

Servant-Leadership: Paradox or Diamond in the Rough?
A Multidimensional Measure and Empirical Evidence

Servant-Leadership: Paradox or Diamond in the Rough?
A Multidimensional Measure and Empirical Evidence

Dienend-leiderschap: paradox of ruwe diamant?
Een multidimensionaal meetinstrument en empirisch bewijs

Thesis

to obtain the degree of Doctor from the
Erasmus University Rotterdam
by command of the rector magnificus

Prof.dr. H.G. Schmidt

and in accordance with the decision of the Doctorate Board.

The public defense shall be held on
Tuesday, 8 December 2009 at 13:30 hours

By
Inge Nuijten

born in Breda, the Netherlands



Doctoral Committee:

Promoter: Prof.dr. D.L. van Knippenberg

Other members: Prof.dr. D. De Cremer
Prof.dr. M. Kaptein
Prof.dr. A. Nauta

Copromoter: Dr. D. van Dierendonck

Erasmus Research Institute of Management – ERIM
Rotterdam School of Management (RSM)
Erasmus School of Economics (ESE)
Erasmus University Rotterdam
Internet: <http://www.irim.eur.nl>

ERIM Electronic Series Portal: <http://hdl.handle.net/1765/1>

ERIM PhD Series in Research in Management, 183
Reference number ERIM: EPS-2009-183-ORG
© 2009, Inge Nuijten

Cover picture: Dan Goldring - Kingston Canada
Idea cover: Inge Schaap - www.deoverkantontwerpers.com
Picture author: Bob Hagemeyer - www.gymnasiumbavel.nl
Design: B&T Ontwerp en advies - www.b-en-t.nl
Print: Haveka - www.haveka.nl

All rights reserved. No part of this publication may be reproduced or transmitted in any form or by any means electronic or mechanical, including photocopying, recording, or by any information storage and retrieval system, without permission in writing from the author.

Contents

CHAPTER 1: Introduction	1
Why servant-leadership?.....	2
The origin of servant-leadership.....	5
How does servant-leadership theory differ from other leadership theories?.....	5
What is servant-leadership?.....	6
What are the effects of servant-leadership?.....	8
Overview of the dissertation.....	15
CHAPTER 2: Servant-leadership positively influences follower basic psychological needs via trust.....	19
Introduction	20
STUDY 1.....	28
Method.....	28
Results.....	31
STUDY 2.....	37
Method.....	37
Results.....	38
Discussion	40
CHAPTER 3: Emergent leadership in self-managing teams: the role of clarity, standing back, empowerment and humility.....	45
Introduction	46
Literature review and hypotheses	48
Method.....	56
Results.....	60
Discussion	68
CHAPTER 4: The Servant-Leadership Survey (SLS): Development and validation of a multidimensional measure	73
Introduction	74
PHASE 1: DEVELOPMENT OF THE SERVANT-LEADERSHIP SURVEY	75

STUDY 1.....	81
Method.....	81
Results.....	83
STUDY 2.....	85
Method.....	85
Results.....	86
STUDY 3.....	89
Method.....	89
Results.....	90
PHASE 2: CONTENT VALIDITY OF THE SLS.....	91
Method.....	93
Results.....	94
PHASE 3: CRITERION-RELATED VALIDITY OF THE SLS.....	99
Method.....	99
Results.....	100
Discussion	102
CHAPTER 5: Servant-leadership and trust: The impact of followers' organization- based self-esteem	107
Introduction	108
Method.....	118
Results.....	120
Discussion	125
CHAPTER 6: General discussion	129
Summary of main findings	130
Theoretical implications and directions for future research.....	133
Limitations.....	140
Practical Implications	141
Concluding remark	143
NEDERLANDSE SAMENVATTING	169
ABOUT THE AUTHOR.....	171

List of Figures

Figure 2.1 Adjusted partially mediated model Study 1	36
Figure 2.2 Adjusted partially mediated model Study 2	40
Figure 3.1 Theoretical model for team performance over time.....	52
Figure 3.2 Theoretical model of overall team performance.....	56
Figure 3.3 Team performance over time for the three leadership structures	61
Figure 3.4 Two-way interaction of leader standing back and empowerment on overall team performance	67
Figure 3.5 Two-way interaction of leader standing back and humility on overall team performance	67
Figure 5.1 Interaction effect OBSE and accountability on trust in the leader	124
Figure 5.2 Interaction effect OBSE and courage on trust in the leader.....	124
Figure 5.3 Interaction effect OBSE and standing back on trust in the leader.....	125

List of Tables

Table 2.1 Means, standard deviations, reliabilities and intercorrelations among measures Study 1.....	32
Table 2.2 Results of model comparison Study 1.....	33
Table 2.3 Means, standard deviations, reliabilities and intercorrelations among measures Study 2.....	39
Table 3.1 Means and standard deviations team leadership on HRM-Simulation over time (z-scores).....	62
Table 3.2 Descriptive Statistics and Correlations ^a	64
Table 3.3 Regression analysis: The moderating effect of leader standing back on empowerment and humility on overall team performance ^a	66
Table 4.1 Study 2 Factor loadings confirmatory factor analysis (standardized values)	88
Table 4.2 Descriptive statistics and intercorrelations among leadership dimensions	95
Table 4.2 Continued.....	96
Table 4.3 Factor structure second-order exploratory factor analysis (oblique geomin rotation).....	98
Table 4.4 Correlations between servant-leadership and well-being.....	101
Table 4.5 Correlations between servant-leadership and extra-role behavior.....	102
Table 5.1 Means, standard deviations, reliabilities and intercorrelations among measures.....	121
Table 5.2 Regression analysis: The interactive effect of servant-leadership and OBSE on trust.....	122

VOORWOORD

Dit proefschrift is het resultaat van een kleine 4 jaar toegewijd en hard werken. Aanvankelijk was het doel van mijn PhD-project na te gaan hoe dienend-leiderschap samenhangt met zelfregulatie. Er bleek echter nog nauwelijks theorie te zijn op het gebied van dienend-leiderschap en er was nog geen geschikt multidimensionaal meetinstrument. Daarom werd het onderwerp van mijn onderzoek het zoeken naar een goede definitie van dienend-leiderschap, het vinden van een manier om dienend-leiderschap meetbaar te maken en het onderzoeken van de effecten van dienend-leiderschap. Gaandeweg ontstond een dataverzameling waarmee onderzocht kon worden wat de belangrijkste kenmerken van dienend-leiders zijn en wat het effect van dienend-leiderschap is op het vertrouwen, het welzijn en de prestaties van medewerkers. Dit proefschrift beschrijft de literatuurstudies en empirische onderzoeken die in dit kader zijn verricht.

Uiteraard wil ik een aantal mensen bedanken die mij de afgelopen 4 jaar hebben gesteund, geïnspireerd en gefaciliteerd. Dirk, bedankt voor het creëren van de mogelijkheid om dit proefschrift te schrijven en voor je persoonlijke ondersteuning daarbij. Daan, bedankt dat je als promotor mijn promotie mogelijk hebt gemaakt. Diana, thanks for being a true friend and my most critical reviewer. You are the best! Claudia, je waardevolle vriendschap, je luisterend oor en je enthousiasme hebben me geregeld de spreekwoordelijke steun in de rug gegeven. Ed, bedankt omdat je als geen ander mensen weet te inspireren en te enthousiasmeren voor dienend-leiderschap. Daarnaast heb je ervoor gezorgd dat veel deuren voor me open gingen om onderzoek uit te voeren. Samen met je vrouw Annelies, Alex, Gerard, Tineke en Jan ben je voor mij een belangrijk klankbord geweest. Dank voor jullie support en een aantal mooie 'dienend-leiderschap ervaringen'. Michaela, bedankt omdat je hielp me zaken te verhelderen en een plek te geven. Barbara, dank voor je steun en input. Daan and my German colleagues, Niels, Chris, and Steffen, thanks for the twixes, fun moments, and scientific support. My temporary roommate Andreas, thanks for being a wonderful person and giving me invaluable insights. Ana, I can't tell you how glad I am to have you as a 'colleague'. Thanks for

your meaningful input and comments on my final draft. Shann, thanks for your support and enthusiasm for my research. Dank aan mijn tantes, Ria en Annelies, jullie zorgden ervoor dat ik altijd een fijne plek had om te werken en te ontspannen. Marion, dank voor de steun, reflectie en ongeëvenaarde vastberadenheid bij het vinden van de juiste woorden. B(aukje), twin, dank voor het grashappen, je dansjes, je betrokkenheid en praktische feedback. Giesje, dank voor je onbezorgde (of was het nou onbezonnen?) kijk op de wereld, je weet me als geen ander te ‘aarden’. Natuurlijk ben ik ook alle mensen en organisaties erkentelijk die een bijdrage hebben geleverd aan dit proefschrift en zonder wie dit proefschrift niet tot stand gekomen zou zijn.

Tot slot wil ik mijn ouders danken voor alles wat ze me (mee)gegeven hebben.

“It's not enough to have lived. We should be determined to live for something. May I suggest that it be creating joy for others, sharing what we have for the betterment of humankind, bringing hope to the lost and love to the lonely.”

Leo F. Buscaglia

CHAPTER 1

INTRODUCTION

In 2005 the academic world was just awakening to servant-leadership. Until then, several scholars had made an attempt to put servant-leadership on the research agenda (Graham, 1991; Laub, 1999), but they barely succeeded. Servant-leadership appealed to some, whereas it remained paradoxical and perhaps even unthinkable or unworkable to others. People view servant-leadership as a paradox because they cannot conceive how one can serve and lead at the same time. But is servant-leadership really a nonviable paradox or is it a diamond in the rough? If we listen to Peter Block at the International Servant-Leadership Conference in 2005, the paradox might only be there due to the lack of clear definition and conceptualization (Prosser, 2008):

“... When an idea becomes popular I have to let go and move on to something else. But you’ve held on to the spirit of servant-leadership, you’ve kept it vague and indefinable, which I think is a great strategic advantage. People can come every year to figure out what the hell this is. And by not answering, they’re forced to come next year...”

This strategy might be fruitful for a few years, but if servant-leadership stays vague, it might lose its appeal for those who were initially drawn to it and it will definitely not convince those who are not at ease with the term ‘servant’. Therefore, servant-leadership might indeed become nonviable. Would this mean throwing away a diamond in the rough or is servant-leadership indeed an impossible marriage? The main purpose of this dissertation is to answer this question by exploring and explaining what servant-leadership is and what its effects are.

Servant-Leadership: Paradox or Diamond in the Rough?

Why servant-leadership?

During the last few decades, leadership researchers have primarily studied leadership processes through the lens of transformational and transactional leadership (Burns, 1978; Bass, 1985, 1999; Bass & Avolio, 1994; Bass, Avolio, Jung, & Berson, 2003; Pillai, Schriesheim, & Williams, 1999; Podsakoff, MacKenzie, & Bommer, 1996; Podsakoff, MacKenzie, Moorman, & Fetter, 1990; Yukl, 2006) and charismatic leadership (Avolio & Yammarino, 1990; Bryman, 1993; Conger, 1999; Conger & Kanungo, 1987, 1994). These leadership styles are credited with moving “the follower beyond immediate self-interest through idealized influence (charisma), inspiration, intellectual stimulation, or individualized consideration” (Bass, 1999, p.11), but criticized for disregarding the need for leader moral character and ethical conduct (Price, 2003). In this respect, Bass and Steidlmeier (1999) stated that critics who argue that transformational leadership is unethical fail to distinguish pseudo from authentic transformational leadership. However, even Bass and Steidlmeier’s authentic transformational leaders do not move beyond their self-interest which is pivotal for effective leadership. Specifically, research has shown that leaders are not necessarily effective if they are able to move their followers beyond self-interest, but that it is more important that they move beyond their own self-interests and focus on the benefit of others (Choi & Mai-Dalton, 1998, 1999; De Cremer, 2006; De Cremer & van Knippenberg, 2002, 2004; van Knippenberg & van Knippenberg, 2005; Yorges, Weiss, & Strickland, 1999). A focus on the interest of the followers is exactly where servant-leadership differs from all other leadership styles (Graham, 1991, 1995). Servant-leadership places the interests of those led over the self-interest of the leader (Hale & Fields, 2007). Servant-leaders transcend their self-interest by focusing on follower development and needs, and de-emphasizing their own glorification (Barbuto & Wheeler, 2006; Irving & Longbotham, 2007; Smith, Montagno, & Kuzmenko, 2004; Stone, Russell, & Patterson, 2004).

The quest for a more ethical follower-focused leadership style does not only come from several academics, but also from people negatively affected by ‘accelerated’ society (Rosa, 2003) and today’s leadership practices (Boyatzis & McKee, 2005; Hale & Fields, 2007). First, the increased access to places, products and information (i.e., cars, trains, planes, television, internet, and mobile phones)

has given people a dazzling amount of choice and temptation. This 'unlimited' access can cause (inner) conflict and confusion, and makes people today more demanding in terms of what they look for in their jobs than people 50 years ago. Jossi (1999) argues that leaders should provide employees what they need most considering these circumstances: stability and guidance. Furthermore, the fast-paced society has also led to an increase in stress and burnout which result in high economic, social and psychological costs (Shirom, 2005). Seltzer and Numerof (1988) have shown that leaders play an important role in preventing burnout. Therefore, a leadership style that focuses on the needs of followers seems essential, now more than ever. Next, the general focus on wealth is adding to the adversity (Wright, Cropanzano, Bonett, & Diamond, 2009). The many examples of corporate scandals and ethical misconduct are attesting to this problematic wealth focus (for examples see: Brown & Trevino, 2004; den Nieuwenboer & Kaptein, 2008; George & Bennis, 2008; Hale & Fields, 2007; Heugens, Kaptein, & van Oosterhout, 2006; Kakabadse, Kakabadse, & Lee-Davis, 2006; Trevino, Weaver, & Reynolds, 2006). Research also suggests that accounts of leader misconduct and dishonesty result in leaders not being taken seriously anymore (Caldwell, Hayes, Karri, & Bernal, 2008) and even to being distrusted (George, Sims, McLean, & Mayer, 2007; Fairholm & Fairholm, 2000). The current global financial crisis only aggravates the lack of trust in leadership (Dirks & Ferrin, 2002; Mishra, 1996).

Finally, organizations also demand a change in leadership. Spears (1998, p.2) put this as follows: "... we are witnessing a shift in many businesses and nonprofit organizations – away from traditional autocratic and hierarchical models of leadership and toward a model based on teamwork and community; one that seeks to involve others in decision making; one that is strongly based in ethical and caring behavior; and one that is attempting to enhance the personal growth of workers while at the same time improving the caring and quality of our many institutions. This emerging approach to leadership and service is called 'servant-leadership'." In sum, leaders are called upon by both science and practice to regain the trust of their followers by behaving as ethical stewards (Bennis & George, 2008; van de Veer, 2009) which means 'service over self-interest' and treating employees like 'owners and partners' (Caldwell et al., 2008).

Thus, theory and practice demand a leadership style that is ethical and puts followers first. Servant-leadership is a leadership style that is ethical and puts followers first. The essence of servant-leadership is that servant-leaders are moral in that they go beyond their self-interest; servant-leaders are governed by something more important than their self-interest, namely serving their fellow men and women (Luthans & Avolio, 2003). This was described by Greenleaf as follows: “*The servant leader is servant first. It begins with the natural feeling that one wants to serve. Then conscious choice brings one to aspire to lead*” (Spears, 2002, p.1). A servant-leader is ‘primus inter pares’ (i.e., first among equals) and makes sure that other people’s highest priority needs are being met. According to Bass (2000) the focus of servant-leadership on encouraging follower learning, growth and autonomy suggests that the untested theory of servant-leadership will play a role in the future leadership of organizations. More particularly, Bass acknowledges that servant-leadership has potential, but is in much need of solid research. Despite the many popular books there is still hardly any scientific evidence for the effects of servant-leadership on followers and (organizational) performance (Hamilton & Nord, 2005; Stone, Russell, & Patterson, 2004). This is partly due to the fact noted in the introduction: servant-leadership has not yet been defined and operationalized in a profound and satisfying way. Or as Russell and Stone (2002, p.145) put it: “the literature regarding servant-leadership is rather indeterminate, somewhat ambiguous, and mostly anecdotal.” This dissertation attempts to clarify the concept of servant-leadership and provide scientific evidence for its effects.

