THE EFFECTS OF SERVANT LEADERSHIP ON FOLLOWER PERFORMANCE AND

WELL-BEING: UNDERLYING MECHANISMS, BOUNDARY CONDITIONS, AND

THE ROLE OF TRAINING

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September 2015

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THESIS SUMMARY

Based on a review of the servant leadership, well-being, and performance literatures, the first study develops a research model that examines how and under which conditions servant leadership is related to follower performance and well-being alike. Data was collected from 33 leaders and 86 of their followers working in six organizations. Multilevel moderated mediation analyses revealed that servant leadership was indeed related to eudaimonic well-being and leader-rated performance via followers' positive psychological capital, but that the strength and direction of the examined relationships depended on organizational policies and practices promoting employee health, and in the case of follower performance on a developmental team climate, shedding light on the importance of the context in which servant leadership takes place. In addition, two more research questions resulted from a review of the training literature, namely how and under which conditions servant leadership can be trained, and whether follower performance and well-being follow from servant leadership enhanced by training. We subsequently designed a servant leadership training and conducted a longitudinal field experiment to examine our second research question. Analyses were based on data from 38 leaders randomly assigned to a training or control condition, and 91 of their followers in 36 teams. Hierarchical linear modeling results showed that the training, which addressed the knowledge of, attitudes towards, and ability to apply servant leadership, positively affected leader and follower perceptions of servant leadership, but in the latter case only when leaders strongly identified with their team. These findings provide causal evidence as to how and when servant leadership can be effectively developed. Finally, the research model of Study 1 was replicated in a third study based on 58 followers in 32 teams drawn from the same population used for Study 2, confirming that follower eudaimonic well-being and leader-rated performance follow from developing servant leadership via increases in psychological capital, and thus establishing the directionality of the examined relationships.

Keywords: Servant leadership; well-being; performance; psychological capital; training; leadership development; leader identification; organizational policies and practices; team development climate; multilevel; quasi-experiment

ACKNOWLEDGEMENTS

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CHAPTER 1: INTRODUCTION

*"May I serve only as a condition
that encourages progress and joy."*

Śāntideva

1.1 INTRODUCTION

In 1776, Adam Smith published The Wealth of Nations, a book that came to influence the lives of billions of people by giving rise to a new economic system called capitalism. While capitalism has no doubt resulted in many positive consequences for the societies that adopted it, including better health care and increased longevity, better living standards, and access to good education for a growing number of people, it becomes more and more clear that these improvements come at a cost (Linn, 2015). For example, Smith himself observed that the division of labor, his main principle for increasing productivity, can easily undermine the creativity and well-being of employees (Smith, 1776). He further highlighted that, although markets will tend to revert to stability without any external influence, certain safeguards or boundary conditions, such as laws against corruption and lobbying, might have to be introduced to prevent suboptimal outcomes, (Smith, 1776).

However, over the centuries certain aspects of his theory, especially those concerned with increasing productivity, were emphasized over others, resulting in a one-sided view that risks many people's well-being in favor of organizational effectiveness, sometimes making it appear as though the two were irreconcilable. Several studies reporting an increase in work-related psychosomatic illnesses and employee stress across Europe and the United States attest the seriousness of this issue (Eurogip, 2004; NIOSH, 2004). At the core of the problem seems to be a limited understanding of another key proposition of Smith, namely that all individuals are motivated by their own self-interest; Smith argued that this striving for personal gain and profit will in turn

benefit society as a whole through an increase in overall wealth, a mechanism he termed the 'invisible hand' (Smith, 1776). He even went one step further by arguing that "by pursuing his own interest, [the individual] frequently promotes that of society more effectually than when he really intends to promote it" (Smith, 1776: 2.9). All too often, terms like gain, profit, and personal interest are interpreted primarily in monetary terms, and used as justifications for selfish behavior. However, this narrow interpretation fails to acknowledge the potential of work to be a crucial determinant of personal growth and development, which has been shown over and over again since the seminal Marienthal studies conducted by Jahoda and Zeisel (1974). In addition, self-interest is not the same as selfishness, and personal ambition as a source of creativity, personal growth, and progress at work has to be distinguished from actively ignoring the well-being of employees and others to improve organizational performance and satisfy shareholders (Linn, 2015); in fact, Smith argues in one of his earlier books that a person's interests can very well include the well-being of others, and even "render their happiness *necessary* to him, though he derives nothing from it, except pleasure of seeing it" (quoted in Krznaric, 2013: 55-56).

Almost 240 years later, this idea of man has become distorted, and many of Smith's and other economists' recommendations have been neglected in favor of satisfying selfish interests, resulting in oversimplified views of employers striving for maximum output from a minimal number of workers, and employees aiming for maximum income gained from minimal work (Schumacher, 1993). In the words of Stiglitz (2013a), "to the morally uninspired, it's an appealing idea: selfishness as the ultimate form of selflessness". Especially the behavior of organizational leaders plays a key role in this context, because leaders are role models that communicate organizational values and acceptable behaviors to their followers (Bandura, 2006; Bandura & Menlove, 1968). It is well known that the sanction of employees' unethical behaviors by senior managers in the finance sector has contributed to the greatest economic crisis since the Great

Depression of the 1930s (The Economist, 2013). To give another example, between 1978 and 2011 the compensation for CEOs increased by 725 per cent, mainly due to making CEOs co-owners of the companies they work for, whereas the rise in worker compensation over the same period of time was just 5.7 per cent (Sabadish & Mishel, 2012). While such actions of self-enrichment have been shown to undermine trust, empathy, and cooperation (e.g. Kraus, Côté, & Keltner, 2010; Piff, Kraus, Côté, Cheng, & Keltner, 2010; Stiglitz, 2013b), the resulting inequality has also been linked to negative changes in a range of key indicators of a society's well-being and health like life expectancy, obesity, crime rates, and mental illness (Wilkinson & Pickett, 2009). At the same time, however, a growing number of CEOs pay themselves a symbolic salary of $1.00 per year or have even pledged to donate large parts of their fortune to philanthropic causes (Dhillon, 2014; The Giving Pledge, 2015), thus following their self-interest within the boundaries set by other peoples' well-being, and actively reducing inequality and fostering the well-being of society in the process. Not surprisingly, such acts of organizational leaders often go hand in hand with a structure of work and company values that emphasize not only performance, but also the well-being of its employees, and show that both can indeed be reconciled in a capitalist system, provided the right boundary conditions are in place (Zennie, 2014). This thesis aims to further explore the achievement of employee well-being alongside high performance, the underlying mechanisms that harness the creative forces of personal growth, and the boundary conditions under which this becomes possible, all from the perspective of leadership.

Recently, a growing number of researchers have begun a more focused examination of organizational characteristics in an effort to formulate alternatives to current practices that allow for sustainable economic growth without compromising employee well-being. One such alternative put forward in the field of leadership is servant leadership, a unique approach to achieving individual, team, as well as organizational performance *and* well-being by putting follower needs

and developmental support based on strong ethical values at the core of all leadership efforts. First introduced by Greenleaf (1970) more than four decades ago, the notion of serving and supporting others in order to allow them to fulfill their highest potential has recently been revived and has attracted much attention by researchers and practitioners alike (Liden, Panaccio, Meuser, Hu, & Wayne, 2014a; Panaccio, Donia, Saint-Michel, & Liden, 2015; Van Dierendonck, 2011). As a result of servant leaders' continuous efforts to enable and empower others, their followers are said to "become healthier, wiser, freer, more autonomous, and more likely themselves to become servants" (Greenleaf, 1977: 7), suggesting that a servant leader acknowledges that both well-being and performance spring from followers' self-interests of satisfying personal growth needs, but is able to prevent this from turning into selfishness by creating a context that enables and connects people through shared ethical values and cooperation. In other words, servant leaders see the potential of work to contribute to personal growth and development, and directly connect the fulfilment of this potential with the well-being and success of the organization and its members (Greenleaf, 1998).

Starting with a strong motivation to serve others (Greenleaf, 1970; Liden et al., 2014a), and thus clearly including the well-being of others in their own interests, servant leaders engage in a range of follower- and stakeholder-oriented leadership behaviors that have been grouped into seven facets by Liden, Wayne, Zhao, and Henderson (2008): They show empathy towards their followers and care about their well-being (*emotional healing*), encourage followers to trust in their own abilities and embrace challenges at work (*empowering*), help followers to achieve their career goals (*helping subordinates grow and succeed*), even if that means sacrificing the leaders' own interests (*putting subordinates first*), and highlight the importance of giving back to the community (*creating value for the community*). In showing all these behaviors, servant leaders strive to be as ethical as possible (*behaving ethically*) and take into account the organization and

its goals (*conceptual skills*). The effectiveness of such behaviors is supported by an increasing number of empirical studies, which have related servant leadership to a range of positive outcomes on different levels of analysis, including organizational commitment (Asag-Gau & Van Dierendonck, 2011; Liden et al., 2008; Schneider & George, 2011; West, Bocarnea, & Maranon, 2009), reduced turnover intentions (Hunter et al., 2013; Jaramillo, Grisaffe, Chonko, & Roberts, 2009b), extra-role and citizenship behaviors (Barbuto & Wheeler, 2006; Chen, Zhu, & Zhou, 2014; Ehrhart, 2004; Hu & Liden, 2011; Jaramillo, Grisaffe, Chonko, & Roberts, 2009a; Walumbwa, Hartnell, & Oke, 2010a), trust (Joseph & Winston, 2005; Reinke, 2003; Sendjaya & Pekerti, 2010), and job satisfaction (Barbuto & Wheeler, 2006; Cerit, 2009; Mayer, Bardes, & Piccolo, 2008). Positive effects of servant leadership have also been reported on individual, team, as well as organizational performance (Hu & Liden, 2011; Hunter et al., 2013; Liden, Wayne, Liao, & Meuser, 2014b; Neubert, Kacmar, Carlson, Chonko, & Roberts, 2008; Peterson, Galvin, & Lange, 2012a; Schaubroeck, Lam, & Peng, 2011; Yoshida, Sendjaya, Hirst, & Cooper, 2014).

After establishing positive relationships with these organizationally relevant variables, servant leadership research has now reached a stage where it becomes important to examine the underlying mechanisms through which this leadership style affects followers, and the boundary conditions under which it becomes either more effective or even negative. Liden et al. (2014a) have recently made several theoretical propositions as to how servant leadership increases different indicators of employee performance like creativity, organizational citizenship behavior, and in-role performance; they argue that servant leaders achieve these outcomes by increasing follower identification, trust, and commitment, empowering followers, fostering their autonomous motivation, priming a prosocial identity, and increasing positive core self-evaluations of followers. Furthermore, Van Dierendonck (2011) puts forward high-quality leader-follower relation-

ships and a climate characterized by trust and fairness as mediating mechanisms. With regards to well-being, theorizing is still in its infancy, but a recent article by Panaccio et al. (2015) suggests that servant leadership increases different indicators of follower well-being through support, positive role-modeling, and follower need satisfaction. Empirically, evidence has been found for the mediating roles of empowerment (Asag-Gau & Van Dierendonck, 2011; Schneider & George, 2011), trust (Schaubroeck et al., 2011), self-efficacy and commitment (Walumbwa et al., 2010a), need satisfaction (Mayer et al., 2008), and several positive team climates (e.g. Hunter et al., 2013; Liden et al., 2014b). However, none of the theoretical or empirical articles mentioned above address the question whether servant leadership can increase follower performance *and* well-being through the same underlying mechanism. This is important, because not all of the suggested mediating processes can be expected to affect both outcomes in the same way. For example, members of a team that emphasizes a serving culture in which "self-centered [in the sense of self-interested, not selfish] behaviors are not tolerated" (Liden et al., 2014b: 11) might show expected behaviors and neglect individual growth needs, which might subsequently result in decreased well-being (Iyer, Jetten, & Tsivrikos, 2008).

In addition, potential boundary conditions to the proposed relationships have until now largely been neglected in both theoretical and empirical articles on servant leadership. One exception is a theoretical discussion regarding the cultural context in which servant leadership is most effective, suggesting that the culture – be it national or organizational – has to match with the values and behaviors of servant leaders by emphasizing a high humane orientation and low power distance (Van Dierendonck, 2011; Winston & Ryan, 2008). The general notion of a match between servant leadership and the context in which it takes place has found initial empirical support in a study by Meuser, Liden, Wayne, and Henderson (2011), who report that servant leadership had a positive effect on individual performance and organizational citizenship behav-

iors, when followers expressed a strong desire for servant leaders, but a negative effect, when this desire was low. Similarly, Yoshida et al. (2014) found that servant leadership was only effective in increasing employee creativity via leader identification, when organizational support for innovation was high, but ineffective, when this support was low. Beyond these studies, there currently exist neither theoretical claims nor empirical evidence for the potential negative effects of servant leadership in certain contexts.

Thus, we extend servant leadership theory by explaining how and under which conditions servant leadership relates positively or negatively to follower performance and well-being alike. Throughout this thesis, we adopt the eudaimonic view on well-being, which describes individual well-being in terms of self-realization through engagement in meaningful activities as opposed to the achievement of pleasure and the avoidance of pain (Ryan & Deci, 2001), and is therefore more in line with how well-being is described in the servant leadership literature (Greenleaf, 1977). On the basis of self-determination theory (Deci, Connell, & Ryan, 1989; Ryan & Deci, 2000), we argue that the positive relationships of servant leadership with both outcomes are achieved through increases in followers' positive psychological capital (PsyCap; Luthans, Youssef, & Avolio, 2007c), but only if organizational policies and practices promote employee health and development (Grawitch, Gottschalk, & Munz, 2006) and are therefore in line with servant leadership behaviors. In addition, we propose that a strong development climate in teams (Van Dam, Oreg, & Schyns, 2008) is necessary to achieve high individual performance, but not well-being, because such a climate allows followers to overcome potential conflicts between individual needs and work-related demands. However, if either policies and practices for health promotion or team development climate are low and thus undermine the efforts of servant leadership, we expect its effects on both outcomes to be negative. In Study 1, we test our hypotheses in a field setting, drawing on data from six different organizations in order to establish external

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validity.

If servant leadership can indeed increase both follower performance and well-being, the next question becomes what organizations can do to harness and foster these positive effects. Subsequently, in Study 2 we examine how and under which conditions servant leadership can be trained. Despite growing evidence for the positive effects of servant leadership on organizationally relevant outcomes (Liden et al., 2014a; Van Dierendonck, 2011), the utility of servant leadership cannot be judged adequately without demonstrating that it is open to development. While Liden et al. (2014b) claim that servant leadership is a positive approach to organizational behavior that can be "developed, and effectively managed for performance improvements in today's workplace" (Luthans, 2002: 59), and Van Dierendonck, Nuijten, and Heeren (2009) see the key to employee well-being in the development and application of servant leadership, research as to how servant leaders can be developed is still in its infancy.

Advancing theory in servant leadership development, our second study therefore integrates the training (Kraiger, Ford, & Salas, 1993) and training transfer literature (Burke & Hutchins, 2007; Colquitt et al., 2000) with servant leadership theory (Greenleaf, 1970; Liden et al., 2014a) to develop a model of effective servant leadership development, and evaluates its effectiveness in a field experiment with student teams working on a business simulation. In detail, we argue that servant leadership development will result in more positive leader- and follower-perceptions of servant leadership, when the training increases the knowledge about servant leadership, promotes positive attitudes towards its use, and develops servant leadership skills. Furthermore, we draw on theorizing in the training transfer literature (Colquitt, LePine, & Noe, 2000) and propose that the effects of such a training on follower-perceptions of servant leadership are contingent on leaders' motivation to transfer and apply servant leadership behaviors in their particular work context.

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Finally, in Study 3 we replicate the research model of our first study in the same field-experimental setting, and use the advantages of its time-lagged design with two measurement points to establish the directionality of the effects of servant leadership on well-being and performance via PsyCap (Shadish, Cook, & Campbell, 2002). This does not only add to the contributions of Study 1 by examining whether increased follower PsyCap, and in turn higher well-being and performance indeed follow from servant leadership enhanced by training, but also extends the scope of Study 2 by focusing on important positive follower outcomes above and beyond changes in their perceptions of servant leadership.

1.2 CONTRIBUTIONS

1.2.1 Contributions to Theory

The studies outlined above contribute to the servant leadership literature in several ways. Firstly, they advance the criterion space of servant leadership by adding follower eudaimonic well-being as a more comprehensive indicator of employee well-being to its nomological net. So far, most studies have only looked at job satisfaction, which is an important, but too limited concept for assessing follower well-being (Ryan & Deci, 2001). We address this shortcoming by using the multidimensional construct of eudaimonic well-being (EWB; Ryff, 1989b), which encompasses personal development and the fulfilment of human potential as an important part of personal well-being beyond hedonic enjoyment (Ryan & Deci, 2001), and thus matches the perspective on well-being outlined in the servant leadership literature (Greenleaf, 1977).

Secondly, we examine whether servant leadership increases not only well-being, but also performance at the same time. Although this is a key proposition of servant leadership theory (Greenleaf, 1970), no study to date has shown how one outcome can be increased by servant leaders without compromising the other. In doing so, we follow the suggestion of Avolio, Walumbwa, and Weber (2009b: 437) to "take a more follower-centric approach in looking at the

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well-being of followers of servant leaders and the ways in which their well-being affects the ability of the leader and followers to perform", and address one of the main criticisms of servant leadership (Andersen, 2009; Panaccio et al., 2015) in an effort to show that the focus on follower and other stakeholder needs does not undermine organizational productivity.

Thirdly, we shed light on the underlying mechanism through which servant leadership affects follower performance and well-being alike. After reviewing existing theorizing and empirical findings regarding the processes through which servant leadership affects either performance or well-being in isolation, we introduce self-determination theory (Gagné & Deci, 2005) as the most comprehensive and appropriate framework to explain the positive effects of servant leadership on both outcomes, and argue that building follower PsyCap, consisting of the personal motivational propensities of efficacy, hope, optimism, and resilience (Luthans et al., 2007c), is the key mechanism underlying the proposed effects of servant leadership.

Fourthly, we take into account boundary conditions that affect the unfolding of the relationships between servant leadership, PsyCap, performance, and well-being by including policies and practices for health promotion (Grawitch et al., 2006) as well as team development climate (Van Dam et al., 2008) in our first study. In doing so, we address the dearth of theorizing and empirical examination of factors that might amplify or hinder servant leadership in increasing follower performance and well-being. This is especially important because servant leadership has so far been presented as a leadership style that is equally effective in all contexts, whereas first empirical findings suggest that under some conditions it might actually have a negative effect on organizationally relevant outcomes (Meuser et al., 2011). While similar relationships with PsyCap, performance, and well-being have been reported for other leadership styles (e.g. Gooty, Gavin, Johnson, Frazier, & Snow, 2009; Wang, Sui, Luthans, Wang, & Wu, 2014), very little evidence can be found for potential negative effects in certain environments, so that our findings

are not only a major contribution to the servant leadership literature, but also to the wider leadership literature.

Fifthly, we make an important contribution to the servant leadership literature with our second study by developing and evaluating a model of effective servant leadership development that builds on the training (Kraiger et al., 1993) and training transfer literature (Burke & Hutchins, 2007; Colquitt et al., 2000). In this context we draw not only on leaders' own perceptions, but also on follower perceptions of servant leadership and introduce leaders' identification with their team as a contextual factor that affects the success of servant leadership development. Being a field experiment, this study allows us to make claims regarding the causality of the effects of the training on leader- and follower perceptions of servant leadership, and thus to establish internal validity.

Finally, the time-lagged design of the field experiment further allows us to establish the directionality of the proposed effects of servant leadership on follower performance and well-being via PsyCap in our third study, and thus to show that increases in follower well-being and performance follow from servant leadership increased by training. This rules out alternative explanations, for example that high well-being and performance result in better follower ratings of supervisors' servant leadership behaviors (Shadish et al., 2002), and thus adds to the external validity of the research model established in Study 1.

Beyond these contributions to the servant leadership literature, this thesis also offers insights to researchers in the areas of well-being and leadership development. In our review of the organizational well-being literature, we note a clear bias towards hedonic conceptualizations of well-being at work, which might restrict advancements in the field due to an overly narrow focus on what makes people happy (Ryan & Deci, 2001). Thus, we make a case for the study of EWB at work and highlight its particular value in the context of servant leadership, which might sub-

sequently inspire other researchers to use this conceptualization in their study of leadership or other variables.

Similarly, our review of the leadership development literature reveals the lack of a theoretical foundation in the design of most published leadership training interventions. Together with the successful evaluation of the servant leadership training presented in this thesis, which has been designed with a clear theoretical rationale (Colquitt et al., 2000; Kraiger et al., 1993), this highlights the importance of evaluating learning outcomes and choosing training activities not only based on their effective application in past studies and the resulting common acceptance in the training field, but also by using existing theory to inform the design of a leadership training with a particular focus.

1.2.2 Contributions to Practice

Beyond the mentioned theoretical contributions, our first study provides valuable information to practitioners by showing how positive effects on follower PsyCap, and in turn on follower performance and well-being can be achieved by combining servant leadership with a supportive organizational and team context, characterized by policies and practices that match servant leaders' values and behaviors on the one hand, and a strong team development climate on the other hand.

Moreover, our findings demonstrate the interplay between servant leadership and the context in which it takes place, and communicate to practitioners that the attempt to implement servant leadership in an unfavorable context is likely to result in negative effects on PsyCap, and in turn on performance and well-being. These results can guide broader organizational development strategies aimed at creating healthy and productive workplaces, of which leadership development only forms one part, and caution practitioners against accepting servant leadership as a one-fits-all solution to leadership.

Strongly connected with this, the second study presented in this thesis provides practitioners with detailed information about how servant leadership can be trained effectively by drawing on a range of training methods in order to build not only participants' knowledge of servant leadership, but also their motivation and ability to apply the respective behaviors (Kraiger et al., 1993). This allows practitioners to select specific training activities not just because they have been used before, but because they can be clearly linked with a particular learning outcome that is to be achieved. In this context, our findings further highlight the importance of high leader identification with the team for a successful transfer of trained behaviors to the workplace, which allows practitioners to ensure training effectiveness, for example by adding team-building workshops to a comprehensive leadership development program.

Furthermore, our third study gives practitioners an overview of the positive follower outcomes they can expect from investing in servant leadership development, which highlights the value of this leadership style for all organizations that want to achieve high performance without compromising employee well-being. Consequently, our findings can also be used to improve the wider organizational context in which leaders operate, for example by adapting organizations' reward systems for leaders to include measures of team performance *and* well-being in order to emphasize the value the organizations puts on employee health and well-being.

Finally, all our studies inform not only the design, but also the evaluation of leadership development and organizational development initiatives. Measures of follower PsyCap, EWB, policies and practices, and team climate can be added to existing indicators of performance and general job satisfaction in annual employee surveys to get a more comprehensive and meaningful overview of employees' potential for further growth and the perceived favorableness of the organizational context in this regard.

CHAPTER 2: OVERVIEW OF THE SERVANT LEADERSHIP LITERATURE

2.1 CHAPTER SUMMARY

This chapter provides a literature review of servant leadership and draws on the current state of research in order to identify the research gaps that are going to be addressed in this thesis. In the first section, servant leadership is defined and different conceptualizations are compared. Next, servant leadership theory is contrasted with other leadership approaches and its unique contributions and theoretical propositions, but also criticisms of the concept are outlined. Following from this, several theories that have been used to link servant leadership with outcomes are discussed, and self-determination theory (Deci & Ryan, 1985) is introduced as the guiding theoretical framework for explaining the effects of servant leadership on follower performance and well-being. Finally, empirical findings are reviewed and compared with the propositions made by servant leadership theory. This in turn informs the first research question of this thesis, outlined in the final section of the chapter.

2.2 CONCEPTUALIZATIONS OF SERVANT LEADERSHIP

The term servant leadership was first mentioned in a now seminal essay by Greenleaf (1970), and has been defined as "a form of leadership that includes a specific focus on follower (and other stakeholder) needs, with the goal of helping followers grow, develop, and prosper" (Mayer et al., 2008: 181). The strong motivation to serve others mentioned previously (Greenleaf, 1970; Liden et al., 2014a), is said to result in a broad range of follower- as well as stakeholder-oriented leadership behaviors, of which some overlap with other leadership styles, while others are unique to servant leadership. Thus, existing conceptualizations of servant leadership are examined next.

Currently, at least eleven multidimensional and three unidimensional conceptualizations of servant leadership are available, presenting between three and twelve subcomponents that char-

acterize servant leaders; an overview is given in Table 2.1. It can be seen that on a conceptual

level, most of the measures overlap to a great extent, with key dimensions shared between all in-

struments being a service or stewardship component, an empowering component, and an altruis-

tic and compassionate orientation towards followers.

TABLE 2.1
Overview of Existing Conceptualizations of Servant Leadership

Authors	Scale (# of items)	Dimensions (Cronbach's alpha)	Factorial validity	Conceptual completeness
Barbuto and Wheeler (2006)	Servant Leadership Questionnaire (23)	• Altruistic calling (.82) • Emotional healing (.91) • Wisdom (.92) • Persuasive mapping (.87) • Organizational stewardship (.89)	X	X
Dennis and Bocarnea (2005)	Servant Leadership Assessment Instrument (42)	• Empowerment • Love • Humility • Trust • Vision	?	X
Dennis and Winston (2003)	No name (23)	• Vision (.97) • Empowerment (.89) • Service (.94)	?	X
Ehrhart (2004)	No name (14)	• Unidimensional (.98)	✓	X
Hale and Fields (2007)	No name (18)	• Service (.94/.92) • Humility (.95/.82) • Vision (.83/.91)	✓	X
Laub (1999)	Servant Organizational Leadership Assessment (74)	• Values people (.72) • Develops people (.68) • Builds community (.75) • Displays authenticity (.95) • Provides leadership (.84) • Shares leadership (.55)	X	✓
Liden et al. (2008)	SL-28 (28)	• Conceptual skills (.86) • Empowerment (.90) • Helping subordinates grow and succeed (.90) • Putting subordinates first (.91) • Behaving ethically (.90) • Emotional healing (.89) • Creating value for the community (.89)	✓	✓
Liden et al. (2015)	SL-28 Short Form (7)	• Unidimensional (.89)	✓	X

TABLE 2.1 (continued)

Page and Wong (2000)	Servant Leadership Profile (99)	• Integrity • Humility • Servanthood • Caring for others • Empowering others • Developing others • Visioning • Goal setting • Leading • Modelling • Team-building • Shared decision-making	X	✓
Reed, Vidaver-Cohen, and Colwell (2011)	Executive Servant Leadership Scale (25)	• Interpersonal support (.94) • Building community (.90) • Altruism (.93) • Egalitarianism (.94) • Moral integrity (.95)	✓	X
Reinke (2003)	Servant Leadership Inventory (7)	• Unidimensional (.87)	✓	X
Sendjaya, Sarros, and Santora (2008)	Servant Leadership Behavior Scale (35)	• Covenantal relationship (.88) • Transforming influence (.93) • Authentic self (.93) • Responsible morality (.84) • Voluntary subordination (.91) • Transcendental spirituality (.72)	X	X
Van Dierendonck and Nuijten (2011)	Servant Leadership Scale (30)	• Empowerment (.89) • Accountability (.81) • Standing back (.76) • Humility (.91) • Authenticity (.82) • Courage (.69) • Forgiveness (.72) • Stewardship (.74)	✓	✓
Wong and Page (2003)	Revised Servant Leadership Profile (97)	• Developing and empowering others • Power and pride • Visionary leadership • Servanthood • Responsible leadership • Integrity (honesty) • Integrity (authenticity) • Courageous leadership • Abuse of power • Egoistic pride	X	✓

Although there are certain similarities on the conceptual level, the psychometric properties of the different instruments vary greatly. For most measures, follow-up studies failed to replicate the initially proposed factor structures and dimensions are often highly correlated with each oth-

er, raising questions about their factorial and discriminant validity, while other measures also lack one or more dimensions of servant leadership that have been highlighted as important parts of the concept elsewhere (see Dannhauser & Boshoff, 2007; Dennis & Winston, 2003; Laub, 1999; McIntosh, Irving, & Seminary, 2008; Sendjaya & Cooper, 2011).

In more detail, the Laub (1999) measure proposed six dimensions of servant leadership, but a factor analysis showed only two underlying dimensions and the six proposed dimensions were highly correlated with each other, providing no support for the assumed multidimensionality of servant leadership (Van Dierendonck, 2011). Similarly, Page and Wong (2000) initially proposed 12 categories, found empirical support for only 8, and further changed the dimensions in later versions (Wong & Page, 2003), while the factor structure of their instrument could not be replicated by other researchers (Dennis & Winston, 2003). Thus, Van Dierendonck (2011) notes that the factorial validity of the respective measures poses a problem for further research. The same is true for the measure developed by Barbuto and Wheeler (2006) with its five dimensions, which could not be replicated using another sample (Dannhauser & Boshoff, 2007). Yet another five-dimensional measure was introduced by Dennis and Bocarnea (2005), who modified their measure using data from three samples. However, a follow-up study found support for only three out of the five dimensions (McIntosh et al., 2008), which resulted in a new three-dimensional measure that, though valid across studies (Hale & Fields, 2007; West et al., 2009), does not cover some important elements of servant leadership included in other measures (Van Dierendonck, 2011). This also applies to the measure of Reed et al. (2011), which does not cover the elements of empowerment and knowledge of the organization and its goals. Next, Sendjaya et al. (2008) developed a six-dimensional measure, but failed to provide any data on the factorial validity of this model, which alongside the high correlations between the dimensions has led to doubts about the usefulness of this scale among other researchers (Van Dierendonck, 2011), especially

as the authors revert to a unidimensional operationalization after failing to replicate their initial factor structure in another study (Sendjaya & Cooper, 2011).

In addition, there also exist three unidimensional measures, which use between 7 and 14 items to assess servant leadership (Ehrhart, 2004; Liden et al., 2015; Reinke, 2003, 2004). However, with none of these scales it is possible to distinguish between the various dimensions that are proposed to make up servant leadership, and subsequently to examine how each dimension contributes to the overall effectiveness of this leadership style (Van Dierendonck, 2011).

Currently, this leaves only two measures that seem to exhibit satisfactory psychometric properties and at the same time cover all important elements of the servant leadership construct: The SL-28 by Liden et al. (2008), as well as the Servant Leadership Scale by Van Dierendonck and Nuijten (2011). The Servant Leadership Scale shows clear strengths both in terms of factorial validity and conceptual completeness, with the initial scale having been validated in the Netherlands and the UK, showing Cronbach's alpha values ranging from .69 to .91 for the different components of servant leadership (ibid.). However, at the time of initiating the research for this thesis, it seemed that the scale was still in its developmental phase, with some facets being eliminated or re-organized in follow-up studies (e.g. Asag-Gau & Van Dierendonck, 2011; Van Dierendonck & De Sousa, 2013). In addition, the number of studies in which this scale has been used to date is still relatively small, with only three articles available (Bobbio, Van Dierendonck, & Manganelli, 2012; De Sousa & Van Dierendonck, 2014; De Waal & Sivro, 2012).

Looking at the Liden et al. (2008) measure next, it can be seen that it is now the most widely used measure of servant leadership, and its psychometric properties have been shown to be stable across a range of rigorously designed studies (Chen et al., 2014; Hu & Liden, 2011; Liden et al., 2014b; Peterson et al., 2012a; Schaubroeck et al., 2011; Tang, Kwan, Zhang, & Zhu, 2015). Across all studies using the SL-28, the scale has been found reliable, with Cronbach's al-

pha values ranging from .76 to .94 for each subcomponent, and from .84 to .96 for the composite higher-order factor, which has been used in most of the respective studies. In addition, Liden et al. (2008) could show that servant leadership as measured with their scale explains incremental validity in employee attitudes and behaviors like commitment, citizenship behavior, and in-role performance above and beyond transformational leadership and LMX. Thus, we considered this scale to be the most appropriate for measuring servant leadership at the given point in time.

Servant leadership is usually conceptualized as a group-level construct, and the conceptualization developed by Liden et al. (2008) encompasses the following seven facets: Firstly, by showing *empowering* behaviors a servant leader provides employees with opportunities to participate in decision-making and acknowledges that they often know best how to solve problems specific to their area of work (Conger & Kanungo, 1988). Empowering followers is an active and explicit display of the confidence a servant leader has in the knowledge, skills, and abilities of each individual and his or her potential to learn even more (Greenleaf, 1998).

Secondly, *helping subordinates grow and succeed* encompasses supporting and mentoring activities of servant leaders driven by a "genuine concern for others' career growth and development" (Liden et al., 2008: 162). This component has been described as unique to servant leadership as opposed to other leadership concepts, because it fosters employee development and in turn performance not primarily for the sake of achieving organizational objectives, but as a means of meeting individual follower needs (Van Dierendonck, 2011).

Thirdly, *conceptual skills* allow servant leaders to increase not only employee well-being, but also individual and organizational performance. Next to finding creative solutions to problems the organization is facing, it also includes matching follower abilities and needs to tasks based on a thorough understanding of the organization and its goals on the one hand, and follower developmental needs on the other hand, which allows for experiences of personal mastery and

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the development of other psychological resources like optimism, hope, and resilience in follow-

ers (Luthans et al., 2007c).

Next, *creating value for the community* is synonymous with stewardship, and extends the

efforts of servant leaders beyond their work group or department to the organization as a whole,

and even to communities outside the organization (Liden et al., 2008; Spears, 1995). A servant

leader strives for the common good and does not limit his or her influence to the organization.

The fifth characteristic is *putting subordinates first*, which is defined as "using actions and

words to make it clear to others (especially immediate followers) that satisfying their work needs

is a priority" (Liden et al., 2008: 162). Van Dierendonck (2011) calls this facet humility or stand-

ing back, and it encompasses modesty on the one hand, and an openness for suggestions that po-

tentially are contrary to the leader's interests on the other hand (Patterson, 2003). Thus, a servant

leader will step back and let followers receive recognition for their achievements, instead of tak-

ing all the credit him-/herself.

Closely related to this, but on a more affective level, is the sixth characteristic, namely

emotional healing, which is defined as "the act of showing sensitivity to others' personal con-

cerns" (Liden et al., 2008: 162). Van Dierendonck (2011: 1234) names this component "interper-

sonal acceptance" and mentions that it includes the ability to "experience feelings of warmth,

compassion, and forgiveness in terms of concern for others even when confronted with offences,

arguments, and mistakes". Thus, it reflects the emotional sensitivity and maturity of servant

leaders and can be connected with constructs like emotional intelligence (Ashkanasy, 2003) and

empathy (De Vignemont & Singer, 2006).

Finally, the seventh facet is *behaving ethically*. A servant leader acts in a fair, honest, and

open way, which shows obvious overlaps with ethical leadership (Brown & Treviño, 2006), but

is seen as less directive and normative, with a stronger focus on allowing employees to act in a

way that they perceive as ethical themselves (Van Dierendonck, 2011). In sum, servant leaders show a genuine concern for follower well-being and focus on the functioning and growth of their followers first, which then leads to the achievement of other organizational objectives as a secondary outcome (Liden et al., 2008; Van Dierendonck et al., 2009).

2.3   COMPARISON WITH OTHER LEADERSHIP THEORIES

One might argue that, given the plethora of multidimensional leadership constructs that have been developed since the emergence of the style-approach to leadership in the 1940s (Stogdill, 1950), yet another leadership style is not needed, especially since other leadership styles, most prominently transformational leadership, have been shown to be effective in achieving many organizationally relevant objectives belonging to the performance and well-being domains (DeRue, Nahrgang, Wellman, & Humphrey, 2011a; Judge & Piccolo, 2004; Judge, Piccolo, & Ilies, 2004). In addition to closely examining existing conceptualizations of servant leadership, it thus becomes necessary to gain a better understanding of the unique elements and propositions of servant leadership theory by comparing it with other established leadership theories and showing that it has additional predictive validity.

Table 2.2 compares each dimension of the used measure of servant leadership with the respective leadership styles discussed in the following paragraphs, in order to visualize which and how many of the seven dimensions of servant leadership as conceptualized by Liden et al. (2008) can be found in other conceptualizations.

TABLE 2.2
Comparison of Servant Leadership Dimensions with Other Leadership Styles

	Dimensions of servant leadership						
	Conceptual skills	*Empowering*	*Helping subordinates grow and succeed*	*Putting subordinates first*	*Emotional healing*	*Creating value for the community*	*Behaving ethically*
Transformational leadership	✓	✓	✓	X	✓	X	X
Authentic leadership	X	✓	✓	X	X	X	✓
Leader-member exchange	X	X	✓	✓	X	X	X
Ethical leadership	X	✓	✓	X	X	✓	✓
Self-sacrificial leadership	X	✓	✓	✓	X	✓	X

2.3.1 Comparison with Transformational Leadership

Comparing the seven facets of servant leadership outlined above with the Four I's of transformational leadership, one has to acknowledge a considerable overlap and great similarities between the two leadership styles. Both theories focus strongly on people instead of tasks and stress the empowerment of followers, creating a shared vision, and the development of respectful and caring relationships (Stone, Russell, & Patterson, 2004). Servant as well as transformational leaders act as credible role models and spend a great deal of time on teaching and mentoring their subordinates (Smith, Montagno, & Kuzmenko, 2004). Notably the development of high quality dyadic relationships is not unique to servant leadership, but also a central component of transformational leadership (Bass, 1990), as well as other leadership models like LMX (Graen & Uhl-Bien, 1995).

Despite these similarities, however, there are some significant differences between the two leadership styles, which give an indication regarding the specific outcomes a servant leader aims to achieve. In detail, Stone et al. (2004) stress the focus of the leader as a central element to distinguish servant leaders from transformational leaders. While transformational leaders primarily

strive to achieve organizational objectives and empower their followers in order to enable them to achieve these objectives (Burns, 1998; Yukl, 1998), servant leaders are said to first show "unconditional concern for the well-being of those who form the entity" (Stone et al., 2004: 355), before they focus on the achievement of other organizational objectives. This hypothesized difference was supported empirically by Parolini, Patterson, and Winston (2009), who could also clarify that in contrast to transformational leaders, the influence exerted by servant leaders is perceived as resulting in more freedom instead of control.

2.3.2 Comparison with Authentic Leadership

Next, servant leadership has to be differentiated from authentic leadership, another prominent leadership theory rooted in positive psychology (Avolio & Gardner, 2005). An authentic leader is one who expresses his or her true thoughts and feelings and behaves consistently across people, putting a strong emphasis on own and others' values, backgrounds, strengths and weaknesses (Yukl & Tracey, 1992). Conceptually, the overlap between the two leadership models is obvious with regard to the dimension of helping subordinates grow and succeed (Harter, 2002). However, the other elements of servant leadership, especially the notion of emotional healing and putting subordinates first, cannot be found in conceptualizations of authentic leadership (see for example Walumbwa, Avolio, Gardner, Wernsing, & Peterson, 2008). In conclusion, both authentic and servant leadership focus on the expression of one's 'true self', but only servant leadership further specifies the characteristics of this self that have to be present, if an individual is to be called a servant leader (see Sun, 2013). As a result, Van Dierendonck (2011) suggests to incorporate authentic into servant leadership theory.

2.3.3 Comparison with Leader-Member Exchange (LMX)

As mentioned earlier, the efforts to create and maintain supportive relationships with all followers are characteristics that are not only central to servant leadership, but also to LMX theo-

ry. LMX theory proposes "that effective leadership processes occur when leaders and followers are able to develop mature leadership relationships" (Graen & Uhl-Bien, 1995: 225). These high-quality relationships between leaders and followers are characterized by mutual trust, positive affect, loyalty, and the contribution towards shared goals (Liden & Maslyn, 1998). However, even at the highest possible level of an LMX-relationship, the basis is an exchange between the leader and the follower, and both parties expect that their interests are met. From the perspective of the leader, the expected outcomes are mostly described in terms of increased effort and performance of the follower, high commitment, and low turnover, whereas the well-being of followers is only addressed in terms of satisfaction with the leader and work itself (Graen & Uhl-Bien, 1995). In the case of servant leadership, on the other hand, the moral component of the leader-follower relationship is made explicit, and the expected outcomes are closely related to followers' needs, striving for a relationship based on service, not on exchange (Barbuto & Wheeler, 2006). In other words, the leader-follower relationship is motivated by a desire to serve, which goes beyond the mere desire to relate to others by delineating the moral and ethical character of the relationship.

2.3.4 Comparison with Ethical Leadership

Ethical leaders are described as modeling and reinforcing behaviors that are deemed normatively appropriate in a given context, both through personal actions and close relationships with their subordinates (Brown, Treviño, & Harrison, 2005). Van Dierendonck (2011) notes that in doing so, ethical leaders are similar to servant leaders with regards to their focus on directly involving employees, emphasizing trustworthiness and stewardship as core values, and of course acting ethically. However, other dimensions that are part of servant leadership, especially those that encompass the personal needs of followers, like putting subordinates first and emotional healing, play less of a role in ethical leadership, which is more directive and normative in nature

(Van Dierendonck, 2011).

2.3.5 Comparison with Self-sacrificial Leadership

Another leadership theory that emerged from theoretical texts on transformational leadership (Bass, 1985; Burns, 1998) and comes closest to the concept of servant leadership is self-sacrificial leadership. Self-sacrifice in leadership has been defined as "the total/partial abandonment, and/or permanent/temporary postponement of personal interests, privileges, and welfare in the (a) division of labor, (b) distribution of rewards, and/or (c) exercise of power" (Choi & Mai-Dalton, 1999: 399), and has been connected with an increased attribution of charisma by followers, intentions to reciprocate self-sacrificing behaviors, as well as higher commitment and performance (Choi & Mai-Dalton, 1999; De Cremer, van Dijke, & Bos, 2004; Van Knippenberg & Van Knippenberg, 2005). This shows similarities to the notion of Greenleaf (1977) that followers of servant leaders will become servants themselves, and also overlaps with several characteristics of servant leaders like putting subordinates first and creating value for the community.

However, Matteson and Irving (2006) observed that there are few articles which support the proposition that self-sacrificial leaders actually share power, and argue that the motivation behind the role-modelling of altruistic behaviors is not necessarily to serve others, but might rather be a tactic to gain charisma and influence, which can be seen as a way of enacting power over others (see also Avolio & Locke, 2002). In addition, self-sacrificial behaviors are neither appropriate nor necessary in many contexts, because ignoring one's own well-being while serving others across situations will over time not only harm the leader, but also send wrong signals to followers. This usually limits the usefulness of self-sacrificial leadership to organizational contexts characterized by some kind of crisis (Matteson & Irving, 2006). Servant leadership, on the other hand, can include self-sacrificial activities, but is not limited to them and can therefore be effective in more stable environments as well. Furthermore, self-sacrificial behaviors at least

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temporarily neglect one's own well-being and have the potential to be harmful to the individual. If a leader models such behaviors and therefore encourages followers to adopt similar behaviors, the overall effect on employee well-being could be negative, which contradicts central propositions of servant leadership theory (Greenleaf, 1970).

2.3.6 Extension to Other Leadership Theories

The conceptual and empirical differences outlined so far also apply to comparisons of servant leadership with other leadership theories like supervisor support, empowering, or level 5 leadership, or more generally with follower- and relationship-oriented approaches to leadership. In each case, it is the clear focus on follower needs and well-being that distinguishes the servant leader from other leaders (Mayer et al., 2008; Sun, 2013). Servant leadership is not only inspirational, but also moral (Graham, 1991), which further distinguishes this leadership style from concepts like leader promotion focus. While a leader in a promotion focus is likely to encourage the personal growth of followers (Kark & van Dijk, 2007), this can again rather be seen as a means towards the end of achieving organizational objectives, and holds the potential for manipulation of followers in case individual and organizational interests collide. Besides servant leadership, no other theory emphasizes the leader's need to serve as well as the active satisfaction of this need in such an explicit way (Patterson, 2003). However, this strong focus on follower needs does not mean that a servant leader is not at all concerned about organizational performance. Instead, it can be said that the servant leader serves the organization through serving the individual (Irving & Longbotham, 2007; Patterson, 2003).

2.4   PROPOSED KEY OUTCOMES

Having examined the different conceptualizations of servant leadership and its key features in relation to other prominent leadership theories, a clearer picture emerges. Servant leaders tread a unique path leading to the achievement of individual, team, and organizational objectives: Fol-

lower needs come first, and team or organizational success is achieved naturally in the process of gradually fulfilling those needs. In the words of Greenleaf (1977: 7), followers of a servant leader will subsequently "become healthier, wiser, freer, more autonomous, and more likely themselves to become servants". Thus, servant leadership theory contends that leaders engaging in servant behaviors will increase follower well-being and performance alike. These two broad domains encompass a variety of indicators, so it is no surprise that different researchers have proposed positive effects of servant leadership on almost every organizationally relevant outcome.

In the first published review of servant leadership, Van Dierendonck (2011) presents four groups of proposed outcomes. These are self-actualization in the sense of personal growth and the fulfilment of the potential of those led, positive follower attitudes like commitment, feelings of psychological empowerment, job satisfaction, and job engagement, increased performance reflected in more organizational citizenship behavior and higher team effectiveness, and finally outcomes on the level of the organization like sustainability and corporate social responsibility (Van Dierendonck, 2011). Liden et al. (2014a) add followers' display of more servant leadership behaviors, community citizenship behaviors, and creativity to this list. Finally, Panaccio et al. (2015) take a specific look at the potential effects of servant leadership on well-being, and further propose that servant leadership will result in better work-life balance for followers, psychological well-being, as well as leader self-actualization and reciprocity from followers.

2.5 PROCESSES AND BOUNDARY CONDITIONS

With regards to the underlying mechanisms through which servant leaders achieve the outcomes proposed by servant leadership theory, several pathways have been suggested, which can be grouped into mechanisms at the individual and the dyadic level, and some initial theorizing at higher levels of analysis. Theorizing with regards to potential boundary conditions is still in its infancy, but already offers some valuable insights regarding the context in which servant leaders

are most likely to be effective.

2.5.1 Individual-Level Processes

On the individual level, which focuses on the effects of servant leadership on single followers, researchers are drawing on regulatory focus theory (Higgins, 1997, 1998) and propose that as a result of servant leaders' continuous efforts to enable and empower others, their followers feel more willing to try new and potentially risky behaviors at work. In more detail, Liden et al. (2014a) argue that servant leadership is especially effective in strengthening two facets of followers' core self-evaluation (Judge, Erez, Bono, & Thoreson, 2003), namely self-esteem and self-efficacy. Servant leaders achieve this through behaviors like emotional healing and putting subordinates first, which communicate to followers that they are valued and accepted by a significant other (Pierce & Gardner, 2004), both as members of the organization and as individuals with specific needs and preferences. In addition, servant leadership behaviors like empowering and helping followers grow and succeed are said to increase the likelihood of followers experiencing work-related successes, which further increases their self-esteem as well as their self-efficacy beliefs (Bandura, 1977a; Conger & Kanungo, 1988). In turn, the more positive core self-evaluation makes followers switch from a prevention into a promotion focus (Higgins, 1997, 1998), which is characterized by taking more risks and finding new and creative ways to solve problems, resulting in higher performance (Lanaj, Chang, & Johnson, 2012). Although not explicitly theorized within servant leadership literature, positive core self-evaluations as a result of servant leadership can also be expected to positively affect well-being outcomes, as previous theoretical and empirical articles have linked such evaluations to job and life satisfaction and other indicators of well-being (Judge, Bono, Erez, & Locke, 2005; Ryff, 1989b).

Next, servant leadership theory suggests that followers of servant leaders will report higher levels of psychological empowerment, which encompasses self-determination, impact, meaning,

and again self-efficacy (Spreitzer, 1995). By standing back and allowing followers to approach work-related problems in the way they think is most appropriate (putting subordinates first, empowerment), servant leaders positively influence followers' sense of self-determination and impact, that is their feelings of self-directedness and influence at work (Liden et al., 2008). In addition, servant leaders' focus on creating value for the community is likely to infuse work tasks with meaning, relating them to the wider context in which the team or organization operates and making the impact of followers' work more salient (Thomas & Velthouse, 1990). How servant leaders increase self-efficacy has already been discussed above. As a result, followers' increased levels of psychological empowerment make them more autonomously motivated and perform better, which brings in theoretical propositions from self-determination theory (Deci et al., 1989; Deci & Ryan, 1985). Again, psychological empowerment is not clearly linked to well-being in the context of servant leadership, but empirical evidence is available that shows the positive effects of psychological empowerment on a range of well-being indicators (for a review, see Spreitzer, 2007).

Finally, Liden et al. (2014a) propose that servant leaders achieve high follower organizational citizenship behaviors and customer service behaviors by making them adopt their own prosocial or moral identity, drawing on social learning theory (Bandura, 1986) and social identity theory (Tajfel & Turner, 1986). The motivation to belong to the in-group led by the servant leader in order to reduce uncertainty (Hogg, Sherman, Dierselhuis, Maitner, & Moffitt, 2007) and/or increase self-esteem (Turner, Hogg, Oakes, Reicher, & Wetherell, 1987) triggers a process of depersonalization and self-categorization that makes followers adopt the social norms set and modeled by the servant leader (Bandura, 1986), which are by definition prosocial and based on high ethical standards (Liden et al., 2008). Subsequently, followers are more likely to engage in prosocial behaviors that transcend their selfish interests – they become servants themselves

(Greenleaf, 1970, 1977).

With regards to the underlying mechanisms that result in increased follower well-being, much fewer explicit theoretical propositions have been made. The main argument seems to be based on self-determination theory, which refers to three basic needs, namely the needs for competence, autonomy, and relatedness, the satisfaction of which has been shown to result in well-being across different cultures (Deci et al., 2001; Ryan & Deci, 2000). Servant leaders are said to satisfy the need for autonomy by empowering, putting followers first, and helping them to grow and succeed, which gives individuals the scope and flexibility in decision-making needed to perceive themselves as autonomous agents at work. Similarly, those behaviors are proposed to satisfy the need for competence as well, because they help followers to achieve their career goals through their own efforts in a supportive context (Panaccio et al., 2015). Finally, the need for relatedness is addressed by servant leaders through the behaviors of emotional healing and creating value for the community, because in displaying the respective behaviors servant leaders encourage followers to share personal matters and allow them to work towards a shared vision together with other like-minded individuals (Panaccio et al., 2015; Reis, Sheldon, Gable, Roscoe, & Ryan, 2000).

In addition to the above mechanisms, several other underlying mechanisms have been suggested and examined empirically, but are not mentioned in purely theoretical papers on servant leadership. For example, servant leaders are proposed to increase follower perceptions of person-job or person-organization fit by optimally matching their developmental needs with relevant tasks and providing the necessary resources (Babakus, Yavas, & Ashill, 2010; Jaramillo et al., 2009b). In doing so, Babakus et al. (2010) draw on the conservation of resources theory (Hobfoll, 1989) and argue that servant leadership and service workers' customer orientation are important organizational and individual resources that protect employees from burnout. In addi-

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tion, variables belonging to the well-being and stress domains, like job satisfaction and emotional exhaustion, have not only been suggested as outcomes, but also as mediators of servant leadership (Ding, Lu, Song, & Lu, 2012; Tang et al., 2015), for example by drawing on insights from work-family enrichment theory (Greenhaus & Powell, 2006). Similarly, followers' engagement in serving or customer-oriented behaviors is treated as a mediator in one study (Jaramillo et al., 2009a), however without referring to a particular theoretical framework. Finally, several authors have hypothesized that followers' personal resources, for example self-efficacy and optimism, mediate the effects of servant leadership on performance and well-being outcomes, because they allow followers to work harder and cope better with stressors (Chen et al., 2014; Kool & Van Dierendonck, 2012; Tang et al., 2015; Walumbwa et al., 2010a).

2.5.2 Dyadic-Level Processes

Proceeding to the dyadic level, which focuses on the relationship that forms between a servant leader and a follower, Van Dierendonck (2011: 1246) notes that "at the core of the relationship between the servant-leader and follower stands the leader's belief in the intrinsic value of each individual". Drawing on leader-member exchange (LMX) theory (Liden & Maslyn, 1998; Ng, Koh, & Goh, 2008), he argues that servant leaders achieve follower positive affect, loyalty, contributions to shared goals, and respect by means of persuasive communication (Van Dierendonck, 2011). However, this process of persuasion has the aim of reaching a consensus within the team by providing followers with explanations, consulting them, and not holding back any important facts, which allows them to form their own informed opinion regarding a specific work-related issue. If their assessment of the issue is in line with the servant leader's opinion, followers are subsequently more engaged and committed at work, resulting in higher performance (Van Dierendonck, 2011).

Strongly connected with the forming of high-quality relationships between servant leaders

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and their followers is the emergence of mutual trust, which is put forward as another mediating

mechanism in servant leadership theory (Farling, Stone, & Winston, 1999; Greenleaf, 1970;

Liden et al., 2014a; Russell & Stone, 2002). Three important predictors of trust described in the

literature are ability, benevolence, and integrity (Mayer, Davis, & Schoorman, 1995). Servant

leaders address all three elements in different ways: Through behaviors like showing conceptual

skills, servant leaders prove their ability; by putting subordinates first, offering emotional heal-

ing, and helping subordinates grow and succeed, servant leaders exhibit benevolence; and lastly,

the high ethical standards servant leaders adhere to, including honesty and fairness, demonstrate

their integrity to followers (Liden et al., 2014a). In turn, high trust in the leader has been shown

to be especially important for employee creativity and innovation, because it makes followers

feel safe and supported when taking risks associated with engaging in innovative approaches to

problem solving (Amabile, Schatzel, Moneta, & Kramer, 2004; Oldham & Cummings, 1996).

Another mediating mechanism, and again one that overlaps to a certain extent with both

LMX and trust, is commitment to the supervisor (Meyer & Allen, 1991), based on emotional at-

tachment (affective commitment) as well as a sense of loyalty (normative commitment). In

achieving these forms of commitment, supervisory support and fairness have been identified as

crucial (Meyer, Stanley, Herscovitch, & Topolnytsky, 2002). As servant leaders show such sup-

port and fairness by engaging in emotional healing, helping subordinates grow and succeed, and

ethical behavior, servant leadership theory proposes that affective and normative commitment

are likely consequences of this leadership style (Liden et al., 2014a). Because committed em-

ployees are more motivated to contribute to the organization in return for the supportive and fair

treatment they receive, they likely exhibit higher in-role performance and organizational citizen-

ship behaviors (Becker, Billings, Eveleth, & Gilbert, 1996; Becker & Kernan, 2003).

None of the described dyadic-level processes has been explicitly linked to follower out-

comes falling into the well-being domain by servant leadership theory, but it can be expected that positive changes in LMX, trust, and commitment through servant leadership will also result in higher follower well-being, as each of the discussed factors has been linked to well-being within their own literatures (Dirks & Ferrin, 2002; Dulebohn, Bommer, Liden, Brouer, & Ferris, 2012; Meyer et al., 2002).

2.5.3 Group-Level Processes

Like most other leadership styles, servant leadership is mostly conceptualized as a group-level construct, because servant leaders assume responsibility for the performance and well-being of more than one individual at a given time (Liden et al., 2008). By conceptualizing servant leadership on the group level, it is taken into account that different followers are not independent from each other when rating the same leader. As a result, aggregated scores of servant leadership reflect the extent to which different leaders engage in servant leadership behaviors across all their followers, whereas individual ratings of servant leadership give an indication of how leaders adapt their servant leadership behaviors from follower to follower (ibid.). The composition model used by the vast majority of servant leadership researchers for creating the group-level construct is the direct consensus model, in which the meaning of group-level servant leadership is based on the within-group consensus of followers regardless of the variance between groups (Chan, 1998). In other words, most researchers ask respondents how their leader behaves towards them, and the individual scores of all followers reporting to the same leader are subsequently aggregated, provided the agreement between team members is high enough to justify aggregation (Bliese, 2000).

Following from this group-level conceptualization of servant leadership, several authors suggest that one process through which servant leaders affect teams and individual followers is through the creation of positive work climates. In detail, a range of different climates has been

suggested to achieve particular outcomes. Van Dierendonck (2011) proposes that servant leaders create a climate of psychological safety, which extends followers' perceptions of trust and fairness beyond the direct relationship with the leader to include all other members of the team. This is achieved by encouraging an open atmosphere where followers can learn from the leaders as well as each other, and communicating that making mistakes is a natural part of this process. In addition, servant leaders' empowering behaviors allow followers to compile all the information they need to master a task by themselves, and to rely on their own knowledge when making decisions without the fear of negative consequences for not involving the leader in every decision (ibid.). A psychological safety climate has in turn been related to increased learning and higher firm performance, and has been shown to play an important role in translating task conflicts into beneficial outcomes (Baer & Frese, 2003; Bradley, Postlethwaite, Klotz, Hamdani, & Brown, 2012; Edmondson, 1999).

Another positive climate that has been introduced as an outcome of servant leadership is a procedural justice climate (Ehrhart, 2004; Kool & Van Dierendonck, 2012; Mayer et al., 2008; Walumbwa et al., 2010a), mostly on the basis of social exchange theory (Blau, 1964). How servant leaders increase follower perceptions of fairness has been discussed in the previous paragraph, and introducing this concept in the form of a positive work climate extends the described mechanism to the group level. A procedural justice climate created by servant leaders is proposed to be especially useful for increasing organizational citizenship behaviors at different levels of analysis (Ehrhart, 2004; Walumbwa et al., 2010a), but positive effects on commitment to change (Kool & Van Dierendonck, 2012) and need as well as job satisfaction (Mayer et al., 2008) are hypothesized as well.

Next, servant leaders are said to create a service climate, which communicates and rewards expected behaviors regarding customer service (Schneider, White, & Paul, 1998). The line of ar-

gumentation in this case goes again back to one of the basic propositions of servant leadership theory, namely that those served will over time become servants themselves (Greenleaf, 1977). Servant leaders model other-directed behaviors and show genuine interest in the needs and preferences of their followers as well as the wider community, which in turn results in a process of social learning that leads followers to adopt the same other-directed behaviors in their interactions with each other as well as customers (Bandura, 1977b; Hunter et al., 2013). As a result of the emphasis put on helping and service-oriented behaviors, the service climate created by servant leaders is proposed to result in more helping behaviors, organizational citizenship behaviors, and better customer service and sales performance (Hunter et al., 2013; Jaramillo et al., 2009a). Using a very similar line of argumentation, Liden et al. (2014b: 1437) introduce a more general form of service climate to the servant leadership literature, which they call serving culture and define as "the extent to which all members of the work unit engage in servant leadership behaviors". Serving culture is in turn related to several indicators of individual and team performance as well as creativity, customer service behaviors, and customer satisfaction (Liden et al., 2014b).

In addition to the different positive team climates, Yoshida et al. (2014: 1397) extend the argumentation regarding follower prosocial identity and identification with the leader to the group level and hypothesize that servant leaders are perceived as prototypical of the whole group "because they are perceived to have the incentive to pursue teams' best interest due to their genuine interests in service and team development". Finally, De Waal and Sivro (2012) propose that servant leaders also exert their influence through fostering high performance organization factors like management quality, openness and action orientation, long-term orientation, continuous improvement and renewal, and workforce quality, suggesting that servant leadership has an influence on the overall strategizing and organization of work in a company.

In sum, it can be seen that different positive work climates have been used selectively, in-

formed by the specific outcomes that were examined in the context of servant leadership. To date, no theoretical suggestions have been made with regards to a climate that is conducive for increasing follower performance and well-being alike. However, what most of the discussed work climates have in common is that they foster the personal growth and development of followers in order to help them achieve their full potential, which again goes back to the initial definition of servant leadership by Greenleaf (1977).

2.5.4 Boundary Conditions

Compared with the discussed processes through which servant leadership is said to affect followers, much less theorizing is available regarding the boundary conditions under which servant leadership is likely to be most effective. Van Dierendonck (2011) initially introduced culture as an important antecedent, but not as a boundary condition, and argued that servant leaders are more likely to emerge in cultures that are high in humane orientation and low in power distance (House, Hanges, Javidan, Dorfman, & Gupta, 2004). A culture high in humane orientation is characterized by the encouragement of altruism, fairness, generosity, friendship, and caring (Kabasakal & Bodur, 2004), which shows clear overlaps with the values of servant leadership (Patterson, 2003; Russell, 2001; Washington, Sutton, & Feild, 2006). Similarly, cultures with low power distance are characterized by decentralized decision making and flatter hierarchical structures (Carl, Gupta, & Javidan, 2004), which matches the servant leadership behaviors of empowerment, putting subordinates first, and helping subordinates grow and succeed.

