training* and *personnel development*, a practical recommendation would be to equip followers, who are challenged by high span of controls, with useful *rules and resources*, such as absorption, and the short-term resource of PI, adopting a *resource-* and *relationship-based view.* After the follower and leader have signed a binding agreement, in terms of an individual road map/development plan, the next development steps could be expressed in aligned trainings. Within the development instrument of training, followers and leaders could be specifically informed and trained in identified expected rules and resources, in terms of expected behaviors of their (future) role. This would link to actual discussions of decent work and in a prac-tical way contributes to the job-demands-resources model (Bakker & Demerouti, 2007) (see Chapter 1).

In terms of training and the identified short-term resource of followers' PI, partially mediating the link between followers' absorption and LMX (see Study 2), a further practical implication can be derived. PI, characterized by three motivational states –the "can do"-, "reason to"-, and "energized to"-states (Parker et al., 2010, p.

370)–, is an important expected behavior from followers and leaders side. Followers could be trained to motivate themselves (showing PI), over a short time frame in order to improve LMX. The training of PI and also work engagement could further include self regulation techniques. Followers, who could easily self-regulate themselves, are enabled to guide their goal-directed activities over time (e.g., being scheduled for a AC date) and across changing environments (e.g., being transferred into another group) by modulating affect, behavior, and thought (Porath & Bateman, 2006). If followers, for instance, want to improve their LMX in order to become future leaders, their direct leaders could be also trained to stimulate, enable, and finally sustain effective self-regulation (Cohen, Chang, & Ledford, 1997).

In addition to trainings for future leaders, the identified expected behaviors of Studies 1 to 3 could be considered in ACs of blue-collar talents. During the observer training, HR and leaders could be sensitized for expected behaviors and followers during their introduction round at the AC day. But even before the AC date, the expected behaviors in terms of LD could be also communicated during the weekly shopfloor management meetings in order to provide transparency regarding the identified expected behaviors for future talents. This is not only of high relevance for those who are interested in becoming a leader, but also for those who have to rate potential future talents in the scope of a 360° feedback.

It is of high relevance to discuss the research finding of Study 3, showing how followers' absorption levels directly influence LMX over time, to avoid the missunderstanding that followers expect leaders to motivate them. As described by Frey (2015), a leader's task is to set the framework for intrinsic motivation. In terms of setting the appropriate motivational framework, early meta-analytical research by Stajkovic and Luthans (1997) showed that the individual performance of a follower in

the production can be motivated the most by a wide set of factors. Those are a combination of monetary (e.g., payment, paid holidays, prizes), non-monetary (objective and performance related evaluations), and social incentives (e.g., rewards, awards, promotions). However, despite this possible set of motivational factors, each follower is in charge to motivate themselves. This means that followers have to regulate themselves for being able to cope with suboptimal conditions (Frey, 2015), such as a „tougher team climate" and leadership style in production. Thus, they have to improve their engagement and PI levels in order to improve the quality of relationship with their supervisors.

A specific practical implication for HR regarding a fulfillment of the identified expected behavior of *transparency* in the LD-process –as identified in Study 1– would be that HR and leaders *cooperate* more closely. Therefore, it is important that leaders have sufficient degrees of freedom in terms of their scope of action. But at the same time leaders are aware that they have the ownership as moderators and coaches, accompanying the LD-process and continually exchange with HR in terms of the best individual development of their talents.

As Irmler and Eggelhöfer (2009) argue, a 360° feedback could offer suitable conditions for a (higher) transparency in a LD-process. Therefore, and as recommended by the automotive industry, (future) leaders should be supported in their self-responsibility for their personal development practices and at the same time the open feedback culture should be further expanded (Geuther & Conrads, 2013). Furthermore, and relating to results of Studies 1-3, the 360° feedback could contribute to the examination of PI as an internal motivational state or the precondition of managerial behaviors that enhance employees PI, as put into practice by Tangirala (2012).