First, I will give an account of how Greenleaf came up with the concept of servant-leadership. Next, I will argue how servant-leadership differs from other types of leadership. This will precede the discussion on ‘what servant-leadership is’, because the writings and theorizing on servant-leadership are very clear about the distinctive feature(s) of servant-leadership. Then I will describe how other researchers operationalized servant-leadership and how I built upon their work, and constructed my own definition and measure. Fourth, I will discuss what the effects are of servant-leadership according to previous research and which outcome variables I will include in this dissertation to determine the effectiveness of servant-leadership. After this discussion, I will give an overview of the most important

constructs in this dissertation. Finally, an overview of the chapters in this dissertation will be provided.

The origin of servant-leadership

The term servant-leadership was coined by Robert Greenleaf (1904-1990) in his seminal work, 'The Servant as Leader'. After spending 40 years working at AT&T, he retired in 1964 as director of management research. For another 25 years, Greenleaf worked as an author, teacher and consultant. Greenleaf describes himself as "a lifelong student of how things get done in organizations" (Spears, 1998, p.3). The inspiration for the servant-leader came out of reading Herman Hesse's '*The Journey to the East*' (Greenleaf, 1977). In this book, the first-person narrator is part of a group of men travelling on a mythical journey. One of the persons in the group is Leo, a servant who takes care of the menial chores, plays music, and sustains the group with his spirit. Leo is a man of extraordinary presence: he is pleasant, happy, and beloved by everyone. All goes well until at a certain moment Leo disappears. Then the group falls into disarray. Years later, the first-person narrator is again in contact with the Order to which the group of travelling men belonged. It turns out that Leo is, and was, the titular head of the Order, its spiritual guide and leader. Through this story, Greenleaf realized that it is possible to combine the roles - Servant and Leader - in one person. Combining these aspects within oneself may even be the mark of a true great leader.

How does servant-leadership theory differ from other leadership theories?

The biggest distinction with other types of leaders is that servant-leaders are genuinely concerned with serving followers (Greenleaf, 1977), while other types of leaders have a greater concern for getting followers to engage in and support organizational objectives (Graham, 1991). Moreover, servant-leaders focus more on the people who are their followers, while other types of leaders focus primarily on organizational (or their own) goals (Stone, Russell, & Patterson, 2004). This doesn't mean that servant-leaders do not achieve organizational goals. On the contrary, Greenleaf (1998) argues that successful businesses are led by servant-leaders, and

that these businesses, even in highly competitive fields, stand above their competitors in profitability, in the quality of the products delivered, and in the absence of labor conflict that plagues the others, by ‘voluntary effort’. Voluntary effort means people do more, voluntarily. According to Greenleaf this happens thanks to the leaders who put the people who work for them first. As a consequence, the employees deliver all that they can deliver, and the organizations in turn flourish. Examples of organizations organized according to servant-leadership principles are: South West Airlines, Synovus Financial Corporation, TDIndustries, The Toro Company, Service Master Company, Men’s Warehouse, and Starbucks (Hamilton & Nord, 2005). I have come across PieperPower, The Container Store and Voerman International myself, which have adopted servant-leadership as a guiding philosophy, and are profitable at a time when their major competitors are operating at a loss.

Thus, servant-leadership is noble in that it is about identifying and meeting the needs of others (Keith, 2008). Another important way in which it distinguishes itself from other leadership styles is that it is not a temporary or organization specific strategy, but a way of being (Marinho, 2006; Spears, 1998). Therefore, a servant-leader’s behaviors are potentially more consistent and credible over time than those of other leaders. Specifically, what you see is what you get, no hidden agenda’s or sudden changes of opinion or behavior. Servant-leaders are said to be authentic: they have a deep sense of purpose and are true to their core values. According to George and Bennis (2008) this is exactly what we need in leaders today. When leaders are genuine and authentic people trust them (George et al., 2007).

What is servant-leadership?

Although some good attempts have been made recently, most of the writings on servant-leadership have stayed vague about the exact nature of servant-leadership (Russell & Stone, 2002). For instance, Greenleaf did not provide any definitions, but focused on servant-leader behaviors and the way a servant-leader has influence on followers (Smith et al., 2004). Greenleaf (1977, p.27) proposed that the best test for servant-leadership is: “Do those served grow as persons? Do they, *while being served*, become healthier, wiser, freer, more autonomous, more likely themselves to become

servants? *And*, what is the effect on the least privileged in society? Will they benefit or at least not be further deprived?" This dissertation focuses specifically on the relation between the leader and the follower, and therefore, on the first part of Greenleaf's test. The second part is very interesting for future research, especially given the increased interest in Corporate Citizenship (Crane & Matten, 2008; Néron & Norman, 2008), Corporate Social Responsibility (McWilliams, & Siegel, 2001; McWilliams, Siegel, & Wright, 2006) and Organizational Virtue (Heugens et al., 2008).

Based on Greenleaf's ideas, Spears (1998) put forward ten characteristics that according to him represent servant-leadership best: listening, empathy, healing, awareness, persuasion, conceptualization, foresight, stewardship, commitment to the growth of people and building community. These ten characteristics, together with the writings of Greenleaf, have formed an important starting point for the theorizing and instrument development on servant-leadership.

During the last decade there have been some attempts at operationalizing servant-leadership (Barbuto & Wheeler, 2006; Dennis & Bocarnea, 2005; Dennis & Winston, 2003; Ehrhart, 2004; Laub, 1999; Liden, Wayne, Zhao, & Henderson, 2008; Page & Wong, 2000; Patterson, 2003; Sendjaya, Sarros, & Santora, 2008; Wong & Davey, 2007). All of these instruments, except Ehrhart's, have acknowledged the multidimensional nature of servant-leadership. However, most of the attempts to capture the broad concept of servant-leadership have psychometrically failed (see for instance, Dannhauser & Boshoff, 2007; Dennis & Winston, 2003; McIntosh & Irving, 2008). Sendjaya et al. (2008) only tested the one-dimensionality of each of the six core dimensions separately, presented no data on the factorial validity of the overall six-dimensional model, and had high intercorrelations between the dimensions; therefore, it is unlikely that the proposed multidimensional structure can be found in an independent sample. More particularly, only the scale developed by Liden et al. (2008) seems to have a replicable factor structure. A valid and reliable multidimensional instrument of servant-leadership is important to show the added value of servant-leadership compared to other leadership styles, and to show which specific servant-leader behaviors are important in specific circumstances.

A second shortcoming of most of the measures is that they neglect the ‘leader’ part of servant-leadership. However, servant-leadership is also about providing direction, being a leader. A servant-leader knows very well where to take the organization and the people in it (Greenleaf, 1977). Liden et al. (2008) touch upon the leader part by including: creating value for the community, conceptual skills, and empowerment. However, they overlook courage, accountability, and humility which have been proposed to be important aspects of servant-leadership (Greenleaf, 2002). Despite that, thanks to all these previous attempts to construct a valid and reliable multidimensional scale, servant-leadership theory has advanced. Nonetheless, to answer the central question of this dissertation ‘*servant-leadership: paradox or diamond in the rough?*’ a sub-question still in need for an answer is:

What is servant-leadership and how can we measure it?

Based on the knowledge and evidence gathered during my research, and within the context of this dissertation, I define servant-leadership as a leadership style that is primarily focused on the growth and well-being of individuals. Furthermore, a servant-leader *has moral character, the wisdom to foresee what is needed, the ability to meet the needs of people, and the courage to act on that.* The definition and these characterizations are reflected in my operationalization of servant-leadership (chapter 4). In chapter 4, I will argue that the core servant-leadership behaviors are: empowerment, accountability, stewardship, courage, humility, standing back, forgiveness and authenticity. The biggest difference between the scale I developed to measure servant-leadership (behaviors) and other servant-leadership scales is that: (1) attention is paid to both the ‘servant’ (humility, standing back, forgiveness, authenticity) and the ‘leader’ (empowerment, accountability, stewardship, courage) part of servant-leadership; and (2) the eight dimensions are psychometrically distinct, reliable and valid.

What are the effects of servant-leadership?

Greenleaf (2002) has given us his point of view about the consequences of servant-leadership. According to him, those served should grow: become more

autonomous, healthier, wiser, freer, more likely themselves to become servants. Furthermore, Greenleaf (1977) has also made it very clear that servant-leadership is about trust and that by serving others first, business will benefit too. So far, there is only a scarce amount of research that has linked servant-leadership to relevant outcome variables for organizations. Ehrhart (2004) showed justice climate mediated the relationship between servant-leadership and organizational citizenship behavior. Liden et al. (2008) provided some support for the link between some of their servant-leadership dimensions and three outcome measures: ‘creating value for the community’ was significantly positively related to community citizenship behavior, while ‘helping subordinates grow and succeed’ and ‘behaving ethically’ were significantly negatively related to community citizenship behavior. ‘Behaving ethically’ was significantly positively related to in-role performance. ‘Helping subordinates grow and succeed’ had a significant positive link with organizational commitment, whereas ‘emotional healing’ had a significant negative relation with organizational commitment. Next, Neubert, Kacmar, Carlson, Chonko, and Roberts (2008) linked servant-leadership to helping and creative behavior via promotion focus. Mayer, Bardes, and Piccolo (2008) showed organizational justice partially mediated the relationship between servant-leadership and follower overall need satisfaction. Additionally, Mayer and colleagues found that follower overall need satisfaction was very closely related to job satisfaction. Hale and Fields (2007) established a positive link between servant-leadership and a general measure of leadership effectiveness. Finally, Reinke (2004) and Joseph & Winston (2005) gave some preliminary support for the positive link between servant-leadership and trust.

However, based on this small amount of research, which was not always conducted with valid and reliable scales, we cannot verify the claims made in the popular press about servant-leadership. According to the popular writings on servant-leadership, servant-leadership is a leadership style that can bring back the trust, and, among other things, increase follower well-being and performance. Therefore, to answer the central question of this dissertation: *‘servant-leadership: paradox or diamond in the rough?’*, a sub-question in need for an answer is:

What are the effects of servant-leadership on follower well-being and team performance?

The increased importance of employee health and well-being (Wright & Quick, 2009) makes Greenleaf's test for servant-leadership ("Do those served grow...") an essential one to conduct. Since I saw parallels between Greenleaf's test and self-determination theory, I will use the basic psychological needs from self-determination theory to perform Greenleaf's test. Of course, despite the quest for a health instead of a wealth focus (Wright, Cropanzano, Bonett, & Diamond, 2009), it will still be interesting to see if servant-leadership actually benefits performance. This test will be performed with objective performance measures. Finally, servant-leadership theory emphasizes the central role for trust (Greenleaf, 2002; Joseph & Winston, 2005; Reinke, 2004). Because trust has been coined as a pivotal aspect for individual (Deci, Connell, & Ryan, 1989) and organizational well-being (Colquitt, Scott, & LePine, 2007; Dirks & Ferrin, 2002), it is important to empirically examine the link between servant-leadership and trust as well.

Therefore, the main question of this dissertation '*servant-leadership: paradox or diamond in the rough?*' will be answered by (a) relating servant-leadership to 'positive health' as exemplified by the basic psychological needs (chapter 2); (b) relating servant-leadership to performance (chapter 3); (c) developing a measure for servant-leadership (chapter 4); and (d) focusing on the link between servant-leadership and trust (chapter 5). Finally, given the central role of the follower in servant-leadership, I will also test whether follower characteristics influence the effects of servant-leadership on outcome variables. A test of the effect of follower self-esteem on the relation between servant-leadership and trust was conducted (chapter 5). The chapter order was chosen because it is the order in which the chapters were completed. Important to note in this regard is that before I had validated the full measure of the Servant-Leadership Survey, I only tested two seemingly essential aspects of servant-leadership in relation to follower well-being and performance because of survey-related time concerns. In the next paragraphs I will discuss the most important variables in the dissertation: positive health (the basic psychological needs), performance, trust, and self-esteem.

Positive health

Wright, Cropanzano, Bonett and Diamond (2009, p.193) quote Will Durant at the start of their paper: "The health of nations is more important than the wealth of

nations”. They conclude that despite this advice, wealth has been more the focus of research than health. A focus on wealth is usually based in short-term thinking. However, what is beneficial in the short run might be detrimental in the long run (Danna & Griffin, 1999). For instance, having the work of 10 people done by 8 people is cost-effective in the short-term, but might very well induce tiredness, mistakes, illness, absenteeism, dissatisfaction and turnover in the long run. Taking a long-term health perspective might be costly in the short term, but the benefits of employee and organizational well-being in the long-term will probably outweigh the short-term costs. Furthermore, Bakker and Schaufeli (2008, p.148) argue that, “instead of ‘costs’, occupational health and well-being measures are increasingly considered sound ‘investments’ in employees who yield direct economic benefits to the company”. Research so far has demonstrated that employee well-being is related to an increased ability to focus on the job at hand, reduced absenteeism, decreased turnover (Wright & Bonett, 2007), greater commitment (Ryan & Deci, 2006), increased creativity, and performance (Ilies, Morgeson, & Nahrgang, 2005). Therefore, in line with Macik-Frey, Quick, and Cooper (2009), I would argue that a positive health model is a reasonable model to explain highly effective leadership. In agreement with servant-leadership theory (Greenleaf, 1977, 2002), I propose that if a leader is able to promote the health of followers, the leader is likely to be successful.

Research has shown that positive health is closely related to the basic psychological needs (Ryan & Deci, 2000, 2001; Ryan & Frederik, 1997; Ryff & Singer, 1998). As discussed below, I chose the basic psychological needs from self-determination theory (Ryan & Deci, 2000, 2004) as indicators of positive health.

The basic psychological needs

To be self-determining means to experience a sense of choice in initiating and regulating one's own actions (Deci, Connell, & Ryan, 1989). Self-determination theory investigates people's inherent growth tendencies and innate psychological needs that are the basis of their self-motivation, personality integration, and personal well-being (Ryan & Deci, 2000). A basic need is an energizing state that, if satisfied, is conducive toward health and well-being. However, if it is not satisfied, it can contribute to pathology and ill-being (Ryan & Deci, 2000, 2001). The three basic psychological needs as defined by self-determination theory are: autonomy,

relatedness, and competence (Reis, Sheldon, Gable, Roscoe, & Ryan, 2000; Ryan & Deci, 2004; Ryan, Kuhl, & Deci, 1997). When these needs are satisfied, enhanced self-motivation and mental health follow (Ryan & Deci, 2000). The basic psychological needs have been related to self-esteem, creativity, conceptual learning, achievement (Ilies, Morgeson, & Nahrgang, 2005), daily positive mood, vitality, physical health (Sheldon & Elliot, 1999), engagement, productivity, and wellness (Ryan & Deci, 2006). I argue that servant-leadership will benefit each of these follower basic psychological needs, and therefore facilitate follower growth and well-being.

Performance

Despite the increased focus on health and well-being companies will also want to know if servant-leadership benefits actual performance. Therefore, team performance was chosen as one of the outcome variables in this dissertation. The problem with most research on leadership effectiveness or team performance is that the performance measures are rarely objective. Establishing similar effects with objective measures would be of great value, because objective effects of leadership are more of a concern to organizations than the perceptual effects (van Knippenberg & van Knippenberg, 2005). Therefore, I chose to use objective performance measures in this dissertation. Furthermore, in present-day organizations learning is the base for team performance (Amy, 2007; Tsang, 1997). Bunderson and Sutcliffe (2003) confirmed that an appropriate emphasis on learning can have positive consequences for team effectiveness. Critical capabilities for organizations are the ability to create, use, retain and transfer information and knowledge among organizational members (Heinrichs & Lim, 2005). Leaders who are able to optimally facilitate team learning behaviors will potentially have the best performing team. Since team and organizational performance nowadays is so dependent upon learning, I chose to study the performance of teams in a learning context. Furthermore, I propose that servant-leadership will be positively related to team performance.