On the basis of this argumentation, other researchers propose that as much as such a culture is proposed to foster the emergence of servant leadership, it can be expected to determine the effectiveness of existing servant leaders (Winston & Ryan, 2008). Meuser et al. (2011) argue that servant leadership is most effective, when followers report a high desire for servant leadership behaviors, or in other words, when a servant leader is perceived as prototypical of the organ-

ization he or she is a part of. As the forming of leadership prototypes is influenced to a great extent by organizational culture (Schein, 1985; Schneider, Ehrhart, & Macey, 2012), it can therefore be argued that organizational culture is a boundary condition of servant leadership effectiveness, with servant leaders being most successful in organizations whose cultures match servant leadership values, and especially the promotion of follower growth and development. In the case of a mismatch, the effects of servant leadership on follower outcomes are even proposed to be negative (Meuser et al., 2011), because followers do not approve of the associated behaviors and react defensively to any attempts to influence them (Platow & van Knippenberg, 2001).

Finally, recent research has suggested that different team climates can amplify or hinder the effectiveness of servant leadership; connecting the social identity theory of leadership with servant leadership theory, Yoshida et al. (2014) demonstrate that servant leaders who are perceived as prototypical are most effective in achieving a particular outcome, in their case follower innovative behaviors, when the team climate additionally emphasizes and supports innovation. This "signals that the leader is both the representative of team norms and values and that these norms encourage and support innovation" (Yoshida et al., 2014: 1397). By extension, other team climates might be more appropriate in relation to other outcomes, but to date no further theorizing in this respect is available in the servant leadership literature. In general, a team climate that fosters personal growth and development and is therefore in line with one of the key propositions of servant leadership theory (Greenleaf, 1977) can be expected to function as a catalyst for servant leadership in achieving increases in both follower performance and well-being.

2.5.5 Potential Negative Effects of Servant Leadership

The above discussion of boundary conditions implicitly suggests that servant leadership might actually have a negative effect on desirable outcomes in certain contexts. Except the already discussed findings of Meuser et al. (2011), we are not aware of any theoretical claims or

empirical evidence that focuses on the potential disadvantages of applying servant leadership, which holds the risk of establishing a one-sided and overly optimistic view of this leadership style. In the following, we will therefore provide an – albeit somewhat speculative – discussion of contexts in which servant leadership, with its particular focus on service and follower growth, would be expected to have a negative effect on follower outcomes.

To start with, it became apparent in the above literature review that servant leaders do not aim for organizational profit at all cost, but value engagement for the community and ethical decision making (Liden et al., 2008). This suggests that servant leadership would not be the first choice in organizations or teams characterized by a strong competitive climate, which can be defined as "the degree to which employees perceive organizational rewards to be contingent on comparisons of their performance against that of their peers" (Brown, Cron, & Slocum, 1998: 89). In such a climate, servant leadership behaviors aiming at support, mutual trust, and organizational citizenship behaviors (Liden et al., 2014a) will likely be perceived as counter to the behaviors needed to gain organizational rewards, subsequently resulting in lower performance. However, the relationship between servant leadership and well-being in competitive contexts might be less linear. Fletcher, Major, & Davis (2008) report that a competitive climate was associated with increased stress levels and reduced job satisfaction regardless of individuals' trait competitiveness. Subsequently, it can be expected that servant leadership positively relates to follower well-being, when competitive climate is low, but that this effect becomes negative when competitive climate increases, because this leadership style is perceived as inappropriate in the given context. However, once the team or organizational climate becomes too competitive, and thus highly stressful, employees might actually welcome the support and empathy provided by servant leadership, so that its relationship with well-being becomes positive again.

Taking this discussion to an industry level, one would further expect that the implicit val-

ues on which servant leadership theory builds, including an emphasis of high moral standards, sustainability, and corporate social responsibility over profits and market share (Van Dierendonck, 2011), are more suited to some markets than others. While servant leadership is expected to be effective in organizations that offer novel and innovative products with high profit margins like those operating in the technology sector, it can be argued that it will be less effective or even negative in organizations with very low profit margins, for example mass-market retailers and supermarkets. This is because such organizations often employ a relatively unskilled and cheap workforce operating in rigid hierarchical structures in order to keep labor costs low, and do not invest in the long-term development of their employees that is so central to servant leadership (Greenleaf, 1977). Similarly, servant leadership will likely have negative effects on desired outcomes in sectors like banking, in which unethical and unsustainable behaviors are often tolerated or even encouraged to gain short-term profits and satisfy shareholder interests (The Economist, 2013). In such organizations, servant leaders would likely cause cognitive dissonance in their followers and work against generally accepted routines, resulting in a disruption of work and role conflict, and by extension in decreased follower performance and well-being.

Looking at the wider economic context, environmental uncertainty is another potential boundary condition that could affect the strength and direction of the relationship between servant leadership and desirable outcomes. According to the framework of Duncan (1972), the degree of environmental uncertainty a particular organization is faced with results from the combination of two dimensions: Environmental complexity, reflecting the simplicity or complexity of factors that have to be considered when making decisions, and environmental change, reflecting the degree to which these factors are stable or continuously changing. In an environment that is simple and stable, we expect servant leadership to contribute little additional performance benefits over more task-oriented leadership styles, because the requirements for follower growth and

development are relatively low once standard routines are communicated. However, servant leadership will likely have a positive effect on follower well-being through developing high-quality relationships with employees and taking their needs into account when making decision. In environments of medium uncertainty (complex and stable, simple and changing), servant leadership dimensions like conceptual skills, empowerment, and helping followers grow and succeed will arguably become more relevant, resulting in a positive relationship with performance. Similarly, we would expect that servant leaders help their followers to cope with the increased stress levels connected with heightened environmental uncertainty, and thus positively affect their well-being. In highly uncertain environments (complex and changing), however, different effects on performance are possible: If organizational members adopt a prevention focus and try to minimize risks through strict rules and procedures (Higgins, 1998), the performance benefits of servant leadership could vanish again, and the strategy of preparing employees for coping with stressors through investing in personal development might be perceived as inappropriate, resulting in lower well-being. However, if the organization chooses to approach the high environmental uncertainty by focusing on innovation and creativity (ibid.), servant leadership can become an invaluable contribution to both employee performance and well-being by helping followers to realize their full potential at work (c.f. Yoshida et al., 2014).

We conclude that servant leadership, like any other leadership style that encompasses a particular set of behaviors, cannot be expected to result in positive outcomes independently of the context. While much of the argumentation in this section has to remain speculative due to a lack in theorizing and empirical evidence around the boundary conditions of servant leadership, we aim to shed more light on its potential negative effects by identifying moderators that cannot only be expected to foster, but also to undermine the efforts of servant leaders. A more detailed description of these moderators will follow in Section 2.7.2.

2.6 CRITIQUE OF SERVANT LEADERSHIP

While most theorizing on servant leadership has focused solely on its positive aspects, some authors have noted that this leadership style might also result in less favorable outcomes for organizations (Andersen, 2009; Liden et al., 2014a; Panaccio et al., 2015). The most frequently mentioned critique is that servant leaders compromise organizational performance and profitability (Andersen, 2009); as they include not only the personal development needs and the well-being of their followers, but also the needs of society reflected in various stakeholder (and not only shareholder) interests in their considerations and subsequent actions, organizational profitability alone can hardly be their primary objective, and might subsequently be lower than it could be without considering any interests beyond those of shareholders (Liden et al., 2008; Panaccio et al., 2015). Similarly, past research has shown that increasing employees' extra-role behaviors results in decreased task performance (Bergeron, Shipp, Rosen, & Furst, 2013), which can in turn negatively impact on the profitability of the organization as less resources are available for its key operations. However, the conceptualization of servant leadership clearly shows that servant leaders do not forget about organizational objectives, but possess the necessary "knowledge of the organization and tasks at hand" (Liden et al., 2008: 162), and rather achieve organizational goals via effectively developing their followers. Nevertheless, we use a measure of followers' task performance in both studies presented in this thesis to show that servant leaders are able to increase follower well-being alongside performance on key tasks, as initially proposed by Greenleaf (1970).

Another critique is that the constant focus on others' needs and preferences, be it direct followers, shareholders, stakeholders in the wider context of the organization, or even the family of the servant leader, creates role conflict, ambiguity, and overload for the leader him- or herself (Andersen, 2009; Panaccio et al., 2015). According to Greenhaus and Beutell (1985), role con-

flict can be time-based, when the time needed to fulfil all expectations connected with different roles is not available, strain-based, when the stress and fatigue from fulfilling one role impacts negatively on one's performance in another role, and behavior-based, when certain behaviors required to be effective in one role are not acceptable in another role. In addition, attending to the needs of others requires having a clear picture of what these needs actually are, which might not always be clear to a servant leader due to miscommunication or lacking awareness of the stakeholders themselves (Panaccio et al., 2015). Subsequently, servant leaders are also at risk of experiencing role ambiguity, and in the end role overload, when the servant leaders' resources do not suffice for meeting all the role demands connected with various roles (Kahn, Wolfe, Quinn, Snoek, & Rosenthal, 1964; Panaccio et al., 2015). As a result, it is argued that servant leaders are more likely to engage in emotional labor to regulate their emotions in the process of serving others (Liden et al., 2014a), and experience high levels of stress and emotional exhaustion (Panaccio et al., 2015). While there are no empirical findings supporting these propositions yet, these risks for leaders' well-being should be taken seriously. However, in our studies we focus solely on follower outcomes, which makes the described risks less relevant for our research.

Finally, Panaccio et al. (2015) argue that servant leadership might also result in follower strain, because those led have different leadership preferences. In other words, servant leadership theory has so far assumed that a specific set of behaviors is universally effective in satisfying the needs of those served, because existing research on the three basic needs of autonomy, competence, and relatedness suggests that they are important across individuals, groups, and even cultures (Deci & Ryan, 2012). However, followers might have very different views on *how* those needs should be satisfied, and first empirical evidence indeed shows that their leadership prototypes moderate the relationship between servant leadership and performance, resulting in negative performance when there is a mismatch between servant leadership behaviors and followers'

leadership preferences (Meuser et al., 2011). While this critique potentially applies to all leadership style theories that focus on a specific set of behaviors, we acknowledge and address it by including organizational policies and practices and team climate as boundary conditions of servant leadership effectiveness in our first study. Both are indicators of the shared values and accepted behaviors in a given context, either the team or the organization as a whole (Schneider et al., 2012), and can therefore be used to examine the effects of a mismatch or match between servant leadership and the context in which it takes place – as perceived by the followers – on performance and well-being.

2.7 SUMMARY AND THEORETICAL FRAMEWORK OF THIS THESIS

2.7.1 Summary of Existing Theoretical Claims

To summarize, theorizing on servant leadership has resulted in several propositions that highlight the unique value of this leadership style above and beyond existing conceptualizations of leadership. Firstly, servant leaders are said to achieve follower performance and well-being alike (Greenleaf, 1970; Liden et al., 2014a; Panaccio et al., 2015), which is an especially relevant claim in times of downsizing, performance pressures, and increasing stress levels.

Secondly, it is proposed that servant leaders positively affect followers via a range of mediating mechanisms, which have in common a clear focus on continuous and sustainable follower growth and development through providing employees with the abilities, scope, and flexibility to unfold their full potential (Van Dierendonck, 2011). In other words, self-efficacy, self-esteem, feelings of psychological empowerment, high quality leader-member relationships, and trust can all be seen as indicators of personal development that allow followers of servant leaders to trust in their own abilities when tackling challenging tasks, make positive attributions with regards to their achievement, find creative ways to overcome obstacles, and persevere during difficult times (Luthans et al., 2007c). Similarly, servant leaders foster the growth and development of teams by

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creating several positive work climates that emphasize different values and behaviors (Hunter et al., 2013; Liden et al., 2014b; Van Dierendonck, 2011; Walumbwa et al., 2010a).

Lastly, servant leadership theory contends that servant leaders will be most effective in an organizational context that matches their values in terms of employee involvement and empowerment, fair rewards for employee contributions, organization-wide opportunities for employee development, and a clear focus on employee well-being, safety, and health (Grawitch et al., 2006). Furthermore, servant leaders' efforts are not only proposed to be transmitted through, but also amplified by positive team climates that further encourage and support attitudes and behaviors put forward by servant leadership in achieving particular organizationally relevant goals (Yoshida et al., 2014). Going back to the central goal of facilitating the fulfilment of follower potential, a climate that stresses the importance of continuous development (Van Dam et al., 2008) is likely to be especially beneficial. However, very little is known about the potential negative effects of servant leadership on desirable outcomes, although it can be expected that certain boundary conditions like high competitiveness, environmental uncertainty, and organizational as well as team climates discouraging employee growth and development will undermine the efforts of servant leaders.

2.7.2 Introduction of Self-Determination Theory as the Guiding Theoretical Framework

As discussed above, a number of theoretical frameworks have been used to link servant leadership with organizationally relevant outcomes, including conservation of resources theory (Babakus et al., 2010), regulatory focus theory (Neubert et al., 2008), social exchange theory (Ehrhart, 2004; Hu & Liden, 2011; Hunter et al., 2013; Liden et al., 2008; Schaubroeck et al., 2011; Walumbwa et al., 2010a), and most recently social identity theory (Chen et al., 2014; De Sousa & Van Dierendonck, 2014; Liden et al., 2014b; Yoshida et al., 2014). However, building on recent theoretical discussions (Liden et al., 2014a; Panaccio et al., 2015) and first empirical

findings (Mayer et al., 2008) we argue here that self-determination theory (SDT; Deci & Ryan, 1985) is the most appropriate framework for explaining how and under which conditions servant leadership relates to follower well-being and performance, because it specifically focuses on the process of human development and therefore on the most central aspect of servant leadership (Greenleaf, 1977).

According to SDT, three basic psychological needs have to be satisfied in order to experience psychological well-being, which is defined in eudaimonic terms as "a human being's maximal level of development" (Gagné & Vansteenkiste, 2013: 63); these are the needs for autonomy, competence, and relatedness, which have been found to be stable across cultures (Ryan & Deci, 2000). In addition, the satisfaction of these needs is said to result in autonomous motivation, a motivational state characterized by Vansteenkiste, Niemiec, and Soenens (2010: 118) as "the experiences of volition, psychological freedom, and reflective self-endorsement" as opposed to feeling coerced or pressured to think, feel, or behave in a specific way. In turn, autonomous motivation has been shown to result in greater performance (Deci & Ryan, 2000).

Servant leaders are likely to satisfy all three psychological needs of their followers through their particular focus on follower developmental needs and preferences (Greenleaf, 1970). In detail, servant leadership behaviors like empowering, helping subordinates grow and succeed, and putting subordinates first can be expected to satisfy the needs for autonomy and competence, because they create a supportive context in which followers can decide how and when to complete tasks, work on tasks they perceive as meaningful and important for their personal (career) development, and deal better with any problems they are facing (Liden et al., 2014a; Panaccio et al., 2015). Furthermore, creating value for the community and emotional healing have been put forward as behaviors that satisfy the follower need for relatedness by allowing for the participation in shared activities, encouraging individuals to openly talk about matters of personal importance,

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and making followers feel appreciated beyond their professional lives (Liden et al., 2014a; Panaccio et al., 2015). Empirically, Mayer et al. (2008) could already show a direct and positive relationship between servant leadership and follower need satisfaction, which supports these theoretical claims.

Subsequently, servant leaders can also be expected to induce a state of autonomous motivation in their followers. As the two regulatory states of identified and integrated regulation that underlie autonomous motivation are characterized by increasing perceptions of congruence between (work-related) behavior and an individual's personal goals and ideal self (Gagné & Deci, 2005), servant leadership behaviors that satisfy follower needs on the one hand, and specifically acknowledge the centrality of follower development on the other hand, will increase the likelihood that followers perceive even the work on relatively unpleasant tasks as self-determined, internalized, and central to their personal identity (ibid.).

In addition to the already described behaviors, servant leaders particularly use their conceptual skills to match work tasks with the developmental needs of their followers in order to foster their autonomous motivation (Liden et al., 2008). Although there currently exists no empirical evidence for the link between servant leadership and autonomous motivation, other studies have found that followers of servant leaders report higher person-job and person-organization fit (Babakus et al., 2010; Jaramillo et al., 2009b), which indicates that servant leaders are effective in highlighting the importance and congruence of one's work with personal values and developmental goals.

We expand on the current discussion of SDT in the context of servant leadership by arguing that the effects of servant leadership behaviors on follower need satisfaction and autonomous motivation materialize in an increase of their positive psychological capital (PsyCap; Luthans et al., 2007c), which is defined as "an individual's positive psychological state of development that

comprises four positive psychological resources: self-efficacy, optimism, hope, and resilience" (Newman, Ucbasaran, Zhu, & Hirst, 2014: 122). In particular, we draw on past findings that individuals who are autonomously motivated feel more confident and able to deal with relatively complex tasks and are more likely to persevere on tasks that require determination and discipline (Koestner & Losier, 2002; Pittman, Emery, & Boggiano, 1982), which in turn has been related to positive changes in performance and well-being outcomes (Amabile, 1979; Grolnick & Ryan, 1987; Weinstein & Ryan, 2010).

In line with this argumentation, high PsyCap encompasses confidence that one can exert the effort necessary to master challenging tasks (self-efficacy), positive attributions with regards to achieving one's personal goals in present and future (optimism), perseverance and flexibility in goal attainment (hope), and the ability to 'bounce back' from setbacks on the way to personal success (resilience; Luthans, Avolio, Avey, & Norman, 2007a). It has to be noted that goals in the context of PsyCap are those which are perceived as personally meaningful and set by the individuals themselves (e.g. "At this time, I am meeting the work goals that I have set for myself"; Luthans, Youssef, & Avolio, 2007b), and thus are autonomous goals from an SDT perspective. PsyCap has in turn be related to increases in performance and well-being both theoretically and empirically (Avey, Luthans, Smith, & Palmer, 2010a; Avey, Luthans, & Youssef, 2010b; Avey, Reichard, Luthans, & Mhatre, 2011; Newman et al., 2014), arguing that "the components of PsyCap act as individual motivational propensities and effort to succeed resulting in increased performance output" (Avey et al., 2011: 134), and that individuals' PsyCap "reinforces the potential value of their taking different perspectives, appraising situations and circumstances in more positive, opportunistic, adaptive and promotion/approach focused ways, thus enhancing their well-being" (Avey et al., 2010a: 21), which is fully in line with propositions of SDT.

We further draw on SDT by proposing that these effects will be most pronounced in organ-

izational and team contexts that additionally foster follower need satisfaction and autonomous motivation. According to SDT, employees' need satisfaction cannot be achieved through leaders' support for self-determination alone, but also requires a supportive work climate that emphasizes the importance of follower needs and communicates acceptance of self-determined behaviors at work (Deci et al., 1989). On the level of the organization, agreed-on and openly communicated policies and practices function as explicit indicators of work climate (Schneider et al., 2012). Guided by the propositions of SDT, we identified the PATH model (Practices for the Achievement of Total Health; Grawitch et al., 2006) as a set of organizational policies and practices that are likely to amplify the effects of servant leadership on follower PsyCap. In detail, the PATH model encompasses five elements that can be clearly linked to the three basic psychological needs, namely *employee involvement* and *employee growth* (i.e. autonomy), the *recognition* of employees' personal achievements (i.e. competence), and caring for employee well-being and social relations through *work-life balance* and *health and safety* practices (i.e. relatedness; Grawitch et al., 2006; Grawitch, Trares, & Kohler, 2007). In addition, the particular importance of employee involvement, which gives individuals the opportunity to contribute personally meaningful and thus autonomously motivated ideas, has been highlighted in achieving employee well-being and performance (Grawitch, Ledford Jr, Ballard, & Barber, 2009; Grawitch et al., 2007). Subsequently, we expect that servant leaders will be most effective in building follower PsyCap as a manifestation of need satisfaction and autonomous motivation, when organizational policies and practices include all five elements of the PATH model. Should employees perceive these elements to be absent, however, we expect servant leadership to be negatively related to PsyCap, because organizational policies and practices will undermine servant leaders' efforts by communicating that self-determined attitudes and behaviors are neither accepted nor rewarded. Subsequently, basic needs will remain unsatisfied, and motivation will remain controlled.

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Similarly, even when servant leadership takes place in a context characterized by supportive organizational policies and practices, a particular team's climate might still undermine its positive effects. In many cases the team functions as a more proximal and immediate source of information about accepted attitudes and behaviors when compared with the overall organization (Anderson & West, 1998; West, 2012), and the importance of positive team climates has been highlighted both in the servant leadership and the self-determination literatures (Deci et al., 1989; Liden et al., 2014a; Van Dierendonck, 2011). Thus, we apply the propositions of SDT regarding the supportive effect of work climate not only to the organizational, but also to the team level and argue that a development climate that values and allows for personal growth and self-determined decisions and behaviors on the job (Van Dam et al., 2008) will further amplify the positive effects of servant leadership on follower outcomes via PsyCap, whereas a weak development climate will undermine them.

In sum, we therefore argue on the basis of SDT that servant leadership, with its emphasis on followers' growth and development, will be likely to satisfy their three basic psychological needs of competence, autonomy, and relatedness and induce a state of autonomous motivation, which materializes in increased follower PsyCap. The confidence, positive attribution, perseverance, and adaptability encompassed by PsyCap will in turn result in seeking out and mastering more challenging and complex tasks, and thus higher performance and eudaimonic well-being. These effects will, however, be dependent on contexts that further support self-determination, characterized on the one hand by organizational policies and practices that include employee involvement, growth, and recognition as well as work-life balance and health and safety practices, and on the other hand by a development climate in proximal work teams. If the organizational context becomes unfavorable, we expect servant leadership to negatively relate to PsyCap, which will in turn negatively relate to performance and well-being in unfavorable team climates.

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We believe that SDT is a particularly powerful theoretical framework for explaining the effects of servant leadership on follower performance and eudaimonic well-being via PsyCap, more so than competing frameworks like social identity theory (SIT), which has recently received more and more attention in the context of servant leadership (Liden et al., 2014a). According to SIT, individuals identify with teams, organizations, or other social structures for two reasons: to reduce uncertainty, and/or to enhance their self-image (Ashforth & Mael, 1989; Hogg & Terry, 2000). Subsequently, it has been argued that servant leaders who act in favor of group interests are perceived as prototypical of the group, and its members in turn adopt the prosocial identity modeled by their leader, which reduces uncertainty about which attitudes and behaviors are accepted at work and leads to more favorable comparisons with other groups (Liden et al., 2014a). While this argumentation has been used to explain the effects of servant leadership on outcomes like service-oriented or helping behaviors (Chen et al., 2014; Liden et al., 2014b) and might also be useful when looking at commitment, it offers no insights about how servant leaders help followers to grow as persons and make them more autonomous, as it is described in most definitions of servant leadership (Greenleaf, 1977; Liden et al., 2014a; Mayer et al., 2008; Van Dierendonck, 2011) and operationalized in the form of eudaimonic well-being (Ryff, 1989b).

The same critique can be applied to social exchange theory (SET; Blau, 1964) and the conservation of resources theory (COR; Hobfoll, 1989). Starting with SET, which mainly focuses on social exchange processes between interdependent individuals like leaders and followers (Cropanzano & Mitchell, 2005), past research has explained positive outcomes like organizational citizenship behavior as resulting from obligations felt by the followers of servant leaders to reciprocate and repay any favors in order to create a balance of exchanges (Hu & Liden, 2011; Hunter et al., 2013; Walumbwa et al., 2010a). Within the SDT framework, such behavior would fall under externally regulated or controlled motivation, as the decision to show extra-role behav-

iors is not based on perceived meaningfulness and congruence with one's own values, but on the desire to keep a positive relationship with the leader and subsequently receive further rewards (Gagné & Deci, 2005). While some authors have argued that such exchange processes are central to servant leadership theory (Hu & Liden, 2011; Liden et al., 2008), we argue that they offer only limited insights about the personal development of followers in the sense of becoming freer and more autonomous (Greenleaf, 1977; Parolini et al., 2009). On the contrary, perceiving one's relationship with a servant leader primarily as a social exchange process might even result in feelings of dependence and seeing one's personal development as being contingent on the servant leader instead of one's own abilities (Spreitzer & Porath, 2013).

Next, COR proposes that individuals protect themselves from stress by investing valued resources, and that stress subsequently results from any threat of losing those resources, the actual loss of resources, or the failure to gain more resources than those invested previously (Hobfoll, 1989; Wright & Hobfoll, 2004). Subsequently, it has been argued that servant leadership functions as a valuable organizational resource, because servant leaders provide reliable support in stressful situations (Babakus et al., 2010). With COR being deeply rooted in the stress literature, there appears to be an overly strong emphasis on avoiding the loss of resources, with which comes the implicit assumption that all stressful situations are perceived by individuals as potentially threatening their resources and therefore as negative (Hobfoll, 1989). Indeed, Hobfoll, Lilly, and Jackson (1992) found that people focus much more on loss than on gain during stressful experiences. This makes COR appear to build on a rather limiting idea of man, and the apparent notion that stress is always bad has sparked strong critique (e.g. Lazarus, 2001). In addition, recent research has shown that certain stressors like a high workload, broad job scope, or time pressure, all of which might result from servant leadership behaviors like empowerment and creating value for the community, are generally perceived as challenging rather than threatening, re-

sulting in higher motivation and performance (LePine, LePine, & Jackson, 2004; LePine, Podsakoff, & LePine, 2005; Pearsall, Ellis, & Stein, 2009; Podsakoff, LePine, & LePine, 2007). LePine et al. (2005) even note that the exposure to challenge stressors might actually increase employee well-being. We therefore argue that the one-sided focus of COR on coping with stress and defending one's resources limits its power to explain how and under which conditions servant leaders contribute to the personal development of their followers, and in turn positively affect their performance and well-being. SDT, on the other hand, specifically claims to be a theory of positive human development and, as discussed above, therefore offers a much more comprehensive framework than both SET and COR for exploring the question that started off research on servant leadership, namely "do those served grow as persons?" (Greenleaf, 1977: 7).

This leaves regulatory focus theory (RFT; Higgins, 1997; Higgins, 1998) as another theoretical approach that has been used in the past to link servant leadership to follower outcomes. RFT proposes that all goal-directed behavior follows one out of two motivational principles: Either the approach of pleasure and personal growth needs, or the response to security needs by avoidance of pain and personal failure (Higgins, 1997). In case individuals strive for the former, they are said to operate in a promotion focus, while behavior falling in the latter category is guided by a prevention focus (Higgins, 1998). Although chronic regulatory foci are mostly determined by personality (Higgins, 1997, 1998), Kark and van Dijk (2007) argue that situational regulatory foci can be influenced and altered by external variables such as leadership. In general, being in a promotion focus has been connected with more desirable outcomes, including increased extra-role performance, perseverance, risk-taking, creativity, and job satisfaction (Crowe & Higgins, 1997; Lanaj et al., 2012). In the context of servant leadership, RFT has been used to explain how servant leadership leads to more helping and creative behavior of followers, arguing that servant leaders elicit a promotion focus in followers through their concentration on personal

growth and development, which in turn results in the direction of energy towards extra-role behaviors that are in line with one's aspirations instead of one's fears (Neubert et al., 2008). Thus, the theoretical rationale of RFT shows great similarities with SDT; both are motivational theories that put an emphasis on achieving higher performance and well-being through engaging in behaviors that satisfy individual needs and are less controlled by external factors, but more autonomous (Deci & Ryan, 1985; Higgins, 1998). The main reason why we chose SDT over RFT is that the former views well-being, one of the key outcomes in our studies, in explicitly eudaimonic terms (Ryan, Huta, & Deci, 2008), whereas the latter subscribes to the hedonic perspective and, despite some critique around the 'how' and 'why' of pursuing hedonic goals, conceptualizes well-being as the gain of pleasure and the avoidance of pain, operationalized in an organizational context as low negative affect as well as high positive affect and job satisfaction (Higgins, 1997; Lanaj et al., 2012). As we outline in more detail in Chapter 3, the eudaimonic perspective is more in line with the conceptualization of well-being in the servant leadership literature (Greenleaf, 1977), which makes SDT a more fitting choice to study the relationship between servant leadership and follower well-being. In addition, RFT suggests that increased task performance, the second key outcome of this thesis, follows from a prevention focus, whereas a promotion focus, which is elicited by servant leaders, is more strongly related to extra-role performance (Neubert et al., 2008). However, as one aim of this thesis is to address the critique that servant leadership can have a negative effect on organizational productivity through attending to multiple follower and stakeholder needs (Andersen, 2009), we want to show that servant leaders can increase follower well-being and task performance alike, which can be explained more consistently within an SDT framework, where even performing routine tasks can be seen as contributing to personal growth as long as these tasks are in line with one's goals and ideal self (Gagné & Deci, 2005). Thus, we contend that SDT is the most comprehensive and appropriate frame-

work for examining the relationship between servant leadership, follower eudaimonic well-being, and follower task performance. After reviewing the theoretical propositions made in the servant leadership literature, the following paragraphs will give an overview of empirical studies to examine whether these propositions can be supported by evidence.

2.8 EMPIRICAL SUPPORT FOR SERVANT LEADERSHIP

As the above review shows, research on servant leadership so far has mainly focused on a theoretical discussion about what this leadership style entails, what differentiates servant leaders from other leaders, and which outcomes can be expected when applying servant leadership. Different pathways through which servant leadership affects followers have been proposed with regards to specific outcomes, but are always rooted in the key assumptions of servant leadership theory. At the same, rigorous empirical examinations of the antecedents and outcomes of servant leadership are still rare, but show promising results. Grouping the examined outcomes into either the performance or the well-being domain, the following sections aim at giving an overview of the current state of empirical research.

2.8.1 Doctoral Theses and Conference Proceedings

Most empirical data on the relationship of servant leadership with other variables is still not reported in peer-reviewed journals, but in doctoral dissertations and conference proceedings of Regent University's servant leadership roundtable. These studies almost exclusively examined the effects of servant leaders on follower job satisfaction, and consistently report a positive relationship ranging from .52 up to .89 (Amadeo, 2008; Anderson, 2005; Chu, 2009; Drury, 2004; Hebert, 2004; Irving, 2004, 2005; Johnson, 2008; Kong, 2007; Miears, 2005; Rude, 2004; Svoboda, 2008; Thompson, 2006; Van Tassell, 2006; Washington, 2007; West & Bocarnea, 2008). However, all but the study by Washington (2007) are cross-sectional in nature and have a simple correlational design, which does not allow for establishing causal relationships between

the variables. Nevertheless, the high correlations found across different studies provide initial support for the assumption that servant leadership is indeed an important predictor of job satisfaction, which forms an important, but limited part of employee well-being in many conceptualizations (Cropanzano & Wright, 2001; Danna & Griffin, 1999; Diener, Oishi, & Lucas, 2011).

Further theses and conference proceedings that are worth mentioning in the context of servant leadership and employee well-being report positive correlations of servant leadership with a composite variable encompassing health, wisdom, freedom, autonomy, and service orientation (Hayden, 2011), active caring behaviors (Krebs, 2005), and attrition (Rauch, 2008), as well as negative relationships with job burnout (Rude, 2004), absenteeism (Rauch, 2008), and safety-related outcomes like near misses and accidents (Krebs, 2005). These findings suggest that followers of servant leaders act more responsibly at work and become servants themselves, leading not only to increases in their own well-being, but also making their colleagues or customers feel better. This is further backed up by findings that suggest positive effects of servant leadership on followers' affective commitment, trust, and a positive working climate (Black, 2008; Dannhauser, 2007; Dannhauser & Boshoff, 2006; Herndon, 2007; Lambert, 2004).

Looking at outcomes that can be subsumed under the performance domain, again only correlational and anecdotal evidence is available from doctoral theses and conference proceedings. With the exception of two papers that found positive correlations between servant leadership and team effectiveness (Irving, 2004, 2005), findings are furthermore restricted to school contexts, indicating positive effects of servant leadership on student achievement (Herbst, 2003; Lambert, 2004).

In sum, the studies presented above are inconclusive with regards to underlying mechanisms and potential boundary conditions of the examined relationships, and therefore provide little information on how the effects of servant leadership on follower well-being and performance

can be explained theoretically. Thus, they do not provide more than first indications of the positive effects on follower well-being and performance proposed by servant leadership theory.

2.8.2 Peer-reviewed Journals

Looking at empirical research on servant leadership published in peer-reviewed journals, the discussed outcomes remain largely the same, but many of the earlier studies lack a clear theoretical framework and do not examine potential mediators and moderators (see for example Barbuto & Wheeler, 2006; Bobbio & Rattazzi, 2006; Irving, 2005; Joseph & Winston, 2005). However, a growing number of study designs are more elaborate and complex, and allow for a better test of the propositions made by servant leadership theory, as well as the mechanisms through which, and the conditions under which servant leaders exert their influence. Starting with the effects of servant leadership on performance, several studies are now available that report evidence based on more rigorous examinations of this relationship. In the following, key findings will be reported beginning with the organizational level, followed by the group and finally the individual level.

In a case study by De Waal and Sivro (2012), servant leadership was not directly related to organizational performance, but some of its facets had a positive effect on high performance organization factors like management quality and continuous improvement. However, Peterson et al. (2012a) could show that CEO servant leadership indeed had a positive effect on firm performance. This suggests that a high hierarchical level in the organization makes it more likely for a servant leader to be able to influence organizational performance, and that the organizational culture has to fit with the mission of a servant leader (Peterson et al., 2012a). More direct evidence backing up this assumption comes from Liden et al. (2014b), who found that store-level servant leadership positively affected several indicators of store performance, including customer satisfaction and accuracy of order fulfilment, and that this effect was mediated by serving culture, an

organizational or team climate in which followers adopt the same servant behaviors as their leaders. In this study, servant leaders created this culture themselves, but other instances can be thought of in which influencing organizational culture is more difficult, so that it acts more as a boundary condition.

On the group level, evidence regarding the link between servant leadership and team performance is reported by Hunter et al. (2013). In their study, servant leadership had a positive effect on group-level sales performance, but only when managers rated both variables, which raises concerns of same-source bias (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). Stronger evidence for a performance link at the group level is provided by Hu and Liden (2011), who found that servant leadership was positively related to team potency, which in turn resulted in higher team performance and team organizational citizenship behaviors. Furthermore, servant leadership moderated the positive effects of goal and process clarity on team potency. Next, Mahembe and Engelbrecht (2013) found a positive effect of servant leadership on team effectiveness, and Yoshida et al. (2014) could show that servant leadership increased team innovation, because servant leaders were perceived as representing the team's best interest and thus as prototypical. This effect was strongest under a supportive climate for innovation, which again speaks for the role contextual factors play for the effectiveness of servant leadership. Finally, Schaubroeck et al. (2011) could show that servant leadership explained an additional 10 per cent of the variance in team performance beyond transformational leadership, and that these effects were mediated through affect-based trust and team psychological safety, whereas cognition-based trust mediated the positive effects of transformational leadership on team performance. This study supports the assumption that followers of servant leaders experience more and/or stronger positive emotions towards their supervisors when compared to followers of transformational leaders.

On the individual level, Jaramillo et al. (2009a) found that servant leaders instilled a

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stronger customer orientation in salespersons, which was especially important when the salespersons were inexperienced. This increased customer orientation, in turn, resulted in higher extra-role performance and adaptive selling, and subsequently higher sales performance. In a recent follow-up study, Jaramillo, Bande, and Varela (2015) found that servant leaders also increased salesperson performance by creating an ethical work climate. Similarly, Neubert et al. (2008) report that while servant leadership was uncorrelated with in-role performance, it showed a positive relationship with helping and creative behavior, which was mediated by followers' promotion focus. In addition, Chen et al. (2014) report an increase in hair stylists' service performance, even after controlling for the positive effects of transformational leadership. This effect was mediated through higher identification with the group and self-efficacy, and strongest when the group climate was competitive. These findings are largely in line with the results obtained by Liden et al. (2014b), where increases in follower in-role and service performance were mediated through serving culture and employee identification. All these studies provide evidence for Greenleaf's proposition that followers of a servant leader adopt the leader's values and become servants themselves.

Looking at other indicators of individual performance, studies by De Sousa and Van Dierendonck (2014) as well as Carter and Baghurst (2014) show positive effects of servant leadership on employee engagement, in the first case mediated through organizational identification and psychological empowerment. In addition, several studies found a positive relationship between servant leadership and organizational citizenship behaviors at the individual level (Bobbio & Rattazzi, 2006; Ehrhart, 2004; Panaccio, Henderson, Liden, Wayne, & Cao, 2014; Vondey, 2010), group/organizational level (Hu & Liden, 2011; Hunter et al., 2013; Walumbwa et al., 2010a), and community level (Liden et al., 2008). Liden et al. (2008) could also show that servant leadership explained additional variance in community citizenship behavior, followers'

commitment and in-role performance beyond transformational leadership and LMX.

Focusing on outcomes belonging to the well-being domain next, the most frequently examined variable in peer-reviewed journal articles is job satisfaction, and strong positive effects are generally reported (see Cerit, 2009; Ding et al., 2012; Jaramillo et al., 2009b; Mehta & Pillay, 2011; Sun & Wang, 2009; West et al., 2009). However, as in the unpublished articles and conference proceedings discussed above, these articles mostly do not examine the underlying mechanisms through which servant leadership leads to job satisfaction. One exception is the study by Mayer et al. (2008), who found that followers of servant leaders report perceptions of higher organizational justice, a subsequent satisfaction of their overall needs, and finally higher job satisfaction. This finding provides important preliminary evidence for the central assumption that servant leaders' main focus is to satisfy follower needs (Greenleaf, 1977, 1996; Van Dierendonck, 2011).

Beyond the mentioned articles, only few studies provide additional insight in the potential effects of servant leadership on employee well-being. Jaramillo et al. (2009b) found that servant leadership was negatively related to turnover intentions. In addition to these findings, servant leadership accounted for unique variance in short- and long-term indicators of strain when controlling for job stressors like job ambiguity, and subsequently reduced strain in another study by Rivkin, Diestel, and Schmidt (2014). Also worth mentioning is a study by Babakus et al. (2010), who build on the conservation of resources theory (Hobfoll, 1989; Hobfoll & Shirom, 2001) and report that servant leadership resulted in a better person-job fit, lower stress levels reflected in a reduced risk of burnout, and a reduction in turnover intentions. Although these results are promising, the used scale to capture servant leadership is actually a managerial measure of organizational service-orientation, which reduces the comparability of the findings. Finally, in a study of Tang et al. (2015) servant leadership reduced work-family conflict through a decrease in emo-

tional exhaustion and an increase in personal learning.

Table 2.3 summarizes the key follower outcomes, mediators, and boundary conditions discussed in servant leadership theory, and if possible matches each variable with peer-reviewed empirical studies examining the respective theoretical claim. To facilitate readability and keep the table concise, empirical article that were not peer-reviewed are not included in the table.

TABLE 2.3
Overview of Outcomes, Mediators, and Boundary Conditions of Servant Leadership and Their Empirical Support in Peer-reviewed Journals

Domain	Level of analysis	Variable	Empirical support
Outcome	Individual	Individual performance	Chen et al. (2014); Liden et al. (2008); Liden et al. (2014b); Neubert et al. (2008)
		Self-actualization/Need satisfaction	Cerit (2009); Mayer et al. (2008)
		Organizational commitment/turnover intentions	Asag-Gau & Van Dierendonck (2011); Bobbio et al. (2012); Ding et al. (2012); Hoveida et al. (2011); Jaramillo et al. (2009b); Liden et al. (2008); Liden et al. (2014b); Schneider & George (2011); West et al. (2009)
		Trust	Chatbury et al. (2011); Joseph & Winston (2005); Reinke (2003); Sendjaya & Pekerti (2010)
		Commitment to change	Kool & Van Dierendonck (2012)
		Empowerment	
		Engagement/creativity	Carter & Baghurst (2014); Hunter et al. (2013); Neubert et al. (2008); Liden et al. (2014b); Yoshida et al. (2013)
		Extra-role behavior/ increased servant behavior	Barbuto & Wheeler (2006); Bobbio et al. (2012); Chen et al. (2014); Ehrhart (2004); Jaramillo et al. (2009a); Liden et al. (2008); Liden et al. (2014b); Neubert et al. (2008); Vondey (2010); Walumbwa et al. (2010)
		Job satisfaction	Barbuto & Wheeler (2006); Cerit (2009); Jaramillo et al. (2009b); Mayer et al. (2008); Mehta & Pillay (2011); Schneider & George (2011); Sun & Wang (2009); West et al. (2009)
		Well-being (incl. stress & burnout)	Babakus et al. (2011); Jaramillo et al. (2009b); Rivkin et al. (2014); Tang et al. (2015)
		Work-life balance	
	Team	Team effectiveness/performance	Garber et al. (2009); Hu & Liden (2011); Hunter et al. (2013); Irving & Longbotham (2007); Schaubroeck et al. (2011)
		Team extra-role behavior	Hu & Liden (2011); Hunter et al. (2013); Liden et al. (2014b)

TABLE 2.3 (continued)

Outcome	Organization	Organizational perfor-mance	Barbuto & Wheeler (2006); De Waal & Sivro (2012); Peterson et al. (2012)
		Sustainability	
		Corporate Social Respon-sibility	
Mediator	Individual	Core self-evaluation	
		Psychological empower-ment	Asag-Gau & Van Dierendonck (2011); Schneider & George (2011)
		Identification with leader/group/organization	Chen et al. (2014); De Sousa & Van Dierendonck (2014); Liden et al. (2014b); Yoshida et al. (2013)
		Person-job fit	Babakus et al. (2011); Jaramillo et al. (2009b)
		Need satisfaction	Mayer et al. (2008)
		Job satisfaction	Ding et al. (2012)
		Customer orientation	Jaramillo et al. (2009a)
		Psychological resources	Chen et al. (2014); Kool & Van Dierendonck (2012); Tang et al. (2015); Walumbwa et al. (2010)
		Emotional exhaustion	Tang et al. (2015)
		Regulatory focus	Neubert et al. (2008)
	Dyadic	High-quality relationship	
		Trust	Schaubroeck et al. (2011);
		Commitment to supervi-sor or organization	Jaramillo et al. (2009b); Walumbwa et al. (2010);
	Team	Positive team climate	Ehrhart (2004); Hu & Liden (2011); Hunter et al. (2013); Liden et al. (2014b); Schaubroeck et al. (2011); Walumbwa et al. (2010)
		Prototypicality	Yoshida et al. (2013)
	Organization	High Performance Organ-ization Factors	De Waal & Sivro (2012)
Moderator	Individual	Leader prototype	Meuser et al. (2011)
	Team	Positive team climate	Yoshida et al. (2013)
	Organization	Culture	

2.8.3 Summary of Empirical Findings

The above discussion of empirical findings shows that the proposed effects of servant lead-ership on most outcomes and mediators are supported by several studies. That being said, exist-ing studies provide very little empirical evidence as to how and why servant leadership affects

follower well-being and performance alike, which is in line with the theoretical shortcomings identified earlier. In fact, recent studies have almost exclusively focused on outcomes belonging to the performance domains, which neglects one of the most central claims that at the same time clearly distinguishes servant leadership from other leadership styles, namely that servant leaders achieve high follower performance without compromising on the well-being of those led (Greenleaf, 1997; Panaccio et al., 2015).

In addition, there are almost no studies that have examined the effects of boundary conditions, so that we know even less about characteristics of individuals, teams, or the wider work environment that might amplify or hinder the proposed effects of servant leadership on the follower outcomes in question. Especially as Meuser et al. (2011) have shown that servant leadership can even have negative effects under certain conditions, it therefore becomes important to address this shortcoming and examine the role of boundary conditions when looking at the relationships between servant leadership and follower well-being as well as performance.

CHAPTER 3: OVERVIEW OF THE WELL-BEING AND
PERFORMANCE LITERATURES

3.1 CHAPTER SUMMARY

This chapter begins with an overview of theorizing and empirical research in the domain of well-being. The two different streams of hedonic and eudaimonic well-being are introduced and distinguished from each other, and findings regarding the antecedents of each construct are discussed. In doing so, we focus only on the individual level of analysis, because we are primarily interested in the effects of servant leadership on individual follower well-being in our studies. Comparing each conceptualization with propositions from servant leadership theory, the decision is made to adopt the concept of eudaimonic well-being throughout this thesis. Effective leadership, personal psychological resources, and a supportive context characterized by positive team and organizational climates are identified as the main antecedents of eudaimonic well-being presented in the literature.

In the following, the domain of job performance is reviewed with a specific focus on the effects of the previously mentioned antecedents of eudaimonic well-being. We focus primarily on task performance, because we want to examine how and when servant leaders can increase follower well-being without compromising the effectiveness and efficiency with which employees work on core tasks of their jobs. As a result, this chapter adds to the literature review of servant leadership by linking the constructs examined in this thesis not only from the perspective of the independent variable, but also from the perspective of the outcomes.

3.2 LINKING SERVANT LEADERSHIP, WELL-BEING, AND PERFORMANCE

The above review of theorizing and empirical research on servant leadership has shown that one of its key propositions is that follower performance and well-being will both increase as a result of servant leaders' efforts to enable and support the personal development of their fol-

lowers (Greenleaf, 1970, 1977). While there is growing evidence for the positive effects of servant leadership on various variables belonging to the performance and well-being domains, no study so far has examined both outcomes together, which also means that there is currently no framework available that explains how servant leaders balance follower demands for personal well-being with organizational demands regarding individual performance, and under which conditions this endeavor will be most effective. While servant leadership theory already offers some suggestions about potential mediators and moderators that should be taken into account when studying the effects of this leadership style on performance and well-being, we therefore decided to review the literatures relating to both outcomes as well, and identify their key antecedents that can in turn be compared with the insights gained from the above review.

In addition, several conceptualizations are available for both well-being and performance. Thus, it becomes necessary to decide on the basis of servant leadership theory which conceptualization is the most appropriate in the given context. For example, critics of servant leadership have suggested that a leader's focus on followers' developmental needs might result in more extra-role behaviors, but lower task performance (Panaccio et al., 2015), both of which are valid indicators within the performance domain. Similarly, the vast majority of studies linking servant leadership to follower well-being have used job satisfaction as its sole indicator, which is a very narrow conceptualization of well-being that provides only limited insight into the satisfaction of follower developmental needs that is so central to servant leadership theory (Mayer et al., 2008). In the following, we will start with a review of the well-being literature and use the insights from servant leadership theory to choose the most appropriate conceptualization.

3.3   DEFINING CHARACTERISTICS OF WELL-BEING

In order to get an overview of the conceptualization and measurement of well-being in organizational sciences, empirical articles that measured well-being as an outcome in a work con-

text over the past ten years have been reviewed. A representative selection of these articles that reflects the current state of research is presented in Table 3.1. It can be seen that there is almost no agreement regarding the measures that are used to assess well-being; measures of affect are combined with measures of health, burnout, or satisfaction. In addition, different terms are not used consistently, and often interchangeably. One similarity across most of the reviewed studies can be found, though: Well-being as used in the described studies is often conceptualized as consisting of an affective as well as a cognitive component. However, the mere use of affective and cognitive indicators without provision of a theoretical justification is not sufficient to select the appropriate conceptualization and measurement of well-being for this thesis. Thus, an evaluation of theoretical models of well-being is needed. Over the years, a number of such theoretical models of well-being have emerged, which are summarized in Table 3.2.

Existing models of well-being can be grouped into two main streams of research, which have emerged based on two distinct philosophical viewpoints, namely hedonism and eudaimonia. Hedonism is based on the assumption that every human being seeks pleasurable experiences, and tries to avoid painful situations; if these conditions are met, the person reports high hedonic well-being (Kahneman, Diener, & Schwarz, 1999). The eudaimonic view, on the other hand, asserts that seeking pleasure alone is not enough and can in some instances even negatively affect the overall state of individuals and society. Examples of this conflict between pleasure-orientation and other indicators of well-being like health include drug abuse, the obesity epidemic, and pathological gambling. Instead, the eudaimonic perspective argues that true well-being results from the realization and actualization of human potentials (Ryff, 1989b; Waterman, 1993). In the following, both perspectives will be discussed in more detail, and a decision will be made regarding the model of well-being most suited for this study.

TABLE 3.1
Conceptualization and Measurement of Employee Well-being

Study	Predictor	Outcome 1	Outcome 2	Focus
Arnold, Turner, Barling, Kelloway, and McKee (2007)	Transformational leadership	Study 1: Positive affect	Study 2: Social functioning	Affective
Dimotakis, Scott, and Koopman (2011)	Interpersonal interaction characteristics	State positive & negative affect	Job satisfaction	Affective & cognitive
Flaxman, Ménard, Bond, and Kinman (2012)	Personality	Emotional exhaustion	Anxiety-comfort & depression-enthusiasm	Affective
Fritz and Sonnentag (2006)	Vacation	(Mental) health complaints	Burnout	Affective & health
Fritz, Yankelevich, Zarubin, and Barger (2010)	Psychological detachment	Emotional exhaustion	Life satisfaction	Affective & cognitive
Hahn and Dormann (2013)	Psychological detachment	Life satisfaction		Cognitive
Hellgren and Sverke (2003)	Job insecurity	Mental health complaints	Physical health complaints	Health
Judge, Ilies, and Dimotakis (2010)	General mental ability	Happiness	Satisfaction & fulfilment in life	Affective & cognitive
Matthews, Wayne, and Ford (2014)	Work-family conflict	Mental health complaints		Health
Pugh, Groth, and Hennig-Thurau (2011)	Surface acting	Emotional exhaustion	Job satisfaction	Affective & cognitive
Rogelberg, Leach, Warr, and Burnfield (2006)	Meeting time demands	Anxiety-comfort & depression-enthusiasm	Job satisfaction	Affective & cognitive
Scott, Colquitt, Paddock, and Judge (2010)	Manager empathy	State positive & negative affect		Affective
Sonnentag, Binnewies, and Mojza (2010)	Job demands & psychological detachment	Emotional exhaustion	Psychosomatic complaints	Affective & health
Ter Doest and de Jonge (2006)	Job characteristics	Emotional exhaustion	Job satisfaction	Affective & cognitive
Van Dierendonck, Haynes, Borrill, and Stride (2004)	Leadership behavior	Anxiety-comfort & depression-enthusiasm	(Mental) health	Affective & health

TABLE 3.2
Theoretical Models of Well-being

Model	Definition	Components
HEDONIC MODELS	Seeking pleasure and avoiding pain	
Mental health (Warr, 1990, 1994)	"In addition to affective well-being, high or low mental health is also exhibited through behavior in transactions with the environment (Warr, 1990: 196)	• Depression-enthusiasm • Anxiety-contentment • Competence • Aspiration • Autonomy • Integrated functioning
Psychological well-being (Wright & Bonett, 2007; Wright & Staw, 1999)	"[…] the overall effectiveness of an individual's psychological functioning." (Wright & Cropanzano, 2000: 85)	• Pleasant affect • Unpleasant affect
Subjective well-being (Diener, 1984; Diener et al., 2011; Diener, Suh, Lucas, & Smith, 1999)	"[…] a person's cognitive and affective evaluations of his or her life as a whole." (Diener et al., 2011: 187)	• Life satisfaction & domain-specific facets like job satisfaction • Positive affectivity • Negative affectivity
Well-being in the workplace (Danna & Griffin, 1999)	"Specifically, well-being is viewed as comprising the various life/non-work satisfactions enjoyed by individuals, work/job-related satisfactions, and general health." (Danna & Griffin, 1999: 359)	• Life satisfaction & domain-specific facets like job satisfaction • Pleasant & unpleasant affect • Psychological disorders (mental health) • Physical health
EUDAIMONIC MODELS	Realizing one's true potential	
Eudaimonic well-being (Waterman, 2008)	"[…] quality of life derived from the development of a person's best potentials and their application in the fulfilment of personally expressive, self-concordant goals" (Waterman et al., 2010: 41)	• Self-discovery • Development of one's best potentials • Sense of purpose and meaning in life • Intense involvement in activities • Investment of significant effort • Enjoyment of activities as personally expressive
Psychological well-being (Ryff, 1989b)	"The striving for perfection that represents the realization of one's true potential" (Ryff, 1995: 100)	• Autonomy • Personal growth • Self-acceptance • Purpose in life • Environmental mastery • Positive relations with others

3.4 HEDONIC WELL-BEING: CONCEPTUALIZATION

The concept of hedonic well-being (HWB) as used in social sciences follows from the philosophical position that "the goal of life is to experience the maximum amount of pleasure, and that happiness is the totality of one's hedonic moments" (Ryan & Deci, 2001: 143-144). Especially when considering the study of well-being in an organizational context, the vast majority of researchers has focused on the hedonic approach. Looking again at Table 3.1, all presented studies build, at least partially, on one of the HWB models outlined in Table 3.2. Although these models differ in terms of their facets and the relative importance given to each variable, three main characteristics of HWB are consistently mentioned across most definitions.

Firstly, HWB is generally seen as a global phenomenon – an overall judgment of one's happiness in life that is relatively stable (Diener, 1994; Diener et al., 1999; Eid & Diener, 2004; Ryan & Deci, 2001). At the same time, it has been acknowledged that certain environmental events and the momentary emotions caused by these events, for example at work, can have a strong influence on this global judgment (Cropanzano & Wright, 2001; Schwarz & Strack, 1991, 1999; Weiss & Cropanzano, 1996). Secondly, HWB is characterized not only by the absence of negative emotions, but by the presence of positive emotions, which differentiates the construct from related indicators of quality of life like mental and physical health, where 'being healthy' is often synonymous with 'not being ill' (Cropanzano & Wright, 2001; Diener, 1984). Strongly connected with the above is the final characteristic of HWB, namely that it is a subjective experience or belief about being happy that is based on "a predominant theme of positive mood and emotional states" on the one hand (Pavot, 2008: 125), and a cognitive evaluation of one's life and all its specific domains on the other hand (Danna & Griffin, 1999; Diener et al., 2011). It is this last characteristic, the so-called endogenous or internal manifestation of emotion (see Ashkanasy, Härtel, & Zerbe, 2000) on which most conceptualizations are built, which also ex-

plains the conceptualizations of HWB in the high-impact journals mentioned above.

In most models of HWB, the cognitive element is assessed by measuring a person's life satisfaction or domain-specific satisfactions, whereas the affective element is operationalized as one or more axes of the circumplex model of affect outlined by Russell (1980), which is depicted in Figure 3.1. This model builds on the assumption that affective states are related to each other and can be organized in a circular fashion, with opposite states being negatively related, close states being positively related, and those positioned 90 degrees apart being unrelated with each other. Empirical support for this model has been established across different raters, situations, cultures, and study designs (Larsen & Diener, 1992; Remington, Fabrigar, & Visser, 2000; Russell, 1980; Russell, Lewicka, & Niit, 1989).

FIGURE 3.1
The Circumplex Model of Affect (Ashkanasy, Zerbe, and Härtel (2002)
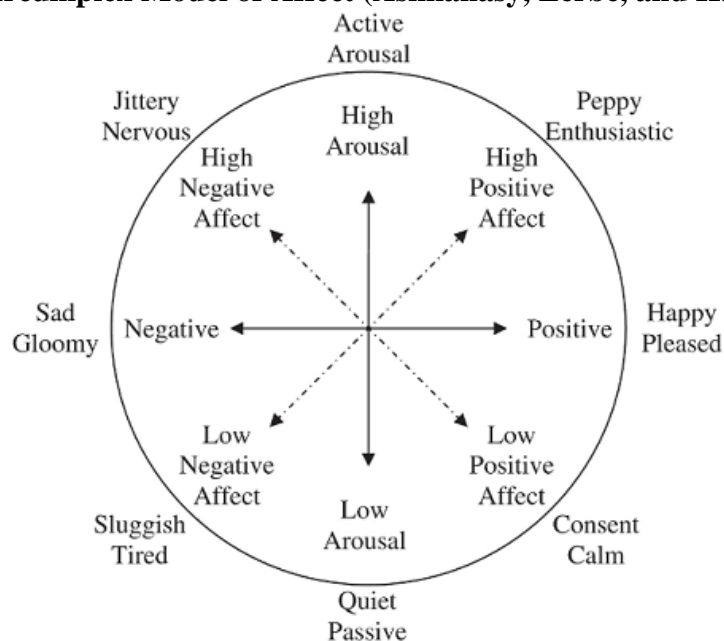
In sum, context-free HWB can be defined as "a subjective and global judgment that one is experiencing a good deal of positive emotion and relatively little negative emotion" (Cropanzano & Wright, 2001: 183). Taking into account that most people spend between a quarter and a third of their waking life at work (Harter, Schmidt, & Keyes, 2003), it can easily be argued that work is one of the most important, if not the single most important environmental factor influencing an adult's HWB (Warr, 1987, 1990).

3.5 EUDAIMONIC WELL-BEING: CONCEPTUALIZATION

The eudaimonic view on well-being is at least as ancient as the philosophical position of hedonism, and in fact developed as a direct response to and critique of the hedonic approach. Many philosophers, including famous characters like Aristotle, refused to accept hedonic pleasure as the main indicator reflecting an individual's well-being, and instead proposed that a distinction needs to be made "between purely subjectively felt needs and objectively valid needs – part of the former being harmful to human growth and the latter being in accordance with the requirements of human nature" (Fromm, 1981: xxvi). Famous metaphors like the happy pig and the unhappy Socrates (Mill, 1989) clearly show that the eudaimonic view is not about blindly striving for pleasure, but about personal growth and realizing one's human potential (Ryff & Singer, 1998). Other societal issues like increasing drug abuse, obesity, and inequality all around the world give further credibility and importance to this alternative approach to well-being.

According to the eudaimonic view, active engagement in multiple areas of one's life through investing as much of oneself as possible into projects that are meaningful and fulfilling beyond momentary pleasures is essential if an individual wants to achieve a state of well-being (Ryff & Singer, 1998). Given that most people spend a significant part of their life at work, it is not an overstatement to conclude that one's work environment is a major determinant, if not the most important factor influencing an individual's eudaimonic well-being (EWB). Russell (1958)

specifically describes work as a source of EWB, because it brings with it opportunities for success and continuity of purpose, and counteracts boredom. Empirically, this argumentation is backed by an extensive literature on the destructive results of unemployment (Clark & Oswald, 1994; Jahoda & Zeisel, 1974).

While the eudaimonic approach to well-being has received much less attention in the social sciences when compared to hedonism, efforts to conceptualize eudaimonic well-being (EWB) have resulted in two main models, which are depicted in Table 3.2. One conceptualization was developed by Waterman (2008), following his extensive work on what he termed personal expressiveness, an experience characterized by being very involved in an activity that one can strongly identify with, resulting in a feeling of completeness and immersion in the task at hand (Waterman, 1990). He recently took this further and, together with a large team of researchers, developed a full conceptualization of EWB consisting of six inter-related categories, namely self-discovery, perceived development of one's best potentials, a sense of purpose and meaning in life, investment of significant effort in pursuit of excellence, intense involvement in activities, and enjoyment of activities as personally expressive (Waterman et al., 2010: 44). The resulting 21-item questionnaire shows a strong correlation of $r = 0.47$ with the Satisfaction with Life Scale (Diener, Emmons, Larsen, & Griffin, 1985), a frequently used measure of HWB, but emerges as a distinct construct.

However, this conceptualization of EWB is very individualistic and therefore does not encompass an element of EWB that has been rendered central and essential to the experience of EWB elsewhere (for example Becker, 1992; Nozick, 1989; Ryff & Singer, 1998), namely the positive relationships with others. In addition, several parts of the discussed conceptualization obviously follow from Waterman's work on personal expressiveness, which shows major overlaps with concepts like flow and engagement (Bakker & Demerouti, 2008; Csikszentmihalyi,

1991; Kahn, 1990), a fact that is acknowledged by Waterman himself (1990). Still, information about the convergent and discriminant validity of his EWB questionnaire when compared with measures of flow and engagement is lacking.