In terms of developing an open feedback culture the (common) initiation and improvement of (self-) reflection regarding LMX-quality from both, followers and leaders, is necessary. Four useful reflection questions (self-developed ones by the author of this thesis), which are easy to remember and could be offered to both parties, are:

1. *Why do we have a relationship?*

2. *What do we want from each other?*

3. *What do we do well?*

4. *What could we do better?*

Individual answers of these reflection questions could furthermore be used and integrated with the aforementioned and identified practical recommendations of Chapter 4: For example, an increase of time for appraisal interviews and mid-job-rotation-appraisals. They could also be used in the scope of a preparation for appraisal meetings as well as appraisal interview refresher trainings.

5.3 Limitations

Despite the identification of key drivers in LD of blue-collar workers, this case study also contains some limitations which have to be outlined for the interpretation of the results and at the same time provide opportunities for future research.

First, this case study was based on SET (Cropanzano & Mitchell, 2005), identifying *rules and resources*, which are exchanged between leaders and followers. However, as introduced by Brodbeck's model of leadership (see Chapter 1; Figure 1), approaches of leadership research have to be aligned with particular relevance to intercultural or global contexts (Brodbeck, 2016). Therefore, the sample of this case study (German blue-collar workers) is restricted due to cultural background of parti-

cipants. Chhokar, Brodbeck, and House (2008) and Taras, Kirkman, and Steel (2010) sensitize that leadership behavior is highly dependent on the cultural context. Therefore, the transfer of results of this case study to other cultural groups and countries is only possible to a limited extent.

Secondly, as mentioned by Frey (2015), leaders have to focus on three cultures, which should be lived in an organization while paying attention on fulfilling the motivation strategy: Firstly, a culture of excellence, performance, innovation, sustainability, and quality. Secondly, a culture of appreciation, fairness, and transparency. Thirdly, a culture of ethical-oriented leadership, characterized by role-models, responsibility, and obligation. Thus, this thorough holistic picture of cultures highlights, that this case study is solely focusing on a small segment of the beforementioned cultures: Innovation with the self-assessment of followers' PI (Chapter 3) and transparency as the qualitative study in Chapter 2 uncovered expected behaviors across three roles of followers, leaders and HR, in order to improve LD. In terms of the third mentioned culture by Frey (2015), results show that responsibility is expected in so far that followers, not leaders are in charge for improving their LMX over time. The reciprocal effect which would include a significant link from LMX to follower absorption was not supported.

Regarding the construct of work engagement in this case study, three main limitations have to be outlined. Firstly, solely the absorption subscale not dedication and vigor subscales were conducted. Secondly, due to the survey lengths that had to be reduced to the duration of shift-break, in terms of the absorption subscale only two out of three items were applied. Thirdly, this thesis did not analyze work engagement in-depth from an evidence-based management perspective and other definitions, as suggested by Briner (2014) from the center for evidence-based management. Thus,

results of this case study are further restricted in terms of the construct of absorption in addition to the cultural background. However, since in addition to quantitative measures, qualitative measures were also conducted, the intensity of these limitations can somehow be mitigated.

The aim of this thesis was to investigate key drivers of LMX. Results of the cross-sectional mediation model in Study 2 revealed not a full, but a partial mediation. This could be highlighted as a limitation, as complete mediation is the preferred result. The result of a partial mediation implies that the researcher has not 100 % correctly proven the hypothesis and should go on with in-depth analyses (Hayes, 2013).

Focusing on the construct of LMX, no specific attention was spent on the four different development stages, which are the vertical dyad linkage, LMX, leadership-making, and team-making (Graen & Uhl-Bien, 1995). Especially when paying attention on the development of future leaders and LMX, a sample based on more than one cohort would contribute to a thorough picture of LD of blue-collar workers over time. The cohorts could, for instance, be related to the four different LMX development stages (Graen & Uhl-Bien, 1995). Alternatively, more measurement points than two as in this thesis, could be conducted. This would be of main relevance as it is assumed that followers undergo a specific socialization process in which the identified key individual drivers, such as absorption and PI also grow across different stages of LMX (e.g., Wanberg & Kammeyer-Mueller, 2000).

Focusing on the longitudinal cross-lagged panel in Study 3 (see Chapter 3) and the applied time gap of 1 year, due to the annual evaluation of the talent pool of the organization, a limitation can be pointed out. Even though the one year time gap is shorter compared to studies applying time gaps ranging from 16 months (De Lange, De Witte, & Notelaers, 2008) up to 7 years (Seppälä et al., 2015), a recent paper by

Dormann and Griffin (2015) recommends rather choosing short time spans for non-stable constructs, such as work engagement. For instance, Park et al. (2015) conducted a study with a 6 months time gap to investigate the construct of LMX and its development over time. Thus, the one year time gap can be mentioned as a limitation.