Trust

The significance of follower trust in the leader has been recognized by researchers from different fields as essential for leadership effectiveness for almost half a century (see Dirks & Ferrin, 2002; Dirks & Skarlicki, 2009; Kramer, 1999). Specifically, research has shown that trust in the leader is related to positive outcomes for organizations, such as: positive job attitudes, organizational justice, effectiveness in terms of communication, organizational relationships, and conflict management (Dirks & Skarlicki, 2009), cooperation and teamwork (Jones & George, 1998), team performance (Dirks, 2000), citizenship behavior (Pillai et al., 1999), ability to focus (Mayer & Gavin, 2005), organizational commitment, reduced turnover, and job performance (Lewicki, Tomlinson, & Gillespie, 2006). Trust has been defined as “the intention to accept vulnerability based upon positive expectations of the intentions or behavior of another” (Rousseau, Sitkin, Burt, & Camerer, 1998, p.395). I argue that the servant-leadership behaviors I have operationalized will be positively related to trust in the leader.

Self-esteem

Given the current call for research to take into account follower individual differences (De Cremer, van Knippenberg, van Dijke, and Bos, 2004; Elangovan and Xie, 1999) I chose to include follower self-esteem as a moderator variable. I opted for self-esteem, and in particular Organization-Based Self-Esteem (OBSE) (Pierce, Gardner, Dunham, & Cummings, 1993; Wiesenfeld, Swann, Brockner, & Bartel, 2007), because OBSE has been coined and proven to influence people’s reactions to work-related stimuli (De Cremer et al., 2004; Duffy, Shaw, & Stark, 2000; Jex & Elacqua, 1999). Furthermore, OBSE has been shown to fully mediate the effects of ‘propensity to trust’ on organizational citizenship (Van Dyne, Vandewalle, Kostova, Latham, and Cummings, 2000), and ‘propensity to trust’ has been hypothesized to be a moderator of concepts relating to trust (Colquitt et al., 2007; Dirks & Ferrin, 2002). I propose that OBSE will be a more effective construct to include than ‘propensity to trust’, because OBSE is an organization-specific measure at a level relevant to the criterion of interest (Brutus, Ruderman, Ohlott, & McCauley, 2000; Pierce Gardner, Cummings, & Dunham, 1989).

Pierce, et al. (1989) defined OBSE as the “self-perceived value that individuals have of themselves as organization members acting within an organizational context” (p.625). Employees with high OBSE are secure in the belief that they are trusted, valued, contributing organization members (Pierce et al., 1993). Through the years, there has been some empirical support for the effect of follower self-esteem on reactions to organizational characteristics (e.g., leadership, pay) (Brockner, Heuer, Siegel, Wiesenfeld, Martin, Grover, et al., 1998; Brutus et al., 2000; De Cremer et al., 2004; Duffy et al., 2000; Hui & Lee, 2000; Jex & Elacqua, 1999; Lee & Peccei, 2007; Wiesenfeld et al., 2007). In their overview of the OBSE-literature, Pierce and Gardner (2004) showed that low OBSE individuals are more reactive to environmental cues than high OBSE people and that high OBSE employees are more positive in general (Baumeister, Campbell, Krueger, & Vohs, 2003).

Behavioral plasticity theory posits that individuals low in self-esteem (low SEs) are more behaviorally plastic (reactive) than those with high self-esteem (high SEs) (Brockner, 1988). More specifically, the theory of behavioral plasticity proposes that, as a result of lack of confidence in their own thoughts and feelings, low SEs tend to rely on information from outside sources to guide their thoughts and actions. Two refinements of behavioral plasticity theory are self-consistency or self-verification theory (Korman, 1970) and self-enhancement theory (Dipboye, 1977). Self-consistency theory states that people tend to verify their self-views: individuals who have a positive image of themselves will tend to adopt attitudes that reinforce that positive image whereas low SEs will tend to confirm their negative self-views. Self-enhancement theory on the other hand assumes that humans have a fundamental need to achieve and maintain high levels of self-esteem (Dipboye, 1977). This more hedonic view implies that low SEs also seek positive feedback and evaluations (Baumeister, 1989).

No matter which theoretical perspective we take, the views of low SEs are usually influenced more by their environment than the views of high SEs (Brockner, 1988), and high self-esteem individuals hold more positive views in general (Bandura, 1977). Low SEs seek approval, but have trouble with evaluative feedback and potential failure. Therefore, I argue that low SEs will prefer to self-enhance and be sensitive to positive ‘unconditional’ support from their leader. However, when

faced with a challenge they lose faith in themselves (and their leader) and they will seek the ‘easy way out’. This means that they will see the challenge as a threat which they anticipate will be difficult for them to meet, and therefore, they prefer not to make an effort, but rather self-verify their low ‘worth’ by doing nothing.

In short, in the upcoming empirical chapters of this dissertation, I will show that servant-leadership benefits follower basic psychological needs and team performance, is positively related to trust, and that follower self-esteem moderates the relation between servant-leadership and trust. Furthermore, I will provide a valid and reliable operationalization of servant-leadership.

Overview of the dissertation

This dissertation consists of four empirical chapters and a final chapter where I present the findings and general conclusion of the present research. Whereas all four empirical chapters address the value of servant-leadership, they are in essence stand-alone research articles and, as such, can be read independent of each other. As a result, there will be some overlap across chapters in terms of theoretical development of my ideas. Moreover, because the empirical chapters have been developed with my dissertation supervisor, I will mostly use ‘we’ instead of ‘I’ from this point on, whenever I refer to the author(s). Below is a brief description of each chapter.

Chapter 2 – Servant-leadership and follower well-being

In chapter two, we performed the ‘best test’ of servant-leadership: “Do those served grow as persons? Do they, *while being served*, become healthier, wiser, freer, more autonomous, more likely themselves to become servants?” in light of self-determination theory. Both servant-leadership and self-determination theory are concerned with the development of human beings (Greenleaf, 1977; Ryan & Deci, 2000). Furthermore, both theories claim trust is pivotal for human growth (Deci et al., 1989; Greenleaf, 1977). Since we had not fully validated the Servant-Leadership Survey (chapter 4) when we collected the most important data for this chapter, and we were unable to take all items of the preliminary measure into account, we chose to focus on two vital elements of servant-leadership: empowerment and humility.

The basic psychological needs: autonomy, relatedness and competence were selected as outcome variables. We expected that empowerment and humility would both be positively related to each of the basic psychological needs via trust. These hypotheses were tested in a longitudinal design with 318 students participating in an HRM-Simulation, and in a field study with 160 high school teachers. This chapter contributes to the field in several ways: (1) servant-leadership theory is advanced by showing the relevance of empowerment and humility for servant-leadership; (2) it provides one of the first tests of Greenleaf's 'best test' for servant-leadership, and therewith it establishes that servant-leadership indeed stimulates follower growth as exemplified by the basic psychological needs, and (3) it shows the role of trust in the relation between servant-leadership and follower basic psychological need fulfillment.

Chapter 3 – Servant-leadership and team performance

Chapter three was written to establish whether servant-leadership produces the results that businesses care for most: performance. With 143 teams we determined how teams with a 'servant-leadership' structure differed from teams with a traditional leadership structure and teams with no clear leadership structure on performance. We first argued that leadership clarity would be important (West, Borrill, Dawson, Brodbeck, Shapiro, & Haward, 2003). Teams with an unclear leadership structure (i.e., it was unclear or not agreed upon who the leader had been) were expected to perform poorly over time compared to the teams with a clear leadership structure. Next, teams with a clear leadership structure would have either a standing back or a non-standing back leader. The teams with a standing back leader were expected to outperform the teams with a non-standing back leader, especially if the standing back leader was rated high on empowerment and humility. The specific context in which these teams operated allowed us to gather objective performance data over eight time points and an independent objective performance measure of overall team performance. The contribution of the chapter is fourfold: (1) it shows how leadership clarity influences team performance; (2) it shows how teams with 'standing back' leaders perform over time as compared to teams with 'non-standing back' leaders; (3) it shows how leader standing back moderates the effects of empowerment and humility on team performance in this specific context,

and (4) next to the importance of leadership, it shows that task specific knowledge of team members is a very important ingredient for successful teams too.

Chapter 4 – Servant-leadership: a multidimensional measure

In chapter four we give a full conceptualization and operationalization of servant-leadership: the Servant-Leadership Survey (SLS). Based on the literature we argue that servant-leadership will be expressed through: empowerment, accountability, stewardship, courage, humility, standing back, forgiveness, and authenticity. Field data from 1167 people (7 samples) compiled in three studies were used to show the internal consistency of the subscales, the convergent validity of the SLS with other leadership measures and the predictive validity of the SLS. The aim was to develop a valid and reliable instrument that measures servant-leadership in all its complexity, adds to the existing leadership scales, while at the same time remaining easy to administer. The chapter offers the theoretical underpinnings and the psychometrical validation of the scale.

Chapter 5 – Servant-leadership and trust

We wrote this final empirical chapter to test the full model of servant-leadership behaviors developed in chapter 4 on a crucial feature of leader and organizational effectiveness: trust. Given the current call for research to take into account follower individual differences (De Cremer, van Knippenberg, van Dijke, and Bos, 2004; Elangovan and Xie, 1999) we also included follower self-esteem as a moderator variable. Following insights from behavioral plasticity theory (Brockner, 1988), self-consistency theory (Korman, 1970), and self-enhancement theory (Dipboye, 1977), we argued that the link between servant-leadership and trust would be relatively unaffected for high SEs, whereas trust in the leader by low SEs would be influenced positively by the presence of ‘unconditional’ support (empowerment, courage, standing back and forgiveness) and negatively by the presence of ‘conditional’ support (accountability, stewardship, humility, authenticity). Furthermore, we expected a positive relation between the eight servant-leader behaviors and trust, and between OBSE and trust. The hypotheses were tested with a convenience sample of 183 employees from a wide variety of industries and job levels. Chapter 5 aimed to: (1) provide a test of the full model of servant-leadership as developed in

this dissertation (chapter 4); (2) establish the link between servant-leadership and trust; (3) show how follower self-esteem influences follower perceptions of servant-leadership as represented by trust in the leader, and (4) provide a refined account of the effects of follower self-esteem on the relation between servant-leadership and trust.

Chapter 6 – General discussion

In chapter 6 we summarize the findings of the empirical chapters, discuss the theoretical and practical implications, the limitations and ideas for future research.

CHAPTER 2
SERVANT-LEADERSHIP POSITIVELY INFLUENCES
FOLLOWER BASIC PSYCHOLOGICAL NEEDS VIA TRUST

Given the current appeal of ‘positive leadership’, there is a need for empirical evidence of its beneficial effects. This study investigated whether servant-leader behaviors, specifically empowerment and humility, are positively related to employee ‘positive health’ via trust. ‘Positive health’ was conceptualized as the three basic psychological needs put forward by self-determination theory: autonomy, relatedness, and competence. Utilizing two samples, one longitudinal study with 318 students and one cross-sectional study with 160 teachers, results show that empowerment and humility positively influence the basic psychological needs autonomy and relatedness via trust, and that competence is directly related to empowerment.

Introduction

In the area of positive leadership, servant-leadership has recently garnered increasing interest (Liden, Wayne, Zhao, & Henderson 2008; Neubert, Kacmar, Carlson, Chonko, & Roberts, 2008; Sendjaya, Sarros, & Santora, 2008; van Dierendonck, Nuijten, & Heeren, 2009). Like authentic leaders (Luthans & Avolio, 2003) and ethical leaders (Brown & Trevino, 2006), servant-leaders “are deeply aware of their values and beliefs, they are self-confident, genuine, reliable and trustworthy, and they focus on followers’ strengths, broadening their thinking and creating a positive and engaging organizational context” (Ilies, Morgeson, & Nahrgang, 2005, p.374). This positive approach to leadership focuses on employee health, betterment and well-being, and is related to the ‘health model’ (Wright & Quick) which emphasizes the importance of ‘positive’ health to explain highly effective leadership (Macik-Frey, Quick, & Cooper, 2009). Specifically, this model suggests that we can measure a leader’s success by assessing the health and well-being of the followers. This is in line with Greenleaf (1977) who denoted that the best test for servant-leadership is if those around the servant-leader become more autonomous, healthier, wiser and freer.

Two key aspects of servant-leadership are empowerment and humility. Empowerment has widely been recognized as an important leader behavior (Chen, Kirkman, Kanfer, Allen, & Rosen, 2007; Chen, Lam, & Zong, 2007; Kirkman & Rosen, 1999; Liden, Wayne, & Sparrowe, 2000; Spreitzer, 1995) and has been defined as: “a process of enhancing self-efficacy among organizational members through the identification of conditions that foster powerlessness and through their removal by both formal organizational practices and informal techniques of providing efficacy information” (Conger & Kanungo, 1988, p.474). Since servant-leadership is first and foremost about helping others grow by identifying and meeting their needs (Keith, 2008), empowerment is key to servant-leadership.

Humility, which was put forward by Socrates as a primary characteristic of leadership (Korac-Kakabadse, Korac-Kakabadse, & Kouzmin, 2001) has on the other hand hardly been studied. Only recently, due to the financial crisis and corporate scandals (Caldwell, Hayes, Karri, & Bernal, 2008; den Nieuwenboer & Kaptein, 2008), but also thanks to the writings of Greenleaf (1977) and Collins

(2001a, 2001b) humility has been put on the agenda (Morris, Brotheridge, & Urbanski, 2005; Reave, 2005). Humility is an essential aspect of servant-leadership because humble leaders appreciate that they do not have all the answers and, as a result, actively seek out the contributions of others (Morris et al., 2005). Humble leaders are great listeners and able to translate the questions of their environment into positive action. More specifically, only by being humble will a servant-leader be able to identify and meet the needs of others. Therefore, Macik-Frey et al.'s (2009) proposition that positive leadership can promote positive health will be tested with leader empowerment and humility.

Positive health will be conceptualized as the three basic psychological needs from self-determination theory: autonomy, relatedness, and competence (Ryan & Deci, 2000, 2004). After over 3 decades of research on human motivation, Ryan and Deci (2004) concluded that our self-determination follows from fulfilling our basic psychological needs. When these needs are satisfied enhanced self-motivation and mental health follow (Ryan & Deci, 2000). Furthermore, Sheldon and Elliot (1999) found that fulfillment of our psychological needs is related to daily positive mood, vitality, and physical health.

Furthermore, Deci, Connell, & Ryan (1989) established that leaders are in an advantageous position to foster an employee's sense of self-determination, and they linked a leader's support for self-determination to trust. Other research has indeed shown that positive leader behaviors (i.e., participative decision making, transformational leader behaviors, and supervisor support) lead to trust (see Dirks & Ferrin, 2002 for an overview). Given the current emphasis on 'positive' leadership and 'positive' health, it will be important to determine whether empowerment and humility lead to trust, and via trust, to fulfillment of the follower's basic psychological needs. Our premise is that empowerment and humility lead to trust in the leader, which will in turn benefit follower autonomy, relatedness and competence. When followers perceive a leader as humble and empowering, they will be more inclined to trust the leader. In other words, when followers feel their leader takes care of them, attends to their needs, listens to them and supports their self-worth by showing confidence in their integrity, ability and motivation (Bass, 2000), it is likely that followers will trust the leader and that this benefits followers' feelings of autonomy, relatedness and competence.

The basic psychological needs as indicators of positive health

To be self-determining means to experience a sense of choice in initiating and regulating one's own actions (Deci et al., 1989). Self-determination theory investigates people's inherent growth tendencies and innate psychological needs that are the basis of their self-motivation, personality integration, and personal well-being (Ryan & Deci, 2000). A basic need is an energizing state that, if satisfied, is conducive toward health and well-being. However, if it is not satisfied, it can contribute to pathology and ill-being (Ryan & Deci, 2000, 2001). Research has indeed shown that positive health is closely related to the basic psychological needs (Ryan & Deci, 2000, 2001; Ryan & Frederik, 1997; Ryff & Singer, 1998). Furthermore, the basic psychological needs have been related to self-esteem, creativity, conceptual learning, achievement (Ilies et al., 2005), daily positive mood, vitality, physical health (Sheldon & Elliot, 1999), engagement, productivity, wellness (Ryan & Deci, 2006), performance and well-being at work (Baard, Deci, & Ryan, 2004). The three basic psychological needs as defined by self-determination theory are: autonomy, relatedness, and competence (Reis, Sheldon, Gable, Roscoe, & Ryan, 2000; Ryan & Deci, 2004; Ryan, Kuhl, & Deci, 1997).