Another conceptualization of EWB, resulting from a critique of previous well-being research as lacking a solid theoretical foundation, was introduced by Ryff (1989b). Arguing that previous conceptualizations of well-being as a combination of affect and life satisfaction neglect important aspects of psychological functioning, she compiled the elements of positive psychological functioning mentioned by most theorists into a comprehensive and more parsimonious conceptualization of EWB, which is defined as "the striving for perfection that represents the realization of one's true potential" (Ryff, 1995: 100). Its dimensions are autonomy, environmental mastery, personal growth, positive relations with others, purpose in life, and self-acceptance, all of which could be shown to be parts of a single higher-order factor that is correlated, but sufficiently distinct from previous hedonic measures of well-being (Ryff & Keyes, 1995). The full questionnaire consists of 20 items per dimension, but shorter versions with 14, 9, and 3 items per dimension are available as well (Ryff, 1989b; Ryff & Keyes, 1995).

3.6 A SERVANT LEADERSHIP PERSPECTIVE ON WELL-BEING

As mentioned above, the studies linking servant leadership with well-being that were reviewed in the previous chapter almost exclusively include job satisfaction as the only indicator of follower well-being, while mood, affect, or health are not considered (Jaramillo et al., 2009b; Mayer et al., 2008; Schneider & George, 2011; West et al., 2009). Thus, so far we only know that servant leaders have a positive influence on the cognitive evaluation of one's job as more or less enjoyable, but we do not know where this satisfaction stems from, and whether it goes along with particular affective reactions, which form the other important part of HWB (Cropanzano & Wright, 2001). Especially positive affect, which has been described as the hallmark of HWB

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(Lyubomirsky, King, & Diener, 2005), is of importance when studying well-being alongside per-formance, as the moods associated with low and high positive affect might be more beneficial for some tasks than for others (Ashkanasy et al., 2002).

In addition to the conceptual incompleteness of past studies, it also appears that existing conceptualizations of HWB with their focus on affect and job satisfaction fail to capture the changes taking place in followers of servant leaders as proposed by servant leadership theory. In the most widely cited definition of servant leadership, Greenleaf (1977) indicates that the well-being of followers stems from them growing and becoming wiser, freer, and more autonomous. Similarly, other authors describe that people influenced by servant leaders grow, develop, and prosper (Mayer et al., 2008), recognize and realize their full potential (Liden et al., 2014a), and succeed professionally as well as personally (Reinke, 2004). Thus, most definitions include a clear developmental aspect through which followers achieve a higher level of well-being, which is also stressed in a recent theoretical article that draws on the three basic needs of autonomy, competence, and relatedness outlined in SDT (Deci et al., 1989; Spreitzer & Porath, 2013) to ex-plain how servant leaders foster well-being (Panaccio et al., 2015).

However, the conceptualization of HWB as the combination of positive affect and job sat-isfaction lacks this developmental aspect. Existing measures do not capture the source of felt sat-isfaction, so it might even be possible that followers of servant leaders report high job satisfac-tion and positive affect simply because they enjoy the attention they receive from their leader, without any changes in their personal development. Here the concept of EWB offers a perspec-tive on personal well-being that is much more in line with the propositions of servant leadership theory (Greenleaf, 1977; Mayer et al., 2008) as well as SDT (Ryan et al., 2008), which has been introduced in the previous chapter as the guiding theoretical framework for examining the effects of servant leadership on follower performance and well-being. As mentioned above, the eudai-

monic view puts human potential and growth at the core of its theory, and distinguishes between the engagement in momentary pleasures that can be potentially harmful to one's personal growth and long-term happiness, and one's investment in meaningful and challenging activities that might not always be pleasurable in the sense of experiencing positive emotions, but promise a more self-determined and fulfilling life (Ryan & Deci, 2001; Ryff & Singer, 1998). This high-lights another weakness of hedonic conceptualizations of well-being, namely their inability to distinguish between short-term pleasures and long-term happiness. It is generally acknowledged that individuals cannot provide accurate assessments of their felt emotions that lie more than a few weeks or even days in the past, because one's state affect is influenced strongly by momen-tary experiences and single events (Weiss & Cropanzano, 1996). Consequently, followers of a servant leader might report experiencing negative emotions over the past month that result from facing developmental challenges and temporary experiences of stress, but form part of a more long-term development that will ultimately result in higher well-being.

Conceptualizations of EWB go beyond fluctuating emotions and general judgements of satisfaction and specify more clearly why an individual is feeling well, which makes EWB a much more useful concept to assess whether servant leadership indeed results in well-being that is rooted in personal growth and development and increasing self-determination, as proposed by servant leadership theory and SDT. Dimensions like autonomy, environmental mastery, and positive relations with others show clear connections to the three basic needs and autonomous motivation as described in SDT, and the elements of purpose in life, personal growth, and self-acceptance further highlight the centrality of fulfilling human potential (Ryff, 1989b), which is why we consider EWB to be the most appropriate conceptualization to study the link between servant leadership and employee well-being. In the following, the extant empirical research on antecedents of EWB will be reviewed to get a clearer picture of its nomological net.

3.7 ANTECEDENTS OF INDIVIDUAL EWB: EMPIRICAL FINDINGS

In the manual for administering the EWB questionnaire, 364 empirical studies that employ one or more of the EWB scales are listed. Most of these articles were published in the areas of personality and individual differences, physical health, and developmental/educational psychology, without a specific focus on work. However, seven articles were identified that specifically used EWB as an outcome in a work context. Two of these articles were of little theoretical relevance as they focused on career decisions (Ali & Shah, 2013) and personality (Chauhan & Joshi, 2012) as predictors of EWB, and were therefore not considered.

To start with, Carr (2002) reports that changes in employment schedules to accommodate family demands differentially predicted the self-acceptance of men and women from different birth cohorts, based on role expectations within the respective cohort. Somehow related, another study found that employees who focus on personal growth are better in utilizing the skills acquired at work in a family context (Grzywacz & Butler, 2005). The importance of gender for experiences of EWB at work is highlighted in a study by Lindfors, Berntsson, and Lundberg (2006), showing that increased hours of unpaid work negatively affected the self-acceptance and environmental mastery of women, but not of men living in a relationship with at least one child. The authors explain this with women's feelings of having less control over certain aspects of their family life when they take on unpaid work. More paid work, on the other hand, increased the perceptions of personal growth for both men and women, indicating that both benefit more from paid than from unpaid work. Taking into account that the sample consisted of white collar workers, it can be assumed that participants perceived their work as meaningful, so that paid and meaningful work is obviously rated as more beneficial than unpaid work, which in this case included simple work like household tasks. The role of meaning of work is further explored by Son and Wilson (2012), who found that volunteer work increased EWB, but not HWB. Finally, Raina

(2013) could show that affective commitment at work predicted EWB.

In conclusion, existing empirical findings about the antecedents of EWB give relatively little insight beyond necessary control variables (gender) and some broad structural features of the working environment (pay, workload). To get a more comprehensive overview, it was therefore decided to look at each individual component of Ryff's conceptualization in detail, as separate literatures exist for many of them and her conceptualization is not affected by the same theoretical and methodological concerns as Waterman's EWB construct.

3.7.1 Autonomy

Most evidence regarding the antecedents of autonomy can be found in the literature on empowerment, of which it is a part (Spreitzer, 1995), and in the literature on self-determination, where the need for autonomy is described as one of three basic needs that have to be met for a person to feel self-determined (Deci et al., 1989). One of the most frequently mentioned antecedents of autonomy, both in theoretical and in empirical articles, is people-oriented leadership, for example transformational leadership and servant leadership (Asag-Gau & Van Dierendonck, 2011; Kark, Shamir, & Chen, 2003; Özaralli, 2003; Spreitzer, De Janasz, & Quinn, 1999). Leaders who apply such leadership styles encourage their followers to solve problems on their own and create an environment that is characterized by interpersonal trust in one's abilities as opposed to close monitoring (Bass, 1985; Greenleaf, 1977; Moye, Henkin, & Egley, 2005). The self-determination literature echoes these findings, with leadership being highlighted as an important antecedent of the basic need for autonomy, both in theoretical and empirical papers (Gagné & Deci, 2005; Mayer et al., 2008). Structurally, this is reflected in findings that job autonomy – which, it can be argued, is to a great extent influenced by one's leader – has a positive effect on feelings of self-determination (Kraimer, Seibert, & Liden, 1999).

At the same time, role ambiguity and role overload undermine employee's feelings of au-

tonomy, because not knowing what is expected of oneself creates insecurity and a feeling of not being in control of outcomes (Spreitzer, 1996; Wallach & Mueller, 2006). It can be concluded that any structural or relational features at work that give the employee more freedom to carry out tasks as they see fit, while at the same time providing a necessary minimum of structure and role clarity, positively affect autonomy at work.

3.7.2 Environmental Mastery

Environmental mastery is defined by Ryff (1989b: 1071) as "the individual's ability to choose or create environments suitable to his or her psychic conditions". This component again relates to one part of the psychological empowerment construct, namely competence, as well as to self-efficacy (Bandura, 1977a), on which much empirical literature is available. From the empowerment perspective, the antecedents of environmental mastery/competence are largely the same as the ones for autonomy discussed above, and the focus in this section will therefore be on the self-efficacy literature.

Theoretically, Bandura (1977a) proposed that self-efficacy has four sources: Performance accomplishments in the past, live or symbolic role-modelling, verbal persuasion, and emotional arousal. As with autonomy, the central role of leadership in this process has been asserted both theoretically and empirically (Gist, 1987; Pillai & Williams, 2004; Walumbwa et al., 2011); leaders function as role models, create a vision that inspires followers, and motivate followers to trust in their own abilities, resulting in experiences of success at work. Taken together, effective leadership increases feelings of self-efficacy in followers.

Gist and Mitchell (1992) further expanded on Bandura's model of the forming of self-efficacy by adding three assessment processes that an individual goes through before arriving at an estimation of self-efficacy in a given situation. Firstly, an analysis of task requirements takes place, and self-efficacy beliefs will be highest when the task in question is well-known and clear.

Secondly, an analysis of one's own experience when performing the same or a similar task follows, the outcome of which will be more positive, the better task performance was in the past. Feedback is an important criterion for this analysis, which again highlights the important role of leaders, who are often the primary providers of feedback, especially for complex tasks. Finally, personal and situational resources have to be assessed. If a person feels optimistic, hopeful, and prepared to deal with any potential adversities related to the accomplishment of the task (Luthans et al., 2007c), self-efficacy will follow. Empirical evidence is available that supports these claims (Lindsley, Brass, & Thomas, 1995; Tierney & Farmer, 2002; Tschannen-Moran & Hoy, 2007).

3.7.3 Personal Growth

Personal growth is reflected in behavior that aims to "continue to develop one's potential, to grow and expand as a person" (Ryff, 1989b: 1071). Not specific to the work context, the importance of personal growth is highlighted in several motivational theories, including the hierarchy of needs by Maslow, Frager, Fadiman, McReynolds, and Cox (1970), where self-actualization forms the highest-order need, and SDT (Deci & Ryan, 1985). In the work context, evidence on its antecedents can be found in the literature on organizational change, where the importance of openness to changes and adaptability at work is often discussed (Fugate, Kinicki, & Scheck, 2002; Hall, 2002; Pulakos, Arad, Donovan, & Plamondon, 2000).

Wanberg and Banas (2000) found that higher openness to and acceptance of change at work follows from personal resilience, measured as a composite of self-esteem, optimism, and perceived control, as well as from contextual variables like the amount of information about the change, resources that help to cope with the change, and participation in the change process. In addition, a group or organizational climate that fosters personal development has been identified as an important predictor of personal growth (Van Dam et al., 2008; Van Dam & Seijts, 2007), while at the same time counteracting resistance to change, because employees are more likely to

evaluate change as an opportunity for growth and learning (Fugate, Kinicki, & Ashforth, 2004). Finally, Van Dam et al. (2008) highlighted the role of positive leader-member relationships in successfully addressing resistance to change at work. In conclusion, a similar picture like for the previously discussed outcomes emerges; again, personal resources as well as a supportive structural and relational work environment, including effective leadership and an engaging group/organizational climate, are highlighted as the main antecedents of personal growth at work.

3.7.4 Positive Relations with Others

As discussed above, the importance given to interpersonal relations based on trust, warmth, and empathy is a key element in which the conceptualizations of EWB developed by Waterman and Ryff differ. Drawing on a broad number of theories, including self-actualization theories and adult developmental stage theories, Ryff (1989a) proposes that true EWB cannot be achieved independently of others. At work, relationships with others can basically be threefold: Hierarchical relationships between leader and subordinate, vertical relationships between team or organizational members, and relationships between employees and customers.

Starting with the first kind of work relationships, most information comes from studies building on leader-member exchange theory (Graen & Uhl-Bien, 1995). Two meta-analyses are available to offer insight into the antecedents of positive leader-member relationships. Focusing primarily on leader-member dyads, Dulebohn et al. (2012) found that high-quality relationships follow from high perceived similarity of leader and follower, high mutual liking, ingratiation tactics, high self-promotion, assertiveness, and high leader trust. In addition, leaders' realistic expectations of followers, engagement in contingent reward and transformational leadership styles, as well as high extraversion and agreeableness contribute to positive relationships. Finally, high-quality LMX relationships follow from high competence, low neuroticism, high follower posi-

tive affectivity, and an internal locus of control of followers. Examining LMX in work groups, Henderson, Liden, Glibkowski, and Chaudhry (2009) report that transformational and servant leadership, leaders' access to resources, a respectful and collectivistic group culture that is in line with organizational culture, and high human resource benefits provided by the organization decrease LMX differentiation within work groups and increase median LMX quality.

Reframing the measure of LMX, Seers (1989) introduced the concept of team-member exchange to assess the quality of work relationships between co-workers, and found that an increasing degree of autonomy given to each team influenced their TMX quality positively (Seers, Petty, & Cashman, 1995). In line with findings on the similarity-attraction paradigm (Byrne, 1971), Dose (1999) found that actual, but not perceived similarity on work values predicted the quality of TMX relationships. Adding to the above, Tse and Dasborough (2008) provided first evidence for the role of workplace friendship for high quality TMX relationships, and backed this up with a study showing that LMX is positively related to workplace friendship between co-workers, which in turn positively affects TMX, especially when there is an affective climate within the team (Tse, Dasborough, & Ashkanasy, 2008). These findings suggest that leaders who invest in positive relationships with all their followers and create a climate based on mutual support, warmth, and acceptance, also foster the friendship and work relationships between colleagues.

Finally, employees can establish positive relationships with their customers. In organizational research, this is most often measured as service quality, an important indicator of performance. First of all, for high quality relationships between employees and customers it seems to be important that employees feel they are treated fairly within the organization (Bettencourt & Brown, 1997), are committed to their employer (Hartline, Maxham III, & McKee, 2000), and receive support from their organization (Vandenberghe et al., 2007). Exploring the role of support

in more detail, several studies are available that again show the importance of leadership in increasing service quality and commitment to customers; positive findings are available for several leadership styles, including transformational leadership (Jabnoun & Rasasi, 2005), empowering leadership (Clark, Hartline, & Jones, 2008), and especially servant leadership (Chen et al., 2014; Hunter et al., 2013; Jaramillo et al., 2009a; Liden et al., 2014b).

3.7.5 Purpose in Life

Ryff (1989b: 1071) argues that "one who functions positively has goals, intentions, and a sense of direction, all of which contribute to the feeling that life is meaningful". Given that most people spend a considerable amount of their lifetime at work, one's profession seems to be a central source of purpose in life. In organizational research, evidence on the antecedents of meaning at work can again be found in the empowerment literature, but also in the literature on work engagement and in several motivational theories.

Starting with empowerment, all findings discussed in previous sections apply here as well. Meaning at work can be increased through interpersonal and especially cognition-based trust, support, and effective leadership (Spreitzer, 2007). In addition, the well-known job characteristics model (Hackman & Oldham, 1980) proposes that the meaningfulness of work results from three core job dimensions, namely skill variety, task identity, and task significance, that is the degree to which an employee has to utilize all his/her skills and talents to finish a task, the extent to which a task forms part of an identifiable piece or process or work with a clear outcome, and finally the degree to which one's job has a positive impact on others. The validity of this model is largely supported (Champoux, 1991; Fried & Ferris, 1987). Next, building on the conceptualization of work engagement by Kahn (1990), May, Gilson, and Harter (2004) found that job enrichment practices and a perceived fit between one's self-concept and the work role increased meaningfulness at work. Finally, affective commitment is often described as an indicator of the

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meaningfulness an individual ascribes to one's work (Cartwright & Holmes, 2006; Chalofsky & Krishna, 2009). Examining its antecedents in a meta-analysis, Mathieu and Zajac (1990) identified job scope and challenge, leader consideration, communication, and participative leadership, perceived personal competence (a link to environmental mastery), as well as low role ambiguity, conflict, and overload as the strongest predictors of commitment. These findings were largely replicated by a second meta-analysis conducted by Meyer et al. (2002).

3.7.6 Self-acceptance

Holding positive attitudes towards one's present self and being at peace with one's past is described by Ryff (1989b: 1071) as "the most recurrent criterion of well-being" in the theories and philosophies examined by her. The study of self-acceptance at work, or organization-based self-esteem (OBSE), started almost 50 years ago (Korman, 1966, 1970), and was recently reviewed by Pierce and Gardner (2004: 593), who define it as "the extent to which an individual believes him/herself to be capable, significant, and worthy as an organizational member" and conceptualize it as being potentially malleable. Drawing on previous work on global self-esteem, Pierce, Gardner, Cummings, and Dunham (1989) theorized that the determinants of OBSE are threefold. Firstly, the work environment affects OBSE in the way that mechanistic organizational structures with high standardization and formalization undermine, and organic structures characterized by high involvement and complexity increase OBSE, because the latter implicitly communicate to employees that they are competent. Next, positive feedback from significant others regarding one's own competence, ability, and worthiness at work is proposed to increase OBSE. Finally, personal experiences of effectiveness and worthiness at work are theorized to foster OBSE, which shows an overlap with the self-efficacy literature (Bandura, 1977a, 1997).

Empirically, it has been found that the personality of an individual with high OBSE is characterized by high global self-esteem (Jex & Elacqua, 1999; Tang & Ibrahim, 1998), an inter-

nal locus of control or high self-efficacy (Gardner & Pierce, 1998, 2001; Kark et al., 2003), a high need for achievement showing overlaps with personal growth (Tang & Ibrahim, 1998), low Machiavellianism (Vecchio, 2000), as well as high positive and low negative affectivity (Heck, Bedeian, & Day, 2005; Lee, 2003). Continuing with organizational and task structure, the hypothesized relationships outlined above have largely been confirmed empirically. This means that OBSE is highest in organizations of small size (Chattopadhyay, 2003; Ragins, Cotton, & Miller, 2000), with organic structures (Pierce et al., 1989; Tan & Peng, 1997), offering complex jobs (Chattopadhyay & George, 2001) as well as opportunities to participate in decision-making and exert control (Elloy & Randolph, 2001; Lee, 2003; Vecchio, 2000). Next, positive interpersonal relationships are important for self-acceptance at work. In detail, respect displayed by management (Pierce et al., 1989), trust in one's colleagues (Chattopadhyay & George, 2001), transformational leadership (Kark et al., 2003), positive leader-member exchange relationships (Aryee, Budhwar, & Tan, 2003; Heck et al., 2005), support from supervisors and co-workers (Lee, 2003), and organizational justice (Chattopadhyay, 1999) all contributed to increased OBSE. Finally, role ambiguity and role conflict undermine OBSE (Jex & Elacqua, 1999; Neal, 1999; Pierce et al., 1989), which is why many activities that increase role clarity have been found to foster OBSE, including socialization tactics for new employees (Riordan, Weatherly, Vandenberg, & Self, 2001), mentoring (Ragins et al., 2000), as well as role support by leaders, initiating structure, and giving direction to employees (Pierce et al., 1989; Tang & Ibrahim, 1998).

3.7.7 Summary of Empirical Research on EWB

Looking at the existing research on antecedents of all components of EWB at work taken together, two things can be noted. Firstly, as proposed by Ryff (1989a), the elements of EWB are interrelated to some extent. Environmental mastery has a positive effect on purpose in life, posi-

tive relations with others affect self-acceptance and personal growth, and autonomy positively affects environmental mastery. This is reflected in modest to high intercorrelations between the factors, depending on the scale version used; for the long scale, intercorrelations range from .32 to .76 (Ryff, 1989b), and for the short scale, which is used to measure EWB in this study, they range from .13 to .46 (Ryff & Keyes, 1995).

Secondly, the antecedents of each part of the EWB construct overlap as well. One factor that seems critical to the development of all elements and appears over and over again is effective leadership, especially with a strong people-orientation, which makes servant leadership the most promising leadership style in predicting individual EWB at work. Next, an individual's work-related psychological resources or PsyCap, reflected in a positive outlook, resilience, and optimism, are highlighted as important determinants of EWB at work, and have previously been proposed as the underlying mechanism through which servant leadership affects follower performance and well-being. Finally, more contextual factors for the increase of EWB are the organizational and team structures in which employees operate; the more these structures are characterized by providing, valuing, and rewarding support, trust, respect, participation, competence, and personal development, the more likely it is that its employees will report high levels of EWB. This speaks for the inclusion of respective organizational policies and practices and a positive team climate as further factors when examining the effects of servant leadership on EWB.

3.8   SUMMARY OF WELL-BEING REVIEW

In the previous paragraphs, the two main conceptualizations of well-being, namely the hedonic and the eudaimonic view, were outlined, compared, and contrasted from the perspective of servant leadership theory. According to the hedonic view, individual well-being is the subjective affective and cognitive judgement that one has experienced more positive than negative emotions over a certain period of time (Cropanzano & Wright, 2001). The eudaimonic view, on the other

hand, describes well-being as the result of personal growth and fulfilling one's human potential to an ever greater extent (Ryff, 1989a). Given that one of the distinguishing features of servant leadership is the importance leaders put on developing and empowering their followers, which might entail challenging and stressful periods accompanied by the experience of negative emotions, but is ultimately said to result in higher well-being and performance (Liden et al., 2014a; Panaccio et al., 2015), we propose that the concept of EWB is a more meaningful and congruent indicator of well-being in the context of servant leadership, whereas HWB does not give any indication of personal development, and especially its affective component might mask positive developmental changes accompanied by less pleasurable emotional experiences. In the following, we will continue our review of key servant leadership outcomes by focusing on the performance domain.

3.9   JOB PERFORMANCE: SCOPE OF THE REVIEW

With job performance being the most-researched outcome in the organizational sciences, there exists a vast amount of articles examining the effects of a plethora of variables on performance at work, operationalized in different ways and on different levels of analysis. This makes it necessary to narrow down the focus of this literature review on the basis of insights gained from our review of the servant leadership and EWB literature.

First of all, job performance can broadly be divided into in-role or task performance, also called core-task behavior, and extra-role performance. Task performance is every kind of behavior that is clearly described and defined as being part of employees' jobs, and subsequently reflected in the official salary and reward system of the organization (Katz & Kahn, 1978), whereas extra-role performance encompasses any voluntary behavior that goes beyond formal expectations communicated by the organization, without any explicit or implicit promise of reward (Organ, 1988). In an effort to address the criticism that servant leadership can result in decreased

individual productivity and organizational profitability (Panaccio et al., 2015), the studies presented in this thesis will focus primarily on task performance, because we are interested in the question whether servant leaders can increase the effectiveness and efficiency with which followers work on everyday tasks demanded by their organization, in addition to increasing their EWB. We consider this especially important, because servant leadership behaviors like creating value for the community, empowerment, or putting subordinates first (Liden et al., 2008) might at least potentially result in followers taking on more tasks that are not part of their job description because these tasks match their individual development needs, but reduce their investment in day-to-day activities that are at the core of their job (Bergeron et al., 2013). Subsequently, the following review will be restricted to task performance.

Next, almost every construct of interest to researchers in the field of organizational sciences has at some point been related to task performance, ranging from individual differences like personality (Barrick & Mount, 1991) over leadership (DeRue et al., 2011a) to high-performance work practices (Combs, Liu, Hall, & Ketchen, 2006). As one of the main objectives of this thesis is to identify the mechanisms through which, and the conditions under which servant leadership positively affects follower EWB and performance alike, we will therefore focus on those variables that have been identified as the main predictors of EWB in the previous sections, namely people-oriented and supportive leadership, employees' psychological resources (i.e. PsyCap), as well as a positive team and organizational climate. If available, meta-analyses will be favored over single studies in order to incorporate as much of the available evidence as possible.

3.10 DETERMINANTS OF IN-ROLE PERFORMANCE

3.10.1 Leadership

One of the main antecedents of EWB identified in the previous chapter is effective leadership, and especially leadership styles characterized by a strong people-orientation as opposed to

task-orientation (Asag-Gau & Van Dierendonck, 2011; Gist, 1987; Henderson et al., 2009; Kark et al., 2003; Meyer et al., 2002; Spreitzer et al., 1999; Van Dam et al., 2008; Walumbwa et al., 2010a). Theoretically, the main lines of argumentation are that such leadership motivates and inspires followers (Bass, 1985), gives them more scope to contribute to the organization's success (Conger, 1989b), creates a supportive context in which they feel trusted and safe to try out new solutions for existing problems (Graen & Uhl-Bien, 1995), and addresses individual development needs (Greenleaf, 1977) all resulting in higher task performance.

Empirically, meta-analyses by DeRue et al. (2011a) and Judge et al. (2004) found that consideration, one of the most general forms of people-oriented leadership, is consistently positively related to group task performance, although the positive effects of initiating structure were found to be stronger in both cases. Looking at more specific forms of people-oriented leadership, positive effects on individual and/or group task performance have been reported for transformational leadership (DeRue et al., 2011a; Judge & Piccolo, 2004; Lowe, Kroeck, & Sivasubramaniam, 1996), authentic leadership (Leroy, Anseel, Gardner, & Sels, 2015; Peterson, Walumbwa, Avolio, & Hannah, 2012b), empowering leadership (Carmeli, Schaubroeck, & Tishler, 2011; Lorinkova, Pearsall, & Sims, 2013; Srivastava, Bartol, & Locke, 2006), and LMX (Dulebohn et al., 2012; Gerstner & Day, 1997). In addition, the earlier review of the servant leadership literature has shown that there is growing evidence for the positive effect of servant leadership on individual and group task performance (Hunter et al., 2013; Jaramillo et al., 2009a; Liden et al., 2014b; Liden et al., 2008; Schaubroeck et al., 2011).

3.10.2 Employees' Psychological Resources

Next, individuals' psychological resources have been shown to positively affect the different facets of EWB (Gardner & Pierce, 1998, 2001; Lindsley et al., 1995; Tierney & Farmer, 2002; Wanberg & Banas, 2000), and PsyCap has been suggested as a potential mechanism

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through which servant leadership affects follower outcomes in Chapter 2. Theoretically, individuals with strong psychological resources are said to be better able to deal with any stressors they are facing at work, which makes them overcome task- or context-related obstacles more effectively and creatively (Carver & Scheier, 2005; Gist, 1987; Snyder, 2002; Tugade, Fredrickson, & Feldman Barrett, 2004). In addition, it is argued that individuals will try harder to succeed at challenging tasks, because they feel that they have more resources at their disposal that can be invested before risking negative consequences (Hobfoll, 1989; Luthans et al., 2007a).

Again, several meta-analyses are available that extend the positive effects of such psychological resources to include not only EWB, but also task performance. To start with, Avey et al. (2011) report a positive relationship of .26 between employee performance and PsyCap, with its four facets of efficacy, optimism, hope, and resilience (Luthans et al., 2007c). Similarly, employees' feelings of psychological empowerment, encompassing self-determination, impact, meaning, and competence, were found to have a positive effect on leader-rated task performance, with a corrected effect size of .21 (Seibert, Wang, & Courtright, 2011). Finally, positive core self-evaluations reflected in high self-esteem, generalized self-efficacy, emotional stability, and an internal locus of control were shown to result in higher individual task performance as well, with corrected effect sizes ranging from .19 for emotional stability up to .26 for self-esteem (Judge & Bono, 2001). Looking at the factor that is common to all multidimensional constructs discussed above, namely self-efficacy, positive effects on performance have also been reported in a meta-analysis carried out by Stajkovic and Luthans (1998). However, evidence suggests that the synergistic effects of multidimensional constructs like PsyCap are often greater than the sum of its parts (Luthans et al., 2007a).

3.10.3 Positive Team and Organizational Climate

In the team and organizational climate literature, it is argued that employees first interpret

their work environment in order to get a feeling for organizational goals and the ways deemed appropriate for achieving these goals, before they directly respond to this environment (Hershberger, Lichtenstein, & Knox, 1994). The necessary information is to a large extent implicitly or explicitly communicated by the team's or organization's climate, usually defined as shared perceptions of policies, practices, and commonly accepted procedures (Reichers & Schneider, 1990). Kopelman, Brief, and Guzzo (1990) further suggest that different climates result in different cognitive and affective states of followers, which in turn drive the effects on individual performance and other organizationally relevant variables. For example, the authors suggest that the effects of climate on job performance are mostly attributable to changes in individual motivation, and less to changes in job satisfaction (Kopelman et al., 1990). That being said, making specific predictions is often complicated by the sheer multitude of climate dimensions discussed in the literature, which are often tailored to predict one specific outcome – one prominent example being safety climate as a predictor of safety behaviors (Ostroff, Kinicki, & Tamkins, 2003).

To get a better overview of the empirical state of research on climate, Carr, Schmidt, Ford, and DeShon (2003) used the three-facet taxonomy developed by Ostroff (1993), which distinguishes between an affective, a cognitive, and an instrumental dimension. The affective dimension covers the quality and quantity of social relations, reflected in the levels of participation and cooperation as well as feelings of warmth and social reward. The cognitive aspect encompasses practices, policies, and procedures geared towards growth, innovation, and autonomy, and the intrinsic rewards connected with this. Finally, the instrumental dimension focuses on achievement, structure, hierarchy, and extrinsic rewards (Ostroff, 1993). Using meta-analytic path analysis, Carr et al. (2003) subsequently found that all three dimensions were positively related to job performance, and that the effects were mediated through an increase in job satisfaction. This sug-

gests that positive climates communicate to employees what to do and what not to do, which re-

sults in a feeling of psychological safety and role clarity that manifests in higher job satisfaction,

and allows individuals to focus on their tasks instead of being concerned about contextual fea-

tures of their work environment. Of the three different climate dimensions, the affective dimen-

sion showed the strongest effects on affective, and the second-strongest effects on cognitive em-

ployee states, which further supports the theoretical claims made above that climates character-

ized by employee involvement, cooperation, support, and social recognition are especially bene-

ficial for increasing both employee well-being and performance (Grawitch et al., 2007).

3.11 INTEGRATION OF REVIEWS

In sum, all of the previously identified antecedents of EWB can also be linked to increases

in individual task performance. Firstly, servant leadership, which is the most strongly people-

oriented leadership style to be found in the literature (Graham, 1991; Mayer et al., 2008), con-

sistently appears as a powerful determinant of follower task performance. Secondly, theory and

evidence suggests that performance can be increased through building followers' psychological

resources like PsyCap (Luthans et al., 2007c), psychological empowerment (Spreitzer, 1995),

and positive core self-evaluations (Judge & Bono, 2001), which they can in turn invest into chal-

lenging situations at work. Finally, team and organizational climates emphasizing participation,

development, recognition, and employee health (Grawitch et al., 2006; Van Dam et al., 2008) are

likely to amplify these effects. These findings are largely in line with the antecedents of EWB

and thus provide further support for the theoretical proposition that both outcomes can be in-

creased without compromising one over the other (Wright & Cropanzano, 1997).

In addition, the comparison of theorizing and empirical evidence from the three reviewed

domains of servant leadership, well-being, and performance has revealed connections between

the variables that are in line with the propositions of SDT as the overarching theoretical frame-

work used to link the variables, and can subsequently be used to inform the development of a research model to guide the studies presented in this thesis, in which servant leadership increases follower EWB and task performance by building the psychological resources of followers in a context characterized by organizational policies and practices for health promotion and a team development climate that re-emphasize and support servant leadership behaviors. In the following, the insights gained will be used to formulate our first research question.

3.12 FIRST RESEARCH QUESTION

In sum, several of the propositions made by servant leadership theory have received at least initial support from increasingly rigorous studies. Especially with regards to the claims of increased follower performance, a range of studies is now available, reporting higher individual, team, as well as organizational performance as a consequence of servant leadership (e.g. Chen et al., 2014; Liden et al., 2014b; Peterson et al., 2012a). In line with theoretical propositions, servant leaders have been shown to appear as prototypical and to strengthen individual identification with the group or organization (De Sousa & Van Dierendonck, 2014; Liden et al., 2014b; Yoshida et al., 2014), to be more trusted by their followers (Schaubroeck et al., 2011), to foster the abilities of their team (Hu & Liden, 2011), and to build positive resources like self-efficacy and optimism in their followers (Asag-Gau & Van Dierendonck, 2011; Kool & Van Dierendonck, 2012; Schneider & George, 2011; Walumbwa et al., 2010a). In addition, servant leaders create several positive work climates (Hunter et al., 2013; Liden et al., 2014b; Walumbwa et al., 2010a), and are most effective in such positive work climates (Yoshida et al., 2014) and when their behaviors match follower preferences for leadership (Meuser et al., 2011), which provides some first indications for the boundary conditions of the examined relationships.

In the case of follower well-being, the current state of research is far less advanced, especially with regards to underlying mechanisms and boundary conditions. The few rigorous studies

that are available are in line with propositions of servant leadership theory by reporting increases in follower job satisfaction achieved through need satisfaction (Mayer et al., 2008), and reductions in strain (Babakus et al., 2010; Rivkin et al., 2014), but much work is still to be done. However, our review of the well-being literature with a focus on EWB and its antecedents has indicated that servant leaders will likely increase follower EWB, encompassing the extent to which individuals have fulfilled their potential for personal growth, through their unique emphasis on follower development.

Another clear gap in the servant leadership literature is that follower well-being and performance have so far not been examined in the same study using the same theoretical framework, although the increase of well-being and performance at the same time is a key proposition of servant leadership theory (Greenleaf, 1970). Thus, the appeal made by Avolio et al. (2009b) to better understand the relationship between servant leadership and follower well-being, especially in conjunction with other organizationally relevant outcomes like performance, has not been properly addressed yet.

Similarly, different processes through which servant leaders exert their influence have been suggested for different outcomes, but no study to date has examined if there is one underlying mechanism that can explain positive effects of servant leadership on both well-being and performance. This is particularly important, because the mechanisms through which servant leadership affects one particular outcome might not be effective for another outcome, or even compromise one outcome in favor of the other. For example, it is possible that a serving culture in which "self-centered behaviors are not tolerated" (Liden et al., 2014b: 11) leads followers to adopt service-oriented behaviors that result in higher organizational citizenship behaviors and better customer service, but makes them neglect their own needs and preferences, which negatively affects their individual well-being in the long run (Iyer et al., 2008). Consequently, a clos-

er look at the antecedents of EWB and in-role performance has revealed that servant leaders are likely to achieve both outcomes by building their followers' psychological resources, which is in line with propositions that the support and empowerment opportunities provided by servant leaders creates more self-efficacious, confident, and resourceful employees, which in turn can deal better with stressors and work harder on their tasks (Liden et al., 2014a).

Finally, the above literature reviews have shown that there is a clear dearth of empirical research regarding boundary conditions that might hinder or amplify the effects of servant leadership on well-being and performance. This is a considerable gap in the literature, especially in the light of preliminary evidence that servant leadership can actually have detrimental effects on organizationally relevant outcomes under some conditions (Meuser et al., 2011). Again, the literature provides some suggestions regarding important boundary conditions, for example organizational culture, policies and practices, and team climate, which now have to be examined empirically.

Informed by the above reviews of servant leadership, well-being, and performance, and integrating the available information within the SDT framework, the first research question of this thesis subsequently reads:

How and under which conditions does servant leadership relate to follower well-being and performance alike?

This research question will be addressed in Study 1, using an organizational sample to establish external validity. Before that, we will review another area of research that is of growing importance for the study and application of the servant leadership, namely the training literature. This review will form the basis of our second and third research question that will be addressed in Study 2 and Study 3, respectively.

CHAPTER 4: OVERVIEW OF THE LEADERSHIP TRAINING LITERATURE

4.1   CHAPTER SUMMARY

This chapter develops the rationale for designing and evaluating an effective servant leadership training by reviewing the training and training transfer literatures. To start with, a more general overview of the leadership development literature is given, followed by a review of training content and structure. Cognitive, affective, and behavioral learning outcomes are identified as central indicators of training effectiveness (Kraiger et al., 1993), and used to inform the design of a servant leadership training. Next, the training transfer literature is reviewed in order to get a better understanding of the conditions under which participants are more likely to transfer the learnt behaviors to their workplace (Burke & Hutchins, 2007; Colquitt et al., 2000). Following from this, the design and effectiveness of existing leadership trainings that have been published in academic journals is examined, and their content and structure is compared with the insights gained from reviewing the training literature. Finally, the insights gained from this review will culminate in our second and third research question.

4.2   THE RELEVANCE OF LEADERSHIP DEVELOPMENT STUDIES

Our first research question addresses how and under which conditions servant leadership positively affects follower well-being and performance alike. Provided that servant leaders can indeed increase both outcomes, the next question becomes if and how leaders can be trained to engage in servant leadership behaviors, so that organizations can successfully implement this leadership style and reap the associated benefits for follower well-being and performance.

Being rooted in a long tradition of style approaches to leadership, servant leadership comes with the implicit assumption that servant leaders are not born, but can be trained (Greenleaf, 1996; Liden et al., 2014a). As mentioned above, Liden et al. (2014b) claim that servant leadership is an example of positive organizational behavior, which in turn can be "developed, and ef-

fectively managed for performance improvements in today's workplace" (Luthans, 2002: 59), and Van Dierendonck et al. (2009) mention the development of servant leadership as a key strategy for increasing employee well-being.

In general, the practical importance and relevance of training future leaders for organizations and management education institutes has been consistently highlighted for many years, most recently by DeRue and Myers (2014: 835), who define leadership development as "the process of preparing individuals and collectives to effectively engage in leading-following interactions". The authors refer to surveys stating that improving leadership development is the number one priority for Human Resource practitioners around the world (Strack et al., 2010), and that in the United States alone, companies spent over $12 billion on leadership development in 2009 (O'Leonard, 2010). Given the rising interest in the development of more ethical leaders that transcend their self-interests in favor of their followers and the organization as a whole (Boyatzis & McKee, 2005; George, 2003), it can be expected that the demand for servant leadership trainings will increase as well.

In addition to its practical relevance, the development of a servant leadership training and its subsequent test in a field-experimental setting with multiple measurement points allows us to examine whether changes in leader- and follower-perceptions of servant leadership are *caused* by the training, and whether changes in the well-being and performance of followers indeed *follow* from servant leadership, in this case increased by training (Grant & Wall, 2009). As the review of empirical servant leadership studies has shown, the majority of studies applied a cross-sectional design (e.g. Liden et al., 2014b; Mayer et al., 2008; Schaubroeck et al., 2011), on the basis of which no claims regarding causality and directionality can be made, resulting in low internal validity. For example, Liden et al. (2014b) note that employees' perceptions of serving culture might have been influenced by the behavior of their colleagues instead of their leaders,

which in turn motivated the leaders to keep this culture alive by engaging in servant leadership. While some researchers have started to address this shortcoming by conducting (quasi-) longitudinal studies (e.g. Neubert et al., 2008; Peterson et al., 2012a; Walumbwa et al., 2010a), problems regarding the influence of extraneous variables remain. As an alternative, field-experimental designs offer a unique combination of internal and external validity that allows for making more substantiated inferences regarding causality and directionality without creating artificial scenarios in a laboratory that would negatively affect the generalizability of findings (Reis & Judd, 2000; Shadish et al., 2002).

As a result of the practical and theoretical relevance of leadership development, several reviews have been published over the last years, which focus on a range of activities organizations can use to train their leaders, and suggest frameworks for integrating leadership development into the overall organizational context. To give two much-cited examples, Day (2001) identified the strengths and weaknesses of six frequently used practices in leadership development, namely 360-degree feedback, coaching, mentoring, networks, job assignments, and action learning, while Leskiw and Singh (2007) concluded that an effective leadership development program has to start with a thorough needs assessment, identify a suitable audience, design a supportive infrastructure, implement a full learning system instead of singular interventions, continuously evaluate the system, and subsequently reward success or improve on deficiencies. These two examples show that much of the leadership development literature focuses mainly on effective on-the-job activities and elements of holistic leadership development programs, but offers few insights about how to develop specific attitudes towards leadership and the respective behaviors.

Consequently, DeRue, Sitkin, and Podolny (2011b: 369) note that "there is a remarkable scarcity of rigorous theoretical and empirical research on the design and delivery of leadership teaching and education", which they attribute to a lack of understanding of the role and potential

of teaching in developing the many personal attributes, psychological states, and leadership styles that have been linked to organizationally relevant outcomes, as well as missing rigor in the empirical tests of training interventions. Avolio et al. (2009b) agree with this assessment and highlight that it is particularly difficult to find evidence-based leadership development studies that provide evidence for the possibility to train leaders by drawing on specific leadership theories like servant leadership. This has even led some authors to conclude that formal training plays hardly any role in effective leadership development (Robinson & Wick, 1992; Wick, 1989).

However, more recently efforts have been made to qualitatively and quantitatively review all existing leadership interventions with an experimental or quasi-experimental design (Avolio & Luthans, 2008; Avolio, Reichard, Hannah, Walumbwa, & Chan, 2009a; Reichard & Avolio, 2005). Results showed that in general the examined leadership interventions had positive effects on organizationally relevant outcomes like leader effectiveness and follower performance independent of the leadership theory used to inform the intervention, and that leaders belonging to the various treatment conditions achieved such positive outcomes with a likelihood of 66% compared to 34% in the control groups (Reichard & Avolio, 2005). That being said, of the 200 studies identified there were 138 that reported usable effects, and of those only 37 actually manipulated leadership through training and development, whereas the remaining studies used actors or vignettes to test a particular theoretical proposition (Avolio et al., 2009a), and thus provide only limited insight into the effectiveness of actual leadership development. Nevertheless, a comparison of the included studies by type of intervention revealed that the effect sizes in the training/developmental group where only slightly smaller than in the group using other interventions, which speaks for the value of rigorously designed leadership trainings (Avolio et al., 2009a). Key leadership development studies will be reviewed and compared in more detail below.

Acknowledging that leadership trainings themselves take place in the wider context of the

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organization and thus form just one part of a much more long-term and elaborate program, we first aim to address the question of "how and to what degree teaching can contribute to leadership education and development" posed by DeRue et al. (2011b: 370) with an intervention that specifically examines the potential of training for servant leadership development. Thus, we continue this review by looking more closely at the training literature in order to identify the content and structure of effective trainings, as well as the conditions under which trained attitudes and behaviors can be transferred to the work context.

4.3   TRAINING CONTENT AND STRUCTURE

In an effort to develop a classification scheme for the evaluation of training outcomes, Kraiger et al. (1993) distinguish between three learning outcomes that inform not only the evaluation, but also the design and development of training. In detail, the authors propose that effective training results in positive changes in cognition, affect, and behavior (Kraiger et al., 1993), which subsequently means that elements have to be included in training interventions that address all three domains. Only then it can be ensured that training participants not only have an understanding of the training content, but also develop positive attitudes towards it and are willing and able to transfer the respective behaviors to their workplace. The model of Kraiger et al. (1993) has been used to evaluate training effectiveness in several previous studies (see Kalinoski et al., 2013; Mesmer-Magus & Viswesvaran, 2010; Taylor, Russ-Eft, & Chan, 2005), and has been linked specifically to leadership development in a recent meta-analysis on coaching effectiveness by Jones, Woods, & Guillaume (2015).

4.3.1 Cognitive Learning Outcomes

Starting with cognitive learning outcomes, Kraiger et al. (1993) build on previous work done by Gagné (1984) and Bloom (1956), which questions the limitation of cognitive learning to verbal knowledge alone. While it is widely acknowledged in the training field that the ability to

verbally communicate acquired knowledge forms the basis for the development of more advanced cognitive skills (Anderson, 1982), aiming for the recall or recognition of verbal knowledge alone is not enough to ensure training effectiveness. For example, participants in a leadership training might be able to define what servant leadership is, but unable to group the respective behaviors into the different facets that reflect its multidimensional nature (Liden et al., 2008), which in turn impedes the development of cognitive strategies for applying servant leadership to specific situations at work. Subsequently, it has been suggested to include the abilities to organize acquired knowledge and develop cognitive strategies as sequential elements in the design and evaluation of trainings (Gagné, 1984), and to include assessments of each element for evaluation purposes.

For the training of servant leadership, this means that an intervention has to start with the communication of declarative knowledge, or in other words, information about what the concept of servant leadership is, and what it is not (Ackerman, 1987). The successful acquisition of this declarative knowledge can then be assessed by using a survey before and after the training that lists servant leadership behaviors alongside other leadership behaviors and asks participants to indicate whether the respective behaviors are part of the overall servant leadership construct or not (Kirkpatrick & Kirkpatrick, 2009).

Next, the organization of this basic declarative knowledge has to be facilitated by relating the different elements of servant leadership to each other, for example by giving examples of their application at work, and putting servant leadership in the wider context of leadership through highlighting similarities and differences with other leadership styles (Anderson, 1982). This builds participants' procedural knowledge, reflected in mental models about the function of specific behaviors, their integration with each other, and requirements for their application (Rouse & Morris, 1986). To measure procedural knowledge, participants could for example be

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presented with realistic work situations and asked to reflect about which servant leadership facet – or combination of facets – would likely be most effective in this particular context.

As this procedural knowledge becomes more and more internalized through continuous reflection, more cognitive resources are freed up that can be used to develop increasingly complex cognitive strategies that guide the application of learnt behaviors (Anderson, 1982). While the development of refined cognitive strategies arguably takes considerable time and practice, participants' metacognitive skills, which include mental activities such as planning, monitoring, and revising goal-directed behaviors (Flavell, 1979; Hacker, Dunlosky, & Graesser, 1998), could be assessed by asking probing questions like "How could servant leadership help you to resolve this problem?" or "Which potential risks are associated with showing this particular behavior?" (Schraagen, Chipman, & Shalin, 2000).

4.3.2 Behavioral Learning Outcomes

Next, skill-based or behavioral learning outcomes have to be considered (Kraiger et al., 1993). Similar to the development of cognitive skills, individuals are said to move through different stages of behavioral learning, starting with initial skill acquisition, continuing with skill compilation, and ending with skill automaticity (Anderson, 1982; Fitts & Posner, 1967).

The first stage of initial skill acquisition has already been described with regards to cognitive skills in the previous paragraph, and encompasses the translation of declarative knowledge into procedural knowledge (Neves & Anderson, 1981). In behavioral terms, this reflects the first successful applications of learnt behaviors, for example engaging in the servant leadership behavior of emotional healing in a role play with other participants (DeNeve & Heppner, 1997). During this stage, participants still rely heavily on working memory and have to simulate their behavior mentally before actually engaging in any activity, which results in rather slow and less adaptive or creative performance (Bandura, 1977b; Weiss, 1990). Subsequently, it becomes im-

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portant that this stage is covered in a psychologically safe training environment, and participants are not pushed into showing trained behaviors in real-life situations too early.

During the skill compilation stage, participants learn to group discrete behaviors into meaningful and more effective routines, and to combine different routines into more complex compositions of behavior; this also includes the ability to generalize learnt behaviors across different unique settings, and to adapt and modify specific behaviors in light of situational requirements (Anderson, 1982). As a result, behavior becomes faster and less prone to errors. To train skill compilation, participants can for example be presented with a series of more complex role-play scenarios that do not only focus on one single facet of servant leadership, but require the combination of different facets and thus come closer to the application of servant leadership as a multidimensional construct across different situations.

Finally, participants reach the skill automaticity stage, where behavior becomes fluid, natural, and flexible (Schneider & Shiffrin, 1977; Shiffrin & Schneider, 1977). The conscious monitoring of learnt behaviors is no longer necessary, so that even more cognitive resources get freed up and can instead be used to cope with other situational demands that might otherwise negatively affect the effectiveness of trained behaviors (Ackerman, 1987). While progress on the first two stages of behavioral learning can still be assessed via role-play performance during the training itself, it is unlikely that participants will reach the stage of automaticity in such a limited amount of time.

However, another way to measure skill automaticity is to collect further data after the training, for example by obtaining self- and other-ratings of servant leadership from participating leaders and their followers at different time points after the training. The more automatized the learnt behavior becomes, the more effective participants should become in applying servant leadership, not only from their own perspective, but also from the perspective of their teams.

4.3.3 Affective Learning Outcomes

Finally, Kraiger et al. (1993) refer to the importance of attitudinal and motivational changes in the context of training, because both attitudes and motivations are seen as internal states that influence individuals' choices of actions. Participants' reactions to the training in terms of whether they enjoyed participation, and the training was well organized are not included here, because they do not directly indicate learning.

Instead, attitudinal outcomes encompass, amongst others, changes in values, increased commitment to showing learnt behaviors, feelings of personal growth and development, and higher self-awareness (ibid.). In the case of a servant leadership training, the desired affective learning outcome is a favorable attitude towards servant leadership and its application, and by extension also the value put on the main objectives of servant leadership, namely increasing follower performance and well-being through facilitating personal growth and development (Greenleaf, 1977). This can for example be achieved by highlighting the effectiveness of servant leadership in achieving these outcomes. Empirical research can be combined with examples from companies that already implemented servant leadership to communicate to participants that the theoretical claims made by servant leadership theory can successfully be translated into practice.

In addition, an effective training should not only result in favorable attitudes towards the training object, but also to an increased motivation to apply learnt behaviors in the future (Kraiger et al., 1993). In other words, participants should feel both willing and able to exhibit the respective behaviors, and be confident that they can achieve related goals (Bandura, 1977a, 1997). Again, this can be achieved through a thorough explanation of training content, in this case the different facets of servant leadership, followed by opportunities to practice novel behaviors in a safe environment before taking on more challenging tasks after the training (Van Ments, 1999).

Furthermore, goal setting has consistently been shown to be of major importance for increasing participants' motivation (Locke & Latham, 2002). Following a structured process of creating personally relevant, measurable, specific, time-bound, challenging, but still attainable goals as part of the training intervention helps participants to see the relevance and potential benefit of the training content for their own work, and allows for planning their own learning progress and evaluate their success in the future. As a result, participants tend to have lasting positive attitudes towards the training content and try harder to integrate the learnt behaviors into their daily work life, resulting in higher performance (Locke & Latham, 1990; Mento, Steel, & Karren, 1987).

The successful achievement of affective learning outcomes can be assessed in several ways. Firstly, participants' goals themselves, for example with regards to the development of their own servant leadership skills, can give an indication of their motivation, with more challenging and specific goals reflecting a higher motivation and more positive attitude towards servant leadership (Kraiger et al., 1993). In addition, trainees' willingness to engage in, and perceived ability to exhibit servant leadership can be assessed in questionnaires before and after the training, with significant positive changes on both measures indicating a positive change in attitudes and motivation (ibid.). A summary of the discussed learning outcomes, their measurement, and related training activities can be found in Table 4.1.

TABLE 4.1
Cognitive, Behavioral, and Affective Learning Outcomes, Related Training Activities, and Evaluation of Training Effectiveness

Learning outcome	Training activity	Evaluation
Cognitive		
Verbal knowledge	• Define servant leadership and its facets	• Pre- and post-training surveys
Knowledge organization	• Give practical examples for each facet • Highlight differences and similarities with other leadership theories	• Written or verbal reflections on application of servant leadership at work
Cognitive strategies	• Give practical examples for each facet	• Written or verbal answers to probing questions
Behavioral		
Initial acquisition	• Role-plays	• Performance in role-plays
Compilation	• Role-plays	• Performance in role-plays
Automaticity		• Self- and other-ratings of servant leadership over time
Affective		
Attitudinal	• Highlight effectiveness of servant leadership (empirical findings, organizational practice)	• Pre- and post-training surveys
Motivational	• Role-plays • Goal setting exercise	• Pre- and post-training surveys • Level of difficulty and specificity of developed goals

4.4   TRAINING TRANSFER

According to the training and learning theories discussed above, a servant leadership training is deemed effective when it results in a positive change of knowledge, affect, and behavior – participants know what servant leadership is, how and when to apply it, and hold a favorable attitude towards this leadership style as well as their own ability to exhibit the respective behaviors. Nevertheless, these changes alone do not guarantee that participating leaders will actually apply servant leadership in a specific work context; it has been estimated by Georgenson (1982) that 90 per cent of all trainings do not result in any behavioral changes, while Saks (2002) provides longitudinal data showing that 60 per cent of training participants can successfully transfer training content directly after the training, but only 30 per cent can maintain the learnt behaviors after one

year. As a result, half of all trainings do not result in any measurable individual or organizational improvements (ibid.).

Addressing this transfer problem , several variables have been identified in the training transfer literature that determine the successful application of training content above and beyond the learning outcomes discussed above (Baldwin & Ford, 1988; Blume, Ford, Baldwin, & Huang, 2010; Burke & Hutchins, 2007; Colquitt et al., 2000). Subsequently, we draw on insights from the training transfer literature to not only answer the question how servant leadership can be trained, but also under which conditions such a training will be most effective. Given the constant updates of reviews in the field of training transfer, we focus on the most recently published articles in the following paragraphs. Specifically, Burke and Hutchins (2007) offer an extensive review of the literature on training transfer and group the examined determinants into three higher-order factors, namely intervention design and delivery, work environment influences, and learner characteristics. Blume et al. (2010) use the same grouping in their meta-analytic review.

4.4.1 Intervention Design and Delivery

In line with the determinants of training effectiveness identified in the earlier section, clear learning goals are highlighted as a central element of intervention design and delivery that also affect the successful transfer of training content (Blume et al., 2010; Burke & Hutchins, 2007). In particular, goal-setting has consistently been found to increase the likelihood of transfer, because it provides a useful structure for participants to regulate their effort and direction for goal attainment and sustain motivation over time (Brown, 2005; Locke & Latham, 2002). Goals that are given high importance during the training (Lee & Pucil, 1998), focus on the short term as well as the long term (Brown, 2005), and have a relatively open focus (e.g. a range of interrelated skills instead of one specific skill; Blume et al., 2010) have been shown to be particularly effective. In addition, participative goal-setting has been shown to help individuals in

getting a better understanding of behavioral and knowledge requirements posed by their work environment following from the training. This further highlights the importance of integrating a goal-setting exercise into a servant leadership training.

Closely related to setting clear goals, the extent to which training content is relevant for participants' work tasks has been found to play a crucial role for transfer success; strong positive relationships are reported by Axtell, Maitlis, and Yearta (1997) as well as Yamnill and McLean (2005). Furthermore, Burke and Hutchins (2007) cite a range of studies that have linked training transfer with opportunities to practice training content and receive feedback on one's performance in a safe environment. Repeating such practice opportunities even after successful performance of a learnt skill has been shown to further improve transfer (Driskell, Willis, & Copper, 1992). Again, both the perceived relevance of training content as well as practice and feedback opportunities can be integrated in a servant leadership training by utilizing a method presented earlier, namely role-plays (Van Ments, 1999).

Finally, behavioral modeling (Bandura, 1997) and error-based examples (Smith-Jentsch, Jentsch, Payne, & Salas, 1996) are mentioned as well-researched predictors of training transfer. Both can be addressed in a servant leadership training by showing videos of individuals successfully applying servant leadership, or failing to apply it in a context that would ask for servant leadership behaviors, resulting in negative outcomes. In sum, the discussed elements of intervention design and delivery largely match the training activities identified in the previous sections, and are therefore already accounted for.

4.4.2 Work Environment Influences

With regards to the wider work environment in which the training takes place, three main factors have been examined in relation to training transfer, namely the organizational transfer climate, support from supervisors and peers, and opportunities or constraints to perform learnt

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behaviors (Blume et al., 2010; Burke & Hutchins, 2007). Firstly, a climate that encourages train-ees to use their newly acquired skills and subsequently rewards the correct use of those skills in both monetary and non-monetary terms has been shown to be directly related to successful train-ing transfer (Kontoghiorghes, 2001; Rouiller & Goldstein, 1993; Tracey, Tannenbaum, & Kavanagh, 1995). Secondly, trainees perform better on the job when their supervisors offer sup-port, for example by discussing training content, participating in the training themselves, and continuing to coach employees after the training (Smith-Jentsch, Salas, & Brannick, 2001; Tannenbaum, Smith-Jentsch, & Behson, 1998). Similarly, support provided by peers and col-leagues like networking and sharing experiences after the training yields positive effects on transfer (Facteau, Dobbins, Russell, Ladd, & Kudisch, 1995). Finally, trainees have to be provid-ed with opportunities to perform the learnt behaviors at work. Several studies have shown that constraints with regards to the application of newly acquired skills are consistently reported to be the biggest obstacles for transfer (Clarke, 2002; Lim & Johnson, 2002). Blume et al. (2010) pro-vide further meta-analytic evidence for all three environmental factors, reporting moderate to small effect sizes for transfer climate (.27), support (.21), and opportunities to perform (.05).

4.4.3 Learner Characteristics

Most of the research in the domain of training transfer has focused on the individual char-acteristics of participants, with a particular focus on their ability and motivation (Burke & Hutchins, 2007). The most thoroughly researched learner characteristics in this context are cog-nitive ability, personality, self-efficacy, perceived utility, career variables, and training motiva-tion (ibid.). Starting with cognitive ability, it is argued that a high general mental ability comes with increased attentional resources that can be invested during training (Kanfer & Ackerman, 1989), and that it improves the retention of complex skills (Day, Arthur Jr, & Gettman, 2001). Empirically, moderate meta-analytic effect sizes ranging from .37 to .43 are reported for the rela-

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tionship between cognitive ability and training transfer (Blume et al., 2010; Colquitt et al., 2000).

Next, Barrick and Mount (1991) found that conscientiousness, openness to experience, and extraversion were all positively related to individuals' training proficiency, arguing that trainees scoring highly on those personality traits show more self-regulatory behavior, are more engaged in the social learning process, and are more curious and explorative when it comes to acquiring novel skills. Follow-up meta-analyses by Colquitt et al. (2000) and Blume et al. (2010) largely confirm these relationships, although the effect sizes reported in the latter meta-analysis, with the exception of conscientiousness (.28), are relatively small (.08 and .04 for openness and extraversion, respectively). At the same time, neuroticism, negative affect, and anxiety were all found to be significantly negatively related to training transfer across several studies, because these traits inhibit participants from showing the learnt behaviors at work for fear of failure (Blume et al., 2010; Colquitt et al., 2000; Machin & Fogarty, 2004).

As can be expected on the basis of the information presented in previous sections, the role of self-efficacy in successful training transfer has received strong support (Burke & Hutchins, 2007). Self-efficacious individuals feel more able to apply new skills in the work context, and in contrast to cognitive ability and personality, training-related self-efficacy can be increased by using goal-setting exercises at the end of the training (Gist, Stevens, & Bavetta, 1991). Similarly, the perceived utility of training content can be increased through goal-setting and highlighting the relevance of acquired knowledge and skills for important aspects of trainees' work, which in turn results in better training transfer (Axtell et al., 1997; Baumgartel, Reynolds, & Pathan, 1984). The perceived utility of training is furthermore connected with participants' career planning, career exploration, and general job involvement, three more variables that have been found to be positively related to training transfer (Blume et al., 2010; Colquitt et al., 2000; Mathieu, Tannenbaum, & Salas, 1992; Noe, 1986). Again, a servant leadership training can address these

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career variables by highlighting how the application of servant leadership can contribute to personal career development.