5.4 Research Implications

Quantitative results indicate that despite the boundaries work in production holds, such as restrictions in terms of room for innovative thinking, mobile working or flexible working hours, followers can actively influence their LMX via absorption. Therefore, future research should investigate to what extend blue-collar workers –and especially those who want to become future leaders– could also craft their jobs, by changing task, cognitive, and/or relational boundaries (Wrzesniewski & Dutton, 2001). Wrzesniewski and Dutton's model of job crafting (2001) could serve as a „food for thought" for the establishment of such a future study, including moderating variables, job crafting practices, as well as specific and general aspects.

As a part of work engagement, the investigated subscale of absorption comprises mainly *intrinsic regulation* (van Beek et al., 2012). Future research could specifically investigate in the self-regulation processes (Porath & Bateman, 2006) of individuals in order to identify the best absorption level that improves LMX. This knowledge could then further be used to conduct research on the most effective training technique to improve followers work engagement in order to reach a high LMX-quality, in turn positively contributing to LD.

By examining work engagement in the scope of LD, this thesis contributes to the expansion of the research context of this construct. Thus, this case study goes above the health-related research field, such as associations with a reduced sickness

absenteeism, with which especially productions systems are faced (Schaufeli et al., 2009), introducing the positive relationship-focused effects of the construct in LD.

Besides the identification of PI as a short-term key driver of the relationship between follower absorption and LMX, further multiple conveying mechanisms could be identified, leading to an improvement of LMX and LD. In addition, further research is needed to investigate why PI could not be confirmed as a longitudinal mediator, strengthening the relationship between absorption and LMX. Bolino, Valcea, and Harvey (2010), for instance, outlined negative implications of expecting followers to behave proactively. Those could be an increased stress level for individuals as well as friction between proactive and less proactive employees.

In addition, Bolino et al. (2010) argue that organizations might weaken their LD opportunities and capabilities as supervision, control, and direction, which might be replaced with proactive behavior. Thus, in terms of the resource dependence theory, focusing on how organizations depend on resources (e.g., control or others) and how this dependence shapes strategic movements of the organization and various parties within it (Pfeffer & Salancik, 1978), organizations could also become too dependent on proactive employees. Furthermore, as outlined by Baer and Frese (2003) a main precondition for long-term follower proactivity is the development and establishment of a climate of proactivity within the firm.

Another research implications can be derived, concerning the methodology of the quantitative studies. Results of the quantitative studies in this thesis rely on individual self-ratings, same as the majority of research in proactivity which focuses on individuals (e.g., Bindl & Parker, 2011; Wu & Parker, 2012). In contrast, followers in production work in groups and those are divided into different work shifts. Hence, future research in proactivity could focus on proactivity of teams in order to improve

the situation of the team (Bateman & Crant, 1993; Erkutlu, 2012). Future research in proactivity at the team level would go in hand and link to training and development opportunities offering a collaborative learning environment. A collaborative learning environment would support reciprocal help across followers and activates collaborative resources and thus development of social- (Brodbeck & Guillaume, 2010) and not solely human capital (Day, 2001).

An important impact of this case study for the research community is the examination of the research question: "Predictors of successful leadership development: What do follower proactivity, work engagement, and leader-member exchange quality (LMX-quality) in a blue-collar setting bring to the table?" In terms of the specific context of blue-collar workers in this case study, this is –to the researcher's knowledge– the first thesis deductively and inductively developing a model for successful LD in production. More specifically, no cross-sectional or longitudinal study hitherto examined the effects of extra-role behavior of absorption on LMX. Nevertheless, longitudinal research is essential for testing relationships between absorption, LMX and PI, thus decreasing internal validity of results (Saunders, Lewis, & Thornhill, 2009).