Autonomy

Autonomy is a key element of self-determination theory (Deci & Ryan, 2000). "Autonomy refers to being the perceived origin or source of one's own behavior" (Ryan & Deci, 2004, p. 8). Moreover, it means feeling uncoerced in one's actions. Autonomy is not to be mistaken for independence. Independence means not relying on external sources or influences. However, one can act autonomously while relying on, for instance, input from others, as long as one completely endorses the action (Ryan & Deci, 2004). Central for autonomous people is making one's own decisions. Autonomy refers to being able to choose whether or not to conform to social norms (Ryff, 1989). The life of an autonomous individual is rooted in personal norms, needs and values. It gives a person responsibility to initiate and regulate one's own actions. Perceived choice through autonomy produces greater flexibility, creativity, initiative and self-regulation (Thomas & Velthouse, 1990). As such, when leaders stimulate the autonomy of followers, the followers will become stronger, more confident and more responsible.

Relatedness

Having and maintaining qualitatively good human relationships is the second key dimension of well-being. “Relatedness refers to feeling connected to others, to caring for and being cared for by those others, to having a sense of belongingness both with other individuals and with one’s community” (Ryan & Deci, 2004, p.7). Relatedness means feeling secure and safe in your environment, and in your relations with others. Baumeister and Leary (1995) in their review article, give abundant empirical evidence of the need to belong as a fundamental human motive. The lack of human ties is related to the deterioration of one’s health, a diminished capacity to adjust and diminished well-being. In their study of the three basic psychological needs, Reis et al. (2000) found that feeling understood and appreciated were the most important predictors of relatedness.

Competence

Competence means feeling capable. It “refers to feeling effective in one’s ongoing interactions with the social environment and experiencing opportunities to exercise and express one’s capacities” (Ryan & Deci, 2004, p.7). Moreover, competence is a felt sense of confidence and effectance in action. Perceptions of competence comprise an individual’s beliefs about what (s)he can and cannot accomplish in competence-relevant settings (Cury, Elliot, Da Fonseca, Moller, 2006). Environmental mastery, as suggested by Ryff and Singer (1998) implies a sense of mastery, competence and trust in handling the environment. This dimension evolves over time, when somebody’s life becomes more meaningful and a deep connection with others develops (Ryff & Singer, 1998). Competence, leads to more self-respect and personal growth. In the literature competence has sometimes been postulated as the base for self-efficacy (Conger & Kanungo, 1988) and in a study by Reis et al (2000) it was closely related to effectance. According to Bandura (1977) people derive their feelings of self-efficacy or competence from successful experiences (performance accomplishments), vicarious experience and verbal persuasion.

A synthesis of studies led Deci et al. (1989, p.581) to infer “that promoting self-determination requires that the significant others in a target person’s context (e.g., parents, managers, teachers) take that person’s frame of reference. They must understand and acknowledge his or her needs, feelings, and attitudes... When this is

the case, the target person will be more trusting...”. Therewith, Deci et al. (1989) depicted trust as a crucial mediator in the relationship between supporting leader behaviors and the basic psychological needs from self-determination theory. This specific proposition has so far not been tested though.

Trust

Trust is usually defined as “the willingness to be vulnerable to another party when that party cannot be controlled or monitored” (Mayer, Davis, & Schoorman, 1995, p.712), or as: “the intention to accept vulnerability based upon positive expectations of the intentions or behavior of another” (Rousseau, Sitkin, Burt, & Camerer, 1998, p.395). Both definitions imply that the trustee (here: the leader) needs to behave appropriately in the eyes of the trustor (here: the follower). More particularly, the ability, integrity and benevolence of the leader play an important role in the level of trust (Mayer et al., 1995). Ability is the perception that the leader has skills and competencies in the domain of interest (Mayer & Gavin, 2005). Benevolence implies the leader cares about the followers (Mayer & Gavin, 2005). Integrity is the perception that the leader adheres to a set of principles the follower finds acceptable (Mayer & Gavin, 2005).

The definitions of trust make clear that within organizations, leaders are essential agents given their greater level of control compared to followers. As such, trust in leaders is not only essential for effective leadership (Dirks & Skarlicki, 2009), but also a key to organizational functioning (Kramer, 1999). Research over the past 45 years has shown that trust in general is related to positive outcomes for organizations, such as: positive job attitudes, organizational justice, effectiveness in terms of communication, organizational relationships, and conflict management (Dirks & Skarlicki, 2009), cooperation and teamwork (Jones & George, 1998), team performance (Dirks, 2000), citizenship behavior (Pillai, Schriesheim, & Williams, 1999), ability to focus (Mayer & Gavin, 2005), organizational commitment, reduced turnover, and job performance (Lewicki, Tomlinson, & Gillespie, 2006).

Theorizing on leadership and trust in particular argues that trust-related concerns about a leader’s character are crucial because the leader can often make decisions that have a significant impact on the follower and the follower’s ability to achieve personal goals (Dirks & Skarlicki, 2009). Lewicki et al.’s (2006) overview of

interpersonal trust development shows that a positive relationship (history) is beneficial for trust. Empirical evidence was found, among others, by Podsakoff, MacKenzie, and Bommer (1996) who reported that leaders who are perceived to be supportive tend to be trusted more by their followers than leaders who are not perceived as supportive. Moral character, building positive relationships and providing support are characteristics of servant-leadership that a servant-leader expresses by, for instance, being humble and empowering.

Based on cognitive resource theory (Vecchio, 1990) it is likely that people who trust their leader have less stress and do not have to waste cognitive resources on, for instance, protecting themselves. Specifically, when people don't feel safe, they are not able to be themselves, they experience stress, and their health and the fulfillment of their basic psychological needs is jeopardized. On the other hand, when working in a social environment characterized by trust, these basic psychological needs will be more easily fulfilled. This proposition of trust as a mediating agent between servant-leadership and psychological needs is in line with Deci et al. (1989), who identified support for autonomy, non-controlling positive feedback and acknowledging the other's perspective, as critical factors for promoting self-determination. Their overview substantiates the idea that a leader who is empowering (supportive) and humble (acknowledging the other's perspective) will evoke trust and therewith help followers fulfill their basic psychological needs.

'Positive leadership': servant-leadership

The quality of the relation between a leader and a follower depends on the leader supporting the self-worth of the follower by showing confidence in the follower's integrity, ability and motivation, and attending to the follower's feelings and needs (Bass, 2000). Due to the corporate scandals, the financial crisis and the realization that the homo economicus is becoming extinct, this focus on the follower has gained momentum (Hale & Fields, 2007; van Dierendonck et al., 2009). Servant-leadership theory offers a take on positive leadership that more strongly focuses on follower well-being than any other leadership theory (Graham, 1991; Liden et al., 2008; Mayer, Bardes, & Piccolo, 2008; van Dierendonck et al., 2009). Servant-leadership theory states that organizational goals will be achieved on a long-term

basis by first facilitating the growth, development and general well-being of the individuals who comprise the organization (Stone, Russell, & Patterson, 2004). Furthermore, “the servant-leader is servant first. It begins with the natural feeling that one wants to serve. Then conscious choice brings one to aspire to lead. The best test is: do those served grow as persons; do they, while being served, become healthier, wiser, freer, more autonomous, more likely to become servants?” (Greenleaf, 1977, p.27). In other words, servant-leadership theory states that the best test of servant-leadership is the fulfillment of the followers’ needs.

The biggest distinction with other leadership theories is that a servant-leader is genuinely concerned with serving followers (Greenleaf, 1977), while other types of leaders have a greater concern for getting followers to engage in and support organizational objectives (Graham, 1991). Moreover, servant-leaders focus more on the people who are their followers, while other types of leaders focus primarily on organizational goals (Stone et al., 2004). By focusing on the followers’ needs first, servant-leaders make followers feel valuable and they provide an excellent context for achieving organizational goals. More specifically, when the main focus of a leader is on the people within the organization, it sets the stage for safe and secure relationships within the organization. By providing meaning and by paying genuine attention to, caring for and showing appreciation to followers, servant-leaders empower followers to be the best they can be and to fulfill personal and organizational goals. For servant-leaders it is important to create an atmosphere of trust where people feel accepted (Ferch, 2005). Servant-leaders accomplish this through empowerment (enhancing the self-efficacy of employees) and humility (listening and acknowledging the employee’s perspective and criticism). This paper will contribute to the development of servant-leadership theory, give a first idea of the importance of humility as a leadership behavior, and provide the first test of the relationships between humility and empowerment with trust and the basic psychological needs.

Empowerment

Empowerment is a motivational concept focused on enabling people (Conger, 2000). Empowerment is about supporting the self-worth of the follower by showing confidence in the follower’s integrity, ability and motivation, and attending to the follower’s feelings and needs (Bass, 2000). Empowerment aims at fostering a

proactive, self-confident attitude among followers and giving followers a sense of personal power (Conger & Kanungo, 1988). Furthermore, empowerment means that employees can choose how to achieve goals and are allowed to make mistakes. Empowering leadership behavior encompasses aspects like encouragement of self-directed decision making, information sharing, and coaching for innovative performance (Konczak, Stelly, & Trusty, 2000). At the core of empowerment stands a leader's belief in the intrinsic value of each individual; empowerment is all about recognition, acknowledgement and the realization of each person's abilities and what the person can still learn (Greenleaf, 1998).

A major premise of empowerment theory is that empowered individuals should perform better than those who are relatively less empowered (Thomas & Velthouse, 1990). Deci et al. (1989) argue that the leader plays a vital role in providing subordinates with these empowering experiences. In line with this reasoning, Liden et al. (2000) showed that leaders who empower people have more satisfied, more committed and better performing employees. Furthermore, Srivastava, Bartol, and Locke (2006) concluded that empowering leadership is positively related to both knowledge sharing and team efficacy. Trust (Dirks & Skarlicki, 2009) and the basic psychological needs have also been related to many of these positive outcomes (Ilies et al., 2005; Ryan & Deci, 2006; Sheldon & Elliot, 1999). Based on the literature review, we hypothesize that empowering leader behavior instills trust which will be positively related to the fulfillment of the follower's basic psychological needs.

Humility

Leader humility has been coined as 'cornerstone of organizational learning' (Vera and Rodriguez-Lopez, 2004) and the key to organizational greatness (Collins, 2001a), but to our knowledge no empirical studies have been published. Morris et al. (2005), in line with Collins (2001a), state that the success of high performance companies is attributed to their CEO's personal humility, dependability, and consistency. Furthermore, they quote Covey who also asserted that "humility is one of the characteristics of the people at the very top... They're more teachable, they're more open, and they often show more reverence and respect for other people" (p. 1327). Humility arises from an understanding of one's strengths and weaknesses. Thus, humility is an awareness of all that one is and all that one is not (Morris et al., 2005). More particularly, authentically humble leaders understand their strengths,

weaknesses, and limitations, and recognize how dependent they are on forces outside of themselves. Such leaders appreciate that they do not have all the answers and, as a result, actively seek out the contributions of others as a means of overcoming their individual limitations (Morris et al., 2005). This also implies that humble leaders acknowledge the other's perspective, which is a key facilitator of self-determination (Deci et al., 1989).

A leader's willingness to openly learn from others, acknowledge mistakes and imperfections results from being secure with oneself, or having a healthy ego as Dennis and Bocarnea (2005) called it, and the ability to look at one's own accomplishments and talents in their proper perspective (Patterson, 2003). More specifically, humble leaders have the ability to accept negative feedback, which is a crucial quality for managers who need to know what is really going on in their firms (Reave, 2005). Although humility has been coined as an important aspect of leadership (Hale & Fields, 2007), it has not yet been tested if leader humility has a positive influence on trust in the leader and therewith on the fulfillment of follower basic psychological needs.

Based upon the theorizing above we formulate the following hypotheses:

Hypothesis 1: Empowerment is positively related to trust in the leader.

Hypothesis 2: Humility is positively related to trust in the leader.

Hypothesis 3: Trust in the leader is positively related to autonomy, relatedness and competence.

Hypothesis 4: Trust fully mediates the relationships between empowerment and humility on the one hand and autonomy, relatedness and competence on the other hand.

STUDY 1

Method

Participants

Participants in this study were second and third year undergraduate Business Administration students. Within the context of a course on Human Resource Management (HRM), these students participated in a two-week management simulation specifically focused on HRM (Smith & Golden, 2005). Before they started the simulation they were asked to fill out a survey for extra course credit. In total 600 students were e-mailed and 553 completed the survey. Next, after the students wrote their final team report, all students were again invited to participate in a survey for extra course credit. This time 574 participants were asked via e-mail to follow a personalized link and fill out the survey. A total of 548 students completed the survey. Out of the responses we identified 318 participants who had completely filled out both surveys and had rated the leader behaviors of a team leader. This sample consists of 224 (70.4%) men and 94 women (29.6%). The mean age is 21.5 ($SD = 2.2$).

Procedure

For a course on HRM, students had to participate in an HRM-simulation. Before the simulation the participants were invited to fill out an online survey for extra course credit. This pretest established each individual's level of need satisfaction before the team work and potential leadership experience. Important to note is that the teams didn't have a designated leader. They could freely choose how to organize themselves. The simulation and assignments lasted three weeks and involved intense teamwork in groups of four. The first two weeks each day stood for a business quarter, and there were eight business quarters. Therefore, after a week (four days), the students had been in business one year. Week two stood for year two, which was also made up of four quarters. The teams had to make HRM-decisions daily (for every quarter) preferably based on HRM theory, a business plan they wrote at the start of the simulation, and the results of the prior quarter(s). Furthermore, they had to solve an incident that occurred in their company every day. After one week (four quarters) the students had to write an audit. Finally, in the week directly after the simulation (the third week), a team report had to be written based on their experiences. The second survey was sent directly after the teams had handed in this final report. The posttest assessed the basic psychological needs and

who had been the leader in the opinion of the individual. If a participant did not choose him or herself as a leader, they were asked about their leadership experience. More specifically, they had to rate their 'chosen' leader's behavior on the study's key variables: humility, empowerment and trust. The ones that chose themselves as leaders were left out of the analysis.

Measures

Empowerment. Empowerment was measured on a 6-point Likert scale (1 = *totally disagree*; 6 = *totally agree*) using 3 items ($\alpha = .75$) that were based on the 99 SLS (van Dierendonck & Nuijten, 2009) and adapted to fit our learning context (e.g., "The team leader encouraged us to use our talents").

Humility. Humility was measured on a 6-point Likert scale (1 = *totally disagree*; 6 = *totally agree*) using 3 items ($\alpha = .85$) that were based on the 99 SLS (van Dierendonck & Nuijten, 2009) (e.g., "When others provided criticism, the leader tried to learn from it").

Trust. Due to the specific context, we decided to formulate two explicit items for trust based on Fairholm and Fairholm's (2000) theory that leaders develop trust if they communicate accurately and honestly, with a firm commitment. Trust was measured on a 6-point Likert scale (1 *totally disagree*; 6 *totally agree*) using the following two items: "The team leader created trust through his honesty and involvement" and "We trusted the team leader" ($\alpha = .76$).

Autonomy. Autonomy was measured in the pretest (to have a baseline value for autonomy) ($\alpha = .61$) and posttest ($\alpha = .61$) with two items from the basic psychological needs scale for autonomy by Sheldon, Elliot, Kim, and Kasser (2001) on a 6-point Likert scale (1 *totally disagree*; 6 *totally agree*): "My choices are based on my true interests and values" and "I am free to do things my own way". The participants were asked to answer these questions in the context of their studies.

Relatedness. Relatedness was measured in the pretest (to have a baseline value for relatedness) ($\alpha = .60$) and posttest ($\alpha = .62$) with two items from the basic psychological needs scale for relatedness by Sheldon et al. (2001) on a 6-point Likert scale (1 *totally disagree*; 6 *totally agree*): "I have a sense of contact with people who care for me, and whom I care for" and "I feel close and connected with other people

who are important to me”. The participants were asked to answer these questions in the context of their studies.

Competence. Competence was measured in the pretest (to have a baseline value for relatedness) ($\alpha = .79$) and posttest ($\alpha = .76$) with two items from the basic psychological needs scale for competence by Sheldon et al. (2001) on a 6-point Likert scale (1 *totally disagree*, 6 *totally agree*): “I am successfully completing difficult tasks and projects” and “I am taking on and mastering hard challenges”. The participants were asked to answer these questions in the context of their studies.