Finally, training motivation, which is defined as the intensity and persistence with which trainees engage in learning-oriented improvement activities (Tannenbaum & Yukl, 1992) is consistently highlighted as an important determinant of transfer. Especially pre-training motivation seems to be of importance in this context, with several studies reporting strong positive relationships with training transfer (Facteau et al., 1995; Noe, 1986; Quinones, Ford, Sego, & Smith, 1995). In fact, participants' motivation to learn emerged as one of the strongest predictors of transfer in the meta-analysis of Colquitt et al. (2000), with a corrected effect size of .58. This finding is echoed in the meta-analysis of Blume et al. (2010), where self-reported motivation is the second-strongest predictor of transfer, only surpassed by job involvement, which can be seen as an indirect indicator of training motivation anyway. When looking at the effect sizes obtained on the basis of studies that do not suffer from same source bias, training motivation even becomes the strongest predictor of transfer across all three higher-order factors (ibid.). It is therefore worthwhile to have a closer look at the factors that influence participants' training motivation, and how this relates to the training of servant leadership.

4.4.4 Learner Training Motivation

In line with the empirical findings of Blume et al. (2010), Colquitt et al. (2000) draw on a narrative review as well as findings from a meta-analysis of the training literature to develop an integrative theory of training motivation. Their model builds on previous theories of training motivation and assumes that the relationship between individual and situational variables like personality, climate, and support and individuals' motivation to learn is mediated by self-efficacy, valence, and career variables (e.g. Baldwin & Magjuka, 1997; Noe, 1986; Quinones, 1995). Subsequently, motivation to learn mediates the effects of individual and situational variables on

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learning outcomes, which basically match the outcomes discussed earlier (Kraiger et al., 1993), and subsequently on training transfer and job performance (Baldwin & Magjuka, 1997; Mathieu et al., 1992; Quinones, 1995). As a result, motivation to learn becomes the sole link between all the individual and work-related variables discussed above and training transfer.

Looking more closely at the various antecedents of participants' motivation to learn, the authors identify commitment with the team or organization as its strongest predictor. Commitment is defined as the "acceptance and belief in the organization's [or team's] goals and values, a willingness to exert effort for the organization [or team], and a desire to maintain membership" (Colquitt et al., 2000: 679). As such, it basically reflects the relative strength of involvement in and identification with a specific team or organization, which in turn makes the application of any training content that is perceived as valuable for oneself and the object of identification more likely (Facteau et al., 1995; Quinones et al., 1995).

Here, a link can be made with servant leadership theory, which has recently begun to integrate insights from the social identity theory of leadership (Liden et al., 2014a; see also Hogg, van Knippenberg, & Rast, 2012; Van Knippenberg & Hogg, 2003). In detail, it is proposed that leaders are more likely to engage in servant leadership behaviors, when they have a strong pro-social identity that is based on helping and benefiting others (Grant, Molinsky, Margolis, Kamin, & Schiano, 2009) as well as a strong desire to serve (Ng et al., 2008), or in other words when they strongly identify with their team and its interests (Liden et al., 2008; Van Dierendonck, 2011). Consequently, the successful transfer of acquired servant leadership knowledge and skills to the workplace is likely to be dependent on the initial identification of participants with their team, because this is a central determinant of their motivation to learn.

It can therefore be concluded that a servant leadership training should develop participants' knowledge of servant leadership, allow for the translation of this knowledge into behavior within

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a psychologically safe context, and promote positive attitudes towards this leadership style (Kraiger et al., 1993). However, its effectiveness will likely be further determined by the strength of leaders' identification with their team and their subsequent motivation to apply learnt behaviors that are in favor of the team (Burke & Hutchins, 2007; Colquitt et al., 2000; Liden et al., 2014a). Having identified how and under which conditions a servant leadership training can be most effective, we now review existing leadership trainings to get an overview of the current state of empirical research in this area.

4.5 EXISTING LEADERSHIP TRAININGS – EMPIRICAL FINDINGS

Of the 37 leadership interventions identified by Avolio et al. (2009a) that included one or more elements of leadership training, we could gain full access to 33 studies described in 25 publications, including journal articles, book chapters, dissertations, and conference proceedings. The remaining four studies (Beaton, Johnson, Infield, Ollis, & Bond, 2001; Carron, 1964; Crawford, Thomas, & Fink, 1980; McCormick, 2000) were either conference proceedings, dissertations, or print articles that are not available or accessible online. In addition to these studies, we identified ten more studies described in eight publications, and also noticed that Avolio et al. (2009a) list only six instead of seven studies presented in an article on Pygmalion leadership by Eden et al. (2000), which we correct here. Thus, this review draws on a total of 44 studies outlined in 33 articles.

Out of all studies, five focus on training transformational leadership (Barling, Weber, & Kelloway, 1996; Dvir, Eden, Avolio, & Shamir, 2002; Kelloway, Barling, & Helleur, 2000; Parry & Sinha, 2005; Peus, Frey, & Braun, 2009), seven on charismatic or visionary leadership (Antonakis, Fenley, & Liechti, 2011; Frese, Beimel, & Schoenborn, 2003; Thoms & Greenberger, 1995; Towler, 2001, 2003), five on situational/contingency models of leadership (Csoka & Bons, 1978; Fiedler & Mahar, 1979; Leister, Borden, & Fiedler, 1977; Rosen,

Georgiades, & McDonald, 1980), two on leader-member exchange (Graen, Novak, & Sommerkamp, 1982; Scandura & Graen, 1984), and two on safety leadership (Singer et al., 2011; Zohar, 2002), while the remaining 21 interventions trained other leadership characteristics, for example leader use of extraversion (Grant, Gino, & Hofmann, 2011), leader use of organizational justice (Skarlicki & Latham, 1996, 1997), Pygmalion leadership (Eden et al., 2000; Eden & Sulimani, 2002) and implicit leadership theories (Schyns, Kiefer, Kerschreiter, & Tymon, 2011). Table 4.2 gives an overview of the studies reviewed here, showing in particular which style or aspect was trained, to what extent the training design was based on theory, and whether the training was effective. With regards to theory, we focus on theories used to justify training design and activities, and do not include leadership theories in our assessment, unless they specifically highlight how the respective leadership style or characteristic can be trained. Trainings that were replicated without changing the design and activities are reported in the same row.

TABLE 4.2
An Overview of Existing Leadership Trainings

Authors	Number of studies	Training content	Training activities	Theory-based?	Effective?
Antonakis et al. (2011)	2	Charismatic/visionary leadership	Lecture, videos, individual feedback, role play, goal setting	Yes	Yes
Barling et al. (1996); Kelloway et al. (2000)	2	Transformational leadership	Lecture, reflection, group discussion, role-play, goal setting	No	Yes
DePiano & McClure (1987)	1	Citizen involvement	Lecture, individual feedback, simulation, group discussion, goal setting	Yes	Yes
Dvir et al. (2002)	1	Transformational leadership	Lecture, simulation, videos, group discussion, role-play, individual feedback	No	Yes
Eden et al. (2000)	7	Pygmalion leadership	Lecture, videos, role play, group feedback, goal setting	No	No
Frese et al. (2003)	2	Charismatic/visionary leadership	Lecture, role play, individual feedback	Yes	Yes
Graen & Novak (1982); Scandura & Graen (1984)	2	LMX	Lecture, group discussion, role play, individual feedback	No	Yes

TABLE 4.2 (continued)

Grant et al. (2011)	2	Leader extraversion	Written instructions, reflection	No	Yes
Harris & Fleishman (1955)	1	Consideration & initiating structure	Lecture, group discussion, videos	No	Yes
Knox & Walker (2003)	1	Informal leadership	Self- & peer-assessment, individual feedback	No	Yes
Lawrence & Wiswell (1993)	1	Leadership values	Videos, role play, group feedback	No	Yes
Leister et al. (1977); Csoka & Bons (1978); Fiedler & Mahar (1979)	4	Contingency model of leadership	Self-directed learning guided by workbook	No	Yes
Levine & Butler (1952)	1	Overcoming biased performance ratings	Self-directed group discussion vs. lecture	Yes	Yes
Morin (1998)	1	Communication skills	Lecture, mental practice, goal setting	Yes	Yes
Murphy et al. (1995)	1	Task-oriented leadership	Written instructions	No	Yes
Parry & Sinha (2005)	1	Transformational leadership	Lecture, on-the-job coaching, goal setting	Yes	Yes
Peus et al. (2009)	1	Transformational leadership	Lecture, reflection, individual feedback, goal setting	Yes	Yes
Rosen et al. (1980)	1	Situational leadership	Lecture, readings, group discussion	No	Yes
Schyns et al. (2011)	1	Implicit leadership theories	Drawing exercise, group discussion	Yes	-
Singer et al. (2011)	1	Safety leadership	Lecture, group reflection, simulation, goal setting	Yes	Yes
Singleton (1978)	1	Managerial motivation	Lecture, case study, videos, role play	No	Yes
Skarlicki & Latham (1996, 1997)	2	Organizational justice	Lecture, case study, group discussion, role play, goal setting	No	Yes
Smoll et al. (1993)	1	Social support	Lecture, written instructions, simulation, self-monitoring	Yes	Yes
Thoms & Greenberger (1995)	1	Charismatic/visionary leadership	Lecture, exercise, individual feedback	No	Yes
Towler (2001, 2003)	3	Charismatic/visionary leadership	Written instructions, videos, role play	Yes	Yes
Wexley & Nemeroff (1975)	1	Consideration & initiating structure	Role play, goal setting, telecoaching	Yes	Yes
Zohar (2002)	1	Safety leadership	Individual feedback, role play	Yes	Yes

4.5.1 Transformational Leadership Trainings

Starting with trainings of transformational leadership, Barling et al. (1996) developed a group-based training program spanning over one day. Aiming at increasing declarative knowledge, the training started with a reflective exercise asking participants to identify good and bad behaviors and characteristics of leaders they had encountered, which were then grouped into the higher-order factors of transformational, transactional, and laissez-faire leadership (Bass, 1990). A more formal introduction of each leadership style and an overview of research findings about their effectiveness followed (Barling et al., 1996). Next, attitudes towards and the ability to show transformational leadership were addressed by a goal-setting exercise in which participants noted down their own development goals, and by role-plays that simulated changes in leadership behaviors and related transformational leadership behaviors to the achievement of organizational goals. Both exercises were concluded with group discussions (ibid.). Finally, each participant attended an individual booster session, in which the trainer provided feedback on self- and other-ratings of participants' transformational leadership and helped with the development of a specific action plan for the coming month (ibid.). This training program resulted in significant positive changes of follower perceptions of transformational leadership in the experimental group, but not in the control group, and furthermore increased followers' organizational commitment (ibid.). Kelloway et al. (2000) replicated the described transformational leadership training program, and further examined whether the combination of training and individual feedback sessions results in higher ratings of transformational leadership than either intervention alone. Their findings suggest that this is not the case, and that the discussed training and feedback sessions can be used as stand-alone interventions (ibid.).

In another randomized field experiment, Dvir et al. (2002) examined the effects of transformational leadership training on follower development and performance within a military con-

text, this time not in comparison to a waitlist control group, but to a group receiving routine eclectic leadership training. The trainers themselves also attended a five-day workshop teaching them how to deliver the transformational leadership training, which covered four steps: Introducing transformational and transactional leadership as two different approaches to building relationships with followers, explaining transformational leadership behaviors in more detail, relating transformational leadership to increased follower development and performance while contrasting it from transactional leadership, and the role of continuous follower development (ibid.). In contrast, the eclectic leadership workshop focused on various concepts like goal-setting, trust building, and personal example (ibid.). Each workshop was three days long, and used role-plays, simulations, presentations and videos, group discussions, and feedback, followed by a booster session for all leaders in the experimental group, but not in the control group, one and a half months after the workshop (ibid.). Results show that leaders in both groups perceived the training as positive, but that only leaders in the experimental group showed a significant increase in their knowledge of transformational leadership; in addition, a significant increase of experimental leaders' transformational leadership behaviors was reported by their direct followers, but not by their indirect followers (ibid.). Finally, leaders in the experimental group were almost double as effective in increasing direct followers' development and indirect followers' performance as leaders in the control group (ibid.).

Next, Parry and Sinha (2005) developed an extensive three-month program that combined four days of contact time with on-the-job coaching, self-analysis, and self-directed planning. The program started with a two-day workshop during which the concepts of transformational and transactional leadership were introduced via lectures, and the principal investigator interpreted participants' scores on the Multifactor Leadership Questionnaire (Bass & Avolio, 1997) in order to allow them to identify strengths and weaknesses that informed personal development plans.

After three months had passed, the participants returned for another two-day workshop, where they discussed their development plans, their successes, and their failures together with the principal investigator, on the basis of which an updated development plan was created (Parry & Sinha, 2005). The training program resulted in a significant increase of self- and co-worker-ratings of transformational leadership and contingent reward, and a decrease in passive transactional leadership; in addition, followers reported increased extra effort (ibid.)

Building on the insights gained from previous studies, Peus et al. (2009) designed the most extensive transformational leadership training to date, which spanned over four months and consisted of four group workshops and three individual coaching sessions. Before the workshop, all subordinates were asked to rate their leaders' styles, and it was found that contingent reward, intellectual stimulation, and inspirational motivation showed the strongest relationships with follower job satisfaction and self-efficacy; subsequently, the training focused on these three facets (ibid.). Again, the group workshops included reflective exercises, detailed descriptions of each of the trained facets, their relations to organizational values, and an overview of research findings. Similarly, the individual coaching sessions started with a comparison of leader and subordinate ratings of transformational leadership and the development of a personal action plan, followed by specific discussions about the implementation of contingent reward, intellectual stimulation, and inspirational motivation, and a final evaluation of the action plan. The control group again received a placebo-development program that focused on personal opinions about leadership, basic leadership values within the organization, and potential ways to improve one's leadership style (ibid.). To evaluate training effectiveness, participants were asked to indicate leadership behaviors they would most likely show in each of six challenging leadership situations. Members of the experimental group reported more behaviors that can be categorized as contingent reward, intellectual stimulation, and inspirational motivation than did the control group. In addition, the

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questionnaire ratings showed that leaders in the experimental group rated themselves higher on the trained dimensions when compared with the control group, whereas no significant differences were found for the untrained dimensions. The same applied to the ratings obtained from subordinates. Finally, subordinates also reported higher satisfaction with the leaders who were participants of the experimental group (ibid.).

4.5.2 Charismatic & Visionary Leadership Trainings

The first evidence for the possibility to train charismatic leadership comes from Thoms and Greenberger (1995), who trained managers in writing an inspirational vision for their work unit. In a three-hour workshop, the trainer familiarized the participants with different characteristics of effective visions like rhetoric formulations and a future focus, after which the trainees were asked to write down as many "Wouldn't it be great if…" sentences as possible, followed by a movie script that described the vision. Afterwards, the trainer rated each vision and gave participants feedback on their effectiveness (ibid.). Compared to a control group that received a management training with no reference to visionary communication, the training group reported significantly more visioning skills, but no ratings from other sources were obtained (ibid.).

Next, Towler (2001, 2003) reports three studies on a charismatic influence training, of which two only differ in that they are based on slightly different sample sizes. Participants were assigned to the charismatic influence training, a presentation skills training, or a control group without training, and each one of them was asked to prepare and give a speech that was recorded and shown to groups of 2-3 students, who were subsequently asked to complete a task communicated by the training participants (ibid.). Results showed that participants in the charismatic influence condition engaged in more charismatic behavior and that the viewers of their speeches performed best on the task (ibid.). This was achieved through a two-and-a-half hour long workshop that combined written instructions on charismatic delivery and visionary content with vide-

os and role-plays (ibid.).

In another effort to train charismatic leadership, Frese et al. (2003) conducted two quasi-experimental field studies with a specific focus on inspirational communication, which is a key element of charismatic leadership (Conger, 1989a). While the experimental group focused on developing an inspirational speech that was based on a specific vision for their group or department created in a preliminary step, the control group in the first study did not receive any training, whereas the control group in the second study trained general public speaking skills. Both workshops were one and a half days long (Frese et al., 2003). At the beginning of the training, participants were asked to prepare a speech based on their vision and to hold this speech in front of the other participants, without any further preparation. The speeches were recorded and functioned as the baseline measure, together with participants' ratings of how much the respective speech had inspired them. In the following, the trainer presented the theoretical background and empirical findings regarding effective visions and charismatic leadership, and introduced a range of communication techniques like gestures, loudness of speech, eye contact, the use of metaphors, and positive emotional appeals. Participant then had time to improve their inspirational speech, before they delivered it again, which was filmed and rated by colleagues a second time (ibid.). As a result, participants improved significantly on the trained variables, but not on variables that did not form a part of the training (ibid.).

Antonakis et al. (2011) used a very similar training design, with the main difference being that participants worked together in dyads when developing their speeches and then nominated one member of the dyad to deliver the speech. In addition, participants developed individual action plans and discussed those plans with the first author in telephone coaching sessions after the training. The effectiveness of the training was measured in a first study by using co-worker ratings obtained during and three months after the training, and in a second study by using inde-

pendent assessors' ratings of the videotaped speeches of participants. The results show significant improvements in ratings of leader charisma, which in turn was positively related to perceptions of leader prototypicality and leader emergence (ibid.).

4.5.3 Situational/Contingency Models of Leadership

Moving on to a training of the contingency model of leadership, Leister et al. (1977) used a workbook that leaders can complete in their own time, which usually requires four to twelve hours according to the authors. The workbook includes several questionnaires that measure key concepts of contingency theory like the least-preferred co-worker score or situational control (Fiedler, 1964), together with probing questions about specific leadership problems, feedback on replies to these questions, and advice on how to adapt one's leadership style in dependence on a particular situation. The authors could show that, over the course of six months, this approach resulted in significant differences between training and control group in favor of the training group with regards to task, personnel, and overall performance, rated by the respective direct supervisors of participants (Leister et al., 1977).

Following from this initial validation of the so-called Leader Match training, several other studies were conducted to provide further evidence for the effectiveness of this intervention. First, one experimental and one quasi-experimental study showed again that leaders who completed the workbook received significantly higher performance ratings than members of the control groups (Csoka & Bons, 1978). Another follow-up study obtained similar results, reporting more favorable ratings of performance from trained leaders' supervisors and peers than those received by members of the control group (Fiedler & Mahar, 1979).

Finally, Rosen et al. (1980) evaluated a situational leadership training in an educational setting. Facilitated by the trainer, the participants form teams and learn about group dynamics that are in turn connected with situations at their workplace; in doing so, various training activities

are used, namely short lectures, reading materials and diagrams, group discussions, and 'special demonstration exercises' (ibid.). As a result, participants performed better on a specific test designed to assess the training content, but this was contingent on contextual variables like experience of the trainer and motivation of participants (ibid.).

4.5.4 Leader-Member Exchange Trainings

Graen et al. (1982) tested the openness to development of high-quality leader-member exchange (LMX) relationships in a training study with four conditions, namely LMX training, job design training, a combination of LMX and job design, and a placebo control condition. The LMX and job design treatments each consisted of six two-hour sessions that were delivered over the course of six weeks, whereas the placebo treatment lasted only half as long (i.e. three instead of six sessions) and only covered general content on performance evaluations, decision making, and communication. Much in line with the previously discussed trainings, the LMX workshop combined lectures, group discussions, and role plays, and covered background information on LMX theory and how to apply it, a session on active listening, the exchange of mutual expectations and resources, and one-on-one sessions to practice the building of high-quality relationships (ibid.). This preparatory phase was followed by an actual conversation between participating leaders and one of their followers. In the job design condition, participants just listened to a lecture that communicated information on principles of job design, the analysis of job characteristics and potential job enrichment possibilities, and active redesign of jobs (ibid.). Results revealed that only the LMX training resulted in significant positive changes, namely higher quantity and quality of production, a 16.3% productivity gain over the other treatment groups, and employees reporting more positive evaluations of the value of their job, their attitudes towards the job, as well as job-related problems and stress (ibid). While these positive results could only be due to training content, it is likely that the design of the LMX training with its different activities

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contributed to its effectiveness as well.

The same training was replicated in a different setting to examine whether the employees who reported lower LMX relationship quality than their colleagues would benefit more from their leaders participating in the LMX training (Scandura & Graen, 1984). Indeed, the authors could show that employees in the initially low-LMX group reported significantly more productivity gains, higher job satisfaction, and higher satisfaction with their supervisor than members of the initially high-LMX group (ibid.). This again highlights the importance of taking into account potential boundary conditions when designing and evaluating leadership trainings.

4.5.5 Safety Leadership Trainings

Focusing specifically on safety behaviors as the outcome, Zohar (2002) trained supervisors working in a maintenance center handling heavy-duty equipment. Over the course of eight weeks, the research team conducted semi-structured interviews with the direct followers of the participating supervisors, in which they asked them how often their supervisor approved or disapproved certain behaviors on the basis of safety considerations. The frequencies of such safety-oriented episodes were recorded and fed back to each supervisor individually, as well as to their section managers, who received an overview comparing all supervisors they were overseeing. On the basis of this feedback, section managers were asked to let the supervisors know about their relative position within their unit, and to communicate approval or disapproval accordingly (ibid.). In the final week of the intervention, all participating section managers as well as the general manager participated in a half-day workshop that utilized role-plays to train the participants in carrying out the interviews previously managed by the research team, creating feedback for supervisors on their basis, and using social reinforcement skills (ibid.). As a result of this intervention, significant increases in safety-oriented interactions were observed in the experimental group, but not in the control group, while minor injury rates decreased and scores of earplug use

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and safety climate increased significantly after the intervention (ibid.).

Also training safety leadership, but in a hospital setting, Singer et al. (2011) used quite a different approach that is more in line with the other trainings discussed above. In groups, participating managers started by reflecting on work examples where the group performed best in terms of patient safety, and created a shared vision for the future. This was followed by a theoretical overview of learning-oriented leadership with a focus on safety performance, and the comparison of manager groups' scores on a safety climate survey completed by employees working in the respective areas. Next, the managers engaged in experiential learning by participating in a simulation using computer-controlled and realistic mannequins that allowed them to utilize three of the trained leadership behaviors, namely being non-defensive with regards to safety lapses, encouraging followers to speak up and voice concerns, and facilitating communication and teamwork. The workshop ended with a goal-setting exercise, and a booster session followed three to seven months after the training (ibid.). Similar to the already presented trainings, participants reported increased awareness and use of safety behaviors, better coordination with each other, and the introduction of new routines to improve patient safety (ibid.).

4.5.6 Other Leadership Trainings

Focusing on one specific leadership characteristic, Grant et al. (2011) manipulated leader extraversion by letting participants read a brief that presents research findings highlighting the effectiveness of either high or low extraversion, followed by a reflective exercise that asked them to write down an example situation in which they led a group effectively, again using high or low extraversion. Participants then led a group during a shirt-folding exercise in which followers' proactive behavior was additionally manipulated by a research confederate. In line with the hypotheses, extraverted leaders had a positive influence on follower performance when group members were passive, while introverted leaders were more effective in proactive groups (ibid.).

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Next, Skarlicki and Latham (1996) trained leaders in organizational justice in four three-hour sessions over the course of three weeks. In line with most of the presented studies, the trainers used lectures, a case study, and group discussions to build participants' knowledge about organizational justice in session one, followed by role-plays to train active listening skills in session two, another group discussion on increasing fairness in session three, and goal-setting plus a personal development plan in session four (ibid.). As a result, followers of the participating leaders reported better perceptions of union fairness (ibid.) The authors replicated their study using a different sample and could further show that followers belonging to the training condition perceived more leader fairness and showed more citizenship behavior directed towards the organization and colleagues (Skarlicki & Latham, 1997).

Building on the insights of a previous training evaluation that we could not access online (Crawford et al., 1980), Eden et al. (2000) evaluated a Pygmalion Leadership Style (PLS) training across seven field experiments. PLS reflects leader behaviors that communicate high performance expectations while attributing follower success to internal and stable causes, and create a supportive work climate (ibid.). The duration of the presented training interventions differed, ranging from one day up to three days followed by another three half-day sessions in intervals of four to six weeks. In its complete form, the PLS training consists of several lectures about topics such as self-fulfilling prophecies, different forms of efficacy, the management of attributions, and the management of organizational culture, supplemented by examples of famous Pygmalion leaders and video-taped role-plays followed by group feedback (ibid.). Finally, a goal-setting exercise concluded the training, so that its activities again show great similarities with previous interventions. However, the results were meager, showing no training effects on leader and follower perceptions of PLS or performance (ibid.). The authors subsequently changed their intervention into a one-day workshop with a specific emphasis on self- and means efficacy, and com-

pared it with an interpersonal communication workshop (Eden & Sulimani, 2002). This time, subordinates of leaders in the PLS condition reported higher self-efficacy, means efficacy, and motivation, and also performed better on performance tests than the followers of leaders belonging to the interpersonal communication condition (ibid.). From these findings follows that the specificity of training content is central to its effectiveness, and 'inactive ingredients' should be identified and excluded from the training.

Beyond the already mentioned studies, a range of other leadership interventions is available that trained specific skills like effective involvement of citizens on a School Advisory Council (DePiano & McClure, 1987), consideration and initiating structure (Harris & Fleishman, 1955; Wexley & Nemeroff, 1975), leadership skills for informal leaders (Knox & Walker, 2003), influencing attitudes of dominance versus submissiveness, friendliness versus unfriendliness, and accepting versus opposing task orientation of established authority (Lawrence & Wiswell, 1993), overcoming biased performance ratings (Levine & Butler, 1952), providing task-relevant knowledge to aid effective group decisions (Murphy, Blyth, & Fiedler, 1992), general communication skills (Morin, 1998), managerial motivation (Singleton, 1978), and giving social support (Smoll, Smith, Barnett, & Everett, 1993). As all of these studies had a more or less similar design to the ones discussed above and mostly focused on very specific skills, they do not offer many more insights.

However, Schyns et al. (2011) present another valuable training method in the context of teaching implicit leadership theories with the objective of increasing leaders' self- and social awareness. Their exercise consists of a short individual reflection about the characteristics of effective leaders, followed by a group discussion and a collective drawing exercise in which participants create a picture of the ideal leader as perceived by them. The training finishes with a plenum discussion of similarities and differences between the paintings and how contextual features

might influence leader effectiveness (ibid.). Although the authors do not present any empirical data, we included this training in our review because it offers a novel and creative way of raising leader self-awareness in addition to the usually employed questionnaires, and could therefore be easily integrated in most of the other trainings presented above.

4.5.7 Summary

In sum, the majority of trainings presented in the above sections address cognitive, affective, and behavioral learning outcomes (Kraiger et al., 1993), and take into account critical determinants of training transfer (Burke & Hutchins, 2007; Colquitt et al., 2000). In doing so, the trainings use most or all activities that were identified as being effective for achieving those learning outcomes, including lectures, role-plays, and goal-setting exercises. However, of the 44 reviewed studies, 27 lack theoretical grounding in the training or leadership development literature, and thus provide no arguments for why they use certain training activities and not others. It therefore appears that many trainings use the respective activities simply because they have been found to be effective in training leadership before, and not because they can be linked to achieving particular learning outcomes.

Despite this lack of theorizing, even relatively short interventions have been shown to result in significant positive changes of leader and follower perceptions of leadership, and in fact only one of the reviewed articles reports no training effects (Eden et al., 2000), but this can at least partially be attributed to the file drawer effect (Rosenthal, 1979). That being said, especially the positive results of trainings of transformational leadership and LMX, of which at least some draw on training theories (Parry & Sinha, 2005; Peus et al., 2009), and which overlap to a certain extent with servant leadership (Parolini et al., 2009; Washington, 2007), suggest that servant leadership can be successfully trained by applying a similar design and using appropriate methods of delivery, but keeping in mind the identified boundary condition of leader identification.

4.6 SECOND AND THIRD RESEARCH QUESTION

While there still exist only few rigorous empirical tests of leadership trainings that have been developed on a strong theoretical basis, the above review has shown that the training and training transfer literature includes much evidence that can be used to design and evaluate effective leadership interventions. In addition, the meta-analysis conducted by Avolio et al. (2009a) plus the additional leadership development studies published afterwards provide support for the effectiveness of even short interventions in training particular leadership styles and behaviors.

However, we are not aware of any servant leadership training intervention that has been evaluated and published in a peer-reviewed journal, despite the implicit and explicit claims made by servant leadership researchers that servant leadership can – and should – be trained in order to achieve higher follower well-being and performance (Greenleaf, 1996; Liden et al., 2014a; Van Dierendonck et al., 2009). This is an important addition to the propositions of servant leadership theory discussed earlier, because even in the case of confirming all other claims regarding the effects of servant leadership, its utility would be restricted if it is not open to development and servant leaders could only be identified through assessment and selection, without any potential for improvement of their skills and abilities.

Within servant leadership literature, few suggestions can be found as to how exactly servant leadership can be trained. Here, the training literature offers important insights regarding the learning outcomes that should be addressed, training activities for achieving these outcomes, and ways of evaluating their effectiveness (Kraiger et al., 1993). In particular, participants should not only learn about what servant leadership is and which behaviors it entails, but also leave the training with a strong motivation to apply such behaviors, as well as the ability to translate their knowledge into practice (ibid.). Evidence from training other leadership styles shows that this can be achieved by using a mixture of different training activities, including lectures, role-plays,

and goal-setting exercises (Barling et al., 1996; Dvir et al., 2002; Peus et al., 2009).

Moreover, the training transfer literature suggests that the effective application of the knowledge and skills obtained in a servant leadership training, just like in any other leadership intervention, is subject to certain boundary conditions (Burke & Hutchins, 2007; Ford & Weissbein, 1997). Again, theorizing and empirical results from servant leadership research offer very limited insights into what these boundary conditions could be, but different models of training transfer suggest that leaders' identification with their team or organization plays an important role in ensuring training effectiveness, which is supported by meta-analytic evidence (Blume et al., 2010; Colquitt et al., 2000).

We conclude that a servant leadership training is needed to substantiate the claims regarding its openness to development, and that theorizing and evidence reported in the training and training transfer literatures provide the principles on the basis of which such an intervention should be designed. Thus, the second research question of this thesis is:

How and under which conditions can servant leadership be trained?

We address our second research question in Study 2 by developing a servant leadership training on the basis of the principles highlighted in this literature review and testing its effects on leader- as well as follower-perceptions of servant leadership in a field-experimental setting with multiple measurement points, obtaining data from student teams working on a business simulation. As mentioned above, field experiments have the advantage of being able to establish causality, in this case the causal effect of training on leader- and follower-perceptions of servant leadership (Grant & Wall, 2009; Shadish et al., 2002). In addition, the time-lagged design of Study 2 will allow us to re-examine the research model of our first study and establish the directionality of the proposed relationships between servant leadership (enhanced by training), follower PsyCap, well-being, and performance, while largely keeping the 'real life' context of a

field study and thus allowing for a certain generalizability of findings (Saunders et al., 2009).

In more detail, measuring servant leadership at two consecutive time points, namely before and after the training intervention, allows for testing whether follower PsyCap, EWB, and performance at time 2 follows from actual changes in servant leadership brought about by training (ibid.). In doing so, the actual time lag should be long enough to ensure that previously recalled information about the servant leadership style of one's supervisor has left the short-term memory, but short enough to allow for an examination of the proposed theoretical relationships without risking the concealment of existing connections (Podsakoff et al., 2003). We therefore considered a gap of three weeks between the two data collection points to be long enough, which is in line with previous time-lagged studies of servant leadership (Neubert et al., 2008; Walumbwa et al. 2010; Washington et al., 2006). In sum, this design allows us to test our third research question, which reads as follows:

Do follower well-being and performance follow from servant leadership enhanced by training?

Thus, in Study 3 we replicate the research model of Study 1 to demonstrate the directionality of the relationships proposed in our research model. In doing so, we use the same sample of student teams, which is appropriate because Study 2 focuses on the antecedents of servant leadership (i.e. training and leader identification), whereas Study 3 focuses on its outcomes (i.e. PsyCap, EWB, and task performance). Before presenting both studies in detail, the following chapter will discuss the research philosophy and methodology used throughout this thesis, as well as other general methodological issues.

CHAPTER 5: GENERAL METHODOLOGY

5.1 CHAPTER SUMMARY

In this chapter, general methodological issues are discussed. In detail, arguments for adopting a critical realist perspective and quantitative methodology are presented after comparing and contrasting the different philosophical paradigms in social sciences in general, and in leadership research in particular. This is followed by a section on the research designs and methodologies used in the studies presented in this thesis. Next, ethical considerations as well as data protection issues are outlined. Finally, an overview of how results are communicated to participants is given. The specific analytical strategies used in the respective studies are not discussed here and can be found in the following chapters.

5.2 RESEARCH PHILOSOPHY

5.2.1 Research Philosophies in Social Science

Choices of methodology, for example between conducting ethnographic research or laboratory experiments, or between using surveys or interviews in one's studies, should follow from the researcher's philosophical stance, which dictates how the phenomenon that is to be investigated is perceived, what can be known about it, and what the aim of one's research should be (Holden & Lynch, 2004). Subsequently, it is necessary to compare the different philosophical perspectives used in social science to develop new knowledge, and to identify the methodological approach that is most in line with the research questions being asked, which is in turn based on the researcher's belief about what the world is.

We start at the level of ontology, which is concerned with the nature of reality; on this level, different philosophical positions can be described as sets of beliefs about what reality or the phenomena being studied really are (Lee & Lings, 2008), and two broad distinctions can be made, namely between objectivism and subjectivism (Saunders, Lewis, & Thornhill, 2011). As

the name suggests, the objectivist position is that there exists an objective reality that is external to the observer (ibid.). For example, the formal policies and practices within an organization would be seen as created by members of the organization, but existing independently of employees adhering to them. The subjectivist or social constructionist perspective, on the other hand, is that reality is constructed through the interaction of social actors, and thus a constantly changing process that is given meaning by those actors (ibid.). An organization's policies and practices would therefore be interpreted differently by each employee, depending on their view of the world, which in turn influences their motivations, attitudes, and behaviors. In other words, according to subjectivism the respective policies and practices do not exist external to the individuals who perceive them, but are produced and continuously changed by them. In sum, an advocate of objectivism would argue that an organization 'has' policies and practices, while a subjectivist would prefer to say that the organization 'is' its policies and practices, or more specifically the meaning given to them (cf. Smircich, 1983).

Following from these different views on reality is the question what we can know about reality, which is the concern of epistemology (Lee & Lings, 2008). On this level, three main positions can be distinguished, namely positivism and realism following from an objectivist ontology, and interpretivism following from a subjectivist ontology. Based on the belief that there is an external and observable social reality, positivists purport that "law-like generalizations similar to those produced by the physical and natural scientists" (Remenyi, Williams, Money, & Swartz, 1998: 32) can be created within the social sciences. This perspective comes with two main assumptions about the research process. Firstly, the researcher is seen as independent of the phenomenon that is being researched, like an external observer whose involvement in the collection of data does not affect him or her, nor the data itself (Saunders et al., 2011). Secondly, positivists argue that research can be conducted in a value-free way, so that choices of what to research and

how to research it can be based on purely objective criteria and not on personal interests and beliefs (Holden & Lynch, 2004). Again using the example of studying organizational policies and practices, this means that a positivist researcher would assume that his or her interactions with members of the organization, be they direct or indirect, do not affect how employees perceive and think about the respective policies and practices, and that the research process, including the questions asked and the results obtained, is free from personal values and could be replicated in exactly the same way in a different organization.

Realism is similar to positivism in that it assumes the existence of objects independent of the observer and uses the same scientific approach to knowledge generation (Lee & Lings, 2008). Two forms of realism can be distinguished, namely direct realism and critical realism. According to direct realism, our senses allow for a direct and accurate experience of the objects around us, as long as we can gather sufficient sense impressions about them. This means that no additional non-physical intermediary, namely a sense impression of the object that exists independently of that impression, is necessary, as we already see the things as they are. Another assumption that comes with this is that things are relatively unchanging, independently from the perspective we are taking to study them, be it on the individual, group, or organizational level (Saunders et al., 2011). What we see is what we get, so observing an employee adhering to a safety procedure directly and accurately shows the effect of health and safety procedures on employee performance.

Critical realism expands on these views by arguing that we do not in fact perceive objects directly, but rather their representations in our sensory experience, which can be inaccurate and deceiving. Thus, a second step in addition to our sensory experience is necessary, namely their interpretation based on the information we have gathered about the social context in which they take place (Bhaskar, 1989). This also implies that viewing the same phenomenon from different

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perspectives, in the way it is done in business research by conducting multilevel studies, can re-
sult in new information that continues to change our knowledge about the studied phenomenon,
which makes the researcher as a social actor a crucial part in the process of knowledge genera-
tion (Saunders et al., 2011). However, this does not mean that there exists no objective reality,
but rather that the extent to which we can accurately perceive this reality in all its complexity de-
pends on our understanding of the social structures and processes that underlie it (Bhaskar,
1989). Subsequently, critical realism would interpret the observation of an employee adhering to
safety procedures in the wider context of the organization and acknowledge that it is also affect-
ed by the observer's knowledge about other social structures within the organization, for exam-
ple leadership that fosters the adherence to safety procedures and thus adds to the positive effects
of the health and safety procedures themselves.

Finally, interpretivism opposes the views of both positivism and realism by arguing that
observers are never independent of that which is being observed, but interact with it and co-
create knowledge that is strongly dependent on context and time, and thus unique and not gener-
alizable (ibid.). Researchers are subsequently seen as making value-laden choices about what to
study and how to study it, depending on their particular interests, values, and also skills (Holden
& Lynch, 2004). As a result, we cannot know anything about a phenomenon that goes beyond
the meaning specific individuals give to it in a specific context and at a specific point in time. To
use the above example of organizational policies and practices, an interpretivist would focus on
an in-depth understanding of what each of the employees understand by a specific policy or prac-
tice, how they perceive its impact on their work, and why they decide to adhere to it or not.

This leads to the level of axiology, where the main question is what researchers are trying
to achieve through their studies (Lee & Lings, 2008). From the positivist as well as realist per-
spective, the aim is "to identify causal explanations and fundamental laws that explain regulari-

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ties in human social behavior" (Holden & Lynch, 2004: 9). This means that researchers subscribing to these paradigms do not only want to understand certain phenomena, but explain and predict their causal effects on other phenomena across situations. In doing so, they follow the hypothetico-deductive method, which generates theories on the basis of initial observations, further explores the theoretical claims in empirical studies to validate the theories, and finally generalizes the obtained results to other settings, which can in turn lead to further refinements of the theories (Lee & Lings, 2008).

This process requires a clear operationalization of the concepts being studied, a reduction of complex problems into its most simple elements, and data from large samples that are as representative of the population of interest as possible. The utilized methodologies are mostly quantitative in nature, including for example large-scale surveys consisting of scales that have been validated on different samples. The obtained data is considered more objective in the sense that it provides observed effects expressed in numbers that lend themselves to statistical analyses. However, qualitative methods like focus groups and interviews can be of great value in this process as well, for example when researchers want to gain insights into the similarities and differences in understanding of a particular concept for which a new scale needs to be developed (Holden & Lynch, 2004).

In contrast, the aim of interpretivism is not to test and predict cause-and-effect relationships, but to gain an in-depth understanding of a particular phenomenon in its uniqueness. Inductive reasoning is at the core of this process, where certain patterns are identified from gathered data and theories are subsequently developed to aid the understanding and communication of findings (Lee & Lings, 2008). Research problems are studied in their full complexity, and no value is seen in the generalizability of findings, which are seen as fully dependent on time and context (Saunders et al., 2011). Consequently, the methods applied are qualitative in nature, in-

cluding unstructured interviews, ethnography, role playing, and action research, and yield more subjective and text-based as opposed to number-based data. Compared to quantitative studies, much smaller samples are used, and concepts are often not determined and clearly defined before the study, but rather emerge and change throughout the study (Holden & Lynch, 2004).

After discussing the differences in ontology, epistemology, and axiology that affect the choice of methodology in social science in general, we will now focus on these elements within leadership research to further inform the choice of a research philosophy guiding this thesis.

5.2.2 Research Philosophies in Leadership Research

Current leadership literature almost exclusively consists of studies which assume the existence of an objective reality (objective ontology), are built on the belief that generalizable and unbiased knowledge about this reality can be created (positivist/realist epistemology), and subsequently try to explain and predict the relationships between leadership and various outcomes using mostly quantitative methodology (Alvesson, 1997). Although many of the proposed outcomes of leadership like motivation or well-being cannot be directly observed, the prevailing perspective is that of critical realism, which is that they can be measured, studied, and integrated into theoretical frameworks, and that meaningful conclusions can be drawn from the results (Lee & Lings, 2008). This assumption differentiates the critical realist from the positivist position, because the former claims that observations are theory-laden, meaning that data is not approached without any expectations (i.e. hypotheses) and can be connected with unobservable, abstract phenomena, while the latter assumes that observers are merely "passive receptors of data" (Lee & Lings, 2008: 30).

The difference to the interpretivist perspective becomes clear in the fact that the vast majority of leadership studies examine the relationship between a specific leadership style and outcomes like follower well-being and performance by testing hypotheses, and aim to generalize the

findings in order to explain and predict the examined relationships across situations and individuals. To achieve this, data is collected from large samples of followers and their leaders using surveys, and from different contexts, for example various cultures or industries, to establish external validity (Shadish et al., 2002). For example, servant leadership has already been examined on the individual, group, and organizational level using data obtained from diverse workplaces such as hair salons, restaurants, software and hardware developing firms, and heavy manufacturing, and has been studied in countries like China, Indonesia, USA, South Africa, India, and Italy (e.g. Bobbio et al., 2012; Chen et al., 2014; Liden et al., 2014b; Mahembe & Engelbrecht, 2013; Mehta & Pillay, 2011; Peterson et al., 2012a; Yoshida et al., 2014). Optimally, such large-scale studies are complemented by an experiment in order to eliminate as many confounding variables as possible and establish internal validity, which reflects the extent to which conclusions about causal relationships between variables are justifiable (Shadish et al., 2002). However, to date no study of servant leadership with an experimental design has been published.

Subsequently, qualitative methods, with their focus on the in-depth understanding of the experience of a small number of individuals gained through interviews are hard to find, and virtually all studies on servant leadership and leadership in general utilize quantitative methods (in relation to well-being, see for example Arnold et al., 2007; Gilbreath & Benson, 2004; Nielsen & Munir, 2009; Nielsen, Randall, Yarker, & Brenner, 2008; Van Dierendonck et al., 2004). Similarly, most studies utilize the hypothetico-deductive method, meaning that initial assumptions, informed by a review of existing literature on servant leadership and drawing on existing theoretical frameworks, guide the development and test of conceptual models and quantitative measures, which are subsequently validated in different settings (e.g. Barbuto & Wheeler, 2006; Ehrhart, 2004; Liden et al., 2008; Van Dierendonck & Nuijten, 2011).

5.3 RESEARCH PHILOSOPHY AND RESEARCH DESIGNS IN THIS THESIS

We believe that there exists a reality that is external to the observer, and even constructs like well-being that cannot be directly observed can be meaningfully measured and studied. As a result, we aim to create generalizable knowledge about the key variables in our studies that is based on established theory and utilizes appropriate methodologies in the process (Bhaskar, 1989). In line with previous leadership research, the focus of this thesis, as reflected in its research questions, is not only on understanding, but on explaining and predicting the proposed relationships between servant leadership and follower well-being and performance on the one hand, and between training and leader- as well as follower-perceptions of servant leadership on the other hand, based on theory-laden expectations (i.e. hypotheses) and subsequent observations (Lee & Lings, 2008; Saunders, Lewis, & Thornhill, 2009). We thus adopt a critical realist perspective throughout this thesis and make use of quantitative methodologies and corresponding research designs to conduct explanatory research.

As a side-note from a more pragmatic perspective, where the research question itself becomes the main determinant of choosing an epistemological position (James, 1975), it has also been suggested to consider the maturity of research involving the studied variables (Anderson, 2009). Most of the concepts included in this study have been researched beyond the exploratory stage, and validated questionnaires are available to measure all constructs, so that the state of prior research with regards to each used construct can be described as mature, making formal hypothesis testing based on quantitative data the most appropriate study method (Edmondson & McManus, 2007).

With regards to the research design of Study 1, we will use the survey method and send out questionnaires to both leaders and followers without directly or indirectly manipulating any of the studied variables. These surveys enable us to collect relatively large amounts of data from a

much bigger sample than would be possible when using other methods within the given timeframe. In addition, the obtained data is standardized and based on scales that have been validated in prior studies, which makes our results easily comparable with other findings, as well as easy to understand and explain (Saunders et al., 2011). In sum, using the survey method, natural variations in servant leadership can be measured and statistically related to other variables like performance and well-being to create a model that enables us to test our first research question of how and under which conditions servant leadership affects follower performance and well-being, and to generalize the findings to other organizations. In other words, the research design of our first study will ensure the external validity of the research model (ibid.).

Due to time constraints and related concerns about high drop-out rates, which are not uncommon in business research with response rates estimated to be as low as 11% for online questionnaires (De Leeuw, 2005; Saunders et al., 2011), and might subsequently threaten the timely analysis of data by not meeting the sample size requirements associated with the used analysis techniques (Scherbaum & Ferreter, 2009), we decided against conducting a longitudinal study and instead distribute only one questionnaire to leaders and followers, respectively. This makes the design of Study 1 cross-sectional in nature and thus does not allow for making any statements regarding causality or directionality of the observed relationships (Antonakis, Bendahan, Jacquart, & Lalive, 2010). The resulting low internal validity is a problem that applies to most leadership studies, including those examining servant leadership, of which to date only four have used a longitudinal design (Neubert et al., 2008; Peterson et al., 2012a; Walumbwa et al., 2010a; Washington et al., 2006). Thus, we decided to replicate our research model in a field experiment.

In general, the aim of an experiment is to establish causal links between the studied variables (Keppel, 1991). A classic experiment is characterized by participants being randomly allocated to two groups, either the experimental group, in which a variable of interest is manipulated

in some way, or the control group, which receives no treatment or a placebo intervention that should not have any effect on the dependent variable. By following this procedure, one tries to ensure that any external variables influence both groups in exactly the same way, and observed differences between the groups on the dependent variable at the end of data collection can be attributed to the manipulation (Saunders et al., 2011). We follow the same procedure by randomly allocating leaders to a training or control group and measuring all variables of interest before and after the delivery of a servant leadership training to the training group, again using surveys. However, we further expand on this classic design by also offering the training to the control group after the second data collection point, in order to ensure fairness while still making use of the advantages of an experimental design; this is called a switching replication design (Reis & Judd, 2000).

The main weakness of most experiments is that they are low in external validity due to small or atypical samples and artificial conditions that bear only limited resemblance to real-life situations (Saunders et al., 2011). One way to address this weakness is to conduct a field experiment that keeps a relatively realistic context, which is what we do in Studies 2 and 3. All participants take part in the experiment within the wider context of a university module during which they play a business simulation in small teams. All teams have roughly the same size of four to five members, each member adopts at least one out of five different roles with specific responsibilities, namely managing director, financial director, marketing director, HR director, or operations director, and each team is faced with the same simulation challenges over the course of eight weeks. The managing directors lead their teams, and are subsequently the ones invited to participate in the training. This combines a relatively structured and controlled context with realistic tasks and a longer time frame, resulting not only in good internal validity, but also higher external validity than a classic laboratory experiment (Reis & Judd, 2000). In fact, the majority

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of leadership trainings reviewed in Chapter 4 have been evaluated using field experiments (e.g. Barling et al., 1996; Dvir et al., 2002; Peus et al., 2009).

As a result, the design of Study 2 allows us to establish causal links between the training intervention and servant leadership as perceived by leaders and followers and answer our second research question of how and under which conditions servant leadership can be trained. In addition, the time-lagged design with measurement points before and after the intervention helps to address the weakness of Study 1 by enabling us to replicate our research model in Study 3 in order to test our third research question of whether follower well-being and performance follow from servant leadership enhanced by training. While we examine the moderating role of leader identification on the relationship between training and follower perceptions of servant leadership, there might be other boundary conditions like infrequent team meetings, low peer-support, time pressure, and other stressors that undermine the training's effects on follower PsyCap, EWB, and performance (Blume et al., 2010; Burke & Hutchins, 2007). However, the time-lagged design will allow us to obtain insights regarding the directionality of the proposed relationships, even if the intervention itself is not effective in changing these outcomes (Shadish et al., 2002), because it allows us to examine the effects of actual changes in servant leadership, as perceived by followers, on their PsyCap, and in turn on their EWB and performance.

Another challenge that applies to self-report surveys in general, and therefore potentially to all our studies, is common method variance, which is defined as any variance that is "attributable to the measurement method rather than the constructs the measures represent" (Podsakoff et al., 2003: 879). In cases where one group of participants is asked to rate all study variables in a single survey, systematic measurement error is likely to occur, which results in inflated estimates of the relationships between the studied variables (Lindell & Whitney, 2001). Several sources of common method variance have been discussed in the literature, namely social desirability, the

consistency motif, and participant mood. First, social desirability describes participants' motivation to adhere to cultural or organizational norms and values in order to be perceived positively (Ganster, Hennessey, & Luthans, 1983). This bias might subsequently lead participants to rate all variables in a survey not in line with their actual experience, but based on others' expectations as perceived by them, resulting in artificially high correlations between variables (Moorman & Podsakoff, 1992). However, the risk of social desirability confounding study results has been shown to be relatively low, provided that scales have been designed rigorously and participants respond to the survey alone, anonymously, and optimally using online questionnaires (Hinkin, 1998; Joinson, 1999; Richman, Kiesler, Weisband, & Drasgow, 1999), which was the case for most participants in the studies presented in this thesis. Thus, we believe that social desirability bias is not a major concern.

The second source of common method variance is the consistency motif, which reflects participants' desire to provide responses that are consistent across scales, especially if these scales measure variables that are perceived as being similar in content (Podsakoff & Organ, 1986). Finally, participants' mood at the time of completing the survey may affect their responses (ibid.). Both the consistency motif and mood might subsequently result in mostly positive or negative responses across all scales of the survey, either because employees relate to different aspects of the organization and their work in a similar way or because they are influenced by transitory affective experiences. Consequently, we take several steps to reduce the negative impact of these common method sources on our results. To start with, we mix the order of outcome, predictor, and mediator variables throughout our surveys to decrease the likelihood that participants will link the variables in a logic order from predictor over mediating variables to outcomes. In addition, we add the scales measuring our moderator and control variables as filler scales inbetween to reduce the proximity between predictors and outcomes (Lindell & Whitney, 2001).

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Most importantly, however, we obtain data on follower performance and leader identification from a different source, namely the leader, and furthermore use a second data collection point in our field experiment to temporally separate the self-rating surveys. In this way, we aim to reduce common source and method bias through our research design (Podsakoff et al., 2003).

As mentioned earlier, it also has to be acknowledged that adding qualitative methods like interviews or focus groups might contribute to the explanatory power of both studies by shedding light on how employees interpret certain constructs for which no agreed-on definition exists. The above reviews of servant leadership and well-being have shown how many different conceptualizations exist for each of them, so it might very well be that individuals have quite different views on what constitutes a servant leader or when they feel well. Here, an inductive process that starts with in-depth interviews of participants to develop a more comprehensive understanding of how the variables of interest are viewed in the particular sample could be used. This does not contradict the critical realist worldview, as the underlying aim would still be to generalize the findings across studies. However, new conceptualizations resulting from such a process might negatively affect the comparability of findings across studies, which is one of our main aims. In addition, most of the operationalizations of constructs used in the studies have been replicated across a wide range of organizations and cultures, so that there are little doubts about their applicability to the particular contexts of the studies presented in this thesis.

In sum, we aim to create generalizable knowledge about the effects of servant leadership on follower well-being and performance and its openness to development by combining the strengths of a field survey and a field experiment to establish both the external and internal validity of our research model. In the following, we will give an overview of the sampling method and participants, and discuss the general data analysis technique used in this thesis.

5.4 DATA COLLECTION AND ANALYSIS

5.4.1 Sampling Method

Two quantitative sampling methods can be distinguished, namely probability sampling and non-probability sampling. The former is considered to be the 'gold standard' of quantitative sampling, because it describes the random selection of participants from all members of the population to which results are going to be generalized (Lee & Lings, 2008). At the same time, obtaining a perfect probability sample is either highly unrealistic or of limited value in most cases. If the aim is to generalize findings to a large sample, for example all organizations operating in the manufacturing industry, a perfect list of all members of a population is basically impossible to obtain. This also means that if a researcher can indeed generate a perfect list of a certain population, it is very likely a small and specific population and the value of generalization is rather limited (ibid.). Furthermore, this discussion of probability sampling assumes that the randomly selected participants are actually willing to participate in the research project, which is not necessarily the case in business and management research.

Thus, most research within social science is based on non-probability samples, and in particular on convenience samples, which means that participants are selected based on ease of access as opposed to random selection (Bryman, 2012). While the convenience sampling approach has clear advantages in terms of efficiency and simplicity, the generalizability of results obtained from such a sample can be questionable. Therefore, it is important to firstly ensure that the chosen population from which a sample is to be drawn can provide meaningful information about the research question being tested (Lee & Lings, 2008). Taking the first research question of this thesis as an example, a population of long-term unemployed or self-employed sole traders would not be appropriate to test the effects of servant leadership on follower performance and well-being, whereas data obtained from employees working in teams and reporting to a direct supervi-

sor is much more useful for testing the respective hypotheses. Next, it needs to be determined whether the actual sample systematically differs from the population it is drawn from (ibid.). For example, if the team members who participate in the study are mostly female employees led by male leaders, whereas the population is characterized by a roughly equal distribution of male and female employees and leaders, issues of gender dissimilarity might have a strong effect on the results and considerably reduce generalizability.

In this context, a useful distinction with regards to generalization has been made by Calder, Phillips, and Tybout (1982), who differentiate between the generalization of *effects* in the sense of applying one's findings to a specific population, and the generalization of *theory* with the aim of testing the validity of a theoretical model across different contexts. While the authors argue that trustworthy effects generalization is restricted to representative samples of the target population, theory generalization is said to be possible even with non-representative convenience samples, as long as the sample falls within the theory's domain and does not differ from the theoretically derived population on characteristics that may influence the variables of interest (ibid.).

As the aims of this thesis are to explain and predict how and under which conditions servant leadership influences follower performance and well-being on the basis of SDT, as well as how and under which conditions servant leadership can be trained based on theoretical models of training and training transfer, we are more interested in theory generalization. Subsequently, this means that our samples do not necessarily have to be representative of a theoretically derived population that can be characterized as 'leaders and their followers who work in teams within real-life organizations'. Instead we can test our research questions using a sample of students without expecting any negative effects on the generalizability of theoretical conclusions, as long as the students work together in teams, have a designated leader, and have to perform realistic business tasks. While it is still possible to criticize the generalizability of effects, for example to older

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and more experienced populations, such a student sample is certainly within the domain of the used theories (e.g. Antonakis et al., 2011; Ryan & Deci, 2000) and can provide an appropriate and trustworthy theory test.

5.4.2 Participants

Both samples were obtained using a non-probability convenience sampling approach. Starting with the sample of Study 1, we contacted a total of 140 organizations across a range of sectors and industries, of which six organizations agreed to participate. From these, we obtained usable data from 90 employees and their leaders, who were working together in 33 teams. All teams were working together as 'real teams', which means that they shared common objectives and tasks, worked interdependently, had clear roles within their teams, were recognized by others as teams, and communicated with each other on a regular basis (West & Lyubovnikova, 2012). As the sample spanned a variety of industries and did not show any obvious anomalies in terms of participants' demographics or other characteristics that might affect the results according to the used theories, we believe that this sample allows for testing our first research question and the generalization of theoretical conclusions, and to some extent also for effects generalization to the wider population of organizational members working in teams with a clear leader.

As outlined earlier, participants of Study 2 and Study 3 were undergraduate students partaking in an eight-week-long business simulation that formed part of a longer module spanning over two terms, to which access was gained through the module leader. During the simulation, students were organized in teams that had a designated leader and worked on realistic business tasks revolving around the expansion of a telecommunications company into different markets, which is why we believe that this sample is appropriate for examining our research questions and the generalization of theory (Calder et al., 1982). In addition, the team structures show great similarities with project teams in terms of working interdependently on a common task over a lim-

ited period of time (Ellis et al., 2003), so that there should be some generalizability of effects to this specific population. Specifically, we obtained 74 observations from 37 leaders, as well as 155 observations from 91 individuals working in 36 teams to test our second research question. Due to missing data, the same sample was reduced to 58 individuals belonging to 32 teams when testing our third research question.

5.4.3 Data Analysis Technique

When examining the structure of data sources in organizational research and other fields, one has to acknowledge that most of them are organized in a hierarchical way; employees and leaders are nested within teams or departments, which in turn are grouped within organizations with particular cultures, policies, and practices that are again part of an overarching structure, like specific industries or countries (Klein & Kozlowski, 2000; Kreft & De Leeuw, 1998). Subsequently, the proposed relationships between variables might differ between the respective units of analysis; for example, servant leadership might be effective in one team or organization, but not in another due to differences in team climates or organizational culture. When using general linear modeling, these differences cannot be taken into account, as the underlying assumption of general linear models is that observations are independent of each other (Aiken & West, 1991; Montgomery, Peck, & Vining, 2007). Instead, unit membership creates interdependence between the observations, and potentially allows for higher-level or cross-level effects (Field, 2009), which requires multilevel modeling. As discussed earlier, servant leadership is generally conceptualized as a group-level variable due to the interdependence of followers rating the same leader (Liden et al., 2008), whereas variables like well-being and performance are mostly examined on the level of the individual. Subsequently, most studies on servant leadership use a multilevel framework to test their hypotheses (e.g. Chen et al., 2014; Hunter et al., 2013; Liden et al., 2014b; Walumbwa et al., 2010a). This is also appropriate for the samples studied in this thesis,

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which is why we use multilevel analysis in all studies. In order to ensure that the statistical power of the sample is sufficient for performing multilevel analyses, a minimum sample size of 30 units on the highest level of analysis has been suggested (Maas & Hox, 2005; Scherbaum & Ferreter, 2009; Snijders, 2005), which subsequently became the goal for our data collection.

The sample structure of Study 1, with individuals nested within teams, which are in turn part of six different organizations, clearly shows that the assumption of independence is violated when asking such team members to rate their leader, the team climate, or their perceptions of organizational policies and practices, and calls for multilevel analysis. Consisting of data from only six organizations, but 33 teams, the group-level forms the highest possible level of analysis for this particular sample (Maas & Hox, 2005; Scherbaum & Ferreter, 2009). The same is true for the samples used in Study 2 and Study 3, both of which show a nested data structure with observations nested within individuals and teams on the one hand, and individuals nested in teams on the other hand. This indicates the appropriateness of multilevel analysis, and both samples meet the minimum requirement of 30 units on the highest level of analysis (Maas & Hox, 2005; Scherbaum & Ferreter, 2009).

5.5   ETHICAL CONSIDERATIONS AND DATA PROTECTION

5.5.1 General Procedure

The data collection procedures for all studies presented in this thesis followed the APA ethical principles of psychologists and code of conduct (American Psychological Association, 2010). In addition, all studies presented in this thesis were approved by the Research Ethics Committee at Aston Business School (reference number 32:10/13). Participation was voluntary and participants were informed on the first page of the survey that they could drop out at any point without indicating a reason, and without any negative effects on their employment or studies. Alongside this information, the study background was outlined, and the advantages of partic-

ipating for individuals and their organizations were highlighted. None of the participants received any monetary or non-monetary compensation for participation, and no means of deception were used throughout any of the studies. To further ensure beneficence and non-malfeasance, the studies are not only based on sound past research findings and models, but were also coordinated with Human Resource managers and CEOs of the participating companies, of which we informed the participants.

After giving their informed consent, leaders and their followers in all studies were asked to complete an online survey, or in the case of one organization in Study 1 a paper-pencil survey. All data were anonymized; in detail, no names, departments, exact dates of birth or comparable personal data that would allow tracking back single respondents were collected. In order to match leader and follower surveys before data analysis, all followers in Study 1 were asked to create a four-digit code consisting of the first two letters of their forename, and the first two letters of their last name. Their leader indicated the same code when rating follower performance. The principal investigator did not have access to a list of employee names and the code was deleted from the data set after matching the surveys. In addition, no other persons had access to the data. In this way, anonymity of all participants was ensured. In Study 2 and Study 3, students indicated their six-digit candidate numbers that are also used for keeping anonymity during the marking of assignments. Followers and their leaders were subsequently matched on the basis of candidate numbers in conjunction with an Excel sheet provided by the university that gave an overview of the different groups, so that each team could be allocated to the respective tutor.