As this case study serves as the starting point of research for LD for blue-collar workers –to the researcher's knowledge– in the following, several implications and propositions for future research are outlined: Especially the derived model in Chapter 2, but also quantitative results of Chapter 3 increase researchers' and practitioners' *awareness of the complexity* of expectations regarding behaviors across three roles. The derived practical recommendations could be further tested in other organizational settings and networks or online SharePoints for *evidence-based management* (Hamlin & Sawyer, 2007). This *evidence-based management* should be based on

sound research, supporting consultancy processes in organizations and ideally involving all three parties –followers, leaders, and HR– of a lifelong LD circle.

Similar to the establishment of blueprints for production systems, this framework can also serve as one which researchers can use in future studies in three ways (Wilhelmy et al., 2015): (a) testing and retesting the model regarding its content and linkages; (b) developing it through expanding with the integration of further factors and exchange relationships between several roles; and (c) expanding it with the application in other organizational contexts, such as with different leadership levels and industries, as well as organizations not adopting a lifelong learning principle, and relating it to debates in the literature.

In the following, several research implications in terms of offered research avenues are presented. On a first research avenue, scholars applying the framework derived in Study 1 should investigate the content and relationships across all roles in the derived model. Quantitative statistics could outline action points for each relationship in the model. In addition to relationships, the structure of behaviors in all parties of long-term as well as short-term behaviors (pyramid of communication behaviors of followers, see Figure 3) could be analyzed. A further step of testing the model in a quantitative way would be the translation into a factor structure (Wilhelmy et al., 2015).

On a second research avenue, further aspects, derived from the inductive analysis of the data of this study, could be included into the framework, such as the derived pyramid of communications, which could be investigated for the role of leaders (from followers and HR's point of view) and HR (from followers' and leaders' point of view). In addition, a fourth role of customers could be integrated as this group also

expresses expectations in the exchange processes with followers being of high relevance to all parties.

Besides horizontal expansion of the framework through integrating new roles, a vertical expansion could be applied. A vertical expansion involves the differentiation of roles, such as the division of followers into talents who passed the AC and those who did not. This would allow an investigation of differences in the expectations from followers to leaders in exchange processes. It is, for example, suggested that followers who did not pass the AC would expect a more intense exchange with leaders and HR to work on learning fields for a successful second AC-participation. A vertical expansion of the leader role could, for example, imply a sample of leaders of different sex, leadership styles, and years of leadership experience to investigate differences regarding their own expectations for the LD-process and their relations to, for instance, identified subcategories of role-modeling, mentoring or networking.

The model could be further expanded by a second interview conduction, including all involved parties. This allows: (a) adding further factors of overlaps regarding expected behaviors of the roles and (b) the collection of data regarding expected follower long-term V, PV, and NV behaviors, and a comparison to short-term behaviors.

On a third avenue, as this study is one of the rare studies conducted in a blue-collar setting (e.g., Lorente et al., 2014; Oren et al., 2012; Schaufeli et al., 2006), contributing to contextual leadership theory (Dinh, Lord, Gardner, Meuser, Liden, & Hu, 2014; House & Aditya, 1997), the framework should be applied in white-collar settings. This would contribute to research as comparisons regarding different leadership levels are related to different leadership definitions, development foci, and levels of analysis (Day & Harrison, 2007).

Research (House, Hanges, Javidan, Dorfman, & Gupta, 2004) also shows that different industry sectors are related to different expected leadership styles. Therefore, future research could also investigate how industries and thus their image, as well as range of offered services, are related to expectations of leadership behaviors. Furthermore, different industries apply different standards in their LD-process. This framework, which is based on a long-term LD-process, and the derived expectations regarding leadership behaviors, could be compared to industries that do not apply a lifelong learning principle. The testing of the model in other industries, which do not conduct ACs, whereas apply one or more common exercises of an AC, such as the selection interview, or apply selection instead of developmental ACs, would contribute to the models' expansion. In addition, internal development processes, before the nomination to a leadership role, have to be distinguished from external recruitment for a direct entry as a leader.

A further insight of applying the framework to other industries would be the comparison of "official leadership behaviors", which are transparent and communicated on the website of the organization of interest, and the resulting expected leadership behaviors derived from interviews with leaders and other parties involved in the LD-process ("psychological contract"). As time in LD-processes is crucial (e.g., succession planning), timing of interviews, such as the conduction before or after a (non) successful LD-process of a follower might have an effect on the formulated expected behaviors of leaders.