Results

Means, standard deviations and correlations are shown in Table 2.1. Further analyses were conducted using MPlus 5.1 (Muthén & Muthén, 2007). First, we tested if we indeed had a 9-factor measurement model. To make sure there wasn't a better fitting, more parsimonious measurement model, we also tested a 1-factor model, a 2-factor model, and a 4-factor model. Furthermore, we also tested our fully mediated theoretical model and an extended partially mediated model. The models are discussed in turn and the fit indices for these models are shown in Table 2.2.

Table 2.1 Means, standard deviations, reliabilities and intercorrelations among measures Study 1

	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8	9
1 Empowerment	4.04	0.77	(.75)								
2 Humility	4.40	0.80	.53**	(.86)							
3 Trust	4.65	0.69	.57**	.65**	(.76)						
4 Autonomy 1	4.72	0.63	.06	.02	.06	(.61)					
5 Relatedness 1	4.68	0.73	.12*	.07	.11	.34**	(.60)				
6 Competence 1	4.58	0.67	.10	.10	.06	.33**	.11	(.79)			
7 Autonomy 2	4.61	0.66	.16**	.15**	.20**	.21**	.18**	.20**	(.61)		
8 Relatedness 2	4.72	0.68	.19**	.19**	.32**	.12*	.42**	.12*	.37**	(.62)	
9 Competence 2	4.58	0.59	.20**	.20**	.19**	.19**	.09	.39**	.35**	.25**	(.76)

Note: N = 318; ** $p < 0.01$ level; * $p < 0.05$ level.

Table 2.2 Results of model comparison Study 1

	χ^2	df	TLI	CFI	RMSEA	SRMR
1-factor model	1171.53	170	.53	.47	.14	.13
2-factor model	959.98	169	.63	.58	.12	.11
4-factor model	651.10	164	.77	.73	.10	.08
Measurement model	169.23	134	.98	.98	.03	.03
Partially mediated model	164.14	143	.99	.99	.02	.05
Fully mediated theoretical model	176.49	149	.99	.98	.02	.05
Adjusted partially mediated model	173.20	149	.99	.99	.02	.05

1-factor model (1). In the 1-factor model all 20 items loaded on one factor. This model has a very poor fit. With a CFI of .53 and RMSEA of .14 it is clearly not acceptable.

2-factor model (2). In the 2-factor model the 6 basic psychological needs items of time 1 were forced to load on one factor and the 14 items of time 2 were loaded on a second factor. This 2-factor model fits slightly better than the 1-factor model, but still has an unacceptably low fit: CFI = .63, RMSEA = .12.

4-factor model (4). In the 4-factor model we had the 6 basic psychological needs items of time 1 and time 2 load on general basic psychological needs factors for the respective times. The other two factors were a general servant-leadership factor (6 items for empowerment and humility) and a trust factor (2 items). The 4-factor model shows slightly improved fit indices (CFI = .77, RMSEA = .10), but this still implies a poor and unacceptable fit.

Measurement model (Mm). Next, we estimated the 9-factor or measurement model. The measurement model consists of 9 factors representing the constructs as operationalized in the method section. The 9-factor measurement model is the first model to show adequate fit. With a CFI of .98 and RMSEA of .03, the fit indices are very good. This indicates that the independence of the nine dimensions is established: humility and empowerment (servant-leadership), trust, and autonomy, relatedness and competence (need satisfaction) at time 1 and time 2. Therefore, we felt confident to test our fully mediated theoretical model.

Fully mediated theoretical model (Mt). The theoretical model, which predicts indirect relations between empowerment and humility via trust with competence, relatedness, and autonomy, shows a very good fit: CFI = .98 and RMSEA = .02

Partially mediated model (Mp). In the partially mediated model empowerment and humility are directly related to autonomy, relatedness and competence, but also indirectly via trust. The fit indices are very good: CFI = .99 and RMSEA = .02.

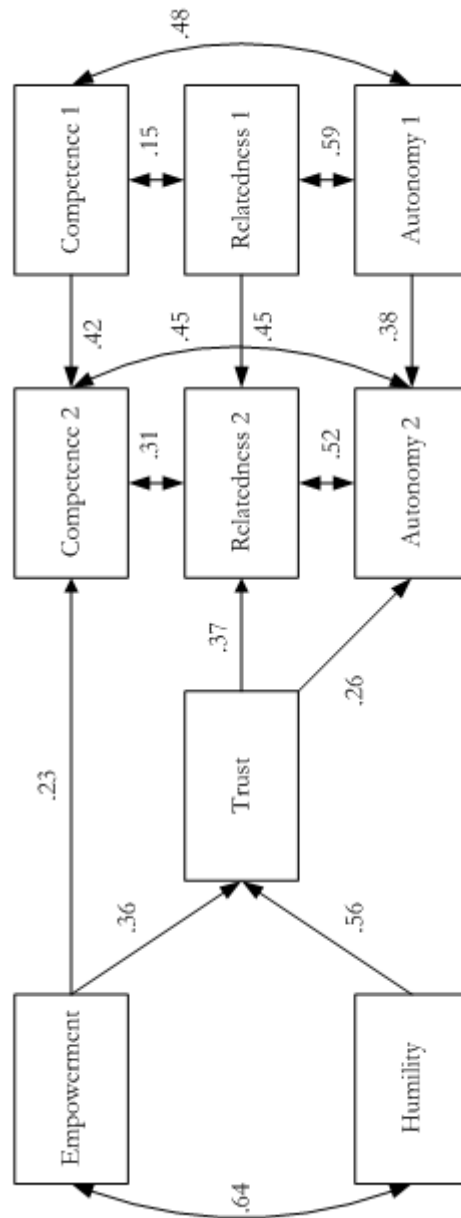
In line with Anderson and Gerbing (1988) we tested the measurement model (Mm) against the fully mediated theoretical model (Mt): $\Delta\chi^2 = 7.26$ $\Delta df = 15$, and $p = ns$. Since these two models did not differ significantly, we tested the fully mediated theoretical model (Mt) against the partially mediated model (Mp): $\Delta\chi^2 = 12.35$ $\Delta df = 6$, and $p = 0.05$. This implies the partially mediated model (Mp) has a

significantly better fit than our fully mediated theoretical model (Mt). A look at the path coefficients of this partially mediated model (Mp) tells us that not all paths are significantly contributing to the model. More particularly, there had to be a better fitting model. Based on the path coefficients we eliminated the direct paths from humility to the three outcome variables, the direct paths from empowerment to relatedness and autonomy, and the direct path from trust to competence. This left us with an adjusted, more constrained partially mediated model which is depicted in Figure 2.1. This model had a better fit than the theoretical model $CFI = .99$, $RMSEA = .02$ ($\chi^2 = 173.20$, $df = 149$, $p = .09$), and did not differ significantly from the partially mediated model (Mp) $\Delta\chi^2 = 9.06$, $df = 6$ ($p = 0.17$). Therefore, this adjusted partially mediated model represents the data best.

Since the individual data are nested within teams we decided to run the last, best fitting model while controlling for the nesting. The Chi-Square test for this model was also not significant: $\chi^2 = 148.67$, $df = 149$, $p = 0.49$, and the $CFI = 1.00$ and $RMSEA = .00$ indicate a perfect fit of the model. Therefore, while correcting for nestedness, we found the best fitting model.

In line with to our hypotheses, the results indicate that trust indeed mediates the relationships between empowerment and humility with autonomy and relatedness. More specifically, empowerment and humility positively affected autonomy and relatedness at time 2 via trust when we controlled for autonomy and relatedness at time 1. However, for competence we did not confirm hypothesis 4. The link between our positive leader behaviors and competence was not mediated by trust. Specifically, the best fitting model showed a direct relationship between competence and empowerment. Therefore, competence was only directly influenced by empowerment. Despite the extensive testing of this model and the longitudinal nature of these results, we also wanted to test our hypotheses in a field setting. Replication of our results in a field study would make the results even more robust.

Figure 2.1 Adjusted partially mediated model Study 1



Note: The hypothesized paths are all significant, $p < .002$.

STUDY 2

Method

Participants

Participants in this study were teachers at 14 high schools in the North-Eastern part of the Netherlands. The survey was voluntarily filled out by 160 out of 678 (23.6%) employees. The sample consisted of 85 (53.1%) men and 71 (44.4%) women. Four people didn't convey their gender (2.5%). The mean age was 43.3 ($SD = 11.6$) and the participants had on average been working for 12.8 ($SD = 10.2$) years.

Procedure

After several consultations with the CEOs and the central HR-department a letter was sent via email to all employees to introduce the study. The theme of the study was 'happiness and well-being at work'. A week later all employees received an e-mail from the researchers asking them to participate in the survey. The e-mail also contained a link which led participants to the survey. After 3 weeks a reminder was sent to all employees. After another two weeks the survey was closed. The results were communicated to the two CEOs of the 14 schools and the central HR-department. Furthermore, one of the authors gave a talk at a festive meeting for all the high school employees.

Measures

Empowerment. Empowerment was measured on a 6-point Likert scale (1 *totally disagree* until 6 *totally agree*) using 7 items ($\alpha = .92$) (e.g., "My manager offers me abundant opportunities to learn new skills") (van Dierendonck & Nuijten, 2009).

Humility. Humility was measured on a 6-point Likert scale (1 *totally disagree* until 6 *totally agree*) using 5 items ($\alpha = .91$) (e.g., "My manager tries to learn from the criticism he/she gets from his/her superior") (van Dierendonck & Nuijten, 2009).

Trust. Trust was measured on a 6-point Likert scale (1 *totally disagree* until 6 *totally agree*) using two items from Giessner and van Knippenberg (2008) "I absolutely trust my team leader" and "I think that my team leader does the right thing" ($\alpha = .90$).

Autonomy. Autonomy was measured on a 6-point Likert scale (1 *totally disagree* until 6 *totally agree*) with two items from the basic psychological needs scale for autonomy by Sheldon et al. (2001) which was also used in Study 1 ($\alpha = .60$)

Relatedness. Relatedness was measured on a 6-point Likert scale (1 *totally disagree* until 6 *totally agree*) with two items from the basic psychological needs scale for relatedness by Sheldon et al. (2001) which was also used in Study 1. ($\alpha = .72$)

Competence. Competence was measured on a 6-point Likert scale (1 *totally disagree* until 6 *totally agree*) with two items from the basic psychological needs scale for competence by Sheldon et al. (2001) which was also used in Study 1. ($\alpha = .71$)

We tested the dimensionality of the servant-leadership construct (humility and empowerment), trust and the need satisfaction measures for this sample too. We conducted two confirmatory factor analyses (CFA) in MPlus 5.1 (Muthén & Muthén, 2007). First, we tested the 1-dimensional model. The results of this model did provide a poor fit to the data, $\chi^2 = 689.93$, $df = 176$, $p < .001$, CFI = .76, RMSEA = .14, SRMR = .20. Next, we ran the six-factor model in which the humility, empowerment, trust, autonomy, relatedness and competence items were specified to load onto their respective factors and we allowed the factors to correlate. The six-factor model had a good fit, $\chi^2 = 236.24$, $df = 155$, $p < .01$, CFI = .96, RMSEA = .06, SRMR = .04. Therefore, the measurement model fits well and gives us confidence we can test our adjusted partially mediated model found in Study 1.

Results

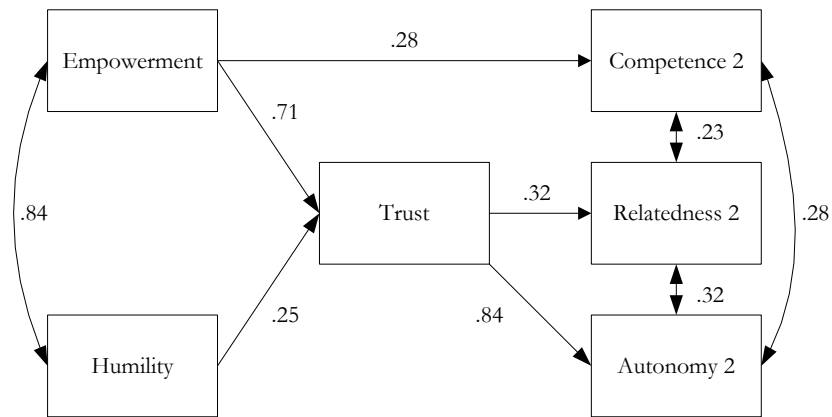
Means, standard deviations and correlations are shown in Table 2.3. Further analyses were conducted using MPlus 5.1 (Muthén & Muthén, 2007). With structural equation modeling we estimated the adjusted partially mediated model we found in Study 1. With a $\chi^2 = 266.69$, $df = 161$, $p < .01$, and CFI = .95 and RMSEA = .06, the adjusted mediated model has an excellent fit for this sample too. The model is visually depicted in Figure 2.2. The results indicate that trust fully mediates the relationships between empowerment and humility with autonomy and relatedness, and that empowerment had a direct effect on competence. This field study replicates the longitudinal findings from Study 1.

Table 2.3 Means, standard deviations, reliabilities and intercorrelations among measures Study 2

	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8
1 Empowerment	4.06	1.02	(.92)							
2 Humility	4.05	0.98	.78**	(.91)						
3 Trust	3.80	1.26	.82**	.76**	(.90)					
4 Autonomy	4.32	0.93	.68**	.53**	.56**	(.60)				
5 Relatedness	4.59	0.80	.25**	.28**	.26**	.29**	(.72)			
6 Competence	4.61	0.69	.28**	.18*	.20*	.28**	.25**	(.71)		
7 Empowerment 1	4.18	1.13	.94**	.74**	.76**	.64**	.24**	.26**	(.88)	
8 Humility 1	3.95	1.13	.77**	.95**	.76**	.50**	.27**	.17*	.72**	(.88)

Note N = 160; ** $p < 0.01$; * $p < 0.05$.

Figure 2.2 Adjusted partially mediated model Study 2



Note. The hypothesized paths are all significant $p < .011$

Discussion

These two studies provide support for our hypotheses that leader empowerment and humility are related to follower trust in the leader, which in turn leads to the fulfillment of two of the followers' basic psychological needs: autonomy and relatedness. For competence, however, we only found a direct effect of empowerment. The context and longitudinal design of Study 1 gives us confidence that these key elements of servant-leadership influenced autonomy, relatedness and competence and not the other way around. More specifically, the participants in Study 1 were asked to assess the fulfillment of their basic psychological needs before they were put into groups of four to work together intensively for three weeks on an HRM-Simulation and related assignments. After the three weeks of intense team work each individual was asked to rate his or her basic psychological need fulfillment again and to indicate who they saw as their leader. If they didn't mention themselves, they rated 'their' leader on empowerment, humility and trust. Since the simulation was an intense job, with daily interactions within the teams, we are

confident that the leadership experience influenced the basic psychological needs of the followers. The field data of Study 2 confirmed these findings for a sample of teachers, and therefore offers additional evidence for the mediating role of trust in the relationships of empowerment and humility with autonomy and relatedness, and the direct effect of empowerment on competence.

Theoretical Implications

Following Mayer et al. (2008), this research offers further support for the benefits of servant-leadership for follower needs satisfaction at work, and also provides additional evidence for the link between servant-leadership and trust. Reinke (2004) found a correlation of .84 between servant-leadership and trust in management among a sample of civil servants, and Joseph and Winston (2005) confirmed this shared variance among a sample of 51 employed students and 15 teachers in the Republic of Trinidad and Tobago. The first study used a servant-leadership scale which hasn't been shown to be valid nor reliable (alpha's as low as .52), and the second study had a very small sample (N = 66) from a Christian high school. Furthermore, neither study was able to differentiate between the key dimensions of servant-leadership. This leads us to the first of five contributions this paper makes. First, we further develop servant-leadership theory by distilling two core characteristics from the servant-leadership literature and operationalizing them. Other studies of servant-leadership have mostly relied on the one-dimensional scale by Ehrhart (2004) (Neubert et al., 2008; Mayer et al., 2008). This makes it impossible to infer which specific servant-leader behaviors have caused the effect. Taking into account the multi-dimensional nature of the servant-leadership concept is essential to further advance the theory of servant-leadership. Our studies show that empowerment and humility, two core servant-leader behaviors, help build trust in the leader and through trust benefit two of the follower's basic psychological needs. We also showed, however, that it is mainly empowerment that has an impact on competence. Therefore, trust doesn't seem to play a role in this relationship, which has an important implication. This implies that even without trust, leaders can make followers feel competent, as long as they behave empowering.