After data analysis, all companies that participated in Study 1 received a detailed report, which outlines the study results in an understandable way, free from jargon, technical terms, and complex models. In addition, this report includes advice on how the organization and its leaders can improve follower well-being and performance based on the insights gained through this re-

search. The report was sent to the Human Resource managers or CEOs of the respective organization, with the request to further distribute it to employees. All student teams that participated in Study 2/Study 3 were sent a similar report that compared their scores on a range of examined variables with the average scores across all participating teams. Students could use this report to tailor personal development initiatives, and to complete a reflective essay that formed part of the overall module assessment. In line with the code of conduct published by the Research Councils UK (2009), the obtained data from all studies will be kept for up to ten years, and participants were informed about this. After this time, all data will be destroyed.

5.5.2 Risk of Coercion through Gatekeepers

Although all participants were informed that their participation is voluntary and withdrawal would not have any negative effects on their employment or academic assessment, there was one aspect of the data collection procedure that could have resulted in feelings of coercion amongst participants, namely the use of gatekeepers. In Study 1, employees did not receive the online survey link directly from the principal investigator, but instead leaders were asked to circulate the link to the employee survey within their teams. On the one hand, this procedure made the data collection process easier and more efficient, and on the other hand it was an integral part of ensuring anonymity, because this way the principal investigator did not have access to full employee names that would have allowed for de-coding the personal identifiers created by the participants, and thus for tracking back single responses. However, in this case the gatekeepers held a position of authority, which might have resulted in feelings of obligation on the part of the employees when they received the invitation to participate in the study and subsequent reminders directly from their leader (Miller & Bell, 2002). We aimed to minimize this risk by providing the leaders with standardized messages, and by clearly communicating to the employees that their leaders had no means of finding out who responded to the survey and who did not. Similarly, in

Study 2/Study 3 students' tutors were involved as gatekeepers and provided all members of their tutorial groups with links to the online surveys. In addition, they were asked to remind the students of training dates and deadlines for completing the surveys. Again, the relationship between the gatekeepers and the participants has to be taken into account, and might have resulted in feelings of coercion (Crowhurst & Kennedy-Macfoy, 2013). To minimize this risk, the principal investigator visited all participating tutorial groups before the beginning of data collection and introduced the studies as part of an independent PhD research project in which none of the gatekeepers was directly involved. In addition, the participants were specifically informed that neither their tutors nor the module leader would receive any information about their participation.

5.5.3 Ensuring Equal Opportunities

To ensure that all leaders participating in Study 2/Study 3 had access to the servant leadership training, we employed a switching replications design (Reis & Judd, 2000), which allowed leaders in the control group to attend the training after the second data collection phase. This is particular important in the given business school context, as students were preparing for their placement year, during which many of them take on first leadership responsibilities. Due to this fact we also decided not to offer an ineffective training to members of the control group, but rather apply a waitlist control group design. Furthermore, attendance and performance in the training, as well as the completion of surveys did not have any effect on the assessment of student performance on the module, which was clearly communicated to all participants before they gave their informed consent. As mentioned above, students were nevertheless allowed to use their reflections on the workshop and subsequent changes in leader behavior and team performance when writing a reflective assignment that formed part of the overall module assessment. Thus, participation in Study 2/Study 3 had a clear educational benefit for both leaders and followers independent of the research questions being examined.

CHAPTER 6: HOW AND UNDER WHICH CONDITIONS DOES SERVANT LEADERSHIP RELATE TO FOLLOWER WELL-BEING AND PERFORMANCE? STUDY 1

6.1 CHAPTER SUMMARY

Addressing the first research question of this thesis, in the following chapter a conceptual model is developed that aims to explain how and under which conditions servant leadership is positively related to follower well-being and performance. Based on SDT (Deci & Ryan, 1985; Gagné & Deci, 2005), followers' positive psychological capital (Luthans et al., 2007c) is introduced as a mediating variable through which servant leadership is connected with the discussed outcomes, and policies and practices for health promotion as well as team development climate are taken into account as boundary conditions affecting the proposed relationships. After presenting the conceptual model and developing the respective hypotheses, the methods and results of this study are described. The study setting and sample characteristics are discussed first, followed by the study procedure, the used measures, a section on data aggregation, and the analytical strategy. Finally, the findings of this first study are presented and discussed, and theoretical as well as practical implications are outlined, which establish a link to the development and examination of our second and third research questions guiding Study 2 and Study 3.

6.2 THEORY AND HYPOTHESES

The conceptual model of this study is depicted in Figure 6.1. In the following sections, each hypothesis will be developed and described in more detail, drawing on SDT, theorizing in the servant leadership literature (Liden et al., 2014a; Panaccio et al., 2015; Van Dierendonck, 2011), as well as empirical findings.

FIGURE 6.1
Conceptual Model for Study 1

Group level

Practices & policies for health promotion

Development climate

Servant leadership

- -

Individual level

PsyCap

Performance

Eudaimonic well-being
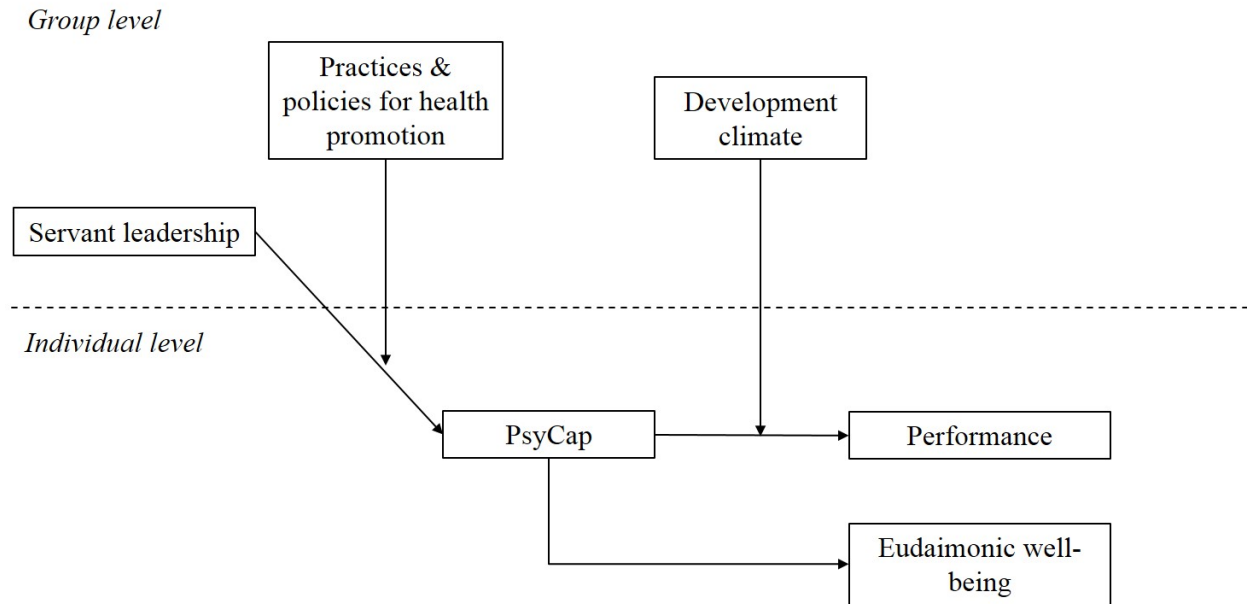
6.2.1 Relationship With Psychological Capital: The Influence of Policies and Practices

As can be seen in the above model, servant leadership is conceptualized as a group-level construct, taking into account that servant leaders assume responsibility for the performance and well-being of more than one employee at a given time (Liden et al., 2008). In line with previous research, we use the direct consensus model and aggregate individual follower ratings of the same leader (Chan, 1998). Servant leadership can therefore be defined as the agreement between followers of a servant leader with regards to the extent to which this leader shows a specific focus on their needs and helps them grow, develop, and prosper (Mayer et al., 2008).

Based on SDT (Deci et al., 1989; Gagné & Vansteenkiste, 2013), we subsequently propose that servant leadership positively relates to followers' individual PsyCap (Luthans et al., 2007c), which in turn positively relates to individual well-being and performance. According to SDT, higher well-being and performance follow from the satisfaction of the three basic needs of autonomy, competence, and relatedness, and from a state of autonomous as opposed to controlled

motivation when working on tasks (Deci et al., 1989; Ryan & Deci, 2000; Ryan et al., 2008). As servant leaders create supportive contexts that give followers the freedom to decide when and how to complete tasks and how to overcome problems by showing leader behaviors like putting subordinates first, empowering, and helping subordinates grow and succeed, they are proposed to satisfy the needs for autonomy and competence (Liden et al., 2014a; Panaccio et al., 2015). In addition, servant leaders relate with their followers on a more informal level, make them feel appreciated as persons, not only as workers (emotional healing), and provide opportunities for participation in shared activities (creating value for the community), which is said to satisfy the need for relatedness (Liden et al., 2014a; Panaccio et al., 2015). This positive relationship between servant leadership and follower need satisfaction has already been confirmed empirically (Mayer et al., 2008). Furthermore, servant leaders use their conceptual skills to allocate work tasks to followers in a way that supports their developmental needs (Liden et al., 2008), which together with basic need satisfaction is likely to result in a state of autonomous motivation characterized by congruence between task behavior and personal values and goals (Gagné & Deci, 2005).

We propose that need satisfaction and higher autonomous motivation manifest in increased PsyCap, which is defined as "an individual's positive psychological state of development" (Luthans et al., 2007c: 3), and has been identified as a direct indicator of followers' personal growth. It consists of four facets, namely efficacy, hope, optimism, and resilience. Efficacy is identical with the construct of self-efficacy as introduced by Bandura (1977a) and describes one's confidence to be able to mobilize the resources needed to successfully perform challenging tasks. Hope encompasses perseverance when working towards a goal and the belief that one can adapt and modify pathways that lead towards its achievement (Snyder, 2000, 2002). Optimism is referred to as a positive attribution about succeeding and being able to achieve one's goals now and in the future (Carver & Scheier, 2005; Seligman, 2011). Finally, resilience reflects the belief

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that one is able to quickly recover from stressful events (Block & Kremen, 1996). Taken together, PsyCap reflects an individual's confidence and perceived ability to seek out challenging tasks and persevere in working towards the achievement of personally meaningful goals (Avey et al., 2011). This preference for relatively complex and/or important tasks that require persistence and determination has been found to be the outcome of autonomous motivation in studies of SDT, whereas controlled motivation resulted in a preference for simple, easy, and predictable activities (Koestner & Losier, 2002; Pittman et al., 1982). Empirically, evidence is available that shows the positive effects of servant leadership on followers' feelings of psychological empowerment (Asag-Gau & Van Dierendonck, 2011; Schneider & George, 2011), optimism (Kool & Van Dierendonck, 2012), and self-efficacy (Walumbwa et al., 2010a), all of which include or are facets of the multidimensional construct of PsyCap (Luthans et al., 2007a).

However, SDT further suggests that leaders' focus on follower needs and autonomous motivation might not be enough to ensure positive changes in outcomes like PsyCap, well-being, and performance; what is also needed is a supportive work climate that fosters individual self-determination (Deci et al., 1989). We therefore propose that the connection between servant leadership and follower PsyCap is not a straightforward one under all circumstances, and introduce organizational policies and practices for health promotion as a boundary condition of the relationship between servant leadership and PsyCap. An organization's climate is said to be reflected in its policies and practices (Hofstede, 2005; Schneider et al., 2012). These policies and practices are in turn proposed to be key factors influencing the attitudes and behaviors of employees, as they convey information about what is expected and most likely to be rewarded in an organization, and about the extent to which these expectations are actually transferred into actions (Reichers & Schneider, 1990; Rentsch, 1990). In addition, policies and practices, just like leaders, regulate the access of employees to specific resources, which in turn allow them to grow

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and develop (cf. Hobfoll, 2001). Following from this is that a combination of organizational policies and practices that foster need satisfaction and autonomous motivation should amplify the proposed effects of servant leadership on PsyCap (Deci et al., 1989).

Such a combination is offered by the PATH model (Grawitch et al., 2006), whose facets of employee involvement and employee growth can be matched with the need for autonomy, while employee recognition can be linked with the need for competence, whereas work-life balance as well as health and safety practices foster social relations and thus the need for relatedness (Grawitch et al., 2006; Grawitch et al., 2007). Furthermore, employee involvement increases autonomous motivation by allowing employees to contribute personally meaningful goals (Grawitch et al., 2009). Overall, these policies and practices for health promotion have been shown to result in higher organizational commitment, employee motivation and morale, productivity, organizational effectiveness, and service/product quality, while also having positive effects on variables belonging to the well-being domain, like higher job satisfaction, less stress and absenteeism, and fewer physical health risks (Grawitch et al., 2006). Although using different structures to organize the practices and policies employed by companies, other reviews and studies basically outline the same categories (Sauter & Murphy, 2004; Sparks, Faragher, & Cooper, 2001; Wilson, Dejoy, Vandenberg, Richardson, & McGrath, 2004; Zanko & Dawson, 2011).

We therefore hypothesize that servant leadership only positively relates to team members' individual PsyCap, when the team perceives that the organizational policies and practices are in line with servant leadership in putting an emphasis on personal growth and development. This supports the efforts of servant leaders to enable and empower their followers by providing additional opportunities for need satisfaction and encouraging autonomously motivated behavior, and should thus manifest in higher PsyCap (Gagné & Deci, 2005). When these policies and practices for health promotion are not in place, we expect servant leadership to negatively relate to follow-

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er PsyCap, because leader efforts to increase follower PsyCap are undermined by an unsupportive organizational context that communicates through its policies and practices that self-determined behaviors are not accepted and rewarded, resulting in less need satisfaction and autonomous motivation manifested in low PsyCap (ibid.).

In line with this argumentation, some theoretical discussions drawing on two cultural dimensions identified in the GLOBE studies (House et al., 2004), namely humane orientation and power distance, are available in the existing servant leadership literature, which suggest that servant leadership might be less effective in cultures – global or organizational – that are characterized by low caring, friendship, and generosity, and by centralized decision making (Van Dierendonck, 2011; Winston & Ryan, 2008), and thus put no emphasis on employee needs and self-determination. Empirically, this proposition has not been examined yet, but some initial findings by Meuser et al. (2011) suggest that servant leadership is only effective when followers report a high desire for a servant leader, that is when they perceive that the respective leadership behaviors are likely to be accepted and thus effective in helping their personal development. Thus, the first hypothesis reads:

> *Hypothesis 1: Servant leadership positively relates to follower PsyCap, when policies and practices for health promotion are high, but negatively relates to PsyCap, when these policies and practices are low.*

6.2.2 Relationship with Follower Well-being

Next, we hypothesize on the basis of SDT that PsyCap will be positively related to follower well-being. As outlined previously, we adopt the eudaimonic view on well-being, which argues that active engagement in multiple areas of one's life, including work, through investing as much of oneself as possible into projects that are perceived as meaningful and fulfilling, is essential for achieving a state of well-being that goes beyond momentary pleasures (Ryan & Deci,

2001; Ryff & Singer, 1998). Eudaimonic well-being (EWB) is defined as "the striving for perfection that represents the realization of one's true potential" (Ryff, 1995: 100), and its dimensions are *autonomy*, *environmental mastery*, *personal growth*, *positive relations with others*, *purpose in life*, and *self-acceptance*. This conceptualization is fully in line with the understanding of well-being within SDT, where it is seen as the process of living well as opposed to simply feeling good (Gagné & Vansteenkiste, 2013; Ryan et al., 2008).

Past studies have related PsyCap to positive affect, mental health, and job satisfaction, and therefore only to indicators of hedonic well-being. In doing so, researchers have mostly used a conservation of resources (COR) perspective on stress at work (Hobfoll, 1989), arguing that PsyCap functions as a valuable internal resource that helps individuals to cope with work-related stressors and therefore allows them to experience more positive than negative affect and higher job satisfaction (Avey, Luthans, & Jensen, 2009; Avey et al., 2010a). However, our earlier critique of COR has shown that this offers only limited insight into how challenging situations at work help individuals to grow, and thus to achieve higher EWB. We therefore build our argument on the basis of SDT and expect that the relationship between PsyCap and EWB will also be a positive one. According to SDT, the pursuit of one's intrinsic aspirations, which include goals related to personal growth, affiliation, and making a contribution to one's community, as well as the actual achievement of such intrinsic aspirations results in higher EWB than following and achieving extrinsic aspirations like wealth, fame, and image, because this process again satisfies the three basic needs of autonomy, competence, and relatedness (Grouzet et al., 2005; Huta, 2012). Empirically, the findings of several studies support these claims (Kasser & Ryan, 1993, 1996, 2001; Sheldon, Ryan, Deci, & Kasser, 2004). This fits well with propositions made in the PsyCap literature, where personal goals are framed in an intrinsic way as set by the individuals themselves and contributing to their personal development, their connections with others, and the

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organization as a whole (Luthans et al., 2007b). PsyCap is in turn linked to the achievement of these goals by arguing that its different facets work together to initiate and maintain a process of adaptation, positive attribution, flexibility, and promotion (Avey et al., 2010a), which should subsequently increase individuals' EWB. In other words, PsyCap can be seen as the combination of motivational propensities that link one's intrinsic aspirations with the actual achievement of these aspirations.

Empirical findings regarding the antecedents of the facets of EWB provide further support for the notion that PsyCap increases EWB. An optimistic attitude towards one's work, together with feelings of being in control (hope) and being efficacious have been shown to predict personal growth at work, particularly in situations of organizational change (Wanberg & Banas, 2000). Similarly, organization-based self-esteem has been found to result from self-efficacy (Gardner & Pierce, 1998) and a high need for achievement or optimism (Tang & Ibrahim, 1998). Finally, PsyCap itself has been shown to be positively related to affective commitment, which can be seen to reflect a sense of purpose at work (Meyer & Allen, 1991). In sum, we therefore hypothesize:

Hypothesis 2: PsyCap positively relates to eudaimonic well-being.

Drawing on SDT, we also expect the interaction of servant leadership and policies and practices for health promotion to be positively related to follower well-being via follower PsyCap. Helping followers to realize their full potential is one of the main objectives of servant leadership (Van Dierendonck, 2011). Servant leadership that is positively related to follower PsyCap as a manifestation of the satisfaction of follower needs and increased autonomous motivation in an organizational context that fosters personal growth and development, is in turn expected to positively relate to follower eudaimonic well-being, because the more individuals build their PsyCap through interacting with a servant leader in an environment that values the leader's

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attitudes and behavior, the more they will be able and willing to connect work tasks with their in-trinsic aspirations and personal values and invest the needed effort, increasing the likelihood of actually achieving their aspirations and thus resulting in higher EWB (Avey et al., 2010a; Ryan et al., 2008). Servant leadership should be negatively related to EWB via PsyCap, when policies and practices for health promotion are low, because an unsupportive organizational context un-dermines the efforts of a servant leader by communicating to employees that self-determined be-haviors are not valued and rewarded (Deci et al., 1989). This results in a negative relationship with PsyCap and consequently in a motivational and behavioral direction away from intrinsic as-pirations and personal growth, which negatively relates to individual EWB (Kasser & Ryan, 2001; Sheldon et al., 2004). We therefore hypothesize:

Hypothesis 3: Follower PsyCap mediates the relationship of the interaction of servant leadership and policies and practices for health promotion on eudaimonic well-being. When policies and practices for health promotion are high, servant leadership positively relates to eudaimonic well-being via PsyCap, but when they are low, servant leadership negatively relates to eudaimonic well-being via PsyCap.

6.2.3 Relationship with Follower Performance: The Role of Team Development Climate

Again based on SDT, we further propose that changes in follower PsyCap will affect its re-lationship with individual performance as rated by their leaders, but that the strength and direc-tion of this relationship will be contingent on the context employees are working in, and in par-ticular on their team climate (Deci et al., 1989). As mentioned above, past research on SDT has linked autonomous motivation with a preference for relatively complex tasks and/or tasks that require persistence and determination (Koestner & Losier, 2002; Pittman et al., 1982). This has in turn been connected with increased performance, because individuals with such a preference are willing to invest more effort and feel more able and motivated to master tasks that offer op-

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portunities for individual growth or are important to them for a different reason (Amabile, 1979; Grolnick & Ryan, 1987; Sheldon & Elliot, 1998). This can again be linked with arguments regarding the relationship between PsyCap and performance. In detail, Luthans et al. (2007a: 550) contend that "each facet [of PsyCap] includes both unique and common cognitive and motivational processes that enable performance". A heightened sense of personal efficacy in relation to a task and a positive attribution of events, together with the ability to flexibly adapt one's approach to solving problems and resilience in the face of obstacles will increase the likelihood of successfully accomplishing one's work, resulting in more favorable ratings of performance by the leader (Luthans et al., 2007c). In short, both SDT and the PsyCap literature propose that employees with higher PsyCap will try harder to succeed, which will make them perform better (Campbell, McCloy, Oppler, & Sager, 1993). Empirically, the effect of PsyCap on employee performance is the most studied relationship in the PsyCap literature, and has been summarized in a meta-analysis by Avey et al. (2011), showing a positive relationship of .26.

However, we have reason to believe that the strength and direction of the relationship between PsyCap and performance again depends on the context in which employees work on their tasks. SDT is very clear in its contention that autonomy-supportive work environments play an important role in achieving high performance and well-being (Gagné & Deci, 2005), which has already led us to include organizational policies and practices for health promotion as a moderating variable representing the wider organizational context when examining the relationship between servant leadership and PsyCap, and by extension between servant leadership and EWB via PsyCap. However, team climates often provide faster, more direct, and more frequent information about attitudes and behaviors that are likely to be accepted and rewarded (Anderson & West, 1998; West, 2012), which we believe is especially important for translating the motivational propensities represented by high PsyCap into actual task performance. We therefore hy-

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pothesize that a team climate that values self-determination and personal development at work (Van Dam et al., 2008) moderates the relationship between PsyCap and performance.

We further propose that such a team development climate is more relevant when examining the relationship between PsyCap and performance, and less so when looking at EWB as an outcome. In detail, employees might have to balance their individual needs and aspirations with the demands of their job when performing a task, which might lead them to utilize their PsyCap elsewhere and actually reduce their performance when the team climate does not encourage and value personal development (Newman et al., 2014). In contrast, a strong team development climate should create a context in which individual development needs and job demands can be matched more easily and task performance is increased, because different ways of approaching tasks through learning new skills is encouraged. This potential mismatch between individual needs and job demands does not play a role when examining the relationship between PsyCap and EWB, because this relationship will be positive as a direct result of applying one's PsyCap towards the achievement of personally meaningful goals, no matter if job demands are met at the same time or not. In other words, the relationship between EWB and PsyCap is less context-dependent, in fact not even restricted to work.

Compared with the relatively large number of studies examining the relationship between PsyCap and individual performance, there is very limited empirical research on factors that might moderate the strength of this relationship. Acknowledging the importance of identifying such moderators, Avey et al. (2011) call for more studies including boundary conditions, after finding significant moderating effects of industry and sample origin themselves. This appeal is echoed by Newman et al. (2014) in the most recent review of the PsyCap literature; the authors especially call for cross-level examinations and suggest both supportive and stimulating work climates as well as factors like team value congruence as potential moderators, which echoes the

theoretical propositions of SDT outlined above. First empirical evidence comes from

Walumbwa, Peterson, Avolio, and Hartnell (2010b), who found that the relationship between

PsyCap and individual performance was strongest, when service climate in teams was high.

Consequently, we hypothesize that the relationship between PsyCap and individual task

performance will be positive, when team members report a strong development climate, because

such a climate creates a stimulating work context that fosters the pursuit of tasks that are chal-

lenging and/or require perseverance, furthermore encourages supportive behaviors within the

team, and thus increases the likelihood that employees actually use their PsyCap towards achiev-

ing organizationally important, and not only personally meaningful goals. In contrast, we expect

that a weak team development climate will result in a negative relationship between PsyCap and

individual task performance, because such a context will drive individuals to satisfy their person-

al development needs elsewhere and invest less time and effort into organizationally important

tasks (Newman et al., 2014). Thus, our next hypothesis reads:

> *Hypothesis 4: Followers' PsyCap positively relates to their task performance, when team*
>
> *development climate is strong, but negatively relates to task performance, when team de-*
>
> *velopment climate is weak.*

Finally, it is proposed that the interaction of servant leadership and policies and practices

for health promotion will have a positive relationship with individual task performance through

the interaction of PsyCap and team development climate. Combining the lines of argumentation

made on the basis of SDT, it is firstly proposed that servant leaders satisfy followers' basic psy-

chological needs and increase their autonomous motivation, which manifests in higher follower

PsyCap, but only when organizational policies and practices further support personal growth and

development (Deci et al., 1989; Gagné & Deci, 2005). Secondly, it is hypothesized that high

PsyCap as a result of servant leadership and a supportive organizational context will positively

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relate to task performance, but only when team members report a strong team development climate that furthers the pursuit of tasks that are personally meaningful and/or require persistence (Koestner & Losier, 2002; Pittman et al., 1982).

Consequently, the combination of high organizational policies and practices for health promotion and a strong team development climate should result in a positive relationship between servant leadership and follower task performance via PsyCap. In contrast, supportive policies and practices together with a weak team development climate are expected to result in a negative relationship between servant leadership and follower task performance via PsyCap, because the initially positive relationship with PsyCap is undermined by an unsupportive team climate that does not value personal development, leaving individuals discouraged and demotivated to apply their PsyCap at work (Newman et al., 2014).

When organizational policies and practices are unsupportive, it is proposed that the relationship between servant leadership and PsyCap becomes negative, because leader efforts are undermined and perceived as not helpful by followers (Deci et al., 1989; Gagné & Deci, 2005). Subsequently, the combination of low policies and practices for health promotion and a strong team development climate should result in a negative relationship between servant leadership and individual task performance via PsyCap, because even a supportive team climate cannot alleviate the negative relationship due to initially lowered PsyCap, and a subsequent motivational orientation away from complex and/or challenging tasks (Koestner & Losier, 2002; Pittman et al., 1982), on follower task performance.

However, the combination of low policies and practices for health promotion and a weak team development climate is expected to result in a positive relationship between servant leadership and follower task performance via PsyCap; as mentioned above, an unsupportive team climate is proposed to result in a negative relationship between PsyCap and task performance, as

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individuals that cannot apply their PsyCap when working on core tasks of their job will feel discouraged and demotivated and look for alternative ways to achieve their aspirations (Newman et al., 2014). Following from this is that in such an unsupportive team context, less PsyCap is actually better for task performance, because individuals experience less demotivation connected with the missing opportunities for applying their PsyCap at work. As the combination of servant leadership and low policies and practices for health promotion is proposed to negatively relate to follower PsyCap, this should in turn result in a positive relationship of servant leadership with individual task performance via PsyCap, when both the organizational and the team context are unsupportive. Subsequently, our final hypothesis reads:

> *Hypothesis 5: The interaction of follower PsyCap and team development climate mediates the relationship of the interaction of servant leadership and policies and practices for health promotion with individual task performance. When policies and practices for health promotion and team development climate are both high/strong or both low/weak, servant leadership positively relates to individual task performance via PsyCap. When policies and practices are high [low], but team development climate is weak [strong], servant leadership negatively relates to individual task performance via PsyCap.*

6.3 METHODS

6.3.1 Sample

Participants in this study were team members and team leaders of six small to medium-sized organizations operating in the service sector. Two organizations are operating in the UK caring sector, two are offering project management and consultancy services in the UK, one is working in the area of landscaping and urban design in the USA, and one is the German subsidiary of a US-based commodity trading firm. In total, 38 team leaders and their 124 followers were invited to participate in this study. Out of these, 33 team leaders and 90 team members provided

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usable data, resulting in a response rate of 86.84% for team leaders, and 72.58% for team leaders. The age of team leaders ranged from 19 to 64 ($M = 41.92$, $SD = 11.63$), and 64% were male. Team members' age ranged from 19 to 60 ($M = 36.08$, $SD = 10.91$), and 47.4% were male.

6.3.2 Procedure

Team members were asked to complete one questionnaire assessing all study variables except individual task performance. In detail, they rated their team leader's servant leadership, organizational policies and practices for health promotion, development climate in their team, as well as their own PsyCap and EWB. To safeguard against common source bias (Podsakoff et al., 2003), individual performance was subsequently rated by the respective team leaders. In addition, we assessed follower demographics (gender, age), follower extraversion, and company membership to control for these variables in our analyses. We controlled for follower gender and age, because both demographic characteristics have been shown to significantly affect individual ratings of EWB (Ryff & Keyes, 1995) as well as individual performance, in the latter case even in the context of examining the relationship between PsyCap and objective measures of performance (Luthans, Avolio, Walumbwa, & Li, 2005). In more detail, with regard to EWB several previous studies have shown that individuals tend to score higher on environmental mastery and autonomy, but lower on purpose in life and personal growth when they get older, and that women consistently scored higher than men on positive relations with others and personal growth (Ryff, 1989b; Ryff, 1991; Ryff, Lee, & Na, 1995). Finally, differences between leader and follower age and gender have been shown to affect various follower outcomes, because such differences affect perceptions of competence as well as perceived leadership prototypicality (Perry, Kulik, & Zhou, 1999; Somech, 2003). Next, we controlled for follower extraversion, which has been identified as the most consistent predictor of EWB across its various dimensions due to extraverted people seeking out more relationships with others and are faced with more opportuni-

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ties for personal growth (Schmutte & Ryff, 1997), as well as of performance in contexts that involve frequent social interactions (Barrick & Mount, 1991), which is the case in all six organizations forming the sample of this study, all of which are operating in the service sector. Finally, we controlled for company membership to account for industry differences and differences in organizational culture.[1]

In five out of the six participating organizations, links to online versions of the team leader and team member versions of the questionnaires were sent to the leaders either by the managing director or the Human Resources director. The leaders then further distributed the link to the team member questionnaire to their followers. In the remaining company, data was collected using paper-pencil versions of the same questionnaires, which were handed out to leaders and followers separately by the principal investigator. As several studies have shown no significant differences in the psychometric properties of scales administered via paper-pencil surveys or internet-based surveys (e.g. Cole, Bedeian, & Feild, 2006; Epstein, Klinkenberg, Wiley, & McKinley, 2001; Knapp & Kirk, 2003), we added these responses to the remaining data. For data collection in the German company, scales that were not available in German were translated by the first author and then back-translated by an independent native speaker in order to resolve any discrepancies and potential sources of misunderstanding (Behling & Law, 2000). Although Tsui, Nifadkar, and Ou (2007) have mentioned that such a translation procedure by itself does not necessarily ensure cross-cultural construct validity, a careful review of the items of the used scales did not indicate that German participants might interpret their meaning differently than English native speakers. Constructs like servant leadership, PsyCap, EWB, and performance have been studied

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[1] Similar results were obtained when controlling for the country in which the companies operate. Results are reported controlling only for company, because this automatically controls for their country of operation.

successfully in several other cultures (e.g. Hale & Fields, 2007; Luthans et al., 2005; Mittal & Dorfman, 2012; Pekerti & Sendjaya, 2010; Ryff et al., 1995) and are considered to be meaningful across cultures, so that cross-cultural validity problems were considered unlikely. All participants were allowed to complete the questionnaires during working hours, and top-level management encouraged participation through personal or written communication. After completion of the data collection phase, team leader and team member surveys were matched on the basis of unique identifiers for each team member.

6.3.3 Measures

Servant leadership. The 28-item scale by Liden et al. (2008) was used to measure follower-rated servant leadership. In line with previous studies utilizing this scale (e.g. Hu & Liden, 2011; Liden et al., 2014b; Peterson et al., 2012a), its seven dimensions *conceptual skills, behaving ethically, helping subordinates grow and succeed, empowerment, putting subordinates first, emotional healing,* and *creating value for the community* were combined to form an overall servant leadership score. Answers were made on a 5-point Likert scale ranging from 1 = *strongly disagree* to 5 = *strongly agree*. Cronbach's alpha was .95, and a sample item is "My manager is interested in making sure that I achieve my personal goals".

Policies and practices for health promotion. Each organization's policies and practices for health promotion, reflected in the areas of *employee involvement, employee growth and development, employee recognition, work-life balance,* and *health and safety* were assessed using the 20-item scale by Grawitch et al. (2007). After a definition and a list of examples for each of the five dimensions, respondents were asked to indicate on a 5-point Likert scale ranging from 1 = *strongly disagree* to 5 = *strongly agree* whether their organization makes the respective feature available to them, whether they participate in associated programs, whether they are satisfied with the feature, and whether they feel that their organization values the feature. Cronbach's al-

pha of the overall scale, combining all five dimensions, was .90.

Psychological capital. The 12-item version of the PCQ developed by Luthans et al. (2007c) was used to measure followers' psychological capital. The four subscales of *hope, optimism, resilience,* and *efficacy* were combined to form an overall score with very adequate reliability ($\alpha = .89$). Responses were made on a 6-point Likert scale ranging from 1 = *strongly disagree* to 6 = *strongly agree*, and a sample item reflecting hope is "If I should find myself in a jam at work, I could think of many ways to get out of it".

Development climate. Followers' perceptions of a development climate within their team were assessed with the 8-item scale developed by Van Dam et al. (2008). A 5-point Likert scale ranging from 1 = *strongly disagree* to 5 = *strongly agree* was used. Cronbach's alpha was .90, and a sample item is "Members are continuously developing their skills and know how".

Eudaimonic well-being. To assess team members' eudaimonic well-being, the shortened 18-item version of the Psychological Well-Being scale developed by Ryff and Keyes (1995) was used. The six subscales reflecting *autonomy, environmental mastery, personal growth, positive relations with others, purpose in life,* and *self-acceptance* were combined to form a composite factor, and a 6-point Likert scale ranging from 1 = *strongly disagree* to 6 = *strongly agree* was used. Cronbach's alpha for this overall scale was .79, and a sample item reads "When I look at the story of my life, I am pleased with how things have turned out".

Individual performance. Leader-rated individual performance was measured using 5 items developed by Podsakoff and MacKenzie (1989), and on a 5-point Likert scale ranging from 1 = *strongly disagree* to 5 = *strongly agree*. The reliability of this scale was very adequate with a Cronbach's alpha of .93. A sample item is "This member meets all the formal performance requirements of the job".

Control variables. Gender was assessed with a binary item (0 = *male*, 1 = *female*), and par-

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ticipants indicated their age in years. Extraversion was assessed with two items from the TIPI scale by Gosling, Rentfrow, and Swann (2003), and in line with their recommendations no Cronbach's alpha was calculated due to the low inter-item correlations and the fact that the measured construct is only represented by two items. Finally, company membership was dummy coded (1 = respective company, 0 = all other companies), resulting in five dummy variables.

6.3.4 Confirmatory Factor Analyses

In order to empirically justify the use of second-order constructs of the multidimensional scales used in this study, we conducted confirmatory factor analyses (CFA). In the first step of a CFA, a Chi-square test was conducted, which indicates the fit of the proposed factor model to the obtained data by comparing a covariance matrix estimated on the basis of the hypothesized model with the corresponding covariance matrix of the collected data (Schreiber, Nora, Stage, Barlow, & King, 2006). However, the results of a Chi-square test are strongly affected by sample size, so that more robust fit indices, specifically the Confirmatory Fit Index (CFI), the Tucker-Lewis Index (TLI), the standardized root mean squared residual (SRMR), and the root mean square error or approximation (RMSEA) were calculated and interpreted in a second step (Marsh, Balla, & McDonald, 1988). An appropriate model fit is reflected by CFI and TLI values higher than .90, and by RMSEA as well as SRMR values lower than .08 (Browne & Cudeck, 1992; Hu & Bentler, 1999). Finally, the Bayesian information criterion (BIC) was used to decide between a first-order multiple-factor model or a second-order model of the respective construct, with a smaller BIC indicating a better fit (Schreiber et al., 2006).

Starting with servant leadership, the proposed second-order model showed an equal model fit ($\chi2(343) = 619.87$, $p < .001$, $\chi2/df = 1.81$, TLI = .79, CFI = .81, SRMR = .08, RMSEA = .10) as the seven-factor model reflecting the seven dimensions of servant leadership ($\chi2(329) = 593.55$, $p < .001$, $\chi2/df = 1.80$, TLI = .79, CFI = .82, SRMR = .08, RMSEA = .10), although both

models fell slightly short of the cut-off values for TLI, CFI, and RMSEA mentioned above. However, the BIC of the second-order model was smaller than of the seven-factor option, with 5653.63 versus 5689.17, providing some support for its use in the below analyses.

Appropriate and equally similar fit indices were found for policies and practices for health promotion when comparing the second-order model ($\chi2(165) = 241.01$, $p < .001$, $\chi2/df = 1.46$, TLI = .93, CFI = .94, SRMR = .08, RMSEA = .07) with the five-factor option ($\chi2(160) = 235.86$, $p < .001$, $\chi2/df = 1.47$, TLI = .92, CFI = .94, SRMR = .07 RMSEA = .07), and again the BIC values spoke for the use of the second-order model, with 3986.07 versus 4003.36.

However, for PsyCap the BIC value of the second-order model was actually slightly higher than of the corresponding four-factor solution, with 2729.15 versus 2726.76, although the other model fit indices were again very similar and fell only slightly short of the generally accepted cut-off values, with $\chi2(50) = 105.41$, $p < .001$, $\chi2/df = 2.11$, TLI = .88, CFI = .91, SRMR = .07, RMSEA = .11 for the second-order model, and $\chi2(48) = 94.04$, $p < .001$, $\chi2/df = 1.96$, TLI = .89, CFI = .92, SRMR = .07, RMSEA = .10 for the four-factor model. Still, we decided on theoretical grounds to use the second-order model in our analysis, because we were interested in how servant leadership relates to all four dimensions of efficacy, hope, optimism and resilience taken together, especially as Luthans et al. (2007a) have argued for augmentative effects between them.

Finally, in the case of eudaimonic well-being the second-order model showed a considerably better fit ($\chi2(130) = 321.87$, $p < .001$, $\chi2/df = 2.48$, TLI = .47, CFI = .55, SRMR = .12, RMSEA = .13) than the six-factor alternative ($\chi2(126) = 360.82$, $p < .001$, $\chi2/df = 2.86$, TLI = .33, CFI = .45, SRMR = .23, RMSEA = .15), although both models did not fit the data adequately. Subsequently, we also compared the second-order model with a model in which all items load onto one first-order factor ($\chi2(136) = 391.23$, $p < .001$, $\chi2/df = 2.88$, TLI = .33, CFI = .40, SRMR = .21, RMSEA = .15), but the former remained the better fitting model. In addition, the

BIC values were 4345.35 for the second-order model, 4402.02 for the six-factor solution, and 4388.12 for the unidimensional model, providing some support for the use of the second-order model despite the generally low fit indices.

6.3.5 Data Aggregation

In line with previous research, we conceptualized servant leadership, policies and practices for health promotion, as well as development climate as group-level variables in our research model. Before aggregating the respective variables in order to test the hypothesized multilevel model, we tested whether data aggregation was appropriate. First, one-way analyses of variance (ANOVA) showed that servant leadership and policies and practices for health promotion differed significantly across groups, with $F(30, 57) = 1.85$, $p < .05$, and $F(30, 56) = 2.06$, $p < .01$, respectively. Between-group differences in development climate were only marginally significant, with $F(30, 55) = 1.62$, $p = .06$. Next, intraclass correlations, ICC(1) and ICC(2), were calculated, being respectively .23 and .46 for servant leadership, .28 and .52 for policies and practices, and .18 and .38 for development climate. Thus, the values of ICC(1) justify aggregation (LeBreton & Senter, 2008). However, the values of ICC(2) are lower than the widely used cut-off value of .70 (Lance, Butts, & Michels, 2006; LeBreton & Senter, 2008). As ICC(2) is a measure of the reliability of a group's mean rating, its values strongly depend on group size, with small group sizes like the ones in this study yielding less favorable values (LeBreton & Senter, 2008). However, this does not speak against aggregation of the respective variables. Finally, the median within-group interrater reliability $r_{wg(j)}$ (James, Demaree, & Wolf, 1983) was .89 for servant leadership, .88 for policies and practices, and .90 for development climate. We note that all values are well above the widely used cut-off criterion of .70 (LeBreton & Senter, 2008). Taken together, the used indicators provide support for the aggregation of all three variables.

6.3.6 Analytic Approach

We tested our hypotheses using multilevel path modeling with Mplus 7.0, and in particular the unconflated multilevel model (UMM) approach as described by Preacher, Zyphur, and Zhang (2010). This approach leads to less biased estimates than the traditional multilevel modeling (MLM) approach by taking into account that the effect of a Level-1 predictor on a Level-1 outcome can be separated into two parts, one occurring only at the within-group level, and the other one occurring only at the between-group level. If these within- and between-group effects are combined into a single slope, as it is done in traditional MLM, the conflated effect will be biased upwards or downwards unless within- and between-group effects are exactly the same, which is very unlikely (Lüdtke et al., 2008). UMM solves this problem by separating the within- and between-group effects of a given Level-1 variable, using the within-group portion of the variable on level 1, and its group mean on level 2 (MacKinnon, 2008; Zhang, Zyphur, & Preacher, 2009). Thus, UMM requires group-mean centering of the respective Level-1 variables and grand-mean centering of Level-2 variables in order to separate within- and between-group variance, which is especially important for cross-level effects in order to separate the true cross-level variance from within- and between-group variance (K.J. Preacher, personal communication, March 13, 2015). Accordingly, all Level-1 predictor and control variables were group-mean centered, and all Level-2 predictor and control variables were grand-mean centered.

Subsequently, we fitted a two-level model in which PsyCap, well-being, performance, demographics, and extraversion were operationalized at level 1 (individual-level), whereas servant leadership, practices and policies for health promotion, development climate, and company membership were operationalized at level 2 (group-level). To test whether servant leadership positively relates to follower PsyCap, when policies and practices are high, and a negatively relates to PsyCap when they are low (Hypothesis 1), whether PsyCap positively relates to EWB

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(Hypothesis 2), and whether PsyCap has a positive relationship with task performance when development climate is strong, and a negative relationship when it is weak (Hypothesis 4), we followed the procedures by Hofmann (1997) and Aguinis, Gottfredson, and Culpepper (2013): First, a null model without any predictor or control variables was specified to test whether there is significant between-group variation in the respective outcome. Then all control variables were added to the intercept of the model in a second step to examine the extent to which they can explain the observed variance in the outcome (random coefficients model). Next, the respective predictor variables were added to the intercept of the model to test whether they significantly relate to the outcome above and beyond the variance already explained by the controls (intercept-as-outcome model). In the case of moderation effects (Hypotheses 1 and 4), the proposed interactions were added to the slope of the model in a fourth step, examining whether the respective model can explain additional variance in the slope of the outcome as well (slope-as-outcome model). For the sake of completeness, we also calculated the conditional relationships proposed in Hypotheses 1 and 4, although the values of these simple slopes are of more interest when controlling for the respective other paths of the full research model.

Finally, Hypotheses 3 and 5 imply multilevel moderated mediation models by proposing that PsyCap mediates the interactive relationship of servant leadership and policies and practices with EWB (Hypothesis 3), and that the interaction of PsyCap and development climate mediates the interactive relationship of servant leadership and policies and practices with task performance (Hypothesis 5). Up until recently, a widely used approach to test moderated mediation was the piecemeal approach first outlined by Baron and Kenny (1986). Moderation effects are examined first by fitting two separate models – one with the mediator as the outcome (a-path), and one with the dependent variable as the outcome (b-path), while controlling for the effect of the independent variable. Mediation is inferred in a next step by checking whether a-path and b-path ef-

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fects are significant, and the Sobel test is used to test whether the indirect effect is significant.

This approach has been heavily criticized, mainly because it fails to take into account the covariance between the paths, and thus does not test mediation directly, but only infers it logically (Edwards & Lambert, 2007; MacKinnon, Lockwood, Hoffman, West, & Sheets, 2002; Shrout & Bolger, 2002). To overcome this problem, the full moderated mediation model has to be tested in one step, so that the indirect effect can be inferred analytically rather than just logically (Edwards & Lambert, 2007). This can be achieved by estimating a multivariate multilevel model and using the obtained covariances to calculate indirect effects in a second step (Bauer, Preacher, & Gil, 2006), or by using multilevel path modelling, which allows for calculating the indirect effects directly (Shrout & Bolger, 2002). We used multilevel path modelling and, in line with tests of Hypotheses 1, 2, and 4, applied the UMM approach (Preacher et al., 2010). Another criticism of the piecemeal approach is that it proposes a significant direct relationship between independent and dependent variable as the first necessary condition for establishing mediation (Baron & Kenny, 1986). However, more recent recommendations regarding mediation tests emphasize that this is not a necessary condition (MacKinnon & Fairchild, 2009; Rucker, Preacher, Tormala, & Petty, 2011; Shrout & Bolger, 2002), especially when the mediated process is temporally and theoretically distal (Shrout & Bolger, 2002). This is the case in this study, where we hypothesized the interaction of servant leadership and policies and practices to be a distal antecedent of EWB and task performance, resulting in an indirect-only or full mediation process, and thus making it unnecessary to control for direct effects of the independent variable on the outcome when calculating the *b*-path (James, Mulaik, & Brett, 2006; Zhao, Lynch, & Chen, 2010).

Practically, we built on the above recommendations by fitting multilevel path models in which group-level servant leadership affects either individual-level well-being or performance via individual-level PsyCap, and then added group-level policies and practices as well as its in-

teraction with servant leadership to the random intercept of the *a*-path, and when testing Hypothesis 5 also development climate to the random slope of the *b*-path (K.J. Preacher, personal communication, March 13, 2015). To check whether Hypotheses 3 and 5 were supported, we then calculated the indirect relationship of the interactive term between servant leadership and policies and practices with the respective outcome, mediated through PsyCap (Hypothesis 3) or the interaction term between PsyCap and development climate (Hypothesis 5), following the product of coefficients approach as outlined by Preacher, Rucker, and Hayes (2007). In the same way, the conditional direct and indirect relationships for different values of the moderators were calculated, in the first case controlling for the respective other paths of the research model. Finally, we also compared the fit of the multilevel moderated mediation model with a multilevel mediation model to test whether adding the proposed interactions would result in a significant increase in model fit. All final models presented below showed a significant improvement in model fit, and details can be found in the respective tables. Due to missing data, analyses involving well-being as an outcome are based on 84 individuals nested within 33 groups. All other analyses are based on 86 individuals nested within 33 groups.

6.4 RESULTS

Means, standard deviations, intercorrelations, and scale reliabilities (where applicable) for all study variables are presented in Table 6.1.

6.4.1 Relationship between Servant Leadership and PsyCap

Hypothesis 1 proposed that servant leadership (Level-2) will positively relate to follower PsyCap (Level-1), when organizational policies and practices for health promotion (Level-2) are high, but a negative relate to PsyCap, when health promotion is perceived as low. We noted that the relationship between the interaction of servant leadership and policies and practices and PsyCap was significant, with $\gamma = 1.20$, $SE = 0.45$, $p < .01$.

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TABLE 6.1
Means, Standard Deviations, Intercorrelations, and Scale Reliabilities for Study Variables

Variable	M	SD	1	2	3	4	5	6	7
1. Company 1[a]	0.36	0.48	-						
2. Company 2[a]	0.16	0.37	-.33**	-					
3. Company 3[a]	0.03	0.19	-.14	-.08	-				
4. Company 4[a]	0.16	0.37	-.33**	-.19	-.08	-			
5. Company 5[a]	0.06	0.24	-.19	-.11	-.05	-.11	-		
6. Servant leadership	3.60	0.45	-.08	.26*	.04	-.14	-.14	(.95)	
7. Policies & practices	3.60	0.39	-.47**	.22*	-.13	.24*	-.25*	.53**	(.90)
8. Development climate	3.50	0.50	-.09	.34**	.08	-.44**	-.02	.59**	.44**
9. Follower gender[b]	0.55	0.50	.20	-.10	.17	-.10	-.07	-.04	-.13
10. Follower age	36.30	11.15	-.02	-.19	.05	.48**	-.38**	-.15	.10
11. Follow. extraversion	4.26	1.49	.20	-.08	.16	-.13	.07	-.21	-.14
12. PsyCap	4.67	0.72	-.20	.12	-.07	-.04	-.00	.07	.22*
13. Well-being	4.59	0.51	-.09	-.09	-.26*	.19	-.08	.05	.22*
14. Performance	4.27	0.65	-.11	.04	-.16	.07	-.19	-.13	.12

TABLE 6.1 (continued)

Variable	M	SD	8	9	10	11	12	13	14
8. Development climate	3.50	0.50	(.90)						
9. Follower gender[b]	0.55	0.50	.06	-					
10. Follower age	36.30	11.15	-.20	-.07	-				
11. Follow. extraversion	4.26	1.49	-.03	.05	-.10	-			
12. PsyCap	4.67	0.72	.25*	-.32**	-.01	.23*	(.89)		
13. Well-being	4.59	0.51	.08	-.03	.07	.20	.57**	(.79)	
14. Performance	4.27	0.65	-.01	.01	.13	-.07	.16	.09	(.93)

Note. Individual *n* = 86 for all variables except well-being, where *n* = 84; team *n* = 33 teams. Correlations between individual and team variables based on biased *n* = 86 (*n* = 84 for well-being). Intercorrelations are presented below the diagonal. Reliability coefficients (Cronbach's alpha) are presented in brackets on the diagonal.
[a] 1 = respective company, 0 = all other companies.
[b] 1 = female, 0 = male.
 * *p* < .05 (two-tailed test).
** *p* < .01 (two-tailed test).

The interaction term explained an additional 8.06% of within-group variance in PsyCap compared with the main effects model. In a next step, we plotted the observed interaction effect and conducted simple slope tests following the procedure of Preacher, Curran, and Bauer (2006) to test whether policies and practices moderate the relationship between servant leadership and

PsyCap in the hypothesized direction. Both slopes are not significantly different from zero for values of the moderator that are one standard deviation below and above the mean ($\gamma = -0.49$, $SE = 0.31$, $p =$ n.s., and $\gamma = 0.48$, $SE = 0.26$, $p =$ n.s.), but become significantly different from zero at two standard deviations below and above the mean, with $\gamma = -0.98$, $SE = 0.46$, $p < .05$ for low values of the moderator (-2SD), and $\gamma = 0.97$, $SE = 0.40$, $p < .05$ for high values of the moderator (+2SD). As can be seen in Figure 6.2, which is based on values of +/-2SD of the mean of the moderator, this means that an increase in servant leadership was related to an increase in PsyCap when practices and policies were high, but in a decrease when they were low, providing support for Hypothesis 1. Results are summarized in Table 6.2. It has to be noted that we did not control for the remaining paths of the full research model, i.e. the relationships between PsyCap and outcomes, when calculating the simple slopes. Results for simple slopes based on values obtained from estimations of the full research model are reported in the following sections.

FIGURE 6.2
Moderating Effect of Policies and Practices for Health Promotion (+/-2SD) on the Relationship between Servant Leadership and PsyCap.
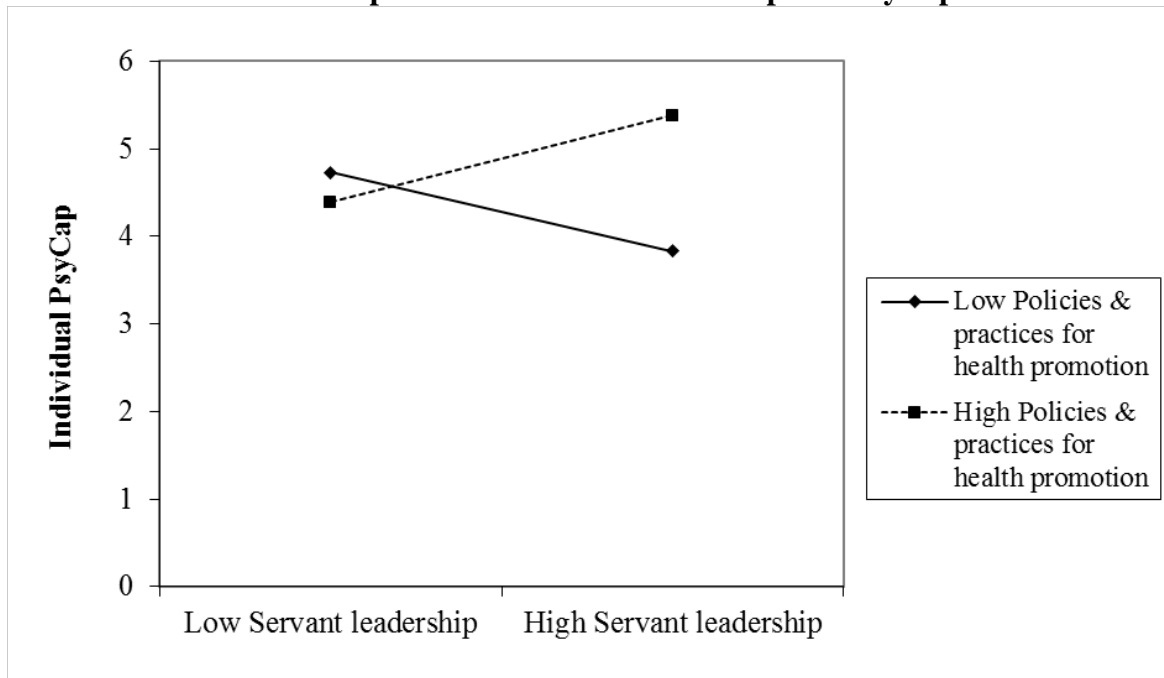
TABLE 6.2
Results of Hierarchical Linear Modeling Analyses of Individual PsyCap

Variables	Model 1	Model 2	Model 3
Intercept	4.68 (0.07)***	4.68 (0.07)**	4.57 (0.08)***
Level 1 variables			
Follower gender	-0.54 (0.17)***	-0.53 (0.17)***	-0.53 (0.16)***
Follower age	-0.00 (0.01)	-0.00 (0.01)	0.00 (0.01)
Follower extraversion	0.17 (0.07)*	0.17 (0.07)*	0.17 (0.07)**
Level 2 variables			
Follower gender mean	-0.05 (0.26)	-0.01 (0.26)	-0.25 (0.26)
Follower age mean	0.01 (0.01)	0.01 (0.01)	0.01 (0.01)
Follower extraversion mean	0.14 (0.07)*	0.16 (0.07)*	0.24 (0.08)**
Company 1[a]	-0.52 (0.20)**	-0.53 (0.20)**	-0.25 (0.25)
Company 2[a]	-0.03 (0.23)	-0.06 (0.23)	0.11 (0.23)
Company 3[a]	-0.74 (0.43)	-0.82 (0.43)	-0.34 (0.48)
Company 4[a]	-0.44 (0.28)	-0.44 (0.27)	-0.18 (0.28)
Company 5[a]	-0.21 (0.38)	-0.12 (0.38)	-0.06 (0.39)
Servant leadership		0.18 (0.17)	-0.01 (0.22)
Practices & policies			0.36 (0.29)
Interaction terms			
Servant leadership x Practices & policies for health promotion			1.20 (0.45)**
Additional information			
Level-1 variance explained[b]	25.05%	1.33%	8.06%
Level-2 variance explained[b]	66.67%	50.00%	0.00%
Deviance change	25.58**	1.16	7.30*

Note. Standard errors are in parentheses. Unstandardized path coefficients are reported. $N = 86$ individuals nested in 33 teams.
[a] 1 = Respective company, 0 = All other companies.
[b] These are variance differences on each level compared to the previous model. Model 1 was compared to the null model.
   * $p < .05$
  ** $p < .01$
*** $p < .001$

6.4.2 Relationships between Servant Leadership, PsyCap, and EWB

Next, Hypothesis 2 proposed that individual PsyCap will be positively related to individual EWB. Both the direct within- and between-group relationships between PsyCap and EWB were significant, with $\gamma = 0.43$, $SE = 0.08$, $p < .001$ and $\gamma = 0.40$, $SE = 0.12$, $p < .001$, respectively. This model explained an additional 34.38% of within-group variance, but no additional between-group variance when compared to the model including only control variables. Thus, Hypothesis 2 was supported as well, and the results are presented in Table 6.3. In Hypothesis 3, we subsequently proposed that the interaction of servant leadership and policies and practices for health promotion (both Level-2) positively relates to EWB via PsyCap (both Level-1). The proposed in-

teractive relationship with PsyCap was significant, with $\gamma = 1.10$, $SE = 0.30$, $p < .001$, and the simple slopes were both significantly different from zero, with $\gamma = -0.98$, $SE = 0.31$, $p < .001$ for very low values (-2SD), and $\gamma = 0.80$, $SE = 0.25$, $p < .01$ for very high (+2SD) values of the moderator. The direct relationship between PsyCap and eudaimonic well-being was also significant, with $\gamma = 0.43$, $SE = 0.08$, $p < .001$. Note that these results are slightly different to those obtained when testing Hypotheses 1 and 2, because we now control for all other paths of our full research model. Nevertheless, the results are fully in line with the respective hypotheses and also served as the input for examining the indirect relationships proposed in Hypothesis 3. Supporting Hypothesis 3, the resulting indirect relationship of the interaction between servant leadership and policies and practices with EWB via PsyCap was positive and significant, with $\gamma = 0.47$, $SE = 0.15$, $p < .01$. Additionally, the simple slopes of the indirect relationships for very low (-2SD) and very high (+2SD) values of the moderator were significantly different from zero; at very low values, the indirect relationship was negative ($\gamma = -0.42$, $SE = 0.15$, $p < .01$), and at very high values it was positive ($\gamma = 0.34$, $SE = 0.12$, $p < .01$). This model explained an additional 22.56% of between-group variance in PsyCap, but no additional within-group variance in PsyCap or any additional within- or between-group variance in EWB when compared with a simple mediation model. The indirect relationships are summarized in Table 6.4, and model results in Table 6.5.

6.4.3 Relationship between Servant Leadership, PsyCap, and Performance

Next, Hypothesis 4 stated that PsyCap positively relates to individual task performance, when development climate is strong, but negatively when it is weak. The hypothesized cross-level interaction was significant, with $\gamma = 0.97$, $SE = 0.28$, $p < .001$. This model explained an additional 40.79% of within-group variance in performance compared with the main effect model, but no additional between-group variance (see also Table 6.3).