Relating to the quantitative result of PI as a short-term mediator, additional two research avenues as outlined by Rank, Pace, and Frese (2004) are: Firstly, to examine in more detail the specific antecedents of PI, above the subscale of absorption. Secondly, investigate how cross-cultural differences in terms of individual motiva-

tional orientations, values as well as leadership preferences influence on the enactment of PI. Finally, all suggested avenues should be related to debates in literature, such as to, for instance, LD practices in Day's review (2001).

In terms of the underlying theory of this case study –the SET (Cropanzano & Mitchell, 2005)– results of the quantitative studies revealed that firstly, the theoretical expectation that the mental state of absorption emerges from a social *rule,* which followers comply with to fulfill their leaders' expectations and receive good leader support, was supported. This implies that the follower learned across the different development stages of LMX that absorption is an expected rule at work, which s/he should exhibit in order to establish high LMX-quality.

Secondly, the construct of PI could be further supported as a short-term but not long-term *resource* for followers, developing an individual gain spiral (Hakanen et al., 2008), together with their absorptive behavior at work. Thirdly, triangulation of results revealed that LMX not also serves as a *resource* for followers who perceive or anticipate respective benefits but also as a motivation to take part in LD from the roles of followers and leaders. Fourthly, this thesis adds knowledge concerning *contextual leadership theory* via examining the effects of followers' emotional behavior on LMX in specific contextual production settings with high SOC over a one-year period.

Thus, this thesis contributed to the call for more research by providing findings of qualitative and quantitative methods on leadership and applying a wider variety of data collection, such as through triangulation of AC observations (Bryman, 2004). In addition, it contributes to research in SET by focusing on the influence of a follower's, rather than a leader's, emotions on LMX via its three foundational ideas– *rules, resources,* and *relationships*.

5.5 Conclusion

This thesis investigated follower proactivity, work engagement, and leader-member exchange quality as proposed predictors of successful LD in a blue-collar setting. Results of three studies, based on qualitative and quantitative methods, revealed that in light of changing contextual requirements for leaders and followers, a high LMX-quality is a possible answer. Several verbal, paraverbal, and nonverbal expected follower behaviors, next to the quantitatively confirmed key driver of absorption and short-term key driver of PI, were identified. In addition, a conceptual model of SET in LD across three roles of followers, leaders and HR was developed. Relating back to the starting reflection question in this thesis –if we should concern ourselves with blue-collar careers (Thomas, 1989)– results support answer 2. For instance, the result of an absorbed follower, actively influencing and shaping LMX development over time, certainly does discard the normative, achievement-oriented model of careers in which a reciprocal influence in terms of engagement behaviors between followers and leaders is assumed, which was not quantitatively confirmed in this setting. If scholars pursue the described future research avenues and share their results and experiences by exchanging expectations within LD, based on high LMX, a tangible improvement not only for followers striving for a leadership role, but for all involved parties will ensue.

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APPENDICES

Appendix A

Interviewer Guide for In-Depth Interviews With Leaders

(1) Examples of Questions Asked Throughout the Whole Research Process

Would you please:

(a) …tell me in *what ways* the behaviors *followers* exhibited during their performance at work in terms of becoming a future leader are *important* to you?

(b) …describe the *specific types* of behaviors you want *followers* to exhibit/develop at work in terms of increasing LMX?

(c) …describe the *specific types* of behaviors you want *followers* to exhibit/develop at work in terms of becoming a future leader?

(d) …tell me in what ways the behaviors of followers exhibited during their performance at work in terms of becoming a future leader are related to specific rules and resources?

(e) …tell me to which *outcomes* can *followers'* behaviors can lead to?

(f): …describe a leadership development process which has been *really successful* for a former follower in your department and for you?

(g) …describe a leadership development process of a former follower in your department which was *not at all successful* for the follower or you (e.g. you thought about or withdraw the talent status of the follower)? (CIT question)

(h) …imagine you would be in the role of a young candidate. What do you think would be supportive and non-supportive (behaviors) in terms of your personal development?

(2) Examples of Questions/Information That Were Added Later in the Research Process Based on Prior In-Depth Interviews and Observations

- In what ways are the behaviors *you (personally)* show in the exchanges with followers in your department important to you?