Our second contribution is that we have provided the first empirical results on the effects of leader humility within the leader-follower context. Considering the

amount of literature that theorizes about its beneficial effects (Collins, 2001b; Dennis & Bocarnea, 2005; Hale & Fields, 2007; Patterson, 2003; Reave, 2005; Vera & Rodriguez-Lopez, 2004), this is an important first step in researching humility.

The third contribution is to the self-determination literature. It has already been shown that the three needs are separate concepts and psychometrically distinct (McDonough & Crocker, 2007; Sheldon & Niemiec, 2006) and that they differentially benefit well-being and health. From our study we can infer that the influence of leader humility and empowerment on the distinct basic psychological needs via trust differs per context. This dovetails earlier studies and shows that the needs are differentially influenced by behaviors of significant others (Reis et al., 2000). An intriguing finding in this respect is that trust appears very essential for feelings of autonomy and relatedness, whereas it is much less of an issue for competence. This can be explained by the fact that people can derive feelings of competence from, for instance, successful task accomplishment and vicarious experience, which can be achieved independent of trust in the leader, whereas autonomy and relatedness are much more relationally based.

Fourth, we provide further evidence that trust significantly mediates between positive leader behaviors on the one hand and two of the basic psychological needs on the other hand (Deci et al., 1989). In their study of servant-leadership and the basic psychological needs, Mayer et al. (2008) showed fairness was a mediator. It could very well be that if they had split their needs into the three basic psychological needs, fairness might have appeared less relevant for competence. This will be interesting to study in future research. Furthermore, according to a research-based model of leadership fairness and leadership effectiveness (van Knippenberg et al., 2007) leader fairness leads to trust which in turn leads to follower behaviors (e.g., OCB, cooperation, task performance). These research-based assumptions on fairness and trust (Van Knippenberg et al. 2007), and Mayer et al.'s (2008) and our findings, lead us to suggest that it will be relevant to establish whether specific servant-leader behaviors increase fairness, to study the interlinkage between trust and fairness in relationship to (servant-)leadership effectiveness, and to determine whether fairness is relevant for the fulfillment of all three needs.

Finally, as Mayer et al. (2008) suggested, we tested the link between follower basic psychological needs and servant-leadership in a longitudinal design. Therefore,

we can be stronger in our claim that the servant-leadership experience positively influenced the basic psychological needs and not the other way around. This is an important finding because oftentimes we can't be sure what came first, the positive feelings of the follower which made the leader act positive towards the follower, or the positive behavior of the leader towards the follower, which made the follower feel better.

Managerial Implications

The literature review of this paper shows that positive health is important for organizational functioning (Baard et al., 2004; Bakker & Schaufeli, 2008; Ilies et al., 2005; Macik-Frey et al., 2009; Ryan & Deci, 2006; Wright & Bonett, 2007; Wright et al., 2009; Wright & Quick, 2009). Furthermore, the studies in this paper show that positive leadership, especially the servant-leader behaviors of empowerment and humility, can promote this positive health. In line with prior empowerment research (Conger and Kanungo, 1988; Thomas & Velthouse, 1990; Manz & Sims, 1987), we encourage managers to become aware that by giving power to (em-powering) their followers, they actually empower themselves and their organizations (Arnold, Arad, Rhoades, & Drasgow, 2000). The newest finding these studies offer is that humility will help leaders as well to advance their followers' need fulfillment. Thus, leaders who wish to enhance the followers' basic psychological needs via trust can do so by behaving empowering (i.e., encouraging followers to develop their talents, giving them opportunities to learn new skills) and humble (i.e., acknowledging that one does not know it all, showing one can learn from others).

Leadership training and development programs might consider equipping leaders with the skills that will help them to empower followers and behave humble. An important skill in this respect is listening. Learning to ask open ended questions and to actively and objectively listen to others, will aid leaders in becoming more empowering and humble because true listening will teach them what their followers need and how they can learn from their followers in turn. Finally, besides providing training aimed at promoting empowering and humble leader behavior, organizations might also want to select and promote people based on their 'other focus', their support of and genuine concern for others and their ability to learn from others.

Limitations

One potential limitation involves our measures. In the first Study we used a measure for empowerment and humility that had yet not been validated. However, in the second Study we were able to use validated scales for these two constructs and validate the respective scales of Study 1 (see Table 2.3). This gives us confidence that we did measure empowerment and humility adequately. Furthermore, we are aware that the reliabilities of two of the basic psychological needs scales are low. The low reliability, in this case, is probably due to the length of the scale (2 items). Since we know the items are a good reflection of the concept (Sheldon et al. 2001) and the alpha will improve if items are added, the scale is still an appropriate measure to work with (Schmitt,1996).

Second, we have to acknowledge that the first study was conducted within a specific learning environment with a student sample. Since the task and team work were comparable to working in an organization and several studies have shown that students are not likely to differ from other people in their behavior in achievement settings (Brown & Lord, 1999; van Knippenberg & van Knippenberg, 2005), this is a minor limitation. Furthermore, the replication of the findings in the field study makes our longitudinal findings from Study 1 more robust. Nevertheless, it will be valuable to replicate our longitudinal findings in an organizational setting.

Conclusion

Servant-leadership offers an interesting and valuable perspective when it comes to positive leadership and positive health. Researching the effects of servant-leadership on subordinate and organizational outcomes will prove to be fruitful for future positive psychology research. However, it is important that future research takes into account the multi-dimensional nature of servant-leadership, because only then can we develop servant-leadership theory and offer concrete suggestions for leader development.

CHAPTER 3
EMERGENT LEADERSHIP IN SELF-MANAGING TEAMS:
THE ROLE OF CLARITY, STANDING BACK,
EMPOWERMENT AND HUMILITY

In the dynamic and complex business environment, learning is vital for team and organizational performance. Self-managing teams (SMTs) enable organizations to process and use information fast, therefore, they are common in organizations. This paper seeks to determine how leaders aid the performance of these SMTs. Based on servant-leadership theory we predicted that an acknowledged (“clear”) emergent leader facilitates team learning by standing back and being either empowering or humble. We examined the influence of leadership clarity and standing back on team performance over time in a sample of 143 SMTs that operated in a learning context. Leader clarity and standing back had a positive impact on team performance over time. Furthermore, we used the 101 teams with a clear leadership structure to study the effect of leader standing back on the relations of empowerment and humility with overall team performance. Coherent and follower-focused leader behavior was expected to deliver the best results. ‘Standing back’ leaders indeed had better results than non-standing back leaders when they were either empowering or humble. These results imply that follower-focused leader behavior benefits team performance, especially when it is coherent behavior.

Introduction

The knowledge economy (Powell & Snellman, 2004), the rapid changes, the discontinuity, complexity and globalization of the economy (Altman & Iles, 1998), force organizations to rely more on teams (Hiller, Day, & Vance, 2006), especially self-managing teams (SMTs) (Alper, Tjosvold, & Law, 1998), in which knowledge can be shared and learning is facilitated (Pearce & Sims, 2002). The widespread use of team-based structures (e.g., SMTs) in many of today's organizations has contributed to an increased interest in how teams can better coordinate and use their available expertise to solve unique and complex problems (Austin, 2003). Generally, leadership is considered crucial for enabling team effectiveness (Amy, 2007; Carson, Tesluk, & Marrone, 2007; Yukl, 2006) as well as a pivotal factor in an organization's quest to become a learning organization (Altman & Iles, 1998; Vera & Crossan, 2004). However, the organizational literature lacks empirical support in delineating the role leaders play in fostering or hindering learning (Amy, 2007).

The rise of SMTs has increased the interest in emergent leadership and has also made the issue of leadership clarity ("i.e., team members' consensual perceptions of clarity of and no conflict over leadership of their teams") (West, Borrill, Dawson, Brodbeck, Shapiro, & Haward, 2003, p.393) more apparent. Even without an official leadership structure it is likely (Van Vugt, Hogan, & Kaiser, 2008) and even necessary that some form of leadership emerges from within these teams (Pescosolido, 2002). Since leadership clarity is an issue in formally led teams, it is to be expected that SMTs face an even bigger challenge in this respect. However, even though leadership clarity is related to favorable performance conditions for the team (West et al., 2003), it is an often neglected problem within leadership studies. We propose that 'clear' emergent leaders within SMTs can be divided into two types: (1) leaders who put themselves first by openly stating that they are the leader, and (2) leaders who remain more in the background by putting members first; giving them the credit for having led the team. The second type we will call 'standing back' leaders. We expect that standing back leaders are more likely to allow team members leadership influence, which could promote learning and team performance (Carson et al., 2007). We will study if leadership clarity and standing back in SMTs benefit team performance over time in a learning context.

'Putting others first' or 'standing back' is central to servant-leadership theory (Greenleaf, 1977). Two other key aspects of servant-leadership are empowerment and humility (Dennis & Bocarnea, 2005; Patterson, 2003). Empowerment has widely been studied and recognized as an important leader behavior (Chen, Kirkman, Kanfer, Allen, & Rosen, 2007; Chen, Lam, & Zong, 2007; Kirkman & Rosen, 1999; Liden, Wayne, & Sparrowe, 2000; Spreitzer, 1995). Empowerment has been shown to relate positively to performance (Chen, Kirkman, Kanfer, Allen, & Rosen, 2007; Chen, Lam, & Zong, 2007; Kirkman & Rosen, 1999; Liden, Wayne, & Sparrowe, 2000; Patterson, West, & Wall, 2004; Spreitzer, 1995). However, these performance measures were rarely objective. Establishing similar effects with objective measures would be of great value, because objective effects of leadership are more of a concern to organizations than the perceptual effects (van Knippenberg & van Knippenberg, 2005). Second, the link between empowerment and performance most likely depends on other leader behaviors and organizational factors (Wall, Cordery, & Clegg, 2002). In line with this, Conger (1999) states that a leader's ability to effectively empower followers is undermined when this leader becomes too much the centerpiece. This is in line with servant-leadership theory. Therefore, we argue that ambiguous results for empowerment are caused by leader behaviors that run counter to empowerment. An important behavior in this respect will be *not* 'standing back'. Specifically, when a leader is empowering but takes the praise for team (member) achievements, this will make the empowering behaviors less effective than when the leader praises the followers; is 'standing back'.

Next we turn to humility, which was put forward by Socrates as a primary characteristic of leadership (Korac-Kakabadse, Korac-Kakabadse, & Kouzmin, 2001). However, it has hardly been studied, and there is no scientific evidence for the beneficial effect of humility on performance. Based on servant-leadership theory, we hypothesize that humility will be positively related to performance, especially in a learning context. However, as with empowerment, the leader will have to show coherent behavior across the board, and therefore, the leader will also have to praise team members for their input, that is 'stand back', to achieve the best results.

In summary, the purpose of this study is twofold. First, we will investigate in SMTs if emergent leader clarity and standing back have a positive impact on team

performance over time. Second, we will determine if 'clear' leaders' standing back is a moderator of the relationships of empowerment and humility with overall team performance. We measured team performance over time and overall team performance with distinct objective measures. Since team performance is a direct result of team learning and the teams are self-managing, this research is particularly relevant for present-day teams in fast changing environments.

Literature review and hypotheses

Learning, leadership and performance over time

We have argued above that in present-day organizations learning is the base for team performance (Amy, 2007; Tsang, 1997). Bunderson and Sutcliffe (2003) confirmed that an appropriate emphasis on learning can have positive consequences for team effectiveness. Critical capabilities for organizations are the ability to create, use, retain and transfer information and knowledge among organizational members (Heinrichs & Lim, 2005). Knowledge sharing can be defined as team members sharing task-relevant ideas, information, and suggestions with each other (Srivastava, Bartol, & Locke, 2006). Team learning behaviors are activities by which team members seek to acquire, share, refine, or combine task relevant knowledge through interaction with one another. Information sharing – communication – is one key mechanism that might promote performance (Van der Vegt, & Bunderson, 2005).

Leaders who are able to optimally facilitate team learning behaviors will potentially have the best performing team. Srivastava et al. (2006) suggest that leaders should provide fair recognition for contribution of ideas and information, and that empowering leader behavior (coaching, power sharing, participative decision making, asking for suggestions) will stimulate knowledge sharing as well. Vera and Crossan (2004) argue that providing task feedback and promoting information sharing are crucial leader behaviors for team learning. By clarifying expectations, empowering critical thinking, and asking questions leaders facilitate interaction which potentially creates openness and collaboration, mutual understanding and the respect required to create a learning climate (Amy, 2007). Furthermore, engaging in learning activities carries a risk for the team members of being seen as ignorant, incompetent or simply disruptive (Edmondson, 2003a).

Members will be more willing to share information when it is safe to speak up (Detert & Burris, 2007), and when they feel they have an ‘open-channel’ for the discussion of (inadequate) behavior and (poor) work performance (Chen et al., 2007). Leaders can establish this ‘safe’ environment by acting non-autocratically, being available, acknowledging their own vulnerability and communicating a sense of humility (Edmondson, 2003b). The leader behaviors mentioned in this paragraph are closely related to servant-leadership, which will be discussed below.

The leader behaviors and processes described above take time to mature. Furthermore, groups change (develop) systematically over time (Arrow, Poole, Henry, Wheelan, & Moreland, 2004), especially in a learning (development) context. These temporal issues in groups are disregarded in the team literature (Harrison, Mohammed, McGrath, Florey, & Vanderstoep, 2003). However, since the dynamics of teams are a basic element of their effectiveness, it is unrealistic to generalize from one-shot ‘snapshots’ (Watson, Johnson, & Zgourides, 2002). Thus, it is necessary to include time elements when studying teams. Therefore, one of the important contributions of our research will be providing insight into the influence of leadership on team performance over time in a learning context.

Leadership emergence: Clarity

SMTs are becoming more popular due to the challenging context of today’s businesses. Even though these teams take responsibility for handling all task related matters and completing their tasks together (Taggar, Hackett, & Saha, 1999), a leader usually emerges (Van Vugt et al., 2008). Emergent leadership refers to group members exerting significant influence over other members of their group although no formal authority has been vested in them (Carson et al., 2007; Taggar et al., 1999). According to Stogdill (1974), emergent leaders might just be as important to the facilitation of team task completion as are designated leaders. Wolff, Pescosolido, and Druskat (2002) assert that the emergence of leadership within SMTs is crucial to their success. Furthermore, Taggar and Ellis (2007) state that the behaviors of the leader are far more important than the manner in which the leader came to power – whether formally designated or emerging. However, regardless of the position power (formal or informal), an important determinant of leader effectiveness is leadership clarity (West et al., 2003). Leadership clarity is the shared

perception of group members about the extent to which leadership roles are clear within the team and the amount of conflict over leadership in the team (West et al., 2003). Leadership clarity is associated with clear team objectives, commitment to objectives, team member participation, commitment to excellence, and team innovation (West et al., 2003).

It is plausible that all people have attributes associated with leadership; however, some people will display more of the desired qualities than others (Taggar et al., 1999). Therefore, even in formally led teams, more than one person might exhibit leadership behavior. So, it is possible that in one team more than one leader emerges. As long as this 'multiple-leadership' doesn't cause conflict, this might not be bad, it might even be functional. For instance, Taggar et al. (1999) found that team performance was greatest when other team members, in addition to the emergent leader, demonstrated high levels of leadership influence. When multiple members want to exert leadership influence, and conflict over leadership arises, integrated working is undermined; because team members get distracted by conflict and/or are unclear about objectives (West et al., 2003). West et al. (2003) indeed found that lack of clarity or conflict over leadership was negatively associated with team innovation. It is conceivable that this effect of leader clarity only kicks in after the team has been together for a longer period of time. Mathieu and Schulze (2006) argue that when team members must work together for an extended period of time, poor interpersonal relationships become an issue. More particularly, SMTs take time to develop and mature (Stewart & Barrick, 2000): structures and relationships take time to evolve. If this development aids leader clarity, this will positively affect performance over time. However, when there is conflict over leadership, this will diminish team performance over time. Therefore, we first of all expect that leadership clarity benefits team performance over time.