TABLE 6.3
Results of Hierarchical Linear Modeling Analyses of Eudaimonic Well-being and Individual Performance

Variables	Eudaimonic Well-being		Individual Performance		
	Model 1	Model 2	Model 1	Model 2	Model 3
Intercept	4.59 (0.05)***	2.74 (0.54)***	4.27 (0.07)***	3.69 (0.91)***	3.09 (0.99)**
Level 1 variables					
Follower gender	0.02 (0.12)	0.25 (0.11)*	0.10 (0.16)	0.17 (0.17)	-0.13 (0.15)
Follower age	-0.01 (0.01)	-0.01 (0.01)	-0.00 (0.01)	-0.00 (0.01)	0.01 (0.01)
Follower extraversion	0.12 (0.05)*	0.05 (0.04)	-0.04 (0.07)	-0.07 (0.07)	-0.03 (0.06)
PsyCap		0.43 (0.08)***		0.14 (0.13)	0.01 (0.14)
Level 2 variables					
Follower gender mean	0.13 (0.18)	0.14 (0.15)	0.08 (0.26)	0.09 (0.26)	0.14 (0.24)
Follower age mean	0.01 (0.01)	0.00 (0.01)	0.01 (0.01)	0.01 (0.01)	0.01 (0.01)
Follower extraversion mean	0.10 (0.05)*	0.04 (0.04)	0.05 (0.07)	0.03 (0.07)	0.05 (0.07)
Company 1[a]	-0.35 (0.14)*	-0.13 (0.13)	-0.41 (0.19)*	-0.34 (0.22)	-0.30 (0.20)
Company 2[a]	-0.25 (0.17)	-0.24 (0.13)	-0.15 (0.22)	-0.15 (0.22)	-0.04 (0.22)
Company 3[a]	-1.12 (0.31)***	-0.82 (0.26)**	-0.96 (0.43)*	-0.86 (0.45)	-0.62 (0.43)
Company 4[a]	-0.05 (0.19)	0.12 (0.16)	-0.31 (0.27)	-0.25 (0.28)	-0.31 (0.28)
Company 5[a]	-0.28 (0.27)	-0.19 (0.22)	-0.59 (0.38)	-0.57 (0.38)	-0.77 (0.35)*
PsyCap mean		0.40 (0.12)***		0.12 (0.19)	0.25 (0.21)
Development climate					-0.20 (0.18)
Interaction effects					
PsyCap x Development climate					0.97 (0.28)***
Additional information					
Level-1 variance explained[b]	17.24%	34.38%	4.75%	2.22%	40.79%
Level-2 variance explained[b]	96.43%	0.00%	86.36%	0.00%	0.00%
Deviance change	24.38**	35.64***	11.27	1.6	21.24***

Note. Standard errors are in parentheses. Unstandardized path coefficients are reported. $n = 86$ individuals nested in 33 teams for performance, and 84 individuals nested within 33 teams for well-being.
[a] 1 = Respective company, 0 = All other companies.
[b] These are variance differences on each level compared to the previous model. Model 1 was compared to the null model.
  $* p < .05$
 $** p < .01$
$*** p < .001$

To examine the direction of the observed cross-level moderation in more detail, we then plotted the interaction and conducted simple slope tests. Results showed that both slopes are significantly different from zero, and that an increase in PsyCap was related to a significant increase in performance, when development climate is strong (+1SD; $\gamma = 0.46$, $SE = 0.19$, $p < .05$), and a significant decrease in performance, when development climate is weak (-1SD; $\gamma = -0.44$, $SE = 0.19$, $p < .05$), see Figure 6.3. In sum, this provides support for Hypothesis 3.

FIGURE 6.3
Moderating Effect of Development Climate on the Relationship between
PsyCap and Performance
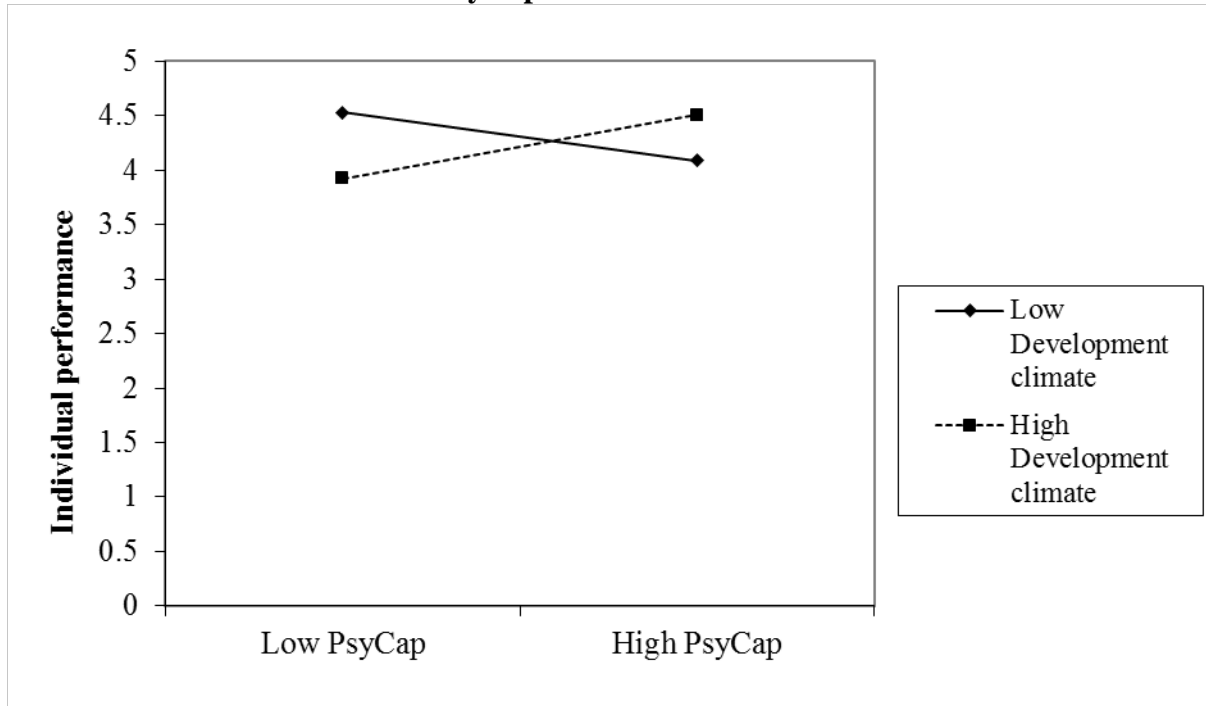
Finally, Hypothesis 5 stated that the interaction of servant leadership and policies and prac-

tices for health promotion positively relates to task performance via the interaction of PsyCap

and development climate. First, both interaction terms were significant, with $\gamma = 0.98$, $SE = 0.26$,

$p < .001$ and $\gamma = 0.97$, $SE = 0.28$, $p < .001$, respectively. Again, simple slopes were significantly

different from zero for very low (-2SD) and very high (+2SD) values of policies and practices,

with $\gamma = -1.04$, $SE = 0.27$, $p < .001$ and $\gamma = 0.55$, $SE = 0.24$, $p < .05$, respectively. For growth

climate, the simple slopes were also significantly different from zero, with $\gamma = -0.44$, $SE = 0.19$,

$p < .05$ for low (-1SD) values, and $\gamma = 0.47$, $SE = 0.19$, $p < .05$ for high (+1SD) values. Also note

here that these results were obtained when controlling for all remaining paths in the research

model, which makes the values slightly different to those obtained when testing Hypotheses 1

and 4. That being said, the results are fully in line with both hypotheses.

The results obtained from testing the full research model were subsequently used for exam-

ining the indirect relationships proposed in Hypothesis 5. We tested the proposed moderated me-

diation on performance, which was positive and significant as well, with $\gamma = 0.95$, $SE = 0.38$, $p <$

.05. Finally, the simple slopes of the indirect relationships were $\gamma = 0.46$, $SE = 0.24$, $p < .05$ for

very low (-2SD) values of policies and practices and low (-1SD) values of development climate;

$\gamma = -0.24$, $SE = 0.15$, $p =$ n.s. for very high (+2SD) values of policies and practices and low (-

1SD) values of development climate; $\gamma = -0.49$, $SE = 0.24$, $p < .05$ for very low (-2SD) values of

policies and practices and high (+1SD) values of development climate; and $\gamma = 0.26$, $SE = 0.15$, p

$< .10$ for very high (+2SD) values of policies and practices and high (+1SD) values of growth

climate. This model explained an additional 36.95% of within-group variance in performance

and an additional 32.92% of between-group variance in PsyCap above and beyond a simple me-

diation model. Thus, Hypothesis 5 was supported. The indirect relationships are again summa-

rized in Table 6.4, and full model results can be found in Table 6.5.

TABLE 6.4
Summary of Conditional Indirect Relationships of Servant Leadership with Outcomes via PsyCap at Levels of Policies and Practices for Health Promotion and Team Development Climate

Moderators		Outcomes	
Policies & practices	Development climate	Eudaimonic Well-being	Individual Performance
High (+2SD)		0.34 (0.12)***	
Low (-2SD)		-0.42 (0.15)***	
High (+2SD)	High (+1SD)		0.26 (0.15)*
Low (-2SD)	High (+1SD)		-0.49 (0.24)**
High (+2SD)	Low (-1SD)		-0.24 (0.15)
Low (-2SD)	Low (-1SD)		0.46 (0.24)**

Note. Standard errors are in parentheses. Significance levels are *p*-scores, and unstandardized path coefficients are reported.
   * $p < .10$
  ** $p < .05$
*** $p < .01$

TABLE 6.5
Results of Hierarchical Linear Modeling Analyses of Eudaimonic Well-being and Individual Performance – Moderated Mediation

Variables	PsyCap on Eudai-monic Well-being	Eudaimonic Well-being	PsyCap on Ind. Performance	Individual Performance
Intercept	4.63 (0.06)***	2.74 (0.54)***	4.64 (0.05)***	3.09 (0.99)**
Level 1 variables				
Follower gender	-0.54 (0.14)***	0.25 (0.11)*	-0.52 (0.14)***	-0.13 (0.15)
Follower age	-0.00 (0.01)	-0.01 (0.01)	-0.00 (0.01)	0.01 (0.01)
Follower extraversion	0.17 (0.06)**	0.05 (0.04)	0.17 (0.06)**	-0.03 (0.06)
PsyCap		0.43 (0.08)***		0.01 (0.14)
Level 2 variables				
Follower gender mean	-0.15 (0.17)	0.14 (0.15)	-0.30 (0.16)	0.14 (0.24)
Follower age mean	0.00 (0.01)	0.00 (0.01)	0.00 (0.01)	0.01 (0.01)
Follower extraversion mean	0.23 (0.06)***	0.04 (0.04)	0.21 (0.05)***	0.05 (0.07)
Company 1[a]	-0.18 (0.17)	-0.13 (0.13)	-0.19 (0.15)	-0.30 (0.20)
Company 2[a]	0.10 (0.16)	-0.24 (0.13)	-0.03 (0.15)	-0.04 (0.22)
Company 3[a]	-0.36 (0.36)	-0.82 (0.26)**	-0.38 (0.32)	-0.62 (0.43)
Company 4[a]	-0.11 (0.21)	0.12 (0.16)	0.16 (0.21)	-0.31 (0.28)
Company 5[a]	0.06 (0.28)	-0.19 (0.22)	-0.10 (0.26)	-0.77 (0.35)*
Servant leadership	-0.09 (0.15)		-0.25 (0.15)	
Policies & practices	0.47 (0.20)*		0.27 (0.19)	
PsyCap mean		0.40 (0.12)***		0.25 (0.21)
Development climate			0.45 (0.15)**	-0.20 (0.18)
Interactions				
Servant leadership x Policies & practices	1.10 (0.30)***		0.98 (0.26)***	
PsyCap x Development climate				0.97 (0.28)***
Indirect relationships				
X*W→M→Y (EWB)		0.44 (0.17)*		
X*W→M*Z→Y (performance)				0.95 (0.38)*
Additional information				
Level-1 variance explained[b]	0.00%	0.00%	0.00%	36.95%
Level-2 variance explained[b]	22.56%	0.00%	32.92%	0.00%
Deviance change		13.06**		42.42***

Note. Standard errors are in parentheses. Significance levels are *p*-scores, and unstandardized path coefficients are reported.
n = 86 individuals nested in 33 teams for performance, and 84 individuals nested within 33 teams for well-being.
[a] 1 = Respective company, 0 = All other companies.
[b] These are variance differences on each level compared to a simple mediation model.
   * *p* < .05
  ** *p* < .01
*** *p* < .001

6.5   DISCUSSION

In this study we addressed the first of three research questions of the thesis, namely how and under which conditions servant leadership relates to both follower well-being and perfor-mance. Drawing on a field sample consisting of six different organizations, we showed that serv-ant leadership positively related to the well-being and performance of those led, and did so through a positive relationship with followers' PsyCap, only when policies and practices for

health promotion were in place to support servant leaders' efforts, and in the case of performance only if there was further support for personal development reflected in a strong team development climate. When either policies and practices or team development climate were low, the relationships between servant leadership and the examined outcomes via PsyCap became negative. This is fully in line with SDT (Deci et al., 1989; Gagné & Deci, 2005), which we identified as the most comprehensive theoretical framework to test our research model. According to SDT, increases in individual EWB and task performance are achieved by satisfying individuals' basic psychological needs of autonomy, competence, and relatedness, and by eliciting a state of autonomous as opposed to controlled motivation in individuals (Deci & Ryan, 1985; Ryan & Deci, 2000). At work, an environment that values, supports, and rewards self-determined attitudes and behaviors has been highlighted as an important boundary condition that amplifies these connections, but undermines them when it is missing (Deci et al., 1989; Gagné & Deci, 2005).

Subsequently, we argued that servant leaders, with their specific focus on follower developmental needs and aspirations (Greenleaf, 1977; Mayer et al., 2008), use leadership behaviors like empowering, emotional healing, conceptual skills, and helping subordinates grow and succeed to satisfy all three psychological needs of their followers and increase their autonomous motivation, which in turn was proposed to manifest in higher PsyCap. PsyCap reflects a person's willingness and perceived ability to exert effort and persevere on difficult or time-intensive tasks in order to achieve personally meaningful goals (Luthans et al., 2007c), and this preference for important tasks that are complex and/or require determination and discipline has been shown to be the outcome of autonomous motivation in studies of SDT (Koestner & Losier, 2002; Pittman et al., 1982).

In line with the propositions of SDT, we subsequently found that servant leadership positively related to follower PsyCap, but did so only when servant leadership took place in a favor-

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able organizational context, reflected by high policies and practices for health promotion (Grawitch et al., 2006; Grawitch et al., 2007). In contrast, when teams perceived these policies and practices to be low, servant leadership actually had a significant negative relationship with follower PsyCap, because the unsupportive organizational context undermined the efforts of servant leaders by communicating the inappropriateness of self-determined attitudes and behaviors. Furthermore, we extended these findings to followers' EWB by arguing that increased PsyCap will make the achievement of personal development goals and thus the gradual fulfillment of individuals' potential more likely (Avey et al., 2010a; Ryan et al., 2008), again showing that servant leadership only had a significant positive relationship with this outcome via PsyCap, when policies and practices for health promotion were high, but a negative relationship, when they were low. These findings speak for the importance of a match between servant leaders' values and behaviors and the context in which it takes place, in this case influenced by the implicit organizational values communicated through a set of explicit policies and practices.

In the case of performance, we further identified not only policies and practices for health promotion, but also team development climate (Van Dam et al., 2008) as an important boundary condition for the indirect relationship between servant leadership on performance via PsyCap. We expected this on the basis of SDT, because team climates provide more immediate and frequent information about accepted attitudes and behaviors than organizational policies and practices (Anderson & West, 1998; West, 2012), and can subsequently create or restrict opportunities for followers to apply their PsyCap towards the achievement of personally meaningful goals when working on organizationally important tasks (Newman et al., 2014).

Again, our findings supported these claims. Firstly, we found a marginally significant positive relationship of servant leadership with performance via PsyCap, when both policies and practices for health promotion as well as team development climate were high. In this case, both

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the organizational and the team environment were supportive of servant leadership efforts. Next, servant leadership negatively related to follower performance via PsyCap, when policies and practices for health promotion were low, but development climate was high; given that PsyCap was positively related to performance in the stimulating context of a high development climate, a negative relationship with PsyCap through servant leadership behaviors that did not match organizational policies and practices led to the subsequent reduction of individual performance.

Finally, when both policies and practices as well as development climate were low, servant leadership actually had a significant positive relationship with follower task performance; this can be explained by having a closer look at the effect of PsyCap under these conditions. When teams perceived development climate to be low, PsyCap was found to be negatively related to task performance, which is in line with theoretical propositions arguing that individuals will be less likely to use their psychological resources towards the achievement of core job tasks when the context is not perceived as stimulating and supportive; instead, those individuals will actually end up discouraged and demotivated when they cannot utilize their PsyCap (Newman et al., 2014).

In other words, under unfavorable working conditions less PsyCap is better for individual task performance, because individuals experience less demotivation. Given that servant leadership negatively related to PsyCap when policies and practices for health promotion were also perceived as low, servant leadership in turn positively related to follower task performance. While such an unfavorable work context is certainly nothing organizations should aim for, these findings give a valuable insight into the dynamics of both servant leadership and PsyCap, and show that under certain conditions, high servant leadership and high PsyCap can actually be detrimental for follower performance and well-being.

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6.5.1 Theoretical Implications

The findings of this study advance servant leadership theory in several ways. To start with, we provide some of the first evidence for the proposition that servant leadership positively relates to both follower performance and well-being without compromising one of these outcomes for the other in the process (Greenleaf, 1970), but make a clear case that this only holds when the work environment in which servant leaders operate is perceived as supportive, reflected in high organizational policies and practices for health promotion, and in the case of performance also in a strong team development climate. Secondly, followers' positive psychological capital is identified as the key variable through which servant leadership relates to follower performance and well-being, which empirically supports the theoretical claims made in the servant leadership literature that follower development is at the core of all servant leadership efforts (Liden et al., 2014a; Panaccio et al., 2015).

Thirdly, and most importantly, the identification of policies and practices for health promotion and development climate as boundary conditions of the examined relationships further extends servant leadership theory and also general theory development with regards to people-oriented leadership styles, showing how these factors amplify or hinder the efforts of servant leaders in organizations. In line with theorizing (Van Dierendonck, 2011; Winston & Ryan, 2008) and first empirical findings (Meuser et al., 2011; Yoshida et al., 2014), we show that servant leadership is only effective when it matches the organizational context, and when followers perceive their team climate as stimulating and supportive. Furthermore, our findings show that a high development climate is only important for increasing individual performance, but not for well-being; this does not only add to servant leadership theory, but also to the PsyCap literature (Newman et al., 2014), suggesting that team development climate is of special importance when individuals have to balance their needs with the demands of their job, because a satisfactory

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compromise between needs and demands can be found more easily in a context that encourages new and creative ways of solving problems and achieving tasks (Van Dam et al., 2008).

That being said, our study is one of the first to show that under certain conditions, servant leadership can actually negatively relate to follower performance and well-being. We are not aware of any theoretical or empirical articles beyond the initial evidence provided by Meuser et al. (2011) proposing or reporting a negative relationship of servant leadership with any outcome, which can at least potentially result in a one-sided and overly optimistic view of servant leadership as a 'one fits all' solution for organizational success. In this study, servant leadership negatively related to follower well-being and performance via PsyCap, when there was a mismatch between leader behaviors and organizational values, and in the case of performance even when team development climate was high. This suggests that servant leadership is not suited for every organizational context and might even have detrimental effects, for example in strongly performance-oriented, competitive, uncertain, or highly bureaucratic environments characterized by routinized and monotonous tasks.

We explain all these relationships using one comprehensive theoretical framework, namely SDT (Deci et al., 1989; Gagné & Deci, 2005). In past theoretical discussions, the relationships between servant leadership and performance on the one hand, and well-being on the other hand have been explained using a range of different theoretical frameworks that are often too narrow in their focus to explain how servant leadership affects different outcomes at the same time. As highlighted in the theoretical discussion in Chapter 2 of this thesis, examples include conservation of resources theory to explain links to outcomes like stress, burnout, and turnover intentions (Babakus et al., 2010), social exchange theory that puts an emphasis on reciprocal relationships and the obligations resulting from resource exchanges, lending itself to the study of organizational citizenship behavior and organizational commitment (Ehrhart, 2004; Liden et al., 2008;

Walumbwa et al., 2010a), and social identity theory with its focus on identification with and adoption of leaders' prosocial values to connect servant leadership with service-oriented and helping behaviors of followers (Chen et al., 2014; Liden et al., 2014b). In contrast, we could show with this study that SDT offers a well-established and powerful framework to explain not only how servant leadership relates to well-being and performance, but also how PsyCap mediates these relationships, and how the organizational as well as the team context operate as boundary conditions. Thus, it ties together several theoretical propositions that have been made throughout various articles in the servant leadership literature (Liden et al., 2014a; Panaccio et al., 2015; Van Dierendonck, 2011; Winston & Ryan, 2008). In addition, there is a striking congruence between SDT and servant leadership theory with regards to the emphasis put on certain constructs and their subsequent operationalization. SDT is understood as a theory of human growth (Deci & Ryan, 2012; Ryan & Deci, 2000; Spreitzer & Porath, 2013), and follower development is at the core of all servant leadership efforts (Greenleaf, 1977; Liden et al., 2014a). Accordingly, SDT describes the process of human growth in clearly eudaimonic terms (Ryan et al., 2008), which is in line with propositions made about the process of development initiated by a servant leader, making followers become "wiser, freer, more autonomous, and more likely themselves to become servants" (Greenleaf, 1977: 7).

Thus, we believe that SDT has the potential to advance theorizing on servant leadership by functioning as a comprehensive framework that can be used to explain the effects of servant leadership on a wide range of outcomes. Mayer et al. (2008) could already show that servant leaders satisfy the three basic needs of their followers, which in turn increased their job satisfaction. We built on and extended these findings by introducing PsyCap as a manifestation of need satisfaction and autonomous motivation and establishing links with EWB and task performance. Next, future studies could for example directly measure autonomous motivation to see whether

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servant leadership indeed results in congruence between work-related behaviors and personal aspirations. In addition, it would be interesting to explore whether servant leaders can affect the way in which followers frame their goals, resulting in the breaking down of extrinsic aspirations for wealth or fame into more fundamental intrinsic aspirations for connection, growth, and contribution (Ryan et al., 2008), and subsequently in more organizational and community citizenship behaviors. This would be similar to propositions made on the basis of social identity theory that followers adopt the prosocial values of their servant leaders (Liden et al., 2014a), but offer a more in-depth explanation of how this adoption actually takes place. Similarly, SDT can be used to overcome the limitations of social exchange theory and conservation of resources theory by acknowledging that followers do not only interact with their leaders on the basis of felt obligations, and that they can perceive certain stressors as challenging and promising opportunities to develop as persons. Finally, SDT allows for the examination of further variables in the work environment that might enhance or undermine the effects of servant leadership, for example job scope, task variety, responsibility, and role ambiguity.

6.5.2 Implications for Practice

Organizations can draw on the findings of this study if they want to increase both employee performance and well-being. This can on the one hand be achieved by selecting and training servant leaders, and on the other hand by ensuring that servant leaders will be as effective as possible in increasing follower performance and well-being in a given context. Our findings suggest that companies should clearly show their support of servant leadership behaviors by communicating it either explicitly in their vision and mission statements, or implicitly through their policies and practices, which should optimally be tailored towards employee involvement, recognition, development, health and safety, and work-life balance (Van Dam et al., 2008). Examples could include the forming of employee focus groups to tackle organizationally relevant prob-

lems, formal recognition of employee contributions through prizes, the provision of time and financial resources for employees who want to attend external educational programs, the support of team sports, for example by forming a company soccer team, and the implementation of flexible work systems like flextime or part-time employment.

In addition, Human Resource professionals can use the study findings to plan the implementation of servant leadership not only from the leader perspective, but also to ensure that the followers are working in teams that emphasize personal growth and development. According to Van Dam et al. (2008), a development climate is created through the joint encouragement given to employees by team members, leaders, and the HR department to participate in development activities, trainings, and other educational programs. Thus, strategies to create a development climate could include team-building workshops with a particular focus on peer support, for example by applying the insights gained from trainings on LMX (Graen et al., 1982; Scandura & Graen, 1984) to the design of a training on team-member exchange (Seers et al., 1995), including exercises on active listening to ensure that team members get a more reliable overview of what their colleagues want to achieve and which resources they need to succeed. Similarly, servant leadership workshops could be complemented with trainings on active listening, giving constructive feedback, and also conflict management (Thomas, 1992), to make sure that leaders are able to intervene in situations where different followers need access to the same limited resources for development or where individual goals conflict with organizational goals. Finally, broader structural changes like increasing task and skill variety (Hackman & Oldham, 1976) could be used to further increase the opportunities for employees to apply their PsyCap to tasks that are both personally meaningful and organizationally important. Assessments of follower PsyCap in addition to indicators of individual performance and well-being, for example in annual employee surveys, could then be used to evaluate the effectiveness of servant leadership and other interventions.

Although we found that servant leadership actually has a positive effect on task performance when there is a lack of organizational policies and practices for health promotion and a weak team development climate, this does not mean that practitioners can dismiss these elements of the work environment as unnecessary. It is important to note that the observed positive effect is mediated by a reduction in follower PsyCap and thus reflects a decrease in demotivation and a focus on simple, easy, and predictable tasks, which is arguably not what organizations aim to achieve. SDT contends that even when employees' core tasks are by their nature rather uninteresting, routinized, and dull, individuals will still profit from work environments that encourage autonomous motivation and self-determined behavior (Gagné & Deci, 2005); although this might not yield any measurable performance advantages above and beyond environments that are perceived as controlling, it will certainly have a positive effect on employees' well-being by highlighting how even mundane and boring tasks can be in line with personal values (Ilardi, Leone, Kasser, & Ryan, 1993; Shirom, Westman, & Melamed, 1999). This is also reflected in our results, which showed that the servant leadership in a context that lacked supportive organizational policies and practices led to a reduction in follower PsyCap, and subsequently a decrease in follower EWB. Subsequently, our findings highlight that servant leadership needs to be embedded in an appropriate organizational and team context in order to unfold its full potential.

6.5.3 Limitations and Directions for Future Research

Although this study offers important contributions to the understanding of the mechanisms through which, and the conditions under which servant leadership relates to both individual performance and well-being, some limitations have to be acknowledged. One of these limitations is the relatively small sample size on the individual level. However, it has been noted that in multilevel analyses the sample size at the highest level of analysis is more crucial for an accurate estimation of the proposed model (Maas & Hox, 2005). Here, we meet the minimum requirement

of 30 highest-level units recommended for organizational settings by most researchers (Kreft & De Leeuw, 1998; Maas & Hox, 2004; Scherbaum & Ferreter, 2009), basing our analyses on 33 teams. In addition, the sample is very diverse, consisting of teams from six different organizations operating in various industries, and covering a broad span regarding individual characteristics such as age.

Next, the CFA fit indices for the scales used to measure servant leadership and EWB fell short of recommended cut-off values. These values are likely affected by the small sample size of this study (Schreiber et al., 2006). In addition, Ryff and Keyes (1995) report in their initial validation study of the EWB scale that the marginal distributions of most items were skewed substantially, with respondents reporting mostly high scores of well-being. The authors subsequently used weighed least square (WLS) estimation to account for the non-normal distribution (ibid.). However, in this case using the WLS estimator would have required a sample size of at least 189, so that we could not follow this procedure. Finally, Ryff and Keyes (1995) acknowledge that some dimensions, for example self-acceptance and environmental mastery, are expected to correlate quite highly, which can further negatively affect model fit. However, they contend that both dimensions exhibit different age profiles, and should therefore be treated separately for theoretical reasons, despite potential redundancy in structural analyses like CFA (ibid.).That being said, some doubts regarding construct validity remain.

However, we believe that our findings are still trustworthy, because both measures of servant leadership and EWB have been used in several previous studies, and appropriate reliability values were obtained for both scales in this study. Finally, we did not specify any latent variables that assume a particular clustering of scale items and constrain others in our multilevel path models. Still, future studies with larger samples should aim to replicate the factor structures initially suggested by Liden et al., (2008) as well as Ryff and Keyes (1995).

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In the analyses involving individual performance as an outcome, we minimized the risk of common source and common method biases (Podsakoff et al., 2003) by obtaining leader-ratings of follower performance. However, all remaining variables, including follower well-being, were rated in one questionnaire and at the same time. While we believe that subjective concepts like PsyCap and personal well-being cannot be meaningfully assessed using other sources than self-report measures, future studies should measure those variables at different points in time. That being said, common source/method variance is less of a problem when examining interaction effects, because it cannot explain any interaction effects obtained in regression analyses but instead has been shown to result in an underestimation of the strength of such interactions (Evans, 1985; McClelland & Judd, 1993). Furthermore, servant leadership, policies and practices for health promotion, as well as development climate are team-level variables created by aggregating individual reports, whereas all remaining variables were assessed and included in the analyses on the individual level. As a result, the risk of common method variance might be lower compared to an analysis that includes all variables on the same level (Antonakis et al., 2010).

Finally, the external validity and thus the generalizability of findings to other contexts is high, but the study design does not allow for causal inferences regarding the observed relationships. Thus, a follow-up study with an experimental design, in which it is possible to control for extraneous variables, should be conducted to establish causality and internal validity of the findings (Shadish et al., 2002). In addition, the manipulation of servant leadership in such an experimental study would allow for answering the question whether servant leadership can be trained or not, which is of great relevance given the practical implications of the current study.

6.5.4 Conclusion

In this study, we showed that servant leadership positively relates to follower performance and well-being alike through its specific focus on follower development, but only when the work

environment was favorable. In unfavorable contexts, servant leadership negatively related to both outcomes. Subsequently, while this leadership style holds much potential for achieving individual, team, and organizational success, organizations have to be aware that servant leaders, just as their followers, need an appropriate context that allows them to unfold their full potential. Through implementing policies and practices that support servant leadership efforts and encouraging team members to value personal development, organizations can provide fertile soil for the growth of individuals and achieve sustainable performance without compromising employee well-being.

CHAPTER 7: SERVANT LEADERSHIP DEVELOPMENT: THE INTERACTIVE ROLE OF TRAINING AND LEADER IDENTIFICATION

STUDY 2

7.1   CHAPTER SUMMARY

Taking into account the practical implications and addressing the limitations of Study 1, we conduct a field experiment and examine the second overarching research question of this thesis, namely how and under which conditions servant leadership can be trained. We do this by designing and evaluating a servant leadership training and testing if and when it affects leader- and follower-perceptions of servant leadership. Building on the training literature (Colquitt et al., 2000; Kraiger et al., 1993) and servant leadership theory (Greenleaf, 1970; Liden et al., 2014a), we suggest that a servant leadership training will increase both leaders' and followers' perceptions of servant leadership when the training develops leaders' servant leadership skills and promotes positive attitudes towards the use of servant leadership, and in the latter case when the leader is additionally motivated to apply servant leadership in the work context. In line with the structure of Study 1, we begin by outlining the hypotheses, followed by an overview of methods and results. Finally, the findings are discussed.

7.2   THEORY AND HYPOTHESES

7.2.1 Developing Servant Leaders: The Role of Training

To recap, servant leadership has been defined as "a form of leadership that includes a specific focus on follower (and other stakeholder) needs, with the goal of helping followers grow, develop, and prosper" (Mayer et al., 2008: 181). As discussed in the previous chapters, the effectiveness of such behaviors is supported by an increasing number of empirical studies, which have related servant leadership to a range of positive outcomes on different levels of analysis, including organizational commitment (Asag-Gau & Van Dierendonck, 2011; Liden et al., 2008;

Schneider & George, 2011; West et al., 2009), reduced turnover intentions (Hunter et al., 2013; Jaramillo et al., 2009b), extra-role and citizenship behaviors (Barbuto & Wheeler, 2006; Ehrhart, 2004; Hu & Liden, 2011; Jaramillo et al., 2009a; Walumbwa et al., 2010a), trust (Joseph & Winston, 2005; Reinke, 2003; Sendjaya & Pekerti, 2010), and job satisfaction (Barbuto & Wheeler, 2006; Cerit, 2009; Mayer et al., 2008). While it could be expected that the primary focus on employee needs and well-being might compromise performance, several studies have shown that the opposite is the case; positive effects of servant leadership have been reported on individual, team, as well as organizational performance (Hu & Liden, 2011; Hunter et al., 2013; Liden et al., 2014b; Neubert et al., 2008; Peterson et al., 2012a; Schaubroeck et al., 2011). In addition, we found in Study 1 that servant leaders indeed increase follower performance and well-being alike by increasing follower PsyCap, but only when the organizational context and team climate are supportive and in line with servant leadership behaviors.

Despite growing evidence for the positive effects of servant leadership on organizationally relevant outcomes, including attitudinal, motivational, and performance outcomes (Liden et al., 2014a; Van Dierendonck, 2011), the utility of servant leadership cannot be judged adequately without demonstrating that it is open to development. It has been highlighted in the previous chapter that servant leadership, as a style approach to leadership, can be learnt and improved through training (Greenleaf, 1996; Liden et al., 2014a). This assumption has been made explicit by Liden et al. (2014b) and Van Dierendonck et al. (2009), but research as to how servant leaders can be developed is still in its infancy. We are not aware of any servant leadership training intervention that has been evaluated and published in a peer-reviewed journal, so that there is little empirical evidence to support the claims being made. Building on the training literature (Kraiger et al., 1993) and integrating it with servant leadership theory (Greenleaf, 1970; Liden et al., 2014a), we thus identified three key components for an effective servant leadership development

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training that should be addressed through its training activities.

The first key indicator of effective training is the successful acquisition and organization of knowledge (Gagné, 1984; Kraiger et al., 1993). According to theories of skill development, transmitting knowledge about what defines training elements and how these elements are related to each other positively affects participants' perceptions of training, because it allows them to create mental models about the function and integration of learnt behaviors that can be verbalized and used as schemata in future work situations (Anderson, 1982; Rouse & Morris, 1986). We address knowledge building by clearly defining servant leadership and each of its facets, giving examples of applying each element of servant leadership in a work context, and contrasting servant leadership from other prominent leadership theories like transformational leadership, ethical leadership, and LMX.

Secondly, participants have to be provided with the opportunity to translate the previously acquired declarative knowledge into procedural knowledge, which is necessary for the successful reproduction of trained behaviors after the intervention (Neves & Anderson, 1981). If participants can practice learnt skills in a training environment, for example in role plays, before they transfer the trained behaviors to their particular work context, their future performance will be less prone to errors, faster, and characterized by the integration of discrete skills into a single, coherent activity (Anderson, 1982; Kraiger et al., 1993). Thus, we designed several relevant role-play scenarios that require participants to engage in the full range of servant leadership behaviors, and integrate group discussions as well as trainer and peer feedback on role-play performance in our servant leadership training.

Finally, for a training to be considered effective it has to address participants' attitudes and goals relating to the training objectives; even if participants' knowledge of training content has improved and they know how to translate it into behaviors, a positive effect on their perceptions

of training effectiveness will be prevented if participants do not feel that the training content is relevant, beneficial, and achievable (Colquitt et al., 2000; Kraiger et al., 1993). Goal setting has been shown to play an important role in this process, because it allows participants to plan their learning progress by setting challenging, but achievable personal goals that help to sustain their positive attitudes beyond the training (Locke & Latham, 1990). Consequently, we first highlight the effectiveness of servant leadership by giving an overview of the current state of empirical research and presenting examples of companies that already utilize servant leadership, and how this affects their performance. Finally, we conclude the training with a goal-setting exercise in which participants create their individual servant leadership development plan by writing down three goals for the future, following the SMART objectives (Locke & Latham, 2002).

Following from the above, we propose that leaders report a positive change in their perceptions of servant leadership, if the training defines servant leadership and relates its facets to each other, gives leaders the opportunity to practice servant leadership behaviors, and promotes positive attitudes towards servant leadership by providing evidence of its effectiveness and allowing leaders to set personal goals to manage their own servant leadership development. Thus:

Hypothesis 1: Servant leadership training that enhances servant leadership skills through the development of declarative and procedural knowledge of servant leadership and promotes positive attitudes towards servant leadership has a positive effect on leader perceptions of servant leadership.

7.2.2 Developing Effective Servant Leaders: The Role of Leader Team Identification

In the above discussion, we identified several training aspects that have been shown to result in a positive change of leader perceptions of servant leadership. However, training theory, and particularly theorizing on training transfer, suggests that a change in leader perceptions by itself is not enough to ensure that they will apply the trained behaviors in a particular work context

(Burke & Hutchins, 2007; Colquitt et al., 2000). Training participants can perceive themselves as servant leaders because they have learnt to verbalize the concept and exhibit the respective behaviors, and because they hold a favorable attitude towards servant leadership, but for a successful application of servant leadership behaviors to occur in a specific context, the leaders also have to be motivated to transfer their learning (Axtell et al., 1997; Noe, 1986). In the following, we therefore argue on the basis of training transfer theory that the extent to which leaders will display more servant leadership in their work groups as perceived by team members after servant leadership training will depend on leaders' motivation to apply their newly acquired servant leadership skills in this context.

With regards to the antecedents of transfer motivation, the importance of high identification with the group has been highlighted by Colquitt et al. (2000) and confirmed by Blume et al. (2010) as the strongest predictor of training transfer amongst individual, environmental, and training-related factors. In more detail, Colquitt et al.'s (2000) integrative model of training motivation, derived from a meta-analytic summary of training research, identifies commitment with the team or organization (i.e. the relative strength of an individual's identification with and involvement in a particular team or organization) as an important individual characteristic predicting transfer motivation, because the resulting desire to remain a member of the respective team or organization increases the likelihood of applying the skills acquired in a training that is perceived to be useful for oneself and the team or organization as a whole (Facteau et al., 1995; Quinones et al., 1995). In the particular context of developing servant leadership, the importance put on leader team identification in training transfer theory is in line with propositions of servant leadership theory building on the social identity theory of leadership (Liden et al., 2014a; see also Hogg et al., 2012; Van Knippenberg & Hogg, 2003), according to which leaders' engagement in behaviors that are in favor of the team depends on their identification with this particular team.

Building on theorizing on training transfer (Burke & Hutchins, 2007; Colquitt et al., 2000) and servant leadership theory (Liden et al., 2014a), we thus argue that leaders' identification with their team increases their motivation to act in line with team interests and contribute to the team's optimal functioning. Learning servant leadership, with its specific focus on supporting direct followers, putting their interests ahead of one's own, and making their development a priority, will subsequently appear to such leaders as highly desirable, useful, and accepted by their team. Subsequently, leaders who participate in the servant leadership training and report high identification with their team are expected to exhibit higher transfer motivation and more effort to transfer learnt behaviors to their particular team context, resulting in more favorable team perceptions of servant leadership.

In contrast, leaders that do not identify with their team are expected to be less likely to apply servant leadership behaviors in this particular context. While they might perceive the training as an opportunity to further their personal career interests (Meyer & Allen, 1991), the desire to act on behalf of their team will not be strong enough, and team members will not perceive any changes in leader behaviors. In sum, we therefore hypothesize that followers only report significant changes in their leader's servant leadership, when their leader strongly identifies with the team.

> *Hypothesis 2: Leaders' identification with their team moderates the effects of servant leadership training (i.e. a training that enhances declarative and procedural knowledge of, and promotes positive attitudes towards servant leadership) on followers' perceptions of servant leadership. When identification is high, servant leadership training has a positive effect, but not when it is low.*

7.3 METHODS

7.3.1 Training Intervention

When designing the servant leadership training, the framework proposed by Kraiger et al. (1993) was utilized, which distinguishes between cognitive, affective, and skills-based (i.e. behavioral) learning outcomes that should all be covered by a training intervention. Addressing all three elements ensures that participants do not only acquire new knowledge, but also develop favorable attitudes towards servant leadership and feel able to apply the learnt behaviors at work, which are central preconditions for training effectiveness (Gagné, 1984; Kraiger et al., 1993). To train the cognitive aspect, the overall construct and each of its seven elements were presented, closely following the wording of the servant leadership scale by Liden et al. (2008), with the aim of building the declarative knowledge of participants about servant leadership and helping them to form mental models about how each of its elements function together. Next, we aimed at positively influencing participants' attitudes towards servant leadership and its application by giving an overview of the latest research findings highlighting the benefits of servant leadership for follower performance and well-being. In addition, examples of real-life companies that have successfully implemented servant leadership were outlined and discussed.

In the following step, the participants were given the opportunity to practice servant leadership behaviors themselves in a series of three pre-defined role play scenarios. The scenarios were specifically adapted to the work context of the participants, outlining challenging situations that they might encounter during teamwork. This part of the training allowed participants to translate their declarative knowledge about servant leadership into the corresponding behaviors in a safe training environment. The workshop concluded with writing a servant leadership development plan. Using a goal-setting exercise (Locke & Latham, 1990, 2002), in which the importance of setting challenging, but achievable goals was emphasized, each participant was asked

to write down three servant leadership behaviors they want to improve in the time following the training, which helped the leaders to make the training content more relevant and focused on their personal work context, and to sustain positive attitudes towards servant leadership after the training. The whole training lasted for approximately three hours and was delivered by two doctoral researchers with a background in leadership research, of which one was female and one was male to rule out gender effects on training effectiveness.

7.3.2 Design and Sample

Pilot study. Before conducting the main study, a pilot study was conducted to evaluate the effectiveness of the intervention. Participants were six doctoral researchers from different departments at a UK-based business school, who did not have a background in leadership research. The participants were between 23 and 29 years old ($M = 27.3$, $SD = 2.3$), and 50% were female. They attended the full three-hour training intervention and completed surveys assessing their knowledge of, attitudes towards, and perceived ability to exhibit servant leadership and transformational leadership before and after the training, which are outlined in more detail in the Measures section below. Transformational leadership was used for comparison because it is the most thoroughly researched leadership style (Judge & Piccolo, 2004) and because it has been successfully distinguished from servant leadership in previous studies (Parolini et al., 2009; Schneider & George, 2011; Stone et al., 2004). If the results show significant differences between servant and transformational leadership on the assessed outcomes, this provides strong evidence for the specificity of the developed training.

The purpose of this pilot study was to validate the training and allow for the possibility to make any necessary changes before delivering the training to the main study sample. However, results showed that the servant leadership training had positive effects on participants' knowledge of, attitudes towards, and ability to apply servant leadership, but not transformational

leadership. In detail, attending the servant leadership training resulted in a significant difference in the scores for pre-workshop knowledge ($M = 16.17$, $SD = 8.98$) and post-workshop knowledge of servant leadership ($M = 25.83$, $SD = 0.75$); $t(5) = -2.73$, $p < .05$). In addition, the training led to improvements in participants' attitudes (pre: $M = 4.25$, $SD = 0.35$, post: $M = 4.57$, $SD = 0.32$; $t(5) = -4.47$, $p < .01$) and perceived ability (pre: $M = 3.92$, $SD = 0.39$, post: $M = 4.31$, $SD = 0.38$; $t(5) = -5.37$, $p < .01$) to exhibit servant leadership behaviors. At the same time, the workshop did not significantly change the knowledge (pre: $M = 6.17$, $SD = 4.62$, post: $M = 7.00$, $SD = 5.10$; $t(5) = -0.43$, $p =$ n.s.), attitudes (pre: $M = 4.34$, $SD = 0.55$, post: $M = 4.47$, $SD = 0.31$; $t(5) = -0.83$, $p =$ n.s.), and ability (pre: $M = 3.95$, $SD = 0.71$, post: $M = 4.17$, $SD = 0.55$; $t(5) = -2.34$, $p =$ n.s.) of participants to exhibit transformational leadership behaviors (see also Table 7.1). Thus, modifications of the training were not needed and it was delivered to the main study sample without making any changes.

Main study. Participants of the main study were second year undergraduate students partaking in a two semester long business simulation at the same business school. An important aim of the simulation is to prepare students for a placement in an organization taking place during their third year of study, where many of them will get the opportunity to take on leadership positions in small project teams. In the simulation, the students work in groups of four to five and take on roles in the areas of marketing, finance, human resources, and operations, or become the managing director, thus functioning as the leader of the group. Each group attends regular tutorials with a class size of six groups, in which a tutor explains the simulation procedure, introduces new scenarios, and answers questions. The groups then independently run a fictional telecommunications company over the course of eight weeks, and the final in-game performance, measured as cumulative total shareholder return and share price, forms part of the overall assessment. This makes it necessary to form cohesive and well-functioning teams, a process in which the

managing directors play a crucial role. This particular context, which shows many similarities to the work of project teams in organizations (Ellis et al., 2003) as well as the use of student samples in previous experimental research on leadership (Antonakis et al., 2011; Jung & Avolio, 1999; Sauer, 2011; Shea & Howell, 1999) led us to conclude that this sample was appropriate to test our hypotheses.

For this study, we used a switching replications design (Kirk, 2012) to ensure fairness. As in a normal two-group experiment, participants were randomly assigned to a training group and a control group, and data was collected from managing directors in both groups as well as their team members pre- and post-intervention, namely in week 1, followed by the training in week 2, and again in week 4. After the second measurement in week 4, the groups were switched and the intervention was reproduced with the control group becoming the training group. The second training was delivered in week 5, and data collection ended with a final measurement in week 7. Students received feedback in week 8. While a switching replications design ensures that all participants have the opportunity to take part in the intervention, this design is not completely independent, because the effects of the first intervention are likely to affect the responses of the first training group after switching roles, and because the repeated pre-test for the control group might cause priming effects (Kirk, 2012). Thus, only data collected at measurement points 1 and 2 were used in the below analyses.

In total, 60 managing directors were invited to participate in the training, and offered a certificate of participation that could be used as one of five pieces of evidence demonstrating students' engagement with the module, through which they could improve their total marks for the module by up to 5%. Of the 30 managing directors randomly assigned to the training group, 17 attended the servant leadership training. In total, 37 managing directors from both training and control group completed the surveys at time 1 and time 2. 59.5% of the managing directors were

female, and their age ranged from 19 to 23 ($M = 20.0$, $SD = 0.90$). In addition, a total of 217 team members working in 60 teams were contacted, of which 113 completed at least one survey and could be matched with the participating leaders. 51 team members in 17 teams belonged to the training group, and 62 team members in 20 teams belonged to the control group. Their age ranged from 18 to 35 ($M = 20.21$, $SD = 1.85$), and 47.4% were female.

Managing directors rated their own servant leadership style at time 1 and 2, and their identification with the group at time 1. In addition, all managing directors in the training group completed the questionnaire that was used in the pilot study to further evaluate the effectiveness of the intervention. In line with the pilot study, the managing directors reported a significant increase in their knowledge (pre: $M = 20.24$, $SD = 5.90$, post: $M = 26.59$, $SD = 2.45$; $t(16) = -3.91$, $p < .01$), attitudes (pre: $M = 3.85$, $SD = 0.43$, post: $M = 4.18$, $SD = 0.47$; $t(16) = -3.77$, $p < .01$), and ability (pre: $M = 3.72$, $SD = 0.42$, post: $M = 4.02$, $SD = 0.52$; $t(16) = -3.14$, $p < .01$) regarding servant leadership. At the same time, the training led to a significant decrease in participants' knowledge of transformational leadership (pre: $M = 4.24$, $SD = 3.63$, post: $M = 2.00$, $SD = 2.32$; $t(16) = 2.44$, $p < .05$), a significant increase in their attitudes (pre: $M = 4.07$, $SD = 0.43$, post: $M = 4.29$, $SD = 0.32$; $t(16) = -3.19$, $p < .01$), but no significant change in their perceived ability (pre: $M = 3.98$, $SD = 0.51$, post: $M = 4.12$, $SD = 0.50$; $t(16) = -1.44$, $p = $ n.s.) to display transformational leadership behaviors. The results, which are summarized in Table 7.1, show that in contrast to our propositions the training resulted in a significant increase of participants' attitudes towards transformational leadership. However, this could reflect a change in the overall attitude towards people-oriented leadership behaviors, as there are some overlaps between transformational and servant leadership in this respect (Van Dierendonck, 2011). With the exception of this effect, the training affected all other outcomes as predicted, providing support for its effectiveness.

TABLE 7.1

Changes in Knowledge of, Attitudes Towards, and Ability to Exhibit Servant Leadership and Transformational Leadership Pre- and Post-Training

Variable	Pre-Training		Post-Training				
	M	*SD*	*M*	*SD*	*t*	*df*	Sig. (2-tailed)
Pilot study							
Servant leadership: Knowledge	16.17	8.98	25.83	0.75	-2.73	5	.041
Servant leadership: Motivation	4.25	0.35	4.57	0.32	-4.47	5	.007
Servant leadership: Ability	3.92	0.39	4.32	0.38	-5.37	5	.003
Transformational leadership: Knowledge	6.17	4.62	7.00	5.10	-0.43	5	.688
Transformational leadership: Motivation	4.34	0.55	4.47	0.31	-0.83	5	.446
Transformational leadership: Ability	3.95	0.71	4.17	0.55	-2.34	5	.066
Main study							
Servant leadership: Knowledge	20.24	5.90	26.59	2.45	-3.91	16	.001
Servant leadership: Motivation	3.85	0.43	4.18	0.47	-3.77	16	.002
Servant leadership: Ability	3.72	0.42	4.02	0.52	-3.14	16	.006
Transformational leadership: Knowledge	4.24	3.63	2.00	2.32	2.44	16	.027
Transformational leadership: Motivation	4.07	0.43	4.29	0.32	-3.19	16	.006
Transformational leadership: Ability	3.98	0.51	4.12	0.50	-1.44	16	.169

Note. Pilot study $n = 6$. Main study $n = 17$.

Team members then rated the servant leadership style of their managing directors at time 1 and 2. As they did not participate in the servant leadership trainings and their ratings of managing directors' servant leadership might have been influenced by a range of other confounding variables, in all analyses that were based on follower data we controlled for member demographics (gender, age), the meeting frequency of the group, and respective roles of team members, all of which could have affected contact time. First of all, differences in age as well as gender have been shown to affect the perceived prototypicality of a particular leader, and in turn his/her acceptance within the group (Kearney, 2008; Kulich, Ryan, & Haslam, 2007). Secondly, the groups decided on their own how often they would meet over the course of the simulation, and this very likely influenced how many opportunities the trained managing directors had to apply their servant leadership skills. Finally, particular decisions, for example regarding advertisement, had a stronger effect on simulation results when compared to human resource decisions,

which could have led to more frequent contact between the managing director and the marketing director. In addition, implicit theories regarding the malleability of leadership ability, personality, and tutors' reinforcement to participate in the study were controlled for, because they might have affected the receptivity of followers to changes in leader behavior in the way that followers were only receptive when they believed that leadership can actually be trained, were personally open to new experiences, conscientious with regard to the tasks, and agreeable, and when their tutors reinforced the application of servant leadership to improve group performance (Dweck, Chiu, & Hong, 1995; Groves, 2005; Tracey et al., 1995).

7.3.3 Measures

Pilot questionnaire. To measure knowledge of, attitudes towards, and the ability to exhibit servant leadership, the items from the 28-item servant leadership scale developed by Liden et al. (2008) were first reframed to a self-rating format ("I" instead of "my manager"). Next, 20 items measuring transformational leadership, taken from the self-rating version of the Multifactor Leadership Questionnaire (MLQ 5x; Bass & Avolio, 1997), were added as filler items to the questionnaire in order to allow for testing whether the intervention only trains servant leadership. A sample item for servant leadership is "I make the personal development of my group members a priority", and a sample item for transformational leadership is "I talk enthusiastically about what needs to be accomplished". Finally, the standard 5-point Likert scales were replaced by three different scales: Firstly, a scale to assess the knowledge of participants, asking them to indicate whether each item describes an element of servant leadership or not (Y = *yes*, N = *no*); secondly, a 5-point Likert scale ranging from 1 = *strongly disagree* to 5 = *strongly agree*, reading "I am motivated to display this behavior"; and finally, another 5-point Likert scale with the same anchors, reading "I feel able to display this behavior". Cronbach's alphas were adequate in the pilot sample for servant leadership (knowledge time 1/2: α = .94/.93; motivation time 1/2: α

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= .85/.83; ability time 1/2: α = .83/.86) and transformational leadership (knowledge time 1/2: α =

.81/.92; motivation time 1/2: α = .92/.82; ability time 1/2: α = .94/.89), as well as in the main

study sample for servant leadership (knowledge time 1/2: α = .87/.81; motivation time 1/2: α =

.89/.93; ability time 1/2: α = .87/.94) and transformational leadership (knowledge time 1/2: α =

.78/.72; motivation time 1/2: α = .86/.77; ability time 1/2: α = .88/.89).

Servant leadership. The same 28-item scale by Liden et al. (2008) was used to measure

both self-rated and follower-rated servant leadership by replacing "my manager" with "I" in the

leader version, and changing "my manager" to "my managing director" in the follower version,

in line with the title used for the leaders of the simulation groups. As in previous studies (e.g. Hu

& Liden, 2011; Liden et al., 2014b; Peterson et al., 2012a), all 7 dimensions were combined to

form an overall servant leadership score. Answers were made on a 5-point Likert scale ranging

from 1 = *strongly disagree* to 5 = *strongly agree*. Cronbach's alpha was adequate for the leader

version (time 1/2: α = .87/.91) and the follower version (time 1/2: α = .94/.96). A sample item of

the follower version is "My managing director cares about my personal well-being", and an ex-

ample of a leader item is "I hold high ethical standards". To assess the effectiveness of the lead-

ership training we aggregated follower-rated servant leadership to the team level, because we

were interested in whether team members on average perceived their leaders as exhibiting more

or less servant leadership, and not in team members' individual perceptions. Interrater reliability

averaged across all teams was adequate (time 1/2: r_{wg} = .91/1.00) and the intraclass correlations

for time 1/2 were: ICC(1) = .04/.00; ICC(2) = .07/.00.

Group identification. Managing directors' identification with the group was measured at

time 1 using the 5-item scale by Mael and Ashforth (1992), which uses a 5-point Likert scale

ranging from 1 = *strongly disagree* to 5 = *strongly agree*. This scale's Cronbach's alpha was .80,

and a sample item is "When I talk about this group, I usually say 'we' rather than 'they'".

Control variables. Gender was assessed with a binary item (1 = *male*, 2 = *female*), and participants indicated their age in years. Meeting frequency was measured with one item reading "How often does your Business Game group meet?" with options ranging from 1 = *once a month* to 4 = *several times per week*. Team role of participants was dummy coded (1 = respective role, 0 = all other roles). Similarly, tutors were dummy coded (1 = respective tutor, 0 = all other tutors). Implicit theories of intelligence were measured with the 6-item questionnaire by Dweck and Leggett (1988), which uses a 6-point Likert scale ranging from 1 = *strongly disagree* to 6 = *strongly agree*. Reliability was very adequate (α = .86). Finally, personality was assessed with the 10-item TIPI scale by Gosling et al. (2003), and in line with their recommendations no Cronbach's alphas were calculated due to the relatively low inter-item correlations and the fact that each subcomponent, namely openness to experience, conscientiousness, extraversion, agreeableness, and neuroticism, are only represented by two items each.

7.3.4 Analytic Approach

The training effects on leader perceptions of servant leadership outlined in Hypothesis 1 imply a cross-level interaction between time (Level-1) and experimental condition (Level-2). In the case of training effects on follower perceptions of servant leadership, we further proposed a moderating effect of leader team identification in Hypothesis 2, resulting in a three-way interaction between time (Level-1), experimental condition (Level-3), and identification (Level-3). In addition, meeting frequency (Level-1), age, gender, team role, and implicit theories of intelligence, personality (Level-2), and tutors (Level-3) were included as control variables in all analyses based on follower data. To test these hypotheses, we conducted multilevel modeling with HLM 7, following the procedures outlined by Hofmann (1997) and Aguinis et al. (2013). The estimation technique used was full maximum likelihood estimation. After specifying a null model without any predictors, we specified a model with all control variables (random coefficients

model), a model with the main effects of time and experimental condition (intercept-as-outcome model), and finally a model with the proposed interaction effects (slope-as-outcome model). If the final model fits the data best and explains the most variance in the respective outcome, which was calculated as (unrestricted error – restricted error) / unrestricted error (Kreft & De Leeuw, 1998), and the interaction effect is significant, this indicates support for the hypotheses.

In all multilevel analyses described above, Level-1 predictor and control variables were centered around the group mean, while all other higher-level predictor and control variables were grand-mean centered (cf. Aguinis et al., 2013). The analysis relating to Hypothesis 1 was based on 74 observations nested within 37 leaders (training group $n = 17$; control group $n = 20$), while the analysis of Hypothesis 2 was based on 155 observations from 91 followers nested within 36 groups (training group $n = 39$; control group $n = 52$).

7.4 RESULTS

7.4.1 Changes in Leader Perceptions of Servant Leadership over Time

Hypothesis 1 proposed a positive effect of the servant leadership training on leader perceptions of servant leadership. To assess changes in model fit, the difference between deviance scores (-2 log likelihood ratios) of the model with main effects minus the final model with interaction effects was calculated (Bliese, 2002), showing that model fit improved significantly, deviance of $37.29 - 28.75 = 8.54$, $\Delta df = 1$, $p < .01$.

Results of the multilevel analysis further show that in line with our predictions, the effect of the cross-level interaction between time and experimental condition on leader-ratings of servant leadership was significant, $\gamma = 0.25$, $SE = 0.08$, $t(35) = 3.10$, $p < .01$. The interaction term explained an additional 19.49% of level-1, and 26.84% of level-2 variance in leader-rated servant leadership compared to the main effects model. The results are summarized in Table 7.2.

To examine whether the training affected leader perceptions in the hypothesized direction, the observed 2-way interaction was plotted graphically, and simple slope tests were conducted following the procedure outlined by Preacher et al. (2006). In doing so, we decided to examine changes over time within groups on the one hand, and differences between groups at a given point in time on the other hand, resulting in two different graphs: One with time on the x-axis, and one with experimental conditions on the x-axis.

The plotted slopes for changes within each group over time are presented in Figure 7.1, and results showed that there was a positive, but non-significant change in leader perceptions of servant leadership in the training group, $\gamma = 0.09$, $SE = 0.06$, $p =$ n.s., whereas leader perceptions decreased significantly over time in the control group, $\gamma = -0.16$, $SE = 0.06$, $p < .01$. When looking at the slopes representing differences between training and control group at different points in time, presented in Figure 7.2, results showed that at time 2 there was a significant difference between groups in favor of the training group, $\gamma = 0.34$, $SE = 0.13$, $p < .05$, while the slope representing differences between training and control group at time 1 was not significantly different from zero, $\gamma = 0.10$, $SE = 0.12$, $p =$ n.s.. Taken together, these results provide partial support for Hypothesis 1.

7.4.2 Changes in Team Perceptions of Servant Leadership over Time

In Hypothesis 2, we proposed that leader team identification moderates the relationship between training participation and servant leadership. When adding the resulting three-way interaction between time, experimental condition, and leader identification to the model, its fit significantly improved compared to the intercept-as-outcome model, deviance of $-0.58 - (-18.78) = 18.2$, $\Delta df = 3$, $p < .01$. The effect of the interaction term was significant, $\gamma = -0.21$, $SE = 0.08$, $t(23) = -2.68$, $p < .05$, and explained an additional 14.19% of level-1 variance in team-rated servant leadership when compared with the previous model. Results are summarized in Table 7.2.