- Would you please tell me how *you behave* during your exchange with the follower in order to have a positive impact on the development of the follower?

- Are there *instruments* in the leadership development process, which you particularly *dislike*? Why do you like them?

- Are there *instruments* in the leadership development process, which you particularly *not* like? Why don't you like them?

- When you think about the leadership development program what *makes you feel happy*?

- Are there any *obstacles* in the leadership development process?

- Are there *process steps* you find difficult or complicated in the leadership development process?

- Which expectations (hopes, wishes, fears, and worries) do you have regarding the *future of your followers?*

- Imagine *a genie appears* at work and grants you three wishes regarding the leadership development of your followers. What would your wishes be?

Observations prior to the interview

- Time Span until interviewer confirmed the invitation for the Interview Meeting and amount of postponements of meetings

Examples of Aspects Documented Throughout the Whole Research Process

- Date

- Location

- Number of interviewees/AC Participants

- Duration of the interview/AC, specifically the observer conference

Appendix B

Applied Transcription Rules

Source: Schmidt, Fornaro, French & Ulrich, 2009.

1. GENERAL

This is a literal transcript, thus not spoken language or collectively. Dialectal impact is not transcribed. Language and punctuation are slightly smoothed, meaning brought closer to the (first time) standard German approaches. Whenever the speaker changes a new row is inserted into the table.

2. PUNCTUATION

For a better subdivision of speaking fluency, the following punctuation is proposed:

POINT (.): Completed thought, mostly on the basic tone ending voice.

COMMA (,) : Short hesitation, thought will continue.

SEMICOLON (;): Abandoned thought, followed by another thought. First a point is set for very long sentences that arise from many units, when the sentence is actually finished, so the thought of the speaker finished.

3. SPECIAL WORDS AND CLAUSES.

Wherever **personal names** are called, they will be replaced by "xy" (due to data protection rules of the organization not the first letters of the names are applied)

Numbers up to eleven are advertised as a word (one, two, three, etc.), greater amounts of numbers (12, 13, 14 ...) are listed in digits.

Literal speeches and quotes are placed in quotation marks.

4. EMPHASIS AND PAUSE

Particularly emphasized vocally highlighted items are identified by underlining.

Significant, longer breaks (min. 2 seconds) are indicated by three suspension points in parentheses.

5. INTERJECTIONS

Short interjections of another person are placed in brackets. In the bracket is stated who made the throw in ("Th:", "M:", "F:").

This refers only to interjections that do not interrupt the flow of speech of the person being interviewed, meaning that the interviewee continues talking despite the interjection. Affirming and confirming utterances of the listening person (mhm, aha, yes, etc.) will also be put in parentheses, as long as they do not interrupt the flow of speech of the person being interviewed. These are **components of active listening**, signaling the respondent that the listener is attentively following the statements.

Where the affirmative or confirmatory utterances of the listening person have a value or are the beginning of a longer reply, they are listed as full answers.

6. PARAVERBALE UND NONVERBALE VOCALIZATIONS

All sounds or phonetic sequences, which cannot be referred to as words, but are audible on the record (paraverbal statements), are detained. E.g.: "uh", hm", "oh"

Audible vocalizations of the respondent who support the statement or clarify (nonverbal statements), are listed as comments in brackets, e.g., (laughs), (coughs), (sighs).

7. INTERRUPTIONS AND INCOMPREHENSIBLE PASSAGES

Aborted words or word sequences as well as word repetitions are transcribed. An almost entirely spoken word, caused by the speaker himself or by the interruption of another discussion participant, is characterized by an immediately upstream or trailing hyphen.

Open endings of sentences are marked by suspension points.

For every unintelligible word a slash / is recorded in the transcript. In addition, the suspected wording can be inserted in a comment, marked by question marks and colon.

8. SIMULTANEITY.

If several people speak at once:

- The first speaker of the beginning of the simultaneity is marked with a plus sign + . Thereafter, the speech is transcribed until the simultaneity is completed.
- Now a change of speaker (new line) is recorded and the speech of the second speaker is transcribed until the end of the simultaneity. Termination is made with a trailing plus sign. The marking of simultaneity is always done on a word boundary, even if the simultaneity is restricted to word fragments.