Hypothesis 1: Leadership clarity benefits team performance over time.

Servant-leadership

Servant-leadership theory states that organizational goals will be achieved on a long-term basis by first facilitating the growth, development and general well-being of the individuals who comprise the organization (Stone, Russell, & Patterson,

2004). Furthermore, “the servant leader is servant first. It begins with the natural feeling that one wants to serve. Then conscious choice brings one to aspire to lead” (Greenleaf, 1977, p.27). The biggest distinction with other leadership theories is that a servant-leader is genuinely concerned with serving followers (Greenleaf, 1977), while other types of leaders have a greater concern for getting followers to engage in and support organizational objectives (Graham, 1991). Moreover, servant-leaders focus more on the people who are their followers, while other types of leaders focus primarily on organizational goals (Stone et al., 2004). By focusing on the followers’ needs first, servant-leaders make followers feel valuable and they provide an excellent context for achieving organizational goals. More specifically, when the main focus of a leader is on the people within the organization, it sets the stage for safe and secure relationships within the organization. For servant-leaders it is important to create an atmosphere of trust where people feel accepted (Ferch, 2005). Servant-leaders first and foremost accomplish this by putting others first, that is: standing back. Therefore, standing back is an important focus of this paper. Since servant-leadership is about helping others grow by identifying and meeting their needs (Keith, 2008), empowerment and humility are key to servant-leadership as well. We will discuss these constructs and their relation to performance in turn.

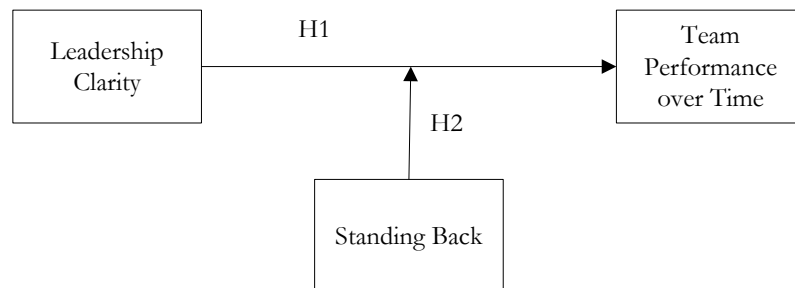
Standing back

A SMT can have a leader who encourages the team to lead itself (Manz & Sims, 1987). The extent to which a leader recognizes the input of team members might be pivotal to the team’s success. Furthermore, team self-leadership is not compromised by a leader unless he or she seeks to impose hierarchical control rather than facilitate the team’s self-managing capacity (Stewart & Manz, 1995). More particularly, team members will be able to freely express their leadership qualities if their leader allows them to do so. We will refer to this type of leader behavior as ‘standing back’. Standing back is defined as keeping oneself in the background and ‘putting others first’; giving the team (members) credit for achievements instead of taking personal credit for it and acknowledging the leadership influences of other team members. Standing back leaders recognize team members for their contributions, and therefore, can make team members feel valuable and give them an extra incentive to provide input and work hard.

We expect that an emergent leader who is standing back will foster high levels of leadership influence among team members, and therewith benefit team performance more than an emergent leader who is not standing back. However, similar to leadership clarity, this effect is not likely to affect performance immediately. We expect that leader standing back acts like an upward spiral. At the start, having others exert influence and acknowledging this will take time and effort, and might therefore even be dysfunctional to performance in the short-term. In the long-term however, the positive effect of leader standing back will become apparent. When team members start to feel that they are appreciated and part of a true team effort, and when the team is able to constructively use each team members' input, team performance will improve. Finally, leader standing back can only occur in teams in which leadership is clear. In sum, we expect that the positive effect of leadership clarity on team performance over time will be stronger if the emergent leader acknowledges the leadership strengths of others, is standing back, than when the emergent leader does not acknowledge the leadership influences of other team members, is not standing back. Figure 3.1 depicts hypothesis 1 and 2.

Hypothesis 2: Leader standing back moderates the effect of leadership clarity on performance over time in that leader standing back increases the positive effect of leadership clarity over time.

Figure 3.1 Theoretical model for team performance over time



When leaders are only ‘standing back’ (i.e., saying ‘*well done*’ and doing not much else) leaders may come across as ‘laissez-faire’ leaders instead of servant-leaders. Besides the fact that laissez-faire leaders are unlikely to emerge as ‘clear’ leaders in SMTs, (appointed) laissez-faire leaders instill no confidence in their ability to supervise (Hinkin & Schriesheim, 2008), which will be detrimental to trust and performance. However, standing back will be important to substantiate empowering (enhancing the self-efficacy of employees) and humble (listening to and acknowledging the employee’s perspective and criticism) leader behaviors of ‘clear’ leaders.

Empowerment

Empowerment is a motivational concept focused on enabling people (Conger, 2000). Empowerment has been defined as: “a process of enhancing self-efficacy among organizational members through the identification of conditions that foster powerlessness and through their removal by both formal organizational practices and informal techniques of providing efficacy information” (Conger & Kanungo, 1988, p.474). It is about supporting the self-worth of the follower by showing confidence in the follower’s integrity, ability and motivation, and attending to the follower’s feelings and needs (Bass, 2000). Empowerment aims at fostering a proactive, self-confident attitude among followers and giving followers a sense of personal power. Furthermore, empowerment means that employees can choose how to achieve goals and are allowed to make mistakes. Empowering leadership behavior encompasses aspects like encouragement of self-directed decision making, information sharing, and coaching for innovative performance (Konczak, Stelly, & Trusty, 2000). At the core of empowerment stands a leader’s belief in the intrinsic value of each individual; empowerment is all about recognition, acknowledgement and the realization of each person’s abilities and what the person can still learn (Greenleaf, 1998).

A major premise of empowerment theory is that empowered individuals should perform better than those who are relatively less empowered (Thomas & Velthouse, 1990). Deci, Connell, and Ryan (1989) argue that the leader plays a vital role in providing subordinates with these empowering experiences. In line with this reasoning, Liden et al. (2000) showed that leaders who empower people have more satisfied, more committed and better performing employees. Kirkman and Rosen

(1999) found that highly empowered teams are more effective than less empowered teams. Furthermore, Srivastava et al. (2006) concluded that empowering leadership is positively related to both knowledge sharing and team efficacy, which in turn are both positively related to team performance.

Hypothesis 3: Empowerment by the leader is positively related to overall team performance.

Despite the generally positive results for empowerment, as Conger (1999) argued, it is highly likely that empowerment will fail when leaders actually focus more attention on themselves than on their followers. Therefore, we hypothesize that standing back will moderate the effect of leader empowerment on team performance. More particularly, empowerment will only lead to better team performance if a leader is substantiating the empowering behaviors by standing back (i.e., giving followers credit for achievements and leadership input).

Hypothesis 4: The positive effect of leader empowerment on overall team performance is moderated by leader standing back, such that high empowerment is positively related to overall team performance when a leader is standing back, but not when a leader is not standing back.

Humility

Only recently, due to the financial crisis and corporate scandals (Caldwell, Hayes, Karri, & Bernal, 2008; den Nieuwenboer & Kaptein, 2008), but also thanks to the writings of Greenleaf (1977) and Collins (2001a, 2001b) humility has been put on the agenda (Morris, Brotheridge, & Urbanski, 2005; Reave, 2005). Morris et al. (2005), in line with Collins (2001a), state that the success of high performance companies is attributed to their CEO's personal humility, dependability, and consistency. Furthermore, they quote Covey who also asserted that "humility is one of the characteristics of the people at the very top... They're more teachable, they're more open, and they often show more reverence and respect for other people" (p.1327). Humility arises from a trustful understanding of one's strengths and weaknesses. In this manner, humility is an awareness of all that one is and all that one is not (Morris et al., 2005). More particularly, humble leaders understand their

strengths, weaknesses, and limitations, and recognize how dependent they are on forces outside of themselves, which is characteristic of servant-leaders. Such leaders appreciate that they do not have all the answers and, as a result, actively seek out the contributions of others as a means of overcoming their individual limitations (Morris et al., 2005). Humble leaders will make followers feel that their input is used in a constructive way. Since sharing knowledge and ideas characterizes successful learning in teams (Edmondson, 2003b), it is crucial that followers perceive that their input is valued.

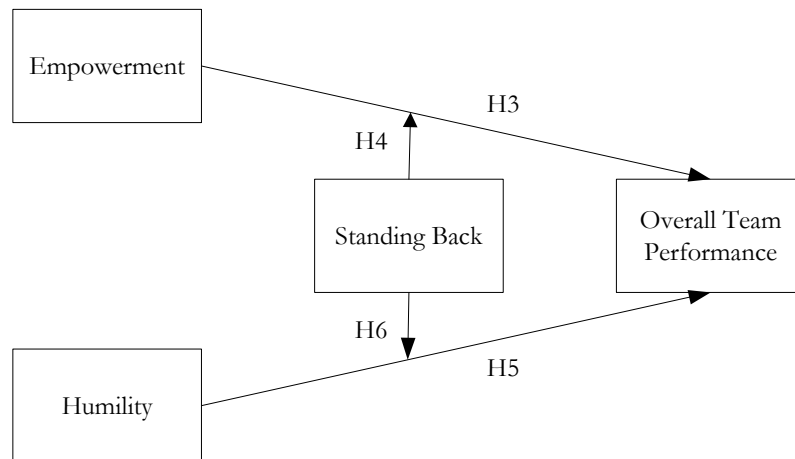
Although humility has been coined as an important aspect of leadership (Hale & Fields, 2007), to our knowledge, it has not been tested if leader humility has a positive influence on team performance. In this study humility is operationalized as the willingness to openly learn from criticism and others. A leader's willingness to openly learn from team members' might result from being secure with oneself, or having a healthy ego as Dennis and Bocarnea (2005) called it, and the ability to look at one's own accomplishments and talents in their proper perspective (Patterson, 2003). Humble leaders have the ability to accept negative feedback, which is a crucial quality for managers who need to know what is really going on in their firms (Reave, 2005). Humility defined in this manner is different from standing back. Standing back is about giving others credit and not stepping forward to receive applause for team achievements, whereas humility symbolizes a leader's willingness to deal with criticism and learn from others.

Hypothesis 5: Humility of the leader is positively related to overall team performance.

As argued above, leader behaviors are more effective when they are congruent, when they validate each other. Therefore, we hypothesize that leader humility is more powerful when a leader also 'stands back'. The full theoretical model for overall team performance is shown in Figure 3.2.

Hypothesis 6: The positive effect of leader humility on overall team performance is moderated by leader standing back, such that high humility is positively related to overall team performance when a leader is standing back, but not when a leader is not standing back.

Figure 3.2 Theoretical model of overall team performance



In summary, the purpose of this study is (1) to determine if emergent leader clarity and standing back have a positive impact on team performance over time in SMTs, and (2) to investigate if ‘clear’ leaders’ standing back has a positive influence on relationships of empowerment and humility with overall team performance. We used SMTs whose task performance was directly dependent on team learning, and team performance (over time and overall) was measured with objective criteria.

Method

The context

Since our aim was to study team performance produced by team learning, we needed a context that provided us with teams that could achieve positive results almost solely through learning. We studied 143 SMTs of four members who worked intensively on an HRM-Simulation (Smith & Golden, 2005) for three weeks. The simulation and most of the content were new to all participants. Furthermore, there were no formally assigned leaders. At the start, they were told they had to function as a SMT. The leadership structure that emerged was completely up to the team. This made it possible for us to determine in the end if the team members were clear

about who had been the leader and if this leader was standing back. Furthermore, the simulation provided objective performance measures for eight business quarters per team. This made it possible to track team performance over time. Finally, besides the simulation, the teams also had to complete assignments (write a business plan, write an audit, solve incidents and write a final business report). These assignments were graded on strict criteria by three independent raters unaware of the teams' performances and, together with the team's relative performance on the simulation they were computed into a distinct team performance measure.

Participants

Participants in this study were second and third year bachelor Business Administration students. Within the context of a course on Human Resource Management, these students participated in a two-week management simulation specifically focused on HRM (Smith & Golden, 2005). In the third week, directly following the simulation they wrote their final team report. After writing their final report, all students were invited to participate in a survey for extra course credit. Via e-mail 574 participants were asked to follow a personalized link and fill out the survey. A total of 548 students completed the survey. We first coded their answers for team leadership. After checking the data it turned out we had to omit 6 teams from the final analyses because it was not possible to code them (i.e., no leader input while team members nominated that leader). Furthermore, we had to omit 5 more individuals because we couldn't code their input either. Therefore, we had to discard 26 participants and the remaining sample consisted of 522 students (93%) working in 143 teams. The mean age of the participants was 21.6 years (SD = 2.26), 26.9% of the participants were female and 73.1% were male. With these 143 teams we could analyze how the different teams performed over time. However, for the analyses regarding how leader behavior affects overall team performance, we could only use the data for teams where a leader had emerged. In 42 teams there was no clarity about the leadership role, therefore, these teams were excluded from the analyses. We had 101 teams with 236 members left in which leader behavior was rated by team members.

Procedure

The HRM-simulation itself lasted two weeks and involved intense teamwork in groups of four. Week one resembled year one, four quarters, of their company's HRM department. Week two stood for year two, which was also made up of four quarters. The teams had to make HRM-decisions daily (for every quarter) preferably based on HRM theory, a business plan they wrote at the start of the simulation, and the results of the prior quarter(s). Furthermore, they had to solve an incident that occurred in their company every day. After one week (four quarters) the students had to write an audit. Finally, in the week directly after the simulation (the third week), a team report had to be written based on their experiences. The survey was sent directly after the teams had handed in this final report.

Measures

Team performance over time. An important part of the simulation was feedback on the performance of their HRM department. Every day, for eight days in total, the teams received information on how they were doing on key indicators. All indicators were calculated by the simulation program. Their quarterly decisions were fed into the program which then provided feedback on how the organization was doing. The better they took into account the HRM theory learned in the course and the feedback, the better they would be able to make new decisions. The most important key performance indicators were employee moral, product quality, absenteeism, productivity, accidents, and turnover. The six objective indicators of team performance were transformed to z-scores and averaged into a single score for each quarter representing overall team performance per quarter. The coefficient alpha for the six-item scale varied from .73 until .86 for the eight different quarters.

Overall team performance. During the simulation, the teams also had to hand in several assignments. The first day, they were asked to write a business plan for the organization. Next, every day there was a special HRM related incident in the HRM-Simulation which asked for a decision with argumentation. After four days, they had to write a so-called management audit describing their situation so far (first year) and plans for the second part (second year). After the HRM-Simulation, they had to write a final report describing their learning experiences. All assignments were graded by three people unaware of the scores of the teams on other research

related concepts. Z-scores were calculated for each assignment and the team's relative performance on the HRM-Simulation, and averaged into an overall grade. The most important criterion for this performance measure was the team's argumentation and use of HRM theory.

Team leadership: clarity and standing back. No team leaders were assigned before the simulation. It was up to the team to decide how they wanted to organize themselves. In the survey all participants were asked if they considered one of them as the team leader during the simulation. It was possible to indicate oneself as leader. Per team, every leader nomination was coded. We considered somebody to be the leader if at least two team members (excluding the person him- or herself) indicated this person as the leader. In 42 teams the leadership position was debated. Therefore, no consistent pattern arose of who had been the leader, the leadership position was 'unclear'. Within 70 teams two or three members indicated a person as the leader whereby this person agreed with having been the leader (leadership 'clear – non-standing back'). Finally, 31 teams nominated leaders who didn't mention themselves as leaders (leadership 'clear – standing back'). More particularly, these people were viewed as leader by their team mates, but didn't give themselves that credit; they nominated another person as the leader. In other words, they put another person first and acknowledged their leadership influence.

Empowerment. Empowerment was measured on a 6-point Likert scale (1 = *totally disagree*, 6 = *totally agree*) using 3 items ($\alpha = .76$) that were based on the empowerment scale of Konczak, Stelly and Trusty (2000) and adapted to fit our learning context (e.g., "The team leader encouraged us to use our talents").