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FIGURE 7.1
**Moderating Effect of Experimental Condition on the Relationship between Time and
Leader-rated Servant Leadership**
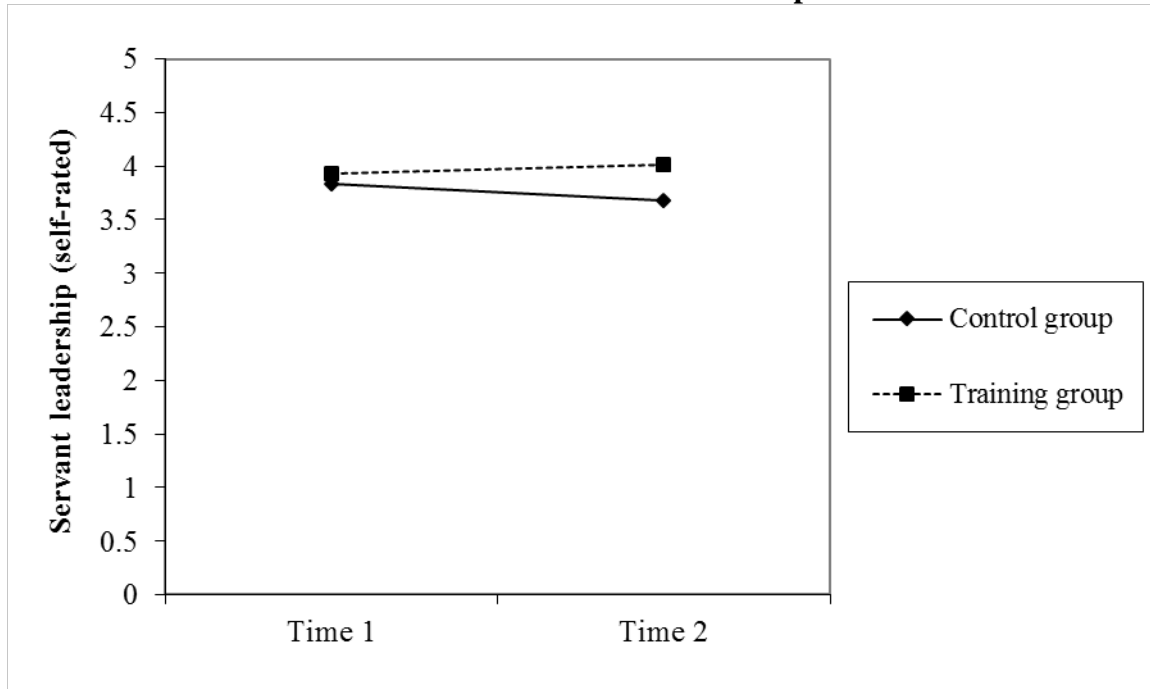
FIGURE 7.2
**Moderating Effect of Time on the Relationship between Experimental Condition and
Leader-rated Servant Leadership**
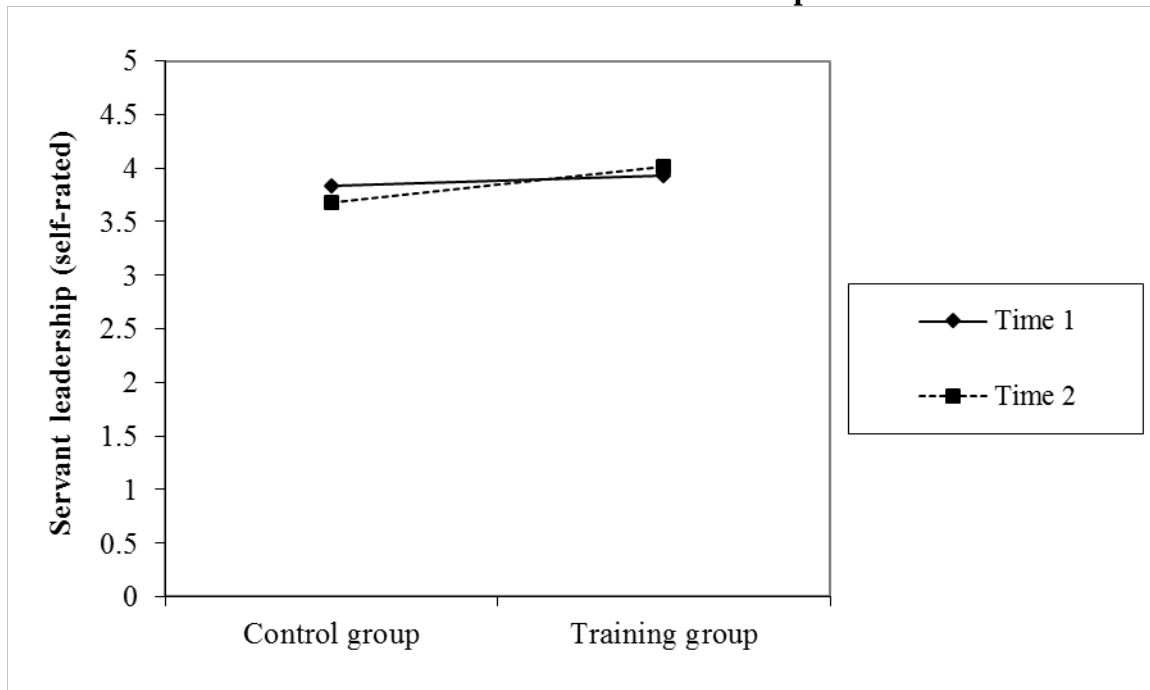
Again, the observed three-way interaction was plotted graphically, and simple slope tests were conducted following the procedure of Preacher et al. (2006). It can be seen in Figure 7.3 that teams in the training group only reported a significant increase in servant leadership over time, when leader identification was high, $\gamma = 0.42$, $SE = 0.16$, $p < .05$. There was no significant change, when leader identification in the training group was low, $\gamma = 0.33$, $SE = 0.17$, $p = $ n.s., or when leaders in the control group highly identified with their group, $\gamma = -0.05$, $SE = 0.11$, $p = $ n.s.. Finally, team-ratings of servant leadership decreased significantly over time in the control group, when leaders reported low identification, $\gamma = -0.48$, $SE = 0.22$, $p < .05$.

Looking at differences between groups next, simple slope tests revealed that there were no significant differences at time 1, neither when leader identification was high, $\gamma = 0.23$, $SE = 0.56$, $p = $ n.s., nor when leader identification was low, $\gamma = 0.25$, $SE = 0.84$, $p = $ n.s. Although differences between groups at time 2 were more pronounced, the simple slopes again were not significantly different from zero for high leader identification, $\gamma = 0.70$, $SE = 0.56$, $p = $ n.s., and for low leader identification, $\gamma = 1.06$, $SE = 0.84$, $p = $ n.s. Results for experimental condition on the x-axis are displayed in Figure 7.4. In sum, these results again provide partial support for Hypothesis 2.

FIGURE 7.3

Moderating Effect of the Interaction between Experimental Condition and Leader Identification on the Relationship between Time and Team-rated Servant Leadership
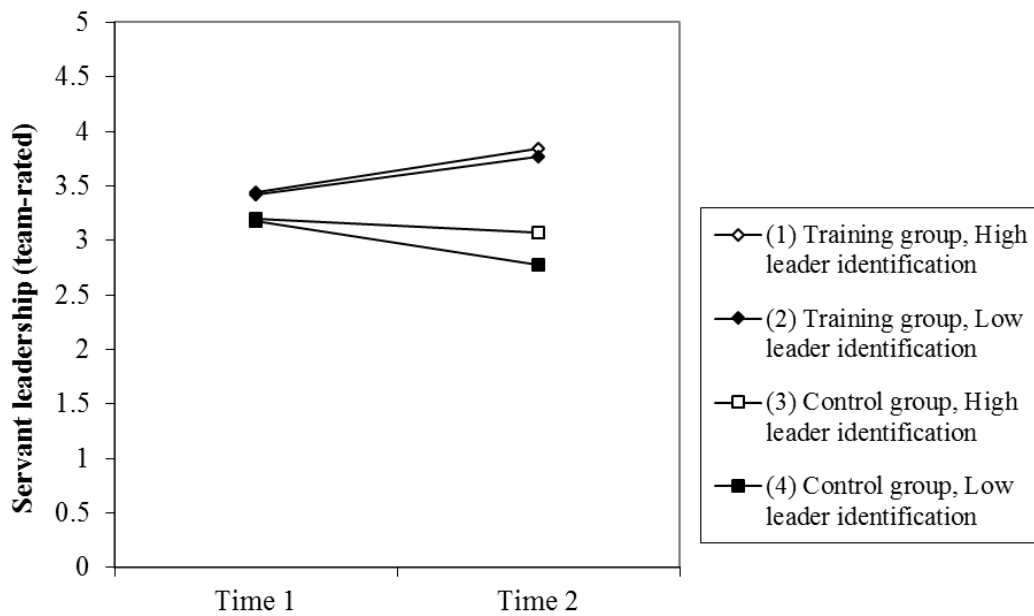
FIGURE 7.4

Moderating Effect of the Interaction between Time and Leader Identification on the Relationship between Experimental Condition and Team-rated Servant Leadership
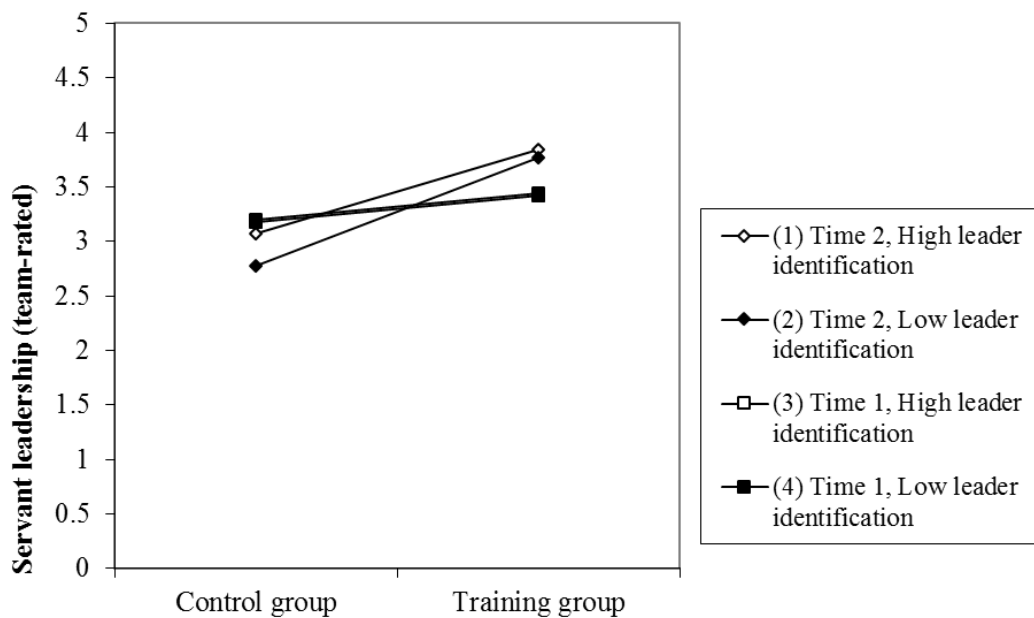
TABLE 7.2
Results of Hierarchical Linear Modeling Analyses of Leader-rated[a] and Team-rated[b] Servant Leadership

Variables	Leader Servant Leadership		Team Servant Leadership		
	Model 1	Model 2	Model 1	Model 2	Model 3
Intercept	3.86 (0.06)**	3.86 (0.06)**	3.33 (0.06)**	3.33 (0.06)**	3.33 (0.06)**
Level 1 variables					
Meeting frequency			0.15 (0.05)**	0.16 (0.05)**	0.16 (0.05)**
Time	-0.03 (0.04)	-0.03 (0.04)		0.05 (0.03)	0.05 (0.03)
Level 2 variables					
Follower gender			0.01 (0.04)	0.01 (0.04)	0.01 (0.04)
Follower age			0.01 (0.02)	0.01 (0.02)	0.01 (0.02)
Team role 1[c]			-0.02 (0.05)	-0.02 (0.05)	-0.02 (0.05)
Team role 2[c]			-0.01 (0.05)	-0.01 (0.05)	-0.01 (0.05)
Team role 3[c]			0.00 (0.06)	-0.00 (0.06)	-0.00 (0.05)
Follower implicit intelligence			-0.01 (0.02)	-0.01 (0.02)	-0.01 (0.02)
Follower extraversion			-0.01 (0.02)	-0.01 (0.02)	-0.01 (0.01)
Follower agreeableness			0.01 (0.02)	0.01 (0.02)	0.01 (0.02)
Follower conscientiousness			0.01 (0.02)	0.01 (0.02)	0.01 (0.02)
Follower emotional stability			0.01 (0.02)	0.01 (0.02)	0.01 (0.01)
Follower openness			0.02 (0.02)	0.02 (0.02)	0.02 (0.02)
Experimental condition	0.17 (0.12)	0.22 (0.12)			
Level 3 variables					
Tutor 1[d]			-0.09 (0.23)	-0.09 (0.22)	-0.09 (0.22)
Tutor 2[d]			-0.26 (0.22)	-0.22 (0.22)	-0.22 (0.22)
Tutor 3[d]			-0.30 (0.24)	-0.21 (0.25)	-0.20 (0.25)
Tutor 4[d]			0.16 (0.27)	0.17 (0.27)	0.17 (0.27)
Experimental condition				0.56 (0.68)	0.56 (0.68)
Leader identification				0.10 (0.10)	0.10 (0.10)
Experimental condition x Leader identification				-0.12 (0.17)	-0.12 (0.17)
Cross-level interactions					
Time x Experimental condition		0.25 (0.08)**			0.64 (0.31)
Time x Leader identification					0.16 (0.05)**
Time x Experimental condition x Leader identification					-0.21 (0.08)*
Additional information					
Level-1 variance explained[e]	16.70%	19.49%	10.47%	1.85%	14.19%
Level-2 variance explained[e]	6.64%	26.84%	0.00%	0.00%	0.00%
Level-3 variance explained[e]			15.16%	5.34%	0.00%
Deviance	37.29	28.75	3.53	-0.58	-18.78

Note. Standard errors are in parentheses. Significance levels are calculated based on *t*-scores due to the small sample size, and unstandardized path coefficients are reported.

[a] $n = 74$ observations and 37 individuals. Training group $n = 17$, and control group $n = 20$.

[b] $n = 155$ observations, 91 individuals, and 36 teams. Training group $n = 39$, and control group $n = 52$.

[c] 1 = Respective role, 0 = All other roles.

[d] 1 = Respective tutor, 0 = All other tutors.

[e] These are variance differences on each level compared to the previous model. Model 1 was compared to the null model.

  * $p < .05$

** $p < .01$

7.5   DISCUSSION

Our goals in this study were to show that servant leadership can be developed through a focused training intervention, and to identify boundary conditions that determine the effectiveness of servant leadership development. We designed a servant leadership training that builds on key indicators of training effectiveness (Kraiger et al., 1993) and developments in servant leadership theory (Greenleaf, 1970; Liden et al., 2014a), and showed that this training positively affects leader perceptions of servant leadership by increasing their knowledge of, positive attitudes towards, and skills to apply servant leadership behaviors. Combining insights from the literature on training motivation and training transfer (Burke & Hutchins, 2007; Colquitt et al., 2000) with servant leadership theory (Liden et al., 2014a; see also Hogg et al., 2012; Van Knippenberg & Hogg, 2003), we further showed that leaders only apply the trained servant leadership behaviors in their particular work context when they identify with their team and thus are motivated to act on behalf of their team.

The analyses of simple slopes representing the training effects on leader and follower perceptions of servant leadership showed partial support for our hypotheses, depending on how the results were plotted. Starting with leader perceptions of servant leadership, we found that there was a positive, but non-significant change over time in the experimental group, and a significant negative change in the control group. Thus, each slope represents temporal changes within each group, but does not offer any information about the differences between experimental and control group at a given point in time. While some of the observed changes might be due to the intervention, it is also possible that a measurement effect is confounding the results. It could for example be the case that leaders in both groups rated their own servant leadership abilities too optimistically during the first data collection phase due to their need to maintain or enhance self-esteem, for which some evidence exists (Dobbins & Russell, 1986). This is especially likely as

most of the leaders did not have any prior leadership experience and thus had to base their self-ratings fully on their perceived ability as opposed to some kind of external feedback received in the past. During the business simulation, leaders in both groups then got the opportunity to test their leadership abilities on their team members and likely developed a more realistic view of their servant leadership abilities based on actual experience, resulting in a downward correction of their self-ratings at time 2. In the control group, this is represented by a significant decrease in servant leadership over time, while the more realistic post-training ratings in the experimental group resulted in a less pronounced and non-significant positive change over time, so that this measurement effect likely masks the training effect when presenting the results in this way.

Moreover, some leaders may actually have decided not to apply the learnt servant leadership skills in favor of a more task-oriented and directive leadership style due to perceived differences between team members in terms of motivation, ability, and commitment to the task. While some team members might have been highly motivated to increase their performance during the simulation and achieve a high grade in return, others may have been satisfied with an average grade and as a result have contributed less when playing the simulation. In such a situation, the managing directors might have decided that more autocratic leadership behaviors are more appropriate, or even abandoned their leadership role altogether to do all the work by themselves. This could explain not only the non-significant increase of leader-rated servant leadership in the training group, but also the significant decrease in the control group, as the initial attitudes towards this leadership style changed as a result of the given performance requirements and expectations. While more experienced servant leaders, who have reached the automaticity stage in terms of applying the respective behaviors, might have been able to motivate and enable less committed followers, this is more unlikely in a sample of students with no or very little leadership experience.

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We therefore plotted a second set of simple slopes that represents the differences in self-rated servant leadership between members of the experimental and control group at each time point. This way, the confounding measurement effect is ruled out, as members of both groups would similarly rate themselves unrealistically optimistic at time 1, and adjust their ratings in a similar fashion at time 2. Due to the random allocation of leaders to the respective groups, we subsequently expected no significant differences between groups at time 1, and the results confirmed this. In contrast, at time 2 we found a significant difference in favor of the experimental group, which helps to isolate the training effect. However, we could have also observed this significant difference, if both groups reported a decrease in self-rated servant leadership over time, and that decrease was stronger in the control group than in the experimental group. Thus, only the joint interpretation of both plots indicates that the training was indeed effective in changing leader perceptions.

Continuing with the effects of the training on follower perceptions of servant leadership, we again started by plotting changes in each condition over time. Here, the results showed a significant increase in the experimental group when leader identification was high, but no significant change when leader identification was low. At the same time, followers in the control group reported no significant difference in their leaders' servant leadership when leader identification was high, but a significant decrease when leader identification was low. While these results generally support our hypotheses, they might again be confounded by a measurement effect. For example, followers could only draw on very limited experiences with their leaders before the first data collection point, and thus might have rated them more optimistically, as individuals prefer to belong to a successful group with effective leadership that allows for favorable comparisons between their in-group and other out-groups (Ellemers, Kortekaas, & Ouwerkerk, 1999; Hogg & Terry, 2000). We thus applied the same strategy as for leader perceptions and plotted differences

between each condition at either time 1 or time 2. In this case, none of the slopes were significantly different from zero, which we expected at time 1, but not at time 2. That being said, the graph shows some differences between experimental and control group for both low and high leader identification at time 2.

In this case, we believe that examining changes within groups over time is more appropriate, because one important reason that we did not find any significant differences between the training conditions and control conditions after the training might be that followers were only quasi-randomly allocated to the respective groups via their leaders, meaning that their allocation to the training or control group automatically followed from the respective grouping of their leader rather than a separate process of random allocation for each follower. While this was necessary to keep the initial team structures intact, this process might have resulted in some differences between followers in the respective groups that we were not able to assess and control for. In this case, presenting time on the x-axis would actually be one way to control for non-random allocation of followers, as the respective slopes represent changes within each group over time instead of differences between groups at a given point in time. This leaves the risk of a measurement effect confounding the training effect, which we cannot fully rule out in this study, so that again we can only show partial support for this hypothesis. Alternative designs that can help to rule out a measurement effect are discussed in the limitations section below.

7.5.1 Theoretical Implications

This study extends servant leadership theory, as it is one of the first to provide evidence for the possibility to train and develop servant leadership, a claim that has previously been made (Greenleaf, 1996; Liden et al., 2014a), but has so far received little empirical support. By identifying leader team identification as a boundary condition of servant leadership training effectiveness, we further the understanding of factors that hinder or amplify the application of servant

leadership in organizations. In line with theorizing on training transfer (Burke & Hutchins, 2007; Colquitt et al., 2000), our findings show that servant leadership development will only be effective when leaders are motivated to apply lessons learnt in the training in their work context.

In addition, the clear theoretical rationale underlying the design of our servant leadership training can be seen as an important reason for its effectiveness, which can inform the theory-driven design of future leadership interventions. Our review of the leadership training literature in Chapter 4 has shown that many of the published leadership trainings were designed without theoretical grounding. While the majority of trainings was still found to be effective, this might be due to a selection of training activities that had been shown to be useful in past studies, and the file drawer effect (Rosenthal, 1979). Thus, the findings of this study provide further evidence for the importance of addressing cognitive, motivational, and behavioral learning outcomes (Kraiger et al., 1993), and for ensuring training transfer through leader identification with their team (Burke & Hutchins, 2007; Colquitt et al., 2000).

7.5.2 Implications for Practice

The insights gained from this study help organizations to successfully train their leaders in the application of servant leadership behaviors. Results show that it is not enough to transmit knowledge about servant leadership, but that a training also has to build positive attitudes towards servant leadership through highlighting its effectiveness and goal setting, and provide leaders with the opportunity to practice the respective behaviors in a safe training environment. Optimally, the positive attitudes towards servant leadership are fostered beyond the training context. Organizations could do this by introducing means of recognizing individuals who successfully apply servant leadership, for example prizes awarded for outstanding servant leadership on the basis of follower votings. In addition, the values underlying servant leadership could be added to the organization's vision and mission statement, as companies like TDIndustries and

Southwest Airlines have already done (Makovsky, 2013; TDIndustries, 2013). In line with the findings of our first study, organizations could also implement a set of organizational policies and practices that further support the efforts of servant leaders and communicate to followers that servant leadership behaviors form an accepted part of organizational culture.

Given the relative complexity of the multidimensional construct of servant leadership and the range of behaviors it entails, organizations should also explore ways of providing leaders with opportunities to practice their servant leadership skills without having to fear any negative consequences. This could for example be achieved by establishing small groups of leaders from different departments that meet on a regular basis to discuss current challenges they are facing, and how they could be resolved by applying servant leadership (DeRue & Wellman, 2009). This would give leaders more time to develop appropriate cognitive strategies for work-related problems and reach the automaticity stage in applying their servant leadership skills (Kraiger et al., 1993). Such a problem-focused and long-term approach to training servant leadership could even be extended beyond small groups by establishing a forum in the company's intranet where leaders can share, discuss, and comment on their experiences.

In addition, we could show in our study that an important indicator of leaders' motivation to transfer learnt behaviors to their everyday work is leader team identification. Organizations can use this insight by assessing leader team identification prior to the training and building it through activities preceding the servant leadership training. Such activities could include team-building workshops that include the leader and focus on the exploration of past accomplishments of the team, its successes and failures, and finally on the joint development of a shared vision for the team. In addition, individual coaching sessions that highlight the connection between leaders' individual career goals and the performance of their team could be used. Furthermore, indicators of team performance and team development could form part of leaders' performance appraisals.

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7.5.3 Limitations and Directions for Future Research

The main strength of this study is its field-experimental design, which allows for causal inferences between the examined variables (Shadish et al., 2002). Through randomly allocating leaders to the training and control groups, we minimized potential effects of confounding variables and increased the likelihood that any observed changes in leader perceptions of servant leadership were caused by participation in the servant leadership training (Grant & Wall, 2009). Through controlling for a range of personal and situational variables in all analyses relating to follower outcomes, we further reduced the threat of any confounding variables, as followers did not participate in the training and were only indirectly allocated to training and control groups on a random basis through the random allocation of their respective leader. In addition, data collection at two consecutive times and using leader ratings instead of follower ratings of performance safeguarded our results against common source and common method bias (Podsakoff et al., 2003) and speak to the internal validity of our findings. Furthermore, the field-experimental design allowed us to collect data from leaders and followers in a real life environment as opposed to artificially created situations in a laboratory experiment, which minimized threats to the external validity of our findings.

That being said, the effects of the servant leadership training differed depending on how the results were plotted. To better isolate the effect of the servant leadership training and reduce the risk of a measurement effect in future studies, different experimental designs could be used. The pre-post randomized experimental design we used to test our hypotheses in this study is subject to several multi-group threats, most importantly the history threat, the maturation threat, the mortality threat, the testing threat, and the Hawthorne effect, all of which can potentially account for a masking of the training effect when looking at changes within each group over time. The same threats apply to leader and follower perceptions of servant leadership, so in the following

we only focus on examples relating to leaders to keep the discussion concise.

Firstly, the history threat describes a difference in post-intervention scores between groups that is due to an event or a series of events taking place between pre- and post-tests. It could for example be the case that leaders in one group assume leadership roles in other contexts than the business simulation over the course of the study, be it in a sports team, another university module that requires leading a team, or at work. This would give them more opportunities to practice their leadership skills than the leaders belonging to the other group, and thus affect their ratings after the servant leadership training (Trochim, 2006). Similarly, the maturation threat refers to differences in natural changes in servant leadership over time in each group (ibid.). These threats could be addressed by conducting a laboratory experiment with a much shorter time span between pre- and post-test in order to reduce the likelihood that any other confounding variables affect the post-treatment ratings of servant leadership (Reis & Judd, 2000). Leaders could for example receive the training and work with their followers on a specified task straight afterwards, providing self-ratings of their leadership abilities directly before the training and after the task, as has been done in other leadership intervention studies (Grant et al., 2011).

Secondly, the mortality threat describes any non-random drop out of participants between pre-test and post-test (Trochim, 2006). While all leaders who participated in the training also completed the surveys at time 1 and 2, it might for example be that leaders in the control group dropped out after the initial data collection phase, because they were uninterested in the study or felt stressed by other requirements of the module. Again, this threat could be ruled out by conducting a laboratory experiment, where drop out can be managed much better (Bryman, 2012). The obvious disadvantage of a laboratory experiment is that the realistic context of the field experiment is replaced by an artificial setting that drastically reduces the external validity of findings in favor of internal validity (ibid.).

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Thirdly, the first assessment of servant leadership self-ratings in itself might have primed members of the control group, which reflects the testing threat (Trochim, 2006). Just reading the servant leadership items might have been enough to give them a rough understanding about the behaviors connected with this leadership style, resulting in some basic learning that they subsequently applied in their teams. This risk could be addressed through a Solomon four-group design, which adds two additional groups to the given pre-post randomized experiment: One group participates in the training, and the other one does not take part, but in contrast to the other two groups both just provide post-treatment ratings of servant leadership. By comparing the results of each group with its respective counterpart for which pre- and post-treatment ratings are available, a testing effect can be detected and ruled out (ibid.).

Fourthly, an experimental design that could help to control for unrealistic ratings of servant leadership at time 1 due to a lack of actual leadership experience is the randomized block design (ibid.). By dividing the whole sample into relatively homogenous blocks on the basis of their initial self-ratings of servant leadership, for example into three blocks of low, medium, and high initial scores, the variability of post-treatment scores in each block will likely be lower than for the whole sample, resulting in a 'cleaner' and stronger treatment effect (ibid.). As the pre-test scores are used to group participants, this would however only allow for looking at differences between groups at time 2, not for differences over time within each group.

Finally, the waitlist control group design increases the likelihood of the Hawthorne effect, which describes a change in participant behavior that is not due to an intervention, but a result of being observed (McCarney et al., 2007). As discussed previously, we decided not to deliver an ineffective intervention to members of the control group, because participants were preparing for their placement year and the offered trainings therefore needed to have a clear educational bene-fit. However, future studies in other field settings could address this issue by introducing a sec-

ond treatment that is unlikely to affect the key outcomes studied.

Another reason why the effects of the servant leadership training were not as pronounced as we initially expected could be that in designing and evaluating the training we only focused on general features of leadership development that were found to be important across training different leadership styles, while there might be particular requirements for effectively training servant leadership as opposed to other leadership styles like transformational leadership. Looking at the list of antecedents outlined in the most recent review of servant leadership by Liden et al. (2014a), two characteristics seem to be sufficiently open to development and could further increase the effectiveness of servant leadership development by focusing on aspects that distinguish servant leadership from other leadership theories, namely the desire to serve others and emotional intelligence.

Starting with the desire to serve, which Liden et al. (2014a: 362) describe as the "prime motivation for engaging in servant leadership behaviors", a servant leadership training could highlight the benefits of serving others for one's personal development as well as the well-being and performance of those served by drawing on real-life examples such as Nelson Mandela and Albert Schweitzer. In addition, the motivation-to-serve scale by Ng et al. (2008) could be used as a tool to aid participants' reflections about their own primary motivation to lead, addressing the affective component of leadership development. In general, more time for personal reflection about one's own leadership preferences might be beneficial for the training of servant leadership, and a particular method that could be used in this context is the implicit leadership theory drawing exercise by Schyns et al. (2011), in which participants share their thoughts and perceptions around effective leadership with a particular focus on follower growth and development.

Next, Liden et al. (2014a) stress the importance of emotional intelligence, which encompasses sensitivity towards, as well as the ability to manage one's own and others' emotions

(George, 2000), for effectively applying servant leadership behaviors like emotional healing, helping followers grow and succeed, and putting subordinates first, all of which include unique elements that differentiate servant leadership from other leadership styles. In addition, there exists first empirical evidence showing that leaders with high emotional intelligence are more likely to engage in altruistic and serving behaviors (Carmeli, 2003). That being said, the current state of research suggests that the development of emotional intelligence takes considerable time (Boyatzis, Stubbs, & Taylor, 2002; Boyatzis & Saatcioglu, 2008), so that realistically a servant leadership training can only make participants more aware of what emotional intelligence is (i.e. cognitive aspect) and why it is important (i.e. motivational/affective aspect), followed by suggestions on how participants can develop their emotional intelligence after the training. A novel, but promising approach for developing emotional intelligence that could be introduced to prospective servant leaders is the practice of loving kindness meditation, which has been connected with several elements of emotional intelligence like affective learning, positive feelings towards oneself and others, and emotion regulation (Hunsinger, Livingston, & Isbell, 2013; Hutcherson, Seppala, & Gross, 2008; Jazaieri, McGonigal, Jinpa, Doty, Gross, & Goldin, 2013).

Finally, other contextual factors could be taken into account in order to examine under which conditions servant leadership development is most effective. In this study, we focused primarily on leader characteristics, but follower and organizational characteristics might also be important boundary conditions. Starting with followers, recent theory development around servant leadership suggests that highly proactive individuals with their tendency to take initiative, voice concerns, and embrace change will be especially likely to welcome servant leadership behaviors, whereas less proactive followers might require a more task-focused and directive leader (Liden et al., 2014a). Similarly, the findings by Meuser et al. (2011) suggest that the transfer of servant leadership skills will be most successful, when followers actually desire a servant leader.

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This can also be extended to the wider organizational context; it might for example be the case that employees working on relatively simple and routinized tasks with established and agreed-on procedures feel that servant leadership is redundant and even inappropriate given the nature of their work, so that servant leadership becomes less relevant in the manufacturing sector or highly bureaucratic governmental organizations.

Using student samples to examine research questions in leadership is often criticized because of students' lack of real leadership experiences. Although several other leadership intervention studies previously relied on student samples (Antonakis et al., 2011; Jung & Avolio, 1999; Sauer, 2011; Shea & Howell, 1999), it is questionable if the results of this study can be replicated in organizations, especially in the case of already established and tenured teams. In such teams, factors like perceptions of prior performance, age, and long-term career planning might all influence the effectiveness of servant leadership development (Colquitt et al., 2000). Moreover, the greater leadership experience of participants recruited from an organizational context might result in higher levels of servant leadership at the outset of the training and might therefore render the effect sizes found in this study smaller. Even so, the realistic context of the business simulation and the fact that students had no influence on the assignment to a particular team, worked together on a common task for a specified time, and then disbanded, allows for the assumption that our findings can be generalized to project teams in organizations, which form and work together in a very similar way (Ellis et al., 2003), even when the benefits of the training in an organizational context might be smaller. In addition, the servant leadership training had a clear educational benefit, as it helped participants to prepare for an organizational placement in the following year of study, in which many of them find themselves leading small project teams. In that sense our findings might be particularly important and beneficial for business schools or other settings in which people are prepared for junior leadership roles, as they might help inform

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the design of effective leadership trainings in these settings.

7.5.4 Conclusion

Our findings suggest that servant leaders are not born, but can be effectively trained. However, this comes with the caveat that leaders have to be motivated to act on behalf of their group. In line with the claims made by previous researchers, we thus conclude that servant leadership can be seen as a form of positive organizational behavior that can be managed to achieve individual, team, and organizational success and well-being, provided organizations can ensure that leaders feel responsible for and strive to enhance the performance and well-being of their teams.

CHAPTER 8: DO FOLLOWER WELL-BEING AND PERFORMANCE FOLLOW FROM SERVANT LEADERSHIP ENHANCED BY TRAINING?

STUDY 3

8.1 CHAPTER SUMMARY

This chapter addresses the final research question of this thesis, namely whether follower well-being and performance follow from servant leadership enhanced by training. Thus, it replicates the research model of Study 1 in the same field-experimental context with multiple measurement points that was used in Study 2, with the aim of establishing the directionality of the proposed effects of servant leadership on follower EWB and task performance via follower PsyCap. In line with Study 1, the respective hypotheses are developed on the basis of SDT (Deci & Ryan, 1985; Gagné & Deci, 2005). This is followed by a brief discussion of the sample, which is drawn from the same population as for Study 2, additional measures used in this study, and its analytical approach. Next, the results are presented, followed by a discussion of the findings.

8.2 THEORY AND HYPOTHESES

8.2.1 Outcomes of Effective Leadership Development: Follower PsyCap, Task Performance and Eudaimonic Well-being

The results of Study 2 showed that our servant leadership training positively affected leader and follower perceptions of servant leadership, in the latter case provided that leaders highly identified with their team. Based on SDT (Gagné & Deci, 2005; Ryan et al., 2008), and in line with the findings of Study 1, we further expect that an effective servant leadership training should have a positive effect on follower individual development (i.e. their PsyCap), and in turn on their task performance and EWB as well. Starting with the effects of servant leadership on follower PsyCap, we draw again on propositions of SDT that leadership behaviors which satisfy followers' basic psychological needs of competence, autonomy, and relatedness and elicit in

them a state of autonomous motivation characterized by congruence between task-related behaviors and personal values and aspirations (Deci et al., 1989; Gagné & Deci, 2005). Given that a key proposition of servant leadership theory is the specific focus of servant leaders on fulfilling follower needs and aspirations by supporting them in their personal growth (Greenleaf, 1970), we subsequently expect that positive *changes* in servant leadership brought about by effective training should, just like natural variations in servant leadership, satisfy all three follower needs and increase autonomous motivation, and propose that this manifests in increased PsyCap as a direct indicator of follower development (Luthans et al., 2007c).

To recap, past studies on SDT have found that autonomously motivated individuals report a preference for complex and challenging tasks (Pittman et al., 1982), even if they are relatively uninteresting and require determination and discipline (Koestner & Losier, 2002). High PsyCap represents this motivational propensity by combining the confidence that one can achieve the respective tasks (efficacy) with the perceived ability to adapt one's approach in the process (hope), a positive attitude towards the future (optimism), and the belief that one can overcome obstacles and 'bounce back' from negative experiences (resilience; Luthans et al., 2007c). As mentioned earlier, several empirical studies are available that report positive effects of servant leadership on facets of PsyCap, for example optimism (Kool & Van Dierendonck, 2012) and efficacy (Walumbwa et al., 2010a). We therefore hypothesize:

Hypothesis 1: Team-rated servant leadership enhanced through training has a positive effect on follower PsyCap.

We further propose on the basis of SDT that the increases in follower PsyCap resulting from servant leadership development will in turn positively affect both follower task performance as well as EWB. Starting with performance, the constant efforts of trained servant leaders to engage and enable their followers should result in a confident, positive, flexible, and resilient

attitude of followers towards challenging work tasks, making their successful achievement more likely (Luthans et al., 2007c). In the words of Bandura (1998: 62) "success usually comes through renewed effort after failed attempts. It is resiliency of personal efficacy that counts". Subsequently, past studies on SDT found that the preference for complex and challenging tasks, which we operationalize as high PsyCap here, results in increased effort and persistence, ultimately leading to higher performance (Amabile, 1979; Grolnick & Ryan, 1987; Sheldon & Elliot, 1998).

Servant leadership has already been found to be positively related to individual, team, and organizational performance (e.g. Hu & Liden, 2011; Liden et al., 2014b; Peterson et al., 2012a), and a strong positive relationship between PsyCap and employee performance has been reported in a meta-analysis by Avey et al. (2011). We therefore hypothesize that, in the given context, team-rated servant leadership that has been enhanced through training has a positive effect on follower task performance via follower PsyCap.

Hypothesis 2: Follower PsyCap mediates the positive relationship between team-rated servant leadership enhanced through training and individual task performance.

In line with SDT and the hypotheses of Study 1, we finally propose that servant leadership development positively affects follower EWB via PsyCap. EWB has been described as a direct indicator of the extent to which an individual has realized his or her true potential (Ryff, 1995), the achievement of which is one of the main objectives of a servant leader (Greenleaf, 1998). Through increasing their PsyCap in interactions with leaders who have participated in effective servant leadership development, followers should feel more confident and able to tackle personally meaningful tasks, even if they are challenging (Koestner & Losier, 2002; Pittman et al., 1982). We propose that this will in turn increase the likelihood that followers achieve their individual aspirations by working on organizationally relevant tasks, and increase their levels of

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EWB in the process (Ryan et al., 2008).

Again, some empirical evidence is available that relates servant leadership to the fulfilment of follower needs for autonomy and competence (Mayer et al., 2008), which have been described as underlying individuals' intrinsic aspirations for growth and contribution (Kasser & Ryan, 1993, 1996, 2001). In addition, PsyCap has been shown to positively affect several facets of EWB, including personal growth (Wanberg & Banas, 2000), self-acceptance (Gardner & Pierce, 1998), and indicators reflecting a sense of purpose at work (Meyer & Allen, 1991). Thus, we hypothesize the following:

> *Hypothesis 3: Follower PsyCap mediates the positive relationship between team-rated servant leadership enhanced through training and individual eudaimonic well-being.*

8.2.2 Work Environment in the Given Study Context

In Study 1, we found servant leadership to be positively related to PsyCap only when organizational policies and practices, as perceived by teams, were in line with servant leadership behaviors and thus created a supportive work environment in which servant leadership took place (Deci et al., 1989). As we look here at changes in servant leadership brought about by training as opposed to naturally occurring changes, we expect that the particular educational setting of this study is perceived by participants as a supportive context that communicates the appropriateness of servant leadership to the participating leaders as well as their followers, similar to the context created by an organization through the implementation of policies and practices for health promotion. In more detail, the primary investigator visited every tutorial group and communicated the benefits of participating in the servant leadership training for the groups' overall performance, and this was re-emphasized by the tutors. This made a perceived mismatch between requirements of the work context and training objectives, and subsequent doubts about the acceptability of the trained behaviors less likely. In addition, the student teams were organized

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like project teams over a limited period of time, and thus neither had previous shared experiences with regard to the organizational context and its policies and practices they could refer to, nor an appropriate referent for such evaluations that was the same for all participants during the simulation, as they were part of different tutorial groups. Thus, obtaining meaningful ratings of organizational policies and practices for health promotion was judged as unlikely. As a result, we propose a direct effect of servant leadership on follower PsyCap in Hypothesis 1, and an unconditional indirect effect of servant leadership on follower EWB via PsyCap in Hypothesis 3 in this particular study setting.

Furthermore, Study 1 showed a positive indirect relationship of servant leadership with follower performance mediated via PsyCap that was conditional not only upon policies and practices, but also on team development climate. In the given educational setting, we further expect that a team's development climate is also likely to be high, because the business simulation itself provides a supportive context that encourages participants to invest in their personal development and apply their PsyCap to the novel and challenging tasks that have to be addressed throughout the simulation. In addition, participants had just started working together and thus had no past experiences as a team that could have formed the basis for ratings of development climate. Finally, Van Dam et al. (2008) mention that a development climate is not only created by the team members, but also by the HR department and top management, which is reflected in the scale items as well. As the participants in this study neither had a HR department nor a top management team to refer to, this again made obtaining meaningful ratings of team development climate difficult in the given context. This leads us to propose an unconditional indirect effect of servant leadership on follower performance via PsyCap in Hypothesis 2.

8.3 METHODS

8.3.1 Design and Sample

The sample of this study was drawn from the same population as for Study 2, namely second year undergraduate students working together in teams on a two semester long business simulation at a UK-based business school. Thus, the sample characteristics are the same as well. Out of 60 managing directors, 37 provided usable data. Their age ranged from 19 to 23 ($M = 20.0$, $SD = 0.90$), and 40.5% were male. From the 217 team members working in 60 teams that were contacted, 113 completed at least one survey, and could subsequently be matched with their respective managing directors, resulting in 37 teams. Follower age ranged from 18 to 35 ($M = 20.21$, $SD = 1.85$), and 52.6% were male. However, due to missing data, especially on individual variables like PsyCap and EWB, our analyses of Hypotheses 1-3 were based on 58 followers in 32 groups (training group $n = 26$; control group $n = 32$).

All participants completed three online questionnaires as part of the switching replications design used (Kirk, 2012); once before the first training and then again after the training, before training and control group were switched and the training was delivered a second time, followed by the final survey. The time interval between each data collection was three weeks. However, the switching replications design was mostly used to ensure fairness, and the analyses for this study, as for Study 2, are based only on data collected at times 1 and 2. Participants received the links to the online surveys via their tutors, and managing directors were asked to indicate the respective roles of each team member at time 1 and rate their individual performance at time 2, whereas followers provided information on the leadership style of their managing director at time 1 and 2, their own PsyCap and EWB at time 2, and at time 1 additionally on their gender, age, meeting frequency of their group, implicit theories of intelligence, and personality. Information on the tutors of each group was subsequently obtained from university documents.

In line with Study 2, we controlled for follower demographics, meeting frequency, and team member roles, because each variable could have affected contact time with the leader through differences in the perceived prototypicality of leaders (Kearney, 2008; Kulich, Ryan, & Haslam, 2007), opportunities for leaders to exhibit servant leadership behaviors, and the intensity with which particular members interacted with each other due to the importance of their role-specific decisions for group performance. In addition, we controlled for implicit theories of intelligence, personality, and tutors, because each may have affected how receptive and open followers were to the behavioral changes of their managing directors (Dweck et al., 1995; Groves, 2005; Tracey et al., 1995).

8.3.2 Measures

Servant leadership. The same 28-item scale by Liden et al. (2008) that was used in our previous studies was also applied here to measure follower-rated servant leadership at time 1 and time 2 by changing "my manager" to "my managing director". Its 7 dimensions were combined to form an overall servant leadership score, following the example of previous studies (e.g. Hu & Liden, 2011; Liden et al., 2014b; Peterson et al., 2012a). Answers were again made on a 5-point Likert scale ranging from 1 = *strongly disagree* to 5 = *strongly agree*. To recap, Cronbach's alpha was adequate, being .94 at time 1, and .96 at time 2, as was interrater reliability averaged across all teams (time 1/2: r_{wg} = .91/1.00). The intraclass correlations for time 1/2 were: ICC(1) = .04/.00; ICC(2) = .07/.00.

Psychological capital. Followers' PsyCap was measured at time 2 with the 12-item version of the PCQ developed by Luthans et al. (2007c), and the four subscales of hope, optimism, resilience, and efficacy were combined to form an overall score with very adequate reliability (α = .89). A 6-point Likert scale ranging from 1 = *strongly disagree* to 6 = *strongly agree* was used, and a sample item reflecting resilience is "I can get through difficult times at work because I've

experienced difficulty before".

Eudaimonic well-being. The short 18-item version of the Psychological Well-Being scale developed by Ryff and Keyes (1995) was used to assess followers' EWB at time 2. Responses were made on a 6-point Likert scale ranging from 1 = *strongly disagree* to 6 = *strongly agree*. The six subscales reflecting autonomy, environmental mastery, personal growth, positive relations with others, purpose in life, and self-acceptance were combined to form a composite factor. Cronbach's alpha for this overall scale was .83, and a sample item reads "For me, life has been a continuous process of learning, changing, and growth".

Follower performance. Leader-rated individual performance was measured at time 2 with 5 items previously used by Podsakoff and MacKenzie (1989), and answers were made on a 5-point Likert scale ranging from 1 = *strongly disagree* to 5 = *strongly agree*. The reliability of this scale was very adequate (α = .96), and a sample item is "This member always completes the duties specified in his/her job description".

Control variables. Gender was measured with a binary item (1 = *male*, 2 = *female*), and participants were asked to indicate their age in years. One item reading "How often does your Business Game group meet?" with options ranging from 1 = *once a month* to 4 = *several times per week* was used to assess meeting frequency. Dummy variables were created for team members' roles (1 = respective role, 0 = all other roles) and tutors (1 = respective tutor, 0 = all other tutors). The 6-item questionnaire by Dweck and Leggett (1988) was used to measure implicit theories of intelligence. It uses a 6-point Likert scale ranging from 1 = *strongly disagree* to 6 = *strongly agree*. Reliability was very adequate (α = .86). Finally, participants were asked to rate their personality on the 10-item TIPI scale by Gosling et al. (2003), for which no Cronbach's alphas were calculated due to the relatively low inter-item correlations and the fact that only two items are used to measure each dimension.

8.3.3 Analytic Approach

Hypotheses 1 to 3 describe the procedure of testing a multilevel mediation model as outlined by Zhang et al. (2009). To support the indirect effects of team-rated servant leadership on follower task performance and EWB via follower PsyCap, servant leadership first has to be significantly related to PsyCap, as proposed in Hypothesis 1. This was tested by adding servant leadership at time 2 (Level-2) to the multilevel model, and examining whether the model fit improved significantly compared to a model including all control variables plus servant leadership at time 1 (Level-2). We controlled for servant leadership at time 1, because we were not interested in the effects of servant leadership on outcomes, but wanted to test how *changes* in servant leadership beyond initial servant leadership scores measured at time 1, brought about by training, predict follower PsyCap, and in turn follower task performance and EWB. Together with a significant effect of servant leadership at time 2 on PsyCap at time 2, a significant improvement in model fit would provide support for Hypothesis 1. Next, PsyCap has to be significantly related to follower task performance and EWB (Zhang et al., 2009). We tested this by adding PsyCap at time 2 to models predicting follower task performance and EWB at time 2 and comparing the respective model fit to a model that controlled for the same variables mentioned above as well as servant leadership at time 1 and 2. Support for this step is indicated by a significant improvement in the respective model fit, and a significant effect of PsyCap on the respective outcome. The final step in establishing multilevel mediation and thus in testing Hypotheses 2 and 3 is to examine the indirect effect of servant leadership on the respective outcome via PsyCap, which has to be significant as well (Zhang et al., 2009). This was tested using the online tool by Selig and Preacher (2008), which calculates confidence intervals for indirect effects using bootstrapping. All level-1 predictor and control variables were centered around the group mean, while all other higher-level predictor and control variables were grand-mean centered (cf. Aguinis et al., 2013).

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8.4 RESULTS

8.4.1 Effects of Servant Leadership on PsyCap, Performance, and EWB

Hypothesis 1 proposed that team-rated servant leadership is positively related to followers' individual PsyCap. When controlling for servant leadership at time 1 and adding servant leadership at time 2, the fit of the multilevel model improved significantly (Deviance = 97.07 – 93.21 = 3.86; $\Delta df = 1$; $p < .05$), and servant leadership had a significant and positive effect on PsyCap, $\gamma = 0.54$, $SE = 0.25$, $t(25) = 2.15$, $p < .05$, explaining 44.04% of level-2 variance in this outcome. This provided full support for Hypothesis 1.

Next we examined whether PsyCap is in turn related to individual task performance and EWB, which is the second step in establishing multilevel mediation as proposed in Hypotheses 2 and 3. In the case of task performance, adding PsyCap to the multilevel model significantly improved model fit, deviance of 127.64 – 121.77 = 5.87, $\Delta df = 1$, $p < .05$. The effect of PsyCap was significant, $\gamma = 0.57$, $SE = 0.22$, $t(13) = 2.56$, $p < .05$, and it explained an additional 19.56% of the level-1 variance in performance when compared with the previous model. Proceeding to EWB, adding PsyCap to the model again significantly improved model fit, deviance of 65.04 – 51.86 = 13.18, $\Delta df = 1$, $p < .01$. As hypothesized, PsyCap was found to be a significant predictor of EWB, $\gamma = 0.56$, $SE = 0.13$, $t(13) = 4.30$, $p < .01$, and explained an additional 47.05% of level-1 variance in this outcome when compared to the previous model (see Table 8.1).

Finally, we tested the hypothesized indirect effects of team-rated servant leadership on follower task performance and EWB via PsyCap, following the procedure outlined by Selig and Preacher (2008), which uses bootstrapping to calculate Monte Carlo 95% confidence intervals for the indirect effect. If the confidence intervals do not include zero, the indirect effect is considered to be significant (ibid.). Starting with individual performance as the outcome, the indirect effect of servant leadership via PsyCap was found to be significant, estimate of the indirect effect

= .31, 95% CI *LL* = 0.01, *UL* = 0.76. The same was true for the indirect effect of servant leadership on EWB via PsyCap, estimate of the indirect effect = .30, 95% CI *LL* = 0.02, *UL* = 0.66. As neither of the confidence intervals includes zero, these results provide full support for Hypotheses 2 and 3. The results are summarized in Table 8.2.

TABLE 8.1
Results of Hierarchical Linear Modeling Analyses of PsyCap, Task Performance, and Eudaimonic Well-being[a]

Variables	PsyCap time 2 Model 1	PsyCap time 2 Model 2	Performance time 2 Model 1	Performance time 2 Model 2	EWB time 2 Model 1	EWB time 2 Model 2
Intercept	4.75 (0.09)**	4.75 (0.08)**	4.10 (0.12)**	4.10 (0.12)**	4.55 (0.06)**	4.55 (0.06)**
Level 1 variables						
Gender[b]	0.35 (0.22)	0.35 (0.23)	-0.41 (0.28)	-0.62 (0.26)*	0.06 (0.20)	-0.13 (0.16)
Age[b]	-0.17 (0.11)	-0.17 (0.12)	-0.03 (0.14)	0.06 (0.13)	-0.11 (0.10)	-0.01 (0.08)
Team role 1[c]	-0.25 (0.28)	-0.25 (0.29)	-0.27 (0.35)	-0.12 (0.32)	0.07 (0.26)	0.21 (0.19)
Team role 2[c]	-0.08 (0.24)	-0.08 (0.25)	0.07 (0.31)	0.11 (0.28)	0.08 (0.22)	0.13 (0.16)
Team role 3[c]	-0.07 (0.30)	-0.07 (0.32)	-0.35 (0.38)	-0.31 (0.34)	0.53 (0.28)	0.57 (0.20)*
Implicit intelligence[b]	0.03 (0.13)	0.03 (0.14)	0.07 (0.17)	0.05 (0.15)	-0.24 (0.12)	-0.25 (0.09)
Extraversion[b]	0.05 (0.08)	0.05 (0.08)	-0.05 (0.10)	-0.08 (0.09)	-0.00 (0.07)	-0.03 (0.05)
Agreeableness[b]	-0.02 (0.12)	-0.02 (0.12)	0.09 (0.15)	0.11 (0.13)	0.17 (0.11)	0.18 (0.08)
Conscientiousness[b]	-0.16 (0.14)	-0.16 (0.14)	-0.03 (0.17)	0.06 (0.16)	0.15 (0.13)	0.24 (0.09)
Emotional stability[b]	0.19 (0.08)	0.19 (0.09)	-0.07 (0.10)	-0.18 (0.10)	0.07 (0.08)	-0.04 (0.06)
Openness[b]	0.22 (0.10)	0.22 (0.11)	-0.11 (0.13)	-0.23 (0.13)	0.09 (0.09)	-0.04 (0.07)
Meeting frequency	-0.03 (0.29)	-0.03 (0.30)	0.55 (0.36)	0.57 (0.32)	-0.20 (0.26)	-0.18 (0.19)
PsyCap time 2				0.57 (0.22)*		0.56 (0.13)**
Level 2 variables						
Tutor 1[d]	0.07 (0.34)	0.20 (0.31)	0.75 (0.46)	0.75 (0.46)	0.62 (0.22)**	0.66 (0.24)**
Tutor 2[d]	0.05 (0.33)	0.24 (0.31)	0.54 (0.46)	0.53 (0.46)	0.26 (0.23)	0.25 (0.24)
Tutor 3[d]	0.02 (0.36)	0.25 (0.31)	0.05 (0.50)	0.05 (0.50)	0.19 (0.25)	0.20 (0.26)
Tutor 4[d]	-0.19 (0.39)	-0.11 (0.35)	-0.07 (0.52)	-0.07 (0.52)	0.24 (0.25)	0.27 (0.27)
Servant leadership time 1	0.14 (0.24)	-0.20 (0.28)	-0.08 (0.40)	-0.07 (0.40)	-0.62 (0.20)**	-0.60 (0.21)**
Servant leadership time 2		0.54 (0.25)*	0.26 (0.37)	0.25 (0.36)	0.32 (0.18)	0.26 (0.19)
Additional information						
Level-1 variance explained[e]	34.93%	0.00%	32.56%	19.56%	39.27%	47.05%
Level-2 variance explained[e]	0.00%	44.04%	9.12%	0.00%	58.67%	0.00%
Deviance	97.07	93.21	127.64	121.77	65.04	51.86

Note. Standard errors are in parentheses. Significance levels are calculated based on *t*-scores due to the small sample size, and unstandardized path coefficients are reported.
[a] For all models *n* = 58 individuals and 32 groups. Training group *n* = 26, and control group *n* = 32.
[b] Follower characteristics.
[c] 1 = Respective role, 0 = All other roles.
[d] 1 = Respective tutor, 0 = All other tutors.
[e] These are variance differences on each level compared to the previous model. Model 1 was compared to the null model.
 * *p* < .05
** *p* < .01

TABLE 8.2
Indirect Effects of Team Servant Leadership on Follower Task Performance and Eudaimonic Well-being via PsyCap

Outcome	Ba	Bb	BaBb	95% CI	
				LL	*UL*
Follower individual performance[a]	0.54	0.57	0.31	0.01	0.76
Follower individual EWB[b]	0.54	0.56	0.30	0.02	0.66

Note. N = 58 individuals in 32 teams. Training group *n* = 26, and control group *n* = 32. Ba = Unstandardized regression coefficient for the association between Team Servant Leadership (IV) and PsyCap (Mediator); Bb = Unstandardized regression coefficient for the association between PsyCap (Mediator) and Outcome; BaBb = Indirect effect of Team Servant Leadership (IV) on Outcome via PsyCap (Mediator); 95% CI = 95% confidence interval; *LL* = lower limit, *UL* = upper limit. Number of bootstraps = 20,000.
[a] Leader-rated.
[b] Follower-rated.

8.5 DISCUSSION

In this study, we replicated the research model of Study 1 using the advantages of a time-lagged study design, with the aim of establishing the directionality of the proposed effects of servant leadership on follower task performance and EWB via PsyCap. In line with the findings of our first study, we firstly found that changes in servant leadership brought about by training resulted in an increase in follower PsyCap. This result provides further evidence for our claims made on the basis of SDT that the specific focus of servant leaders on follower growth and development will satisfy followers' basic psychological needs and increase their autonomous motivation, which manifests in a preference for complex and challenging tasks that offer opportunities for personal growth, operationalized as higher PsyCap (Deci et al., 1989; Gagné & Deci, 2005; Koestner & Losier, 2002; Pittman et al., 1982).

Furthermore, PsyCap was found to mediate the positive effects of servant leadership on follower task performance and EWB, which again supports our propositions that increased PsyCap results in more effort and persistence when working on organizationally relevant tasks (Avey et al., 2011; Gagné & Deci, 2005), and also allows individuals to achieve more of their personal development goals in the process (Avey et al., 2010a; Ryan et al., 2008). These results

are not only in line with SDT, but also with one of the key propositions of servant leadership theory, namely that servant leaders achieve follower performance and well-being mainly through supporting the growth and development of their followers (Greenleaf, 1977).

Considering the findings of Study 1, where the indirect effect of servant leadership on EWB via PsyCap was found to be conditional on organizational policies and practices for health promotion, and in the case of follower performance additionally on team development climate, the positive unconditional indirect effects found in this study indicate that participants perceived the context in which the training was conducted as supportive in itself. This is in line with our propositions, as this study took place in an educational setting that emphasized personal development and self-determined behavior in addressing the challenges posed by the business simulation. As such, it clearly communicated the appropriateness of servant leadership behaviors to participants (Deci et al., 1989).

8.5.1 Theoretical Implications

This study makes an important contribution to the servant leadership literature by establishing whether higher follower PsyCap, task performance, and EWB indeed *follow* from servant leadership. The review of existing servant leadership research in Chapter 2 has shown that most study designs are cross-sectional in nature and measured all key variables at the same time (Liden et al., 2014b; Mayer et al., 2008; Schaubroeck et al., 2011), which does not allow for making any claims regarding the directionality of the obtained findings. This also applies to our first study presented in this thesis, which makes it even more important to rule out alternative explanations. It could for example be the case that individuals with high PsyCap showed increased task performance and EWB, which was subsequently noticed by their leaders and motivated them to exhibit more servant leadership behaviors in order to build the PsyCap of all their followers. However, the field-experimental design with measurement points before and after the

servant leadership training allowed us to examine whether *changes* in servant leadership result-ing from the training led to higher PsyCap, and subsequently to higher task performance and EWB at time 2. Thus, this study addresses the methodological shortcomings of previous studies, including Study 1 of this thesis, and joins a still small number of (quasi-) longitudinal studies that aim to increase our knowledge about the nomological net of servant leadership (Neubert et al., 2008; Peterson et al., 2012a; Walumbwa et al., 2010a).

In conjunction with the results of Study 2, this study extends research on the effects of servant leadership on individual development (i.e. PsyCap), performance, and well-being (Liden et al., 2014a; Van Dierendonck, 2011), by showing that servant leadership cannot only be trained to positively affect leader and follower perceptions, but that these changes in turn result in posi-tive follower outcomes. These results provide further evidence for the proposition that follower growth and development is at the heart of all servant leadership efforts (Greenleaf, 1977) and highlight the importance of not only selecting but also developing effective servant leaders to achieve high performance and well-being at the same time.

Finally, this study provides additional evidence for the applicability of SDT as the guiding theoretical framework for explaining the effects of servant leadership on outcomes belonging to the performance domain *and* the well-being domain, above and beyond competing theoretical frameworks that were used in previous studies. Being fully in line with central propositions of servant leadership theory regarding the importance of human development in the leadership pro-cess (Deci & Ryan, 1985; Liden et al., 2014a; Van Dierendonck, 2011) and the subsequent con-ceptualization of well-being as the outcome of personal development (Panaccio et al., 2015; Ryan et al., 2008), SDT addresses the limitations of other theories regarding the way in which followers deal with challenging and stressful situations (Hobfoll, 1989), the nature of the rela-tionship between leaders and their followers (Blau, 1964), and how followers develop as a con-

sequence of servant leadership (Hogg et al., 2012). We therefore contend that SDT can offer sound explanations for the effects of servant leadership not only on PsyCap, task performance, and EWB, but also on a range of other organizationally relevant outcomes like organizational citizenship behavior and other indicators of extra-role performance, stress and burnout, creativity, and increased servant leadership behaviors of followers (cf. Liden et al., 2014a).

8.5.2 Implications for Practice

The main practical implication of this study that goes beyond the implications discussed in Study 1 and Study 2 is that the results can be used to inform future evaluations of servant leadership trainings by measuring follower PsyCap, performance, and EWB in addition to follower perceptions of servant leadership before and after the training. This goes beyond the usual content of employee surveys by not only assessing general satisfaction with the job and the leader, but also clear indicators of personal development. We consider this to be relevant not only for jobs that include complex and challenging tasks, but also for those that require work on more routinized, simple, and potentially uninteresting tasks, as past research on SDT has shown that the motivational propensities resulting from need satisfaction and autonomous motivation, which we conceptualized as PsyCap in this thesis, are in any case preferable to those resulting from controlled motivation, because they help individuals to infuse their tasks with meaning and connect them with their intrinsic aspirations (Ilardi et al., 1993; Ryan et al., 2008; Shirom et al., 1999).

In addition, our findings highlight the importance of PsyCap as the key mechanism that mediates the effects of servant leadership on follower performance and well-being. This suggests that building follower PsyCap through other means is in itself a valuable way of increasing those outcomes, a connection that has already been supported by empirical evidence in several past studies (Avey et al., 2010a; Avey et al., 2011). Furthermore, Luthans, Avey, and Patera (2008)

could show that PsyCap can be trained effectively even through a relatively short intervention; in an experimental setting, participants in the training group were presented with two 45-minute online training sessions focusing on resilience and efficacy in the first session, and on hope and optimism in the second session. The control group worked on a decision-making exercise for the same amount of time that made use of the same multimedia techniques (ibid). Using a combination of lectures, video examples, guided reflection, self-paced writing exercises, and goal-setting, the training activities addressed cognitive, attitudinal, as well as behavioral learning outcomes (Kraiger et al., 1993), and subsequently resulted in a significant increase in self-reported PsyCap in the training group, but not in the control group (Luthans et al., 2008). Given the short duration of the intervention and its convenient online delivery, organizations can therefore use this training to increase follower PsyCap in addition to servant leadership development to foster follower performance and well-being.

8.5.3 Limitations and Directions for Future Research

In line with Study 2, the main strength of this study is its time-lagged field-experimental design. Collecting data on servant leadership before and after managing directors participated in the training did not only reduce the risk of common method bias (Podsakoff et al., 2003), but also allowed us to examine whether actual changes in servant leadership between time 1 and 2 affected follower PsyCap, and in turn task performance and EWB at time 2. Thus, the directionality of the relationship between those variables could be established. However, claims regarding causality can still not be made on the basis of these findings, as we could only show that the training had a significant effect on leader and follower perceptions of servant leadership, which we in turn used to predict changes in the other study variables. To establish a causal relationship between servant leadership development and these variables, we would also have to show that the training led to a significant increase in the PsyCap, task performance, and EWB of followers

belonging to the training group, but did not significantly affect followers in the control group (Antonakis et al., 2010). Thus, future servant leadership trainings could put a stronger focus on concepts like PsyCap and EWB as outcomes of servant leadership by defining them, presenting their facets in more detail, and highlighting ways to increase each outcome more explicitly. This would require a training that is considerably longer than three hours, so that the added value of extending the training has to be balanced with considerations of conciseness and efficiency.

Another strength of this study is the use of leader-ratings of follower performance, which minimizes the risk of common source bias (Podsakoff et al., 2003). That being said, all other key study variables, including EWB, were self-reported by followers. However, we believe that there is no viable alternative to self-ratings in order to obtain meaningful assessments of such subjective concepts like psychological well-being and PsyCap. In addition, we used validated scales that were previously applied in a large amount of studies (Avey et al., 2011; Ryff, 2013), which speaks for the reliability of our findings.

In contrast to Study 1, we did not include organizational policies and practices for health promotion and team development climate as moderating variables of the examined relationships, arguing that students perceived the educational setting and the opportunity to participate in the servant leadership training as supportive in itself. While the results of this study generally support this line of argumentation, this somewhat decreases the comparability of the findings with those of Study 1. Given the structure of this field experiment, with participants working together in new project teams for a limited time, an alternative would have been to manipulate policies and practices, for example by providing the teams with a letter from the module leader that either supports and recognizes self-determined behaviors, or discourages participants from applying such behaviors. Similarly, team climate could have been manipulated through a booster session after the servant leadership workshop that includes not only the managing directors, but also

their team members. In a different context, for example an organization with established teams, both moderator variables could just be measured without manipulating them.

Next, the small sample size, especially on the individual level of analysis, has to be mentioned as a limitation of this study. Due to several participants not completing the whole second survey, we could only draw on data from 58 individuals, which raises questions about the generalizability of our findings. However, these individuals were still nested in 32 teams that provided data on the servant leadership style of their managing directors at time 1 and time 2, so that the sample meets the minimum requirement of 30 or more teams for multilevel modeling (Maas & Hox, 2005; Scherbaum & Ferreter, 2009; Snijders, 2005). As the sample size on the highest level of analysis is the most crucial when conducting hierarchical linear modeling (Maas & Hox, 2005), we therefore believe that the results can be interpreted with confidence in their validity.

Finally, this study again draws on a student sample to study the effects of leadership, a fact that has been criticized due to the limited leadership experience of most students. As mentioned in the limitations section of Study 2, we nevertheless believe that this sample is appropriate to test the given hypotheses, as the way in which teams formed and worked together on a common task, in a realistic business context, and over a specified period of time shows great similarities to the structure and work of project teams (Ellis et al., 2003), so that the results of this study should at least be generalizable to this population. Similarly, we consider our findings especially relevant for contexts in which training participants are being prepared for junior leadership roles, be it in business schools or during traineeships in organizations. Finally, several past leadership studies used student samples as well (Antonakis et al., 2011; Jung & Avolio, 1999; Sauer, 2011; Shea & Howell, 1999), and the advantages of gaining access to relatively large numbers of people in leadership roles and keeping the context of the experiment relatively stable further speak for the use of student sample.

As this study only focused on the cross-level effects of team perceptions of servant leadership enhanced by training on individual follower variables, it would also be valuable to examine the effects of servant leadership development on variables at higher levels of analysis. It would for example be interesting to examine whether servant leadership can create the team development climate that was identified as a boundary condition in Study 1. Future experimental studies could also manipulate more variables, for example organizational policies and practices, team climate, or other aspects of the work environment.

8.5.4 Conclusion

Servant leaders cannot only be trained, but positive changes in servant leadership also affect follower PsyCap, and in turn follower task performance and EWB. This makes it a promising leadership style for every organization that is willing to invest in the personal development of all its employees and to help them to achieve their full potential. This will result not only in positive outcomes for the respective individuals, but also for the organizations they are members of. Thus, servant leadership can indeed be seen as the key to follower well-being and performance in an increasingly complex work environment.

CHAPTER 9: DISCUSSION AND INTEGRATION OF RESEARCH FINDINGS

9.1   CHAPTER SUMMARY

In this final chapter of the thesis, the findings of all three studies are discussed and integrated. To start with, the main results of these studies are summarized once again. Next, both theoretical and practical implications following from the studies' findings are discussed. After addressing the strengths and limitations of this thesis, suggestions for further research are presented in order to expand upon the insights gained from the presented studies. The chapter ends with a final conclusion.

9.2   SUMMARY OF FINDINGS

Following from a review of the servant leadership literature, the main objective of the first study presented in this thesis was to examine how and under which conditions servant leadership relates to follower well-being and performance alike. Basing our argumentation on SDT (Deci et al., 1989; Gagné & Deci, 2005) as well as existing empirical findings in the servant leadership literature, we developed a multilevel research model that linked servant leadership, operationalized as a group-level variable (Liden et al., 2008), to followers' individual task performance and EWB via follower PsyCap. In addition, two boundary conditions were taken into account, namely organizational practices and policies for health promotion as a moderator of the relationship between servant leadership and follower PsyCap, and team development climate as a moderator between follower PsyCap and performance.

Using data gathered from leaders and their followers working in six different organizations, we found support for our hypotheses. Multilevel moderated mediation analyses showed that servant leadership indeed related to follower performance and well-being at the same time, and did so through a relationship with follower PsyCap, that is their self-efficacy, hope, optimism, and resilience (Luthans et al., 2007c), but only under certain conditions. In detail, servant

leadership was found to positively relate to follower PsyCap only when they perceived that the work environment supported self-determined attitudes and behaviors (Deci et al., 1989), reflected in high policies and practices for health promotion that value employee involvement, offer opportunities for employee growth and development, recognize employee contributions in both monetary and non-monetary terms, and emphasize work-life balance as well as health and safety (Grawitch et al., 2007). When such practices and policies were perceived to be low, however, servant leadership had a significantly negative relationship with follower PsyCap. These results are in line with propositions of SDT (Gagné & Deci, 2005) and indicate that a match between servant leadership behaviors and the wider organizational context is crucial for its effectiveness.

Similarly, PsyCap was found to be positively related to follower performance only when teams were characterized by a strong development climate that encourages team members to participate in training activities and focus on continuous personal growth (Van Dam et al., 2008). Again, a low development climate resulted in a negative relationship between PsyCap and performance. At the same time, development climate did not play a role for the relationship of PsyCap with EWB, which was direct and positive. In line with theoretical propositions in the SDT and PsyCap literatures (Koestner & Losier, 2002; Newman et al., 2014; Pittman et al., 1982), this indicates that individuals are most likely to use their psychological resources when working on tasks, if they perceive the work context to be supportive and stimulating. This is because such a context makes it easier to find a satisfactory compromise between personal development needs and job demands. In contrast, a restrictive team climate that puts no value on personal growth and trying out new things discourages and demotivates employees from using their PsyCap and leads them to invest their resources elsewhere.

Consequently, moderated mediation analyses of the full research model revealed that the relationship of servant leadership with EWB via PsyCap was positive and significant when poli-

cies and practices for health promotion were high, and negative and significant, when policies and practices were low. Furthermore, the relationship of servant leadership with performance via PsyCap was positive and significant, when both moderators were low, because a reduction of PsyCap under unfavorable conditions was actually better for individual performance, as followers were less likely to become demotivated due to missing opportunities for investing their PsyCap. The discussed relationship was negative and significant when policies and practices were low, but development climate was high, because servant leadership reduced PsyCap, while PsyCap was positively related to performance under these conditions. Finally, the relationship of servant leadership with performance was positive and marginally significant when both moderators were high, because servant leadership took place in a context that matches and encourages the values and behaviors of this leadership style, and followers had more opportunities to invest their PsyCap at work in order to find a compromise between individual needs and work demands.

Having answered the first research question, we addressed the second one, namely how and under which conditions servant leadership can be trained. Guided by the insights gained from a review of the training literature (Kraiger et al., 1993), we subsequently designed and evaluated a servant leadership training. By conducting a field experiment in which leaders of student teams working on a business simulation were randomly allocated to a training and a control group, we showed that servant leadership can indeed be effectively developed through a training that increases the knowledge of, attitudes towards, and abilities to apply servant leadership. In a pilot as well as the main study, all participants in the training group reported a significant increase in all three learning outcomes after the training, but no systematic changes in their knowledge, motivation, or ability regarding the application of transformational leadership. In addition, the training resulted in a significant difference in self-rated servant leadership behaviors

between the training and control group after the training, with trained leaders reporting more servant leadership behaviors than untrained leaders.

Furthermore, we combined findings from the training transfer literature (Burke & Hutchins, 2007; Colquitt et al., 2000) with recent developments in servant leadership theory (Liden et al., 2014a) to show that followers of leaders belonging to the training condition reported significant positive changes in servant leadership over time only when leaders reported a strong identification with their team before the training. When identification was low, the same followers did not report any significant changes in their leaders' servant leadership. In the control group, no significant changes in follower perceptions of servant leadership over time were observed when leader identification with the team was high, while those perceptions decreased significantly when identification was low. These results indicate that leaders are only motivated to apply the acquired servant leadership skills in the specific context of their team, if they see themselves as prototypical members of the team and subsequently have a high interest in contributing to its objectives (Liden et al., 2014a; see also Hogg et al., 2012; Van Knippenberg & Hogg, 2003).

Finally, we replicated the research model of Study 1 in the given experimental setting to answer our third research question, namely whether follower performance and well-being *follow* from servant leadership enhanced by training. Again building our argumentation on SDT, we found that changes in servant leadership due to training had a positive effect on individual task performance and EWB via follower PsyCap. These findings further confirm the usefulness of SDT as the guiding theoretical framework to link servant leadership with indicators from both the performance and well-being domains, and highlight the important role of follower growth and development, conceptualized as PsyCap, as the underlying mechanism explaining how servant leadership affects both key outcomes without compromising one in favor of the other.

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9.3 THEORETICAL IMPLICATIONS

This thesis contributes significantly to the advancement of several streams of research, and successfully addressed all theoretical contributions anticipated in Chapter 1. Overall, it advances servant leadership theory by empirically supporting and expanding on one of its key propositions, namely that a unique strength of servant leadership is the achievement of high follower performance and well-being at the same time (Greenleaf, 1977), but adding that these relationships only unfold under certain conditions. Recent theoretical discussions and empirical examinations of servant leadership have focused almost exclusively on follower and team performance (e.g. Hu & Liden, 2011; Jaramillo et al., 2009a; Liden et al., 2014b; Peterson et al., 2012a), and the proposition of mediating mechanisms that do not explicitly focus on well-being, and at least potentially undermine it in favor of performance, which has resulted in a lack of rigorous empirical studies including well-being as an outcome (Liden et al., 2014b). We addressed this issues by including EWB as a key outcome alongside performance.

Subsequently, we add to the current discussion by proposing SDT as the most comprehensive theoretical framework to link servant leadership with performance and well-being, and by identifying PsyCap as *one* underlying mechanism that can explain increases in *both* performance and well-being. Building on past findings (Mayer et al., 2008), we argued that servant leaders satisfy followers' three basic psychological needs of autonomy, competence, and relatedness, and put followers in a state of autonomous motivation (Gagné & Deci, 2005), which manifests in a motivational propensity for complex and/or challenging tasks (Koestner & Losier, 2002; Pittman et al., 1982), conceptualized as high PsyCap (Luthans et al., 2007c). In turn, we proposed that higher PsyCap makes followers exert more effort and persist in their work, positively affecting their task performance on the one hand (Avey et al., 2011; Sheldon & Elliot, 1998), and increasing the likelihood that they achieve their personal aspirations while working on organiza-

tionally relevant tasks, which leads to higher EWB on the other hand (Kasser & Ryan, 2001; Ryan et al., 2008). Both Study 1 and Study 3 provide empirical evidence supporting these claims. This is fully in line with servant leadership theory, which argues that the development and personal growth of followers, of which PsyCap is a direct indicator (Luthans et al., 2007c), is at the core of all servant leadership efforts (Greenleaf, 1977).

Most importantly, though, the consideration of policies and practices for health promotion and team development climate as indicators of a supportive work environment and thus boundary conditions of the examined relationships advances servant leadership theory as well as general theory development around people-oriented leadership styles in several ways. To start with, the results of Study 1 add to the very limited findings regarding the moderating effects of the context in which servant leadership takes place (Meuser et al., 2011; Yoshida et al., 2014), and confirm propositions of both SDT and the servant leadership literature that leaders' effectiveness depends an organizational culture and team climate that implicitly or explicitly communicates to its members the appropriateness of self-determined attitudes and behaviors that foster personal development (Gagné & Deci, 2005; Van Dierendonck, 2011; Winston & Ryan, 2008). While the focus of existing research was mostly to show that the examined effects are positive, when such a context is in place, we highlight in this thesis that applying servant leadership can also result in negative outcomes.

Using organizational policies and practices as a more explicit expression of organizational culture (Reichers & Schneider, 1990), we show that the effectiveness of servant leadership is amplified, when policies and practices, just as servant leaders, emphasize employee involvement, employee growth and development, appropriate employee recognition, work-life balance, and health and safety (Grawitch et al., 2006; Grawitch et al., 2007). However, in line with the findings of Meuser et al. (2011), this also means that a mismatch between servant leadership behav-

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iors and the context in which they are applied results in negative effects, which is an important insight that helps to prevent the acceptance of a too optimistic view of servant leadership and to understand its limitations.

On the basis of SDT, we identified team development climate as a second moderator that determines whether follower PsyCap, increased by servant leadership, will be positively or negatively related to follower task performance. We argued that teams provide more immediate and frequent information on the acceptance of self-determined behaviors, and that PsyCap will subsequently only positively relate to higher task performance when the team climate encourages continuous personal development, but that it will show a negative relationship with performance when the team climate undermines growth efforts (Van Dam et al., 2008). Again, our findings support these claims, and are furthermore in line with first theorizing and empirical evidence for the role of specific team climates provided by Yoshida et al. (2014), who showed that a strong identification with the servant leader only resulted in higher follower creativity, when team support for innovation was perceived as high.

These results also advance the PsyCap literature by addressing the calls of Avey et al. (2011) and Newman et al. (2014) for more studies examining its boundary conditions; Newman et al. (2014: 132) specifically argue that "PsyCap may be expected to generate stronger outcomes for individuals operating in supportive and stimulating team climates", which is exactly what we found in Study 1 of this thesis. Although not explicitly mentioned, the authors' claims also encompass potential negative effects of PsyCap when team climates are unsupportive, for which we found some of the first evidence. At the same time, team development climate seems to play a less important role for the effects of PsyCap on EWB, which further advances theory by allowing for some first suggestions with regards to why exactly supportive and stimulating team climates amplify the effects of PsyCap on follower outcomes. In this particular case, we argued that

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there is a potential discrepancy between individuals' development needs and the demands of their job, which can be resolved more successfully when the team emphasizes personal development as a strategy for finding new and creative solutions to work-related problems. Individuals will subsequently be more likely to invest their PsyCap, gained through being led by a servant leader, in addressing challenging tasks at work, because they feel that such behavior as opposed to 'working by the book' is accepted (Kasser & Ryan, 2001; Ryan, Sheldon, Kasser, & Deci, 1996).

Next, both Study 1 and Study 3 contribute to the well-being literature in general, and the EWB literature in particular by providing some of the first evidence for how EWB can be increased in a work context. As shown earlier, studies examining well-being at work have almost exclusively focused on the hedonic conceptualization of well-being, which narrowly focuses on the experience of pleasure and the avoidance of pain (Kahneman et al., 1999). We subsequently identified several problems connected with the use of this conceptualization in a work context, and instead argued for using the eudaimonic conceptualization of well-being (Ryff, 1989b), which acknowledges personal development as a key determinant for optimal individual, and subsequently organizational functioning. This understanding of well-being is again fully in line with both SDT and servant leadership theory (Greenleaf, 1977; Ryan et al., 2008). By showing that servant leadership and PsyCap play key roles in developing EWB at work, and how organizational policies and practices can amplify this process, we extend the scope of EWB to include work as an important and central part of peoples' lives.

Finally, our second study makes another significant contribution to servant leadership theory by supporting the theoretical claims that servant leadership can be trained (Greenleaf, 1996; Liden et al., 2014a; Van Dierendonck et al., 2009) with first empirical evidence. Applying the distinction between cognitive, affective, and skill-based learning outcomes outlined in the train-

ing literature (Gagné, 1984; Kraiger et al., 1993), we show that an effective servant leadership development program has to increase the declarative knowledge of participants about servant leadership, foster positive attitudes towards it, and allow for opportunities to practice servant leadership behaviors in a psychologically safe environment. In line with suggestions made in the training literature (Kraiger et al., 1993), this can be achieved through lecture, role-plays, and goal-setting exercises. In addition, we draw on theorizing on training transfer (Burke & Hutchins, 2007; Colquitt et al., 2000) and introduce leaders' identification with their team as an important boundary condition for servant leadership training effectiveness, showing that followers only report significant positive changes in their perceptions of servant leadership over time, when their leader reports high identification with the team before the training. In doing so, we confirm theoretical propositions and earlier empirical findings from the training transfer literature, which treat identification with the team or organization as an important determinant of participants' motivation to learn and the subsequent transfer of acquired skills to the workplace (Blume et al., 2010; Burke & Hutchins, 2007; Colquitt et al., 2000).

9.4   IMPLICATIONS FOR PRACTICE

In addition to the theoretical advancements discussed above, this thesis offers valuable insights to practitioners and addresses all anticipated practical implications outlined in Chapter 1. First, the servant leadership training developed in Study 2 helps organizations to effectively train current and future leaders in the application of servant leadership behaviors. The importance of not only increasing the knowledge, but also the motivation and practical skills of trainees is highlighted and provides practitioners with specific recommendations regarding the content, structure, and evaluation of an effective servant leadership training. In line with previous trainings of other leadership styles (e.g. Barling et al., 1996; Dvir et al., 2002; Peus et al., 2009), a combination of different training activities including lectures, role plays, and goal-setting exercises was

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shown to be most effective. In addition, we suggest that the complexity and richness of servant leadership should be acknowledged by organizations beyond training, for example by encouraging leaders to form peer coaching groups in which they discuss work-related challenges from a servant leadership perspective, or even by introducing a forum in the company's intranet where leaders can share their experiences.

Next, our findings suggest that a training that integrates all mentioned learning outcomes and activities is by itself not enough to ensure the transfer of servant leadership skills to the workplace. Organizations have to further ensure that participating leaders identify with their team and therefore perceive the servant leadership training as useful for achieving the goals and interests of their team more effectively. Leaders' identification with their team could for example be increased through team-building workshops with a focus on creating a shared vision, individual coaching that highlights the connection between personal and team goals, and adding indicators of team development and well-being to leaders' performance appraisals.

In addition, the results of Study 1 can inform additional activities of practitioners to increase the likelihood that leaders will apply the lessons learnt to their workplace. In particular, organizations should explicitly and implicitly communicate their support and encouragement of servant leadership behaviors to all leaders. This can for example be achieved by bringing organizational policies and practices in line with servant leadership values and emphasizing that it is accepted to strive not only towards high performance, but also high well-being within teams. Servant leadership values can be added to the organization's vision and mission statement (Makovsky, 2013; TDIndustries, 2013), and servant leadership behaviors can for example be rewarded by introducing prizes voted for by followers.

The advantage of investing in the creation of a supportive work environment is that this will not only foster the application servant leadership, but also followers' reaction to it, as our

findings show. A set of organizational policies and practices that combines, for example, employee focus groups (employee involvement), the provision of time and financial support for external developmental activities (employee growth and development), prizes or honorary mentions of outstanding employee performance in organizational communication outlets (employee recognition), support of team sports or other collective activities (health and safety), and flextime (work-life balance; Grawitch et al., 2006), will contribute to follower need satisfaction and autonomous motivation, and thus result in high PsyCap. In addition, HR practitioners can play their part in creating a team development climate by encouraging peer support, offering workshops on active listening and conflict management, and implementing structural changes that allow for more task and skill variety (Hackman & Oldham, 1976). This will in turn allow employees to successfully apply their PsyCap on the job, and increase their task performance and EWB. Our findings even go one step further by clearly showing that in cases where either policies and practices or team climates are unfavorable, organizations have to anticipate negative effects on follower performance and well-being, even when investing in a people-oriented leadership style like servant leadership.

Lastly, organizations can invest in interventions that build PsyCap not only via the implementation of servant leadership, but directly. As discussed earlier, such trainings already exist and have been evaluated successfully (Luthans et al., 2008), and can easily be added to an existing employee development program due to the relatively short duration of under two hours and the full online delivery method.

It is important to note that all these efforts aimed at continuous follower development are relevant for all organizations independent of the structure and content of work tasks. Even when these tasks are rather uninteresting, routinized, and simple, it is considered more beneficial to have a workforce that is high in PsyCap; although this might not result in any performance bene-

fits, past research could show that it at least does not decrease performance, and more important-ly also has a positive effect on employee well-being, because individuals will be more likely to perceive even tasks that require determination and discipline, but are not interesting in itself, as contributing to their intrinsic aspirations, including personal growth, affiliation, and making con-tributions to the community (Ilardi et al., 1993; Ryan et al., 2008; Shirom et al., 1999). One ex-ample would be an individual working in a caring profession, like some of the participants in Study 1, who engages in several activities that are not necessarily complex and often even un-pleasant, but in addition to the required performance reports a clear sense of meaning in relation to those tasks that contributes to his/her EWB.

Finally, several measures are suggested in this thesis that can be used to evaluate the effec-tiveness of servant leadership trainings. Trained leaders should show increased scores on surveys of their knowledge of, attitudes towards, and perceived ability to show servant leadership, and report positive changes in servant leadership when compared with untrained leaders. In addition, measures of follower perceptions of servant leadership, PsyCap, and EWB could be included in annual employee surveys to continuously monitor the effects of servant leadership and obtain da-ta on the process of collective development within the organization.

9.5 LIMITATIONS AND DIRECTIONS FOR FUTURE RESEARCH

One strength of this thesis lies in its combination of different study designs that comple-mented each other to establish both the internal and external validity of our findings. In more de-tail, Study 1 was conducted in a field setting, obtaining data from leaders and followers working in six different organizations. While this increases the generalizability of the results to similar settings and thus the external validity of our research model, the design does not allow for any claims regarding the causality or directionality of the examined relationships (Antonakis et al., 2010). In addition, all study variables were measured at the same time and with the exception of

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individual performance relied on self-reports, which increases the risk of common source/method bias (Podsakoff et al., 2003). Although the threat of common source/method bias was reduced by obtaining leader-ratings of performance and examining interaction effects that cannot be accounted for by common method variance (Evans, 1985; McClelland & Judd, 1993), the issue of causality and directionality is inherent to the study design. This weakness was subsequently addressed in Studies 2 and 3 by utilizing a field-experimental design with multiple measurement points. This allowed us to establish a causal link between training and leader and follower perceptions of servant leadership first, and then to show that increased follower task performance and EWB indeed followed from the resulting changes in servant leadership via increases in follower PsyCap. Without having to sacrifice a realistic business context for an artificial laboratory setting, the results of Study 2 and Study 3 therefore speak for the internal validity of our research model (Shadish et al., 2002).

Still, some methodological limitations remain that could not be addressed in this thesis. First of all, the sample sizes of all studies were relatively small, resulting in relatively low statistical power and increasing the risk of overestimating effect sizes. That being said, we conducted multilevel analyses in all three studies and always met the minimum sample requirements of 30 units at the highest level of analysis (Maas & Hox, 2005; Scherbaum & Ferreter, 2009; Snijders, 2005), which gives us some confidence in the reliability of our findings. In addition, we relied on a student sample to examine our second and third research question, which might again negatively affect the generalizability of our findings to organizational leaders with more experience, and established as opposed to newly formed teams. However, we believe that our findings are still relevant and generalizable to particular contexts, for example the preparation of individuals for junior leadership roles or the work of project teams. Finally, the experimental design of Study 2 could be improved to rule out a potential measurement effect and other multi-group threats, for

example by conducting a laboratory experiment, applying a Solomon four-group design, or using a randomized block design (Trochim, 2006). To address all mentioned methodological limitations, a future study should therefore replicate the servant leadership training in an organizational context and with more leaders and their followers, using one of the alternative experimental designs suggested.

Beyond methodology, we see several potential avenues for future research that can build on the findings presented in this thesis. To start with, we argued on the basis of SDT that servant leadership satisfies followers' basic needs for autonomy, competence, and relatedness and elicits in them a state of autonomous motivation, which in turn manifests in higher PsyCap. However, we measured neither need satisfaction nor autonomous motivation directly. While the link between servant leadership and need satisfaction has already been confirmed empirically (Mayer et al., 2008), it would therefore be interesting to examine whether servant leaders really put their followers in a more autonomously motivated state as opposed to controlled motivation characterized by task involvement on the basis of anticipated rewards or punishment (Gagné & Deci, 2005). This would not only provide additional support for the theoretical argumentation used in this thesis, but open up further research opportunities that focus particularly on the quality of the relationship that forms between servant leaders and their followers. So far, this relationship has mostly been explained through the lens of social exchange theory (e.g. Ehrhart, 2004; Hunter et al., 2013; Liden et al., 2008; Schaubroeck et al., 2011), which might be too limited due to its focus on mutual obligations that should result in controlled motivation according to SDT (Gagné & Deci, 2005). By extension, this focus on the servant leader-follower relationship could be used to extend the nomological net of servant leadership to include outcomes like presenteeism, work-life balance, and even creativity. Based on SDT, one would expect that followers who feel more self-determined and less controlled by their leaders feel less obliged to show up at work when

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they are ill, a connection that has been confirmed previously in the presenteeism literature (Hansen & Andersen, 2008). Similarly, more resources, control, and autonomy provided by the leader have been connected with better work-life balance (Kossek, Pichler, Bodner, & Hammer, 2011) and higher creativity (Liu, Chen, & Yao, 2011).

Secondly, it would be interesting to examine whether the nature of the task moderates the effects of servant leadership on performance and well-being. In this thesis, we argued on the basis of SDT that increased follower PsyCap as a result of servant leadership represents a motivational propensity for tasks that are relatively complex, challenging, and require determination and discipline (Koestner & Losier, 2002; Pittman et al., 1982). As mentioned before, this does not mean that such tasks will necessarily be perceived as interesting or entertaining in themselves, that is independent of the goals that are reached by accomplishing the tasks. However, within SDT an important distinction is made with regards to the nature of the task; in detail, autonomous motivation is characterized by coherence between personal aspirations and the requirements of one's job, and thus by a high perceived importance of certain tasks for the achievement of one's *goals*, which has to be differentiated from intrinsic motivation, characterized by interest and enjoyment of the *task itself* (Deci et al., 1989; Gagné & Deci, 2005). Subsequently, it might be the case that increases in PsyCap through servant leadership, and in the end servant leadership itself, are more important when individuals are working on uninteresting tasks, but less important when individuals enjoy the tasks they are performing at work. We would expect this, because servant leaders help followers to see the meaning and value of uninteresting tasks for their personal development and provide them with the resources needed to persevere, while this support is not needed when individuals are already enjoying what they are doing. A good way to test this would be to conduct an experiment in which participants are first trained in servant leadership, and then supervise their followers on a task that is manipulated to

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be either boring and dull or interesting and entertaining, assessing follower PsyCap, performance, and well-being before and after the task.

Thirdly, we examined organizational policies and practices for health promotion and team development climate only as boundary conditions of the effects of servant leadership, not as its outcomes. Thus, it would be interesting to know to what extent such indicators of a supportive work environment do not only amplify or hinder the effects of servant leadership, but can be actively developed by servant leaders. As past studies have shown that servant leaders can create a serving culture (Liden et al., 2014b), a service and procedural justice climate (Walumbwa et al., 2010a), and an ethical work climate (Jaramillo et al., 2015), we would expect that servant leadership will also be positively related to a team's development climate, especially given the effect of servant leadership on PsyCap as a clear indicator of individual development we found in our studies. A test of servant leaders' effects on organizational policies and practices will likely be more difficult. One way would be to examine CEO servant leadership as done by Peterson et al. (2012a) to ensure that the servant leaders in question have the needed authority and influence to affect variables on the organizational level. The other way would be to aggregate servant leadership ratings of supervisors on lower levels of the hierarchy to the organizational level, which would require a large sample of 30 or more organizations (Maas & Hox, 2005). Examining positive climates as outcomes of servant leadership could subsequently form the beginning of developing a clearer extension of servant leadership theory to the group level, and explore alternative processes and boundary conditions at this level of analysis.

Fourthly, in our first study we found that team development climate only moderated the direct effect of PsyCap, and the indirect effect of servant leadership via PsyCap, on task performance, not on EWB. We explained this by arguing that EWB is less context-dependent and will therefore also increase when individuals apply their PsyCap towards the achievement of person-

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ally meaningful goals that are not related to work, for example in interactions with their families or members of their community. In other words, the scale we used to measure EWB relates to individuals' lives as a whole, which includes, but is not limited to work (Ryff, 2013). However, past research on hedonic well-being has shown that using a job-specific measure can make an important difference for testing the links between well-being and other organizationally relevant variables; for example, a number of early studies on the relationship between context-independent affect and job performance did not find any significant effects (Wright & Cropanzano, 1998; Wright & Staw, 1999). In contrast, Wright, Cropanzano, Denney, and Moline (2002) reported a negative relationship between negative affect at work and job performance when using more time-specific and job-related measures of state affectivity. Similarly, Madjar, Oldham, and Pratt (2002) found that job-related positive affect mediated the positive relationship between support and employee creativity. In line with these findings and our above argumentation, one would therefore expect that team development climate also moderates the relationship between PsyCap and EWB when a more job-specific measure is used, because what is then measured is the extent to which individuals achieve their personal aspirations *at work*, which can potentially be undermined by the demands of their job. A scale of EWB at work has recently become available (Bartels, Reina, & Peterson, 2015), so that future studies could address this issue.

Fifthly, future studies could contrast the effects of servant leadership on follower task performance and EWB with the effects of other leadership styles, in particular transformational and ethical leadership, both of which overlap to a certain extent with servant leadership but have been described as distinct (Van Dierendonck, 2011). For example, Parolini et al. (2009) could show that followers of transformational leaders feel more controlled than followers of servant leaders, which according to SDT should translate into less need satisfaction and a state of external or introjected (i.e. controlled) regulation that manifests in lower PsyCap, resulting in limited

task performance to impress the leader or to derive a sense of self-worth (Gagné & Deci, 2005), and at the same time in low EWB due to low perceived self-determination in one's actions (Sheldon et al., 2004). Similarly, ethical leadership is distinguished from servant leadership on the basis that the former is more directive and normative in nature (Van Dierendonck, 2011), so that we would again expect it to result in lower EWB via lower PsyCap. Testing these relationships would subsequently help to further disentangle the unique elements of servant leadership from related leadership styles.

Sixthly, our findings as well as those of Meuser et al. (2011) showed that under some conditions servant leadership can actually have a negative effect. Thus, future research should explore whether there are other contexts in which too much servant leadership becomes detrimental and alternative leadership styles would be more appropriate, for example by studying servant leadership alongside more task-oriented styles and in different economic contexts characterized, for example, by differences in environmental uncertainty, competitiveness, and ethical standards. Such research could go hand in hand with efforts to develop an overarching framework that specifies the organizational context in which particular leadership styles are most effective, and could even go further by extending this framework to include different industries and finally the wider societal context.

Finally, the findings of Study 2 in particular could spark new research leading to the development of a framework for leadership training transfer. So far, the training transfer literature has taken a broad perspective that does not differentiate between different types of participants, and in particular between those in leadership roles and others without leadership responsibilities (Blume et al., 2010; Colquitt et al., 2000). However, our study has shown that feeling responsible for the performance and well-being of a team affects the extent to which trained skills are applied at work. Similarly, there might be other factors like the relationship quality between leaders and

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their followers or general attitudes towards training within a group of leaders that potentially hinder or amplify leadership training transfer. Such factors could be manipulated in an experimental setting or assessed in an organizational context to develop a more comprehensive understanding of why and when leaders choose to apply learnt behaviors in the workplace. Similarly, the presented servant leadership training could be further improved by adding training activities that increase participants' desire to serve and emotional intelligence through reflection, discussion, and even loving-kindness meditation, in order to address more specifically the dimensions that differentiate servant leadership from other leadership styles (Liden et al., 2014a).

9.6 CONCLUSION

In times of increasing work-related psychosomatic illnesses, burnout, and ever higher demands to individual and organizational performance, servant leadership offers organizations that aim to combine employee well-being with the achievement of organizational objectives an alternative to compromising one outcome for the other. Contending that high performance and well-being are the natural consequences of continuous follower development in line with their personal needs and preferences, servant leadership sits well with the eudaimonic approach to well-being and encourages a new approach to leadership that goes beyond the limited principles of modern economics and the focus on hedonism that have come to influence organizational research and practice alike. In their approach to follower development, servant leaders are not guided by the requirements of a specific task or project, but by each individual's unique potential. This thesis provides evidence from three studies applying different methodologies for these theoretical propositions, linking servant leadership with followers' PsyCap as a direct indicator of follower development, and in turn with task performance and EWB.

Our first study furthers the understanding of servant leadership by highlighting the caveat that servant leaders as well as their teams have to be supported by the organization if they are to

be effective. This can be achieved by implementing a set of organizational policies and practices that matches servant leadership behaviors like empowerment with opportunities to partake in decision-making for the wider organization, complements standing back and putting subordinates first with a reward system that acknowledges the achievement of personal development goals in both monetary and non-monetary terms, and/or integrates servant leaders' efforts for helping subordinates grow and succeed into the wider organizational approach to learning and development by offering time and financial support for participating in training activities. Similarly, organizations have a key role to play in the creation and continuous encouragement of team climates that value and emphasize lifelong learning. If organizations fail to create such a positive environment, even the application of positive forms of leadership can become toxic. If they succeed, however, not only the followers of servant leaders, but also the organizations they are members of will become servants themselves, both to their employees as well as society.

Next, our second study dispels any doubts about the possibility to develop servant leaders. While there is still more to be known with regards to the natural emergence of servant leadership within organizations, there now exists first evidence suggesting that the ability to assist followers in the fulfilment of their potential can be trained. More elaborate forms of training and study designs can follow from the one described in this thesis, and servant leadership training can subsequently become an integral part of leadership development programs. With the training being one step in a holistic program that is preceded by a thorough needs assessment and the identification of a suited audience, it can also be ensured that participating leaders are motivated to act on behalf of their group and will subsequently be most effective in transferring their acquired skills to the workplace.

Finally, our third study replicated the research model of the first study in the same field-experimental setting that was used to examine the servant leadership training, confirming that

follower task performance and EWB indeed follow from servant leadership, in this case enhanced by training, and a subsequent increase in follower PsyCap. This again highlights the unique focus of servant leadership on fulfilling followers' individual potential. In sum, this thesis shows that servant leadership can truly be seen as the key to follower well-being and performance.

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APPENDIX A: Study 1 Employee Survey

NOTE: Only scales used in the final analyses are presented here.

Introduction & Informed Consent

Dear participant,

You are being invited to take part in a research study. Before you decide whether or not to take part, it is important for you to understand why the research is being done and what it will involve. If you have any more questions regarding the structure or content of this study, please do not hesitate to contact the principal investigator Sven Lohrey (Email: lohreys1@aston.ac.uk)

1. Purpose and procedure of this study:

The main purpose of this study is to examine how and under which conditions leaders can positively affect the well-being, and subsequently the performance and health of their followers.

You have been invited to take part in this study, as you are an employee of COMPANY who works in a team, and because you have a direct supervisor within this team. All other employees of your organization who fulfil these criteria have also been asked to participate in this study. Participation involves the completion of this questionnaire, which will require no more than 20-25 minutes of your time.

There are no risks to your health, well-being, employment, personal relationships, or any other area of your life involved in taking part in this study. The benefits for you include information about the general level of well-being in your company, and how this is connected with the leadership at your company. Based on the results, tailored and evidence-based interventions can be planned to increase employee well-being by training current and future leaders to adopt a specific leadership style and show the respective behaviors.

2. Data protection:

This study has been reviewed and approved by the Research Ethics Committee of Aston University and by COMPANY. All data that is collected throughout this study will be anonymized, and will be kept strictly confidential. None of your responses will be made available to your leader or any other persons that might have an influence on the status of your employment. The only person that will have access to the raw data is the principal investigator of this study. During analysis, all your personal responses will be aggregated, so that none of the results can be tracked back to you.

3. Informed consent:

Participation in this study is voluntary, and you can drop out at any time without indicating reasons. Please note that this is still possible if you have already completed and submitted this questionnaire.

When giving your informed consent, you confirm that:
- You have read and understood the information sheet for this study and that you have had the opportunity to ask any questions;
- You understand that your participation is voluntary and that you are free to withdraw at any time, without giving reason;
- You agree to take part in this study
- You agree that the gathered data may be stored (after anonymization) in a specialist data centre and may be used for further research.

1) I have read and understood the above information and desire of my own free will to participate in this study.

( ) Yes

( ) No

General Information

We also asked your supervisor to participate in this study by rating the performance of your team and single employees in a separate questionnaire. This information is important for showing that the examined leadership style can increase the well-being of employees without compromising their performance at the same time.

In order to match the ratings of your supervisor with the respective employees, we asked your supervisor to indicate the first two letters of the forename and the first two letters of the surname of every rated employee (Example: Thomas Meier = THME). If you agree with matching your rating with your questionnaire, please indicate the first two letters of your forename and the first two letters of your surname in the below field.

Please note that this information will only be used for preparing the data analysis, and that no one except the principal investigator of this study will have access to this information. Your anonymity will at no point be compromised by using this procedure. Should you disagree with this procedure, please skip this step. In this case your data cannot be matched with your performance rating, and the latter will not be included in the data analysis.

2) Please indicate the first two letters of your forename and the first two letters of your surname in this field:

_____

3) Which gender are you?

( ) Male

( ) Female

4) What is your age?

_____

Leadership Style of your Direct Supervisor

5) Please read the statements below, which refer to the leadership style exhibited by your direct supervisor, and indicate the extent to which you agree or disagree with each statement.

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
I would seek help from my manager if I had a personal problem.	( )	( )	( )	( )	( )
My manager emphasizes the importance of giving back to the community.	( )	( )	( )	( )	( )
My manager can tell if something is going wrong.	( )	( )	( )	( )	( )
My manager gives me the responsibility to make important decisions about my job.	( )	( )	( )	( )	( )
My manager makes my personal development a priority.	( )	( )	( )	( )	( )
My manager seems to care more about my success than his/her own.	( )	( )	( )	( )	( )
My manager holds high ethical standards.	( )	( )	( )	( )	( )
My manager cares about my personal well-being.	( )	( )	( )	( )	( )
My manager is always interested in helping people in our community.	( )	( )	( )	( )	( )

	( )	( )	( )	( )	( )
My manager is able to effectively think through complex problems.	( )	( )	( )	( )	( )
My manager encourages me to handle important work decisions on my own.	( )	( )	( )	( )	( )
My manager is interested in making sure that I achieve my personal goals.	( )	( )	( )	( )	( )
My manager puts my best interests ahead of his/her own.	( )	( )	( )	( )	( )
My manager is always honest.	( )	( )	( )	( )	( )
My manager takes time to talk to me on a personal level.	( )	( )	( )	( )	( )
My manager is involved in community activities.	( )	( )	( )	( )	( )
My manager has a thorough understanding of our group and its goals.	( )	( )	( )	( )	( )
My manager gives me the freedom to handle difficult situations in the way that I feel is best.	( )	( )	( )	( )	( )
My manager provides me with work experiences that enable me to develop new skills.	( )	( )	( )	( )	( )
My manager sacrifices his/her own interests to meet my needs.	( )	( )	( )	( )	( )
My manager would not compromise ethical principles in order to achieve success.	( )	( )	( )	( )	( )
My manager can recognize when I'm down without asking me.	( )	( )	( )	( )	( )
I am encouraged by my manager to volunteer in the community.	( )	( )	( )	( )	( )

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
My manager can solve work problems with new or creative ideas.	( )	( )	( )	( )	( )
When I have to make an important decision at work, I do not have to consult my manager first.	( )	( )	( )	( )	( )
My manager wants to know about my personal goals.	( )	( )	( )	( )	( )
My manager does what he/she can do to make my job easier.	( )	( )	( )	( )	( )
My manager values honesty more than profits.	( )	( )	( )	( )	( )

Organizational Practices for Health Promotion

Below you will be provided a definition for different types of workplace practices that organizations may implement. We would like you to consider the specific programs and practices that exist within your organization (the organization you identify as your primary employer) and answer some questions regarding those workplace practices.

6) Employee Involvement

Employee Involvement opportunities are defined as formal and informal means of getting employees involved in decision making, problem solving, and other aspects of the organization. Some examples of employee involvement opportunities include:

- Managers that seek input from employees before making decisions;
- Formal teams, composed of small groups of employees, responsible for improving the performance of a work unit or department or solving problems that exist in the organization (such as task forces, committees, and quality improvement teams);
- An entirely team-based approach, in which all employees are a part of a team and the team is responsible for managing itself and its performance; and
- Autonomy and control over how you complete your job.

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree

My organization makes employee involvement initiatives or programs available to me.	( )	( )	( )	( )	( )
I regularly participate in the employee involvement programs or initiatives offered by my organization.	( )	( )	( )	( )	( )
I am satisfied with the employee involvement initiatives or programs offered by my organization.	( )	( )	( )	( )	( )
I feel my organization values employee involvement.	( )	( )	( )	( )	( )

7) Employee Growth and Development

Employee Growth and Development opportunities are defined as formal and informal ways of obtaining educational opportunities that increase the likelihood of employee career advancement. Some examples of employee growth and development opportunities include:

- Tuition reimbursement programs so employees can take college courses;
- Career development services provided to employees who wish to create a career development plan;
- Internal career advancement opportunities (promotions);
- Mentoring or coaching; and
- Leadership development training.

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
My organization makes employee growth and development initiatives or programs available to me.	( )	( )	( )	( )	( )
I regularly participate in employee growth and development programs or initiatives offered by my organization.	( )	( )	( )	( )	( )

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
I am satisfied with employee growth and development initiatives or programs offered by my organization.	( )	( )	( )	( )	( )
I feel my organization values employee growth and development.	( )	( )	( )	( )	( )

8) Employee Recognition

Employee Recognition is defined as monetary and non-monetary ways of recognizing employee contributions to the organization. Some examples of employee recognition include:

- Merit-based raises and bonuses;
- Non-monetary awards for exceptional employees (such as plaques, recognition in the company newsletter);
- Positive feedback provided by managers and others for good performance; and
- Ceremonies or awards to recognize employees who have reached career milestones (such as 20 years with the organization, a promotion).

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
I receive monetary recognition from my organization for my achievements.	( )	( )	( )	( )	( )
I receive non-monetary recognition from my organization for my achievements.	( )	( )	( )	( )	( )
I am satisfied with my organization's recognition programs.	( )	( )	( )	( )	( )
I feel my organization values recognition.	( )	( )	( )	( )	( )

9) Work-life balance

Work-life Balance is defined as ways to help employees better balance the demands of their work life with the demands of their personal life. Some examples of work-life balance opportunities include:

- Flextime;
- Childcare or elder care services;
- Adequate time off (such as vacation time, sick time, or personal days); and
- Provision of benefits (such as health care benefits, use of organizational resources or facilities) to family members.

	Strongly disagree	Disa-gree	Neutral	Agree	Strongly agree
My organization makes work-life balance initiatives or programs available to me.	( )	( )	( )	( )	( )
I regularly participate in the work-life balance initiatives or programs offered by my organization.	( )	( )	( )	( )	( )
I am satisfied with the work-life balance initiatives or programs offered by my organization.	( )	( )	( )	( )	( )
I feel my organization values work-life balance.	( )	( )	( )	( )	( )

10) Health & Safety

Health and Safety is defined as programs and practices designed to promote a healthy lifestyle and reduce the negative effects of stress, illness, and unhealthy lifestyle choices on employees. Some examples of health and safety opportunities include:

- Programs/policies to promote equality in the workplace (such as gender equality, sexual harassment, diversity training, etc.);
- Programs/policies to promote the physical safety of employees (such as workplace violence policies, training in handling dangerous materials, policies regarding use of safety equipment, etc.);
- Programs in place to promote wellness (such as wellness programs, health seminars, health screenings, etc.);
- Programs to help employees manage stress (such as exercise classes, yoga classes, stress management training, etc.); and

- Programs/services to help employees manage physical or psychological health issues (such as counselling, employee assistance programs, etc.).

	Strongly disagree	Disa-gree	Neutral	Agree	Strongly agree
My organization makes health and safety initiatives or programs available to me.	( )	( )	( )	( )	( )
I regularly participate in health and safety initiatives or programs offered by my organization.	( )	( )	( )	( )	( )
I am satisfied with the health and safety initiatives or programs offered by my organization.	( )	( )	( )	( )	( )
I feel my organization values health and safety.	( )	( )	( )	( )	( )

Psychological Resources and Group Climate

11) Below are statements that describe how you may think about yourself right now. Please indicate your level of agreement or disagreement with each statement.

	Strongly disagree	Disa-gree	Some-what disagree	Some-what agree	Agree	Strongly agree
I feel confident in representing my work area in meetings with management.	( )	( )	( )	( )	( )	( )
I feel confident contributing to discussions about the strat-	( )	( )	( )	( )	( )	( )

egy of this company.					
I feel confident presenting information to a group of colleagues.	( )	( )	( )	( )	( )	( )
Right now I see myself as being pretty successful at work.	( )	( )	( )	( )	( )	( )
If I should find myself in a jam at work, I could think of many ways to get out of it.	( )	( )	( )	( )	( )	( )
I can think of many ways to reach my current work goals.	( )	( )	( )	( )	( )	( )
At this time, I am meeting the work goals that I have set for myself.	( )	( )	( )	( )	( )	( )
I can be "on my own", so to speak, at work if I have to.	( )	( )	( )	( )	( )	( )
I usually take stressful things at work in a stride.	( )	( )	( )	( )	( )	( )
I can get through difficult times at work because I've experienced difficulty before.	( )	( )	( )	( )	( )	( )
I always look at the bright side of things regarding my job.	( )	( )	( )	( )	( )	( )
I'm optimistic about what will happen to me in the future as it pertains to work.	( )	( )	( )	( )	( )	( )

12) Below you find a series of statements relating to your team. Please indicate the extent to which you agree or disagree with each statement.

In this team...

	Strongly disagree	Disa-gree	Neutral	Agree	Strongly agree
Members are continuously developing their skills and know how.	( )	( )	( )	( )	( )
The leader actively supports members' engagement in development activities.	( )	( )	( )	( )	( )
Colleagues encourage each other to participate in trainings and courses.	( )	( )	( )	( )	( )
The leader provides members with the opportunity to work towards a new job.	( )	( )	( )	( )	( )
Members are provided with opportunities to learn tasks that are not part of their current job.	( )	( )	( )	( )	( )
Members have time to expand their knowledge and skills.	( )	( )	( )	( )	( )
There are enough opportunities to move on to a new job.	( )	( )	( )	( )	( )
Members' personal development is an important issue.	( )	( )	( )	( )	( )

Personal Well-Being

13) Below you can find a series of statements that describe how you might see yourself and your life right now. Please read each statement and rate the extent to which you agree or disagree.

	Strongly disagree	Disa-gree	Some-what disagree	Some-what agree	Agree	Strongly agree
I tend to be influenced by people with strong opinions.	( )	( )	( )	( )	( )	( )
In general, I feel I am in charge of the situation in which I live.	( )	( )	( )	( )	( )	( )
I think it is important to have new experiences that challenge how you think about yourself and the world.	( )	( )	( )	( )	( )	( )
Maintaining close relationships has been difficult and frustrating for me.	( )	( )	( )	( )	( )	( )
I live life one day at a time and don't really think about the future.	( )	( )	( )	( )	( )	( )
When I look at the story of my life, I am pleased with how things have turned out.	( )	( )	( )	( )	( )	( )
I have confidence in my opinions, even if they are contrary to the general consen-	( )	( )	( )	( )	( )	( )

sus.					
The demands of everyday life often get me down.	( )	( )	( )	( )	( )	( )
For me, life has been a continuous process of learning, changing, and growth.	( )	( )	( )	( )	( )	( )
People would describe me as a giving person, willing to share my time with others.	( )	( )	( )	( )	( )	( )
Some people wander aimlessly through life, but I am not one of them.	( )	( )	( )	( )	( )	( )
I like most aspects of my personality.	( )	( )	( )	( )	( )	( )
I judge myself by what I think is important, not by the values of what others think is important.	( )	( )	( )	( )	( )	( )
I am quite good at managing the many responsibilities of my daily life.	( )	( )	( )	( )	( )	( )
I gave up trying to make big improvements or changes in my life a long time ago.	( )	( )	( )	( )	( )	( )
I have not experienced many warm and trusting relationships with others.	( )	( )	( )	( )	( )	( )

	Strongly disagree	Moderately disagree	Slightly disagree	Neutral	Slightly agree	Moderately agree	Strongly agree
I sometimes feel as if I've done all there is to do in life.	( )	( )	( )	( )	( )	( )
In many ways, I feel disappointed about my achievements in life.	( )	( )	( )	( )	( )	( )

Additional Information

14) Below you can find a list of adjectives that are used to describe the personality of individuals. Please think about yourself, and rate the extent to which you think that each pair of adjectives describes your own personality.

	Strongly disagree	Moderately disagree	Slightly disagree	Neutral	Slightly agree	Moderately agree	Strongly agree
Extraverted, enthusiastic.	( )	( )	( )	( )	( )	( )	( )
Critical, quarrelsome.	( )	( )	( )	( )	( )	( )	( )
Dependable, self-disciplined.	( )	( )	( )	( )	( )	( )	( )
Anxious, easily upset.	( )	( )	( )	( )	( )	( )	( )
Open to new experiences, complex.	( )	( )	( )	( )	( )	( )	( )
Reserved, quiet.	( )	( )	( )	( )	( )	( )	( )

Sympathetic, warm.	( )	( )	( )	( )	( )	( )	( )
Disorganized, careless.	( )	( )	( )	( )	( )	( )	( )
Calm, emotionally stable.	( )	( )	( )	( )	( )	( )	( )
Conventional, uncreative.	( )	( )	( )	( )	( )	( )	( )

Thank You!

APPENDIX B: Study 1 Leader Survey

NOTE: Only scales used in the final analyses are presented here.

Introduction & Informed Consent

Dear supervisor,

You are being invited to take part in a research study. Before you decide whether or not to take part, it is important for you to understand why the research is being done and what it will involve. If you have any more questions regarding the structure or content of this study, please do not hesitate to contact the principal investigator Sven Lohrey (Email: lohreys1@aston.ac.uk)

1. Purpose and procedure of this study

The main purpose of this study is to examine how and under which conditions leaders can positively affect the well-being, and subsequently the performance and health of their followers.

You have been invited to take part in this study, as you are a leader at COMPANY. All other leaders of your organization have also been asked to participate in this study. Participation involves the completion of a short questionnaire in which you will be asked to rate the performance of your employees. Completing this questionnaire will require no more than 15-20 minutes of your time.

There are no risks to your health, well-being, employment, personal relationships, or any other area of your life involved in taking part in this study. The benefits for you include information about the general level of well-being in your company, and how this is connected with the leadership at COMPANY. Based on the results, tailored and evidence-based interventions can be planned to increase employee well-being by training current and future leaders to adopt a specific leadership style and show the respective behaviors.

2. Data protection

This study has been reviewed and approved by the Research Ethics Committee of Aston University and by COMPANY. All data that is collected throughout this study will be anonymized, and will be kept strictly confidential (in line with §11 of the German Data Protection Law). None of your responses will be made available to your leader or any other persons that might have an influence on the status of your employment at COMPANY. The only person that will have access to the raw data is the principal investigator of this study. During analysis, all your personal responses will be aggregated, so that none of the results can be tracked back to you.

3. Informed consent

Participation in this study is voluntary, and you can drop out at any time without indicating reasons. Please note that this is still possible if you have already completed one or more questionnaires - your data will then be deleted and not be included in the analysis.
When giving your informed consent, you confirm that:
- You have read and understood the information sheet for this study and that you have had the

opportunity to ask any questions;

- You understand that your participation is voluntary and that you are free to withdraw at any time, without giving reason;

- You agree to take part in this study

- You agree that the gathered data may be stored (after anonymization) in a specialist data centre and may be used for further research.

1) I have read and understood the above information and desire of my own free will to participate in this study.

( ) Yes

( ) No

General Information

2) Which gender are you?

( ) Male

( ) Female

3) What is your age?

_____

Performance

5) Individual performance: In the following, please rate the performance of up to ten employees that are members of your team and participants in this study. Before you start, please indicate the first two letters of the forename and the first two letters of the surname of each employee you are rating in the fields below.

Nobody except the principal investigator of this study has access to your ratings. In addition, we have asked all employees who participated in this study to provide the same information, if they agree with using their performance ratings for this study. Only if the participants provide this information, questionnaires can be matched. This way we ensure anonymity and data protection.

Employee 1: _____

Employee 2: _____

Employee 3: _____

Employee 4: _____

Employee 5: _____

Employee 6: _____

Employee 7: _____

Employee 8: _____

Employee 9: _____

Employee 10: _____

Employee 1-10	**Strongly disagree**	**Disa-gree**	**Neutral**	**Agree**	**Strongly agree**
This member always completes the duties specified in his/her job description.	( )	( )	( )	( )	( )
This member meets all the for-mal performance requirements of the job.	( )	( )	( )	( )	( )
This member fulfils all respon-sibilities required by his/her job.	( )	( )	( )	( )	( )
This member never neglects as-pects of the job that he/she is obligated to perform.	( )	( )	( )	( )	( )
This member often fails to per-form essential duties.	( )	( )	( )	( )	( )

Thank You!

APPENDIX C: Study 2 Pre- and Post-Training Survey

All your responses will be treated strictly confidential, and will not be made available to third parties! Thank you very much for your participation.

Below you will find a series of statements that reflect various leadership behaviors. Please read each statement carefully and then answer the following questions:

- Is the behavior part of servant leadership? - Write Y ('yes') or N ('no') in the box.
- Are you motivated to display the behavior? – Choose a value between 1 and 5 (key below).
- Do you feel able to display the behavior? – Choose a value between 1 and 5 (key below).

1 – Strongly disagree

2 – Disagree

3 – Neither agree nor disagree

4 – Agree

5 – Strongly agree

CANDIDATE NUMBER: _____   GROUP NUMBER: _____

GENDER: M ☐   F ☐

AGE: _____

	This behavior is part of servant leadership (Y/N)	I am motivated to display this be-havior (1-5)	I feel able to display this be-havior (1-5)
1. My followers would seek help from me if they had a personal problem.	☐	☐	☐
2. I emphasize the importance of giving back to the community.	☐	☐	☐
3. I act in ways that build others' respect for me.	☐	☐	☐
4. I can tell if something is going wrong.	☐	☐	☐
5. I give my followers the responsibility to make im-portant decisions about their job.	☐	☐	☐
6. I make the career development of my followers a priority.	☐	☐	☐
7. I care more about the success of my followers than about my own.	☐	☐	☐
8. I hold high ethical standards.	☐	☐	☐
9. I talk about my most important values and beliefs.	☐	☐	☐

10. I talk optimistically about the future.	☐	☐	☐
11. I re-examine critical assumptions to question whether they are appropriate.	☐	☐	☐
12. I spend time teaching and coaching	☐	☐	☐
13. I care about the personal well-being of my followers.	☐	☐	☐
14. I am always interested in helping people in our community.	☐	☐	☐
15. I consider the moral and ethical consequences of decisions.	☐	☐	☐
16. I am able to effectively think through complex problems.	☐	☐	☐
17. I encourage my followers to handle important work decisions on their own.	☐	☐	☐
18. I am interested in making sure that my followers achieve their career goals.	☐	☐	☐
19. I put the best interests of my followers ahead of my own.	☐	☐	☐
20. I am always trying to be honest.	☐	☐	☐
21. I instil pride in others for being associated with me.	☐	☐	☐
22. I talk enthusiastically about what needs to be accomplished.	☐	☐	☐
23. I seek differing perspectives when solving problems.	☐	☐	☐
24. I treat others as individuals rather than just as a member of a group.	☐	☐	☐
25. I take time to talk to my followers on a personal level.	☐	☐	☐
26. I am involved in community activities.	☐	☐	☐
27. I have a thorough understanding of our organization and its goals.	☐	☐	☐
28. I give my followers the freedom to handle difficult situations in the way that they feel is best.	☐	☐	☐
29. I provide my followers with work experiences that enable them to develop new skills.	☐	☐	☐
30. I keep track of all mistakes.	☐	☐	☐
31. I sacrifice my own interests to meet others' needs.	☐	☐	☐

32. I would not compromise ethical principles in order to achieve success.	☐	☐	☐
33. I specify the importance of having a strong sense of purpose.	☐	☐	☐
34. I articulate a compelling vision of the future.	☐	☐	☐
35. I get others to look at problems from many different angles.	☐	☐	☐
36. I consider an individual as having different needs, abilities, and aspirations from others.	☐	☐	☐
37. I can recognize when one of my followers is down without asking him/her.	☐	☐	☐
38. I encourage my followers to volunteer in the community.	☐	☐	☐
39. I can solve work problems with new or creative ideas.	☐	☐	☐
40. When my followers have to make an important decision at work, they do not have to consult me first.	☐	☐	☐
41. I want to know about my followers' career goals.	☐	☐	☐
42. I do what I can to make the job of my followers easier.	☐	☐	☐
43. I value honesty more than profits.	☐	☐	☐
44. I go beyond self-interest for the good of the group.	☐	☐	☐
45. I express confidence that goals will be achieved.	☐	☐	☐
46. I suggest new ways of looking at how to complete assignments.	☐	☐	☐
47. I help others to develop their strengths.	☐	☐	☐
48. I display a sense of power and confidence.	☐	☐	☐

APPENDIX D: Additional Scales Used in Study 2

1) Leader Team Identification:

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
When someone criticises my team, it feels like a personal insult.	( )	( )	( )	( )	( )
I am very interested in what others think about my team.	( )	( )	( )	( )	( )
When I talk about this team, I usually say "we" rather than "they".	( )	( )	( )	( )	( )
This team's successes are my successes.	( )	( )	( )	( )	( )
When someone praises this team, it feels like a personal compliment.	( )	( )	( )	( )	( )

2) Follower Implicit Theories of Intelligence

	Strongly disagree	Disagree	Somewhat disagree	Somewhat agree	Agree	Strongly agree
You have a certain amount of intelligence, and you really can't do much to change it.	( )	( )	( )	( )	( )	( )
Your intelligence is something about you that you can't change very much.	( )	( )	( )	( )	( )	( )
You can learn new things, but you can't really change your basic intelligence.	( )	( )	( )	( )	( )	( )

No matter who you are, you can change your intelligence a lot.	( )	( )	( )	( )	( )	( )
You can always greatly change how intelligent you are.	( )	( )	( )	( )	( )	( )
No matter how much intelligence you have, you can always change it quite a bit.	( )	( )	( )	( )	( )	( )

3) Team Meeting Frequency

How often does your Business Game group meet?

( ) Once a month

( ) Twice a month

( ) Every week

( ) Several times a week

4) Team Role

What is your role in your Business Game group? If you share roles with another group member, please indicate your main role, i.e. the one in which you spend most of your working time.

( ) Finance Director

( ) Marketing Director

( ) HR/R&D Director

( ) Operations/Logistics Director