Humility. Humility was measured on a 6-point Likert scale (1 = *totally disagree*, 6 = *totally agree*) using 3 items ($\alpha = .85$) (e.g., "When others provided criticism, the leader tried to learn from it").

Control variables. Since team performance might be due to 'general academic performance' (GAP) or knowledge of HRM, we asked the students what their average grade so far was (a proxy for general academic performance in Business Administration) and we included their individual grade for the final HRM exam (HRM grade) as controls. Furthermore, team performance could be influenced by team member familiarity (Gruenfeld, Mannix, Williams, & Neale, 1996; Philips, Mannix, Neale, & Gruenfeld, 2004). Therefore, we included team member

familiarity as a control variable. The participants rated on a scale from 1 (not at all) to 5 (very well) how well they knew each team member. These scores were added together and aggregated to the team level to create a team score of familiarity.

Results

Team leadership and team performance over time

First, we tested the influence of leader clarity and standing back on performance over time within the HRM-Simulation. Given that we had three leadership (and thus team) types (i.e., 'unclear', 'clear – non-standing back', and 'clear – standing back'), we conducted a 3(team leadership) x 8(team performance over time) General Linear Modeling (GLM) with repeated measures on the second factor to test if there was a difference in team performance over time based on team leadership. We found a significant performance difference over time between the three teams types, $F(2, 140) = 3.77, p = .03, \eta_p^2 = .05$ (see Figure 3.3). We added general academic performance (GAP), HRM knowledge (HRM grade), and team member familiarity as covariates. The means and standard deviations are listed in Table 3.1. The analysis yielded a significant interaction effect of team leadership and team performance on the HRM-simulation over time $F(5, 137) = 3.40, p = .04, \eta_p^2 = .05$. Teams termed 'clear – standing back' started poorly but their performance went up during the HRM-simulation. The 'unclear' leadership teams show the opposite pattern, while the 'clear – non-standing back' leadership teams started relatively low and their performance stabilized at an average performance rate. These results provide evidence for hypotheses 1 and 2.

Figure 3.3 Team performance over time for the three leadership structures

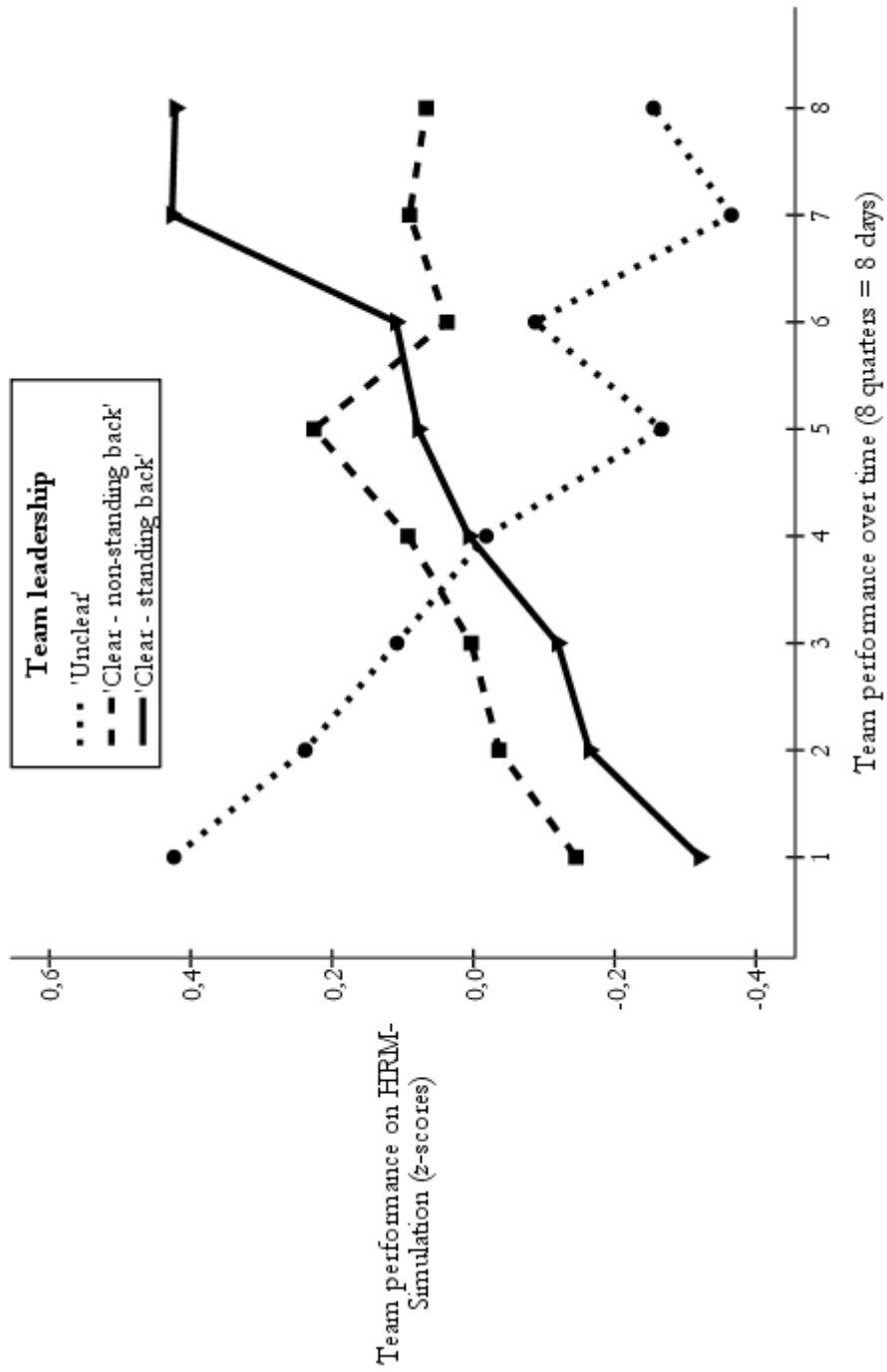


Table 3.1 Means and standard deviations team leadership ^{a, b, c} on HRM-Simulation over time (\bar{x} -scores)

	Unclear ^a		Clear – non-standing back ^b		Clear – standing back ^c	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Quarter1	0.42	2.12	-0.15	1.33	-0.32	1.55
Quarter2	0.24	1.94	-0.04	1.61	-0.16	2.05
Quarter3	0.11	2.12	0.00	1.60	-0.12	1.82
Quarter4	-0.02	2.12	0.09	1.64	0.01	1.85
Quarter5	-0.27	2.19	0.23	1.78	0.08	1.58
Quarter6	-0.09	1.89	0.04	1.70	0.11	1.64
Quarter7	-0.37	1.92	0.09	1.44	0.43	1.36
Quarter8	-0.25	2.16	0.07	1.34	0.42	1.40

Notes. ^a*N* = 42; ^b*N* = 70; ^c*N* = 31.

Data aggregation: Empowerment and humility

The questions about the leadership behavior the team members experienced were aimed at the team level, and therefore the variables of empowerment and humility are expected to operate at the team level. We could only aggregate the empowerment and humility measures of the team members in the teams where leadership was ‘clear’, because only these teams had two or three fully completed surveys by team members for the same leader. Before we could proceed with testing hypothesis 3 through 6 with these 101 teams, we had to justify aggregating the data. Therefore, we computed ICC(1) and $r_{WG(j)}$ values (Bliese, 2000; Castro, 2002). ICC(1) indicates the portion of variance in ratings due to team membership (Bliese, 2000), and is not influenced by group size or by the number of groups (Castro, 2002). The $r_{WG(j)}$ index is a measure of interrater agreement, and can be used to determine the appropriateness of aggregating data to higher levels of analysis (Castro, 2002). James (1982) reports a median ICC(1) of .12 for the organizational literature. For $r_{WG(j)}$ the criterion is .70 (Castro, 2002). For empowerment we

obtained adequate support for aggregation ($ICC(1) = .22$, $r_{WG(j)} = .76$), $F(100, 135) = 1.64$, $p = .04$. For the humility measure the results were good as well ($ICC(1) = .23$, $r_{WG(j)} = .78$), $F(100, 135) = 1.66$, $p = .03$.

Overall team performance

Descriptive statistics, correlations and scale reliabilities are reported in Table 3.2. Furthermore, two hierarchical regression analyses (with centered variables) were performed with the 101 teams to test the effectiveness of leader behavior as measured by standing back, empowerment and humility. These analyses tested if team leadership (standing back) enhances the effect of respectively, leader empowerment, and leader humility on overall team performance. For both independent hierarchical regression analysis we first entered the potential covariates in the analysis: GAP (team member average), HRM grade (team member average), and team member familiarity. Next, we entered a dummy for team leadership (-.05 'clear – non-standing back' and .05 'clear – standing back'), and average team member ratings of empowerment or humility. Then, we added interaction term of standing back with team member ratings of leader empowerment or the interaction term of standing back with team member ratings of leader humility. Multicollinearity was prevented by centering the variables before computing the interaction terms.

Table 3.2 Descriptive Statistics and Correlations ^a

Group level	M	SD	1	2	3	4	5	6	7
1 Team performance	6.92	0.80	NA						
2 HRM Grade	6.03	0.61	0.36†	NA					
3 GAP	6.66	0.47	0.31**	0.47‡	NA				
4 Familiarity	3.20	0.94	0.11	0.07	0.28**	NA			
5 Standing back	NA	NA	0.19	-0.02	-0.02	0.12	NA		
6 Empowerment ^b	4.05	0.60	-0.02	-0.23*	-0.19	0.10	0.14	(.76)	
7 Humrality ^b	4.45	0.60	-0.01	-0.17	-0.16	0.00	0.25*	0.62‡	(.85)

Notes. ^aScale reliabilities are in parentheses along the diagonal. For the group level $N = 101$. ^bOnly ratings of members for the 'clear' leader are taken into account. * $p < .05$, ** $p < .01$, † $p < .001$.

Table 3.3 shows the regression equations. The final models are significant ($p < .001$) and both explain 18% of the variance in overall team performance. Hypothesis 3 is not confirmed since we don't find a main effect of empowerment ($p = .10$). The main effect of humility (hypothesis 5) is also not significant ($p = .15$). However, we find significant interaction effects in the expected directions with leader standing back for both empowerment and humility. Specifically, hypothesis 4 regarding empowerment is not rejected, since we find the two-way interaction with standing back, $\beta = .25, p = .03$, explaining an additional 4% of the variance. The pattern is presented according to Aiken and West (1991) in Figure 3.4. For a more specific test of our hypothesis, we calculated simple slopes (Aiken & West, 1991). As expected, high empowerment only led to high overall team performance when leaders were also standing back, but not when they were not standing back, $\beta = .43, p < .05$. When leaders were rated low on empowerment and standing back, overall team performance was worse than when they were not standing back, but this effect was not significant, $\beta = -.14, p = .18$. We find similar results for hypothesis 6 which proposes the effect of humility on overall team performance will be moderated by standing back, $\beta = .27, p = .03$. In line with hypothesis 6, Figure 3.5 shows that high humility only led to high overall team performance when leaders were standing back and not when they were not standing back, $\beta = .45, p < .05$. Again however, when leaders were rated low on humility, standing back had a negative (but non significant) effect on overall team performance, $\beta = -.17, p = .11$.

Table 3.3 Regression analysis: The moderating effect of leader standing back on empowerment and humility on overall team performance ^a

	Step 1	Step 2	Step 3			
	β	β	β	R ²	ΔR^2	F
(1)						
Controls						
GAP	.18	.19	.17			
HRM grade	.28*	.28**	.27**			
Familiarity	.04	.01	.00	.13**	.16	6.02**
IVs						
Standing back		.18	.15			
Empowerment		.05	.20	.15**	.04	4.57**
Interaction						
Standing back \times Empowerment			.25*	.18‡	.04	4.72‡
(2)						
Controls						
GAP	.18	.18	.15			
HRM grade	.28*	.28**	.27*			
Familiarity	.04	.01	.00	.13**	.16**	6.02**
IVs						
Standing back		.19	.12			
Humility		.01	.18	.15**	.04	4.50**
Interaction						
Standing back \times Humility			.27*	.18‡	.04*	4.73‡

Notes. ^a N = 101. Standardized regression coefficients (β) and adjusted R² values are reported. * $p < .05$; ** $p < .01$; ‡ $p < .001$.

Figure 3.4 Two-way interaction of leader standing back and empowerment on overall team performance

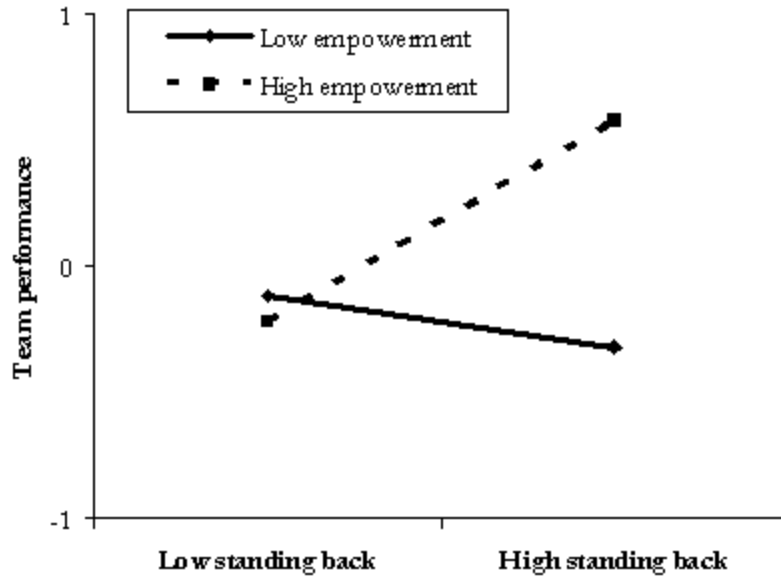
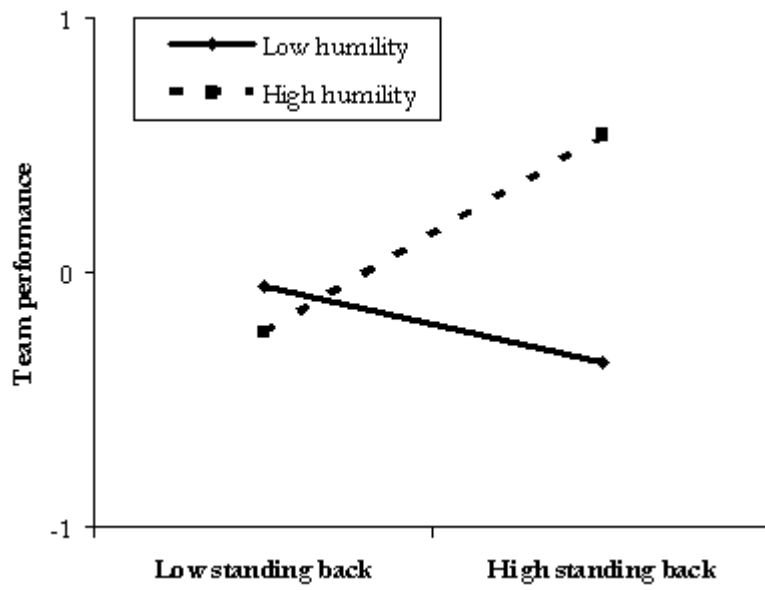


Figure 3.5 Two-way interaction of leader standing back and humility on overall team performance



Discussion

This study aimed to investigate the influence of emergent leadership in SMTs within a learning context. The most important results were, first of all, that leadership clarity has a positive influence on objective team performance over time, and that this is not apparent at the start. Second, this positive influence of leader clarity is significantly larger when the leader is standing back. Third, our findings indicate that, when leadership in a team is clear, standing back leaders have better performing teams than non-standing back leaders when they are rated high on either empowerment or humility.

Our findings provide an important contribution to the literature on emerging leadership in SMTs because actual performance effects of leadership are a strong improvement of the usual perceptual measures of leadership effectiveness (van Knippenberg & van Knippenberg, 2005). Furthermore, we were able to take objective performance into account over time, which gives invaluable insights into team performance (Arrow, et al., 2004; Harrison, et al., 2003; Watson et al., 2002). Finally, the research shows that leadership clarity is important, and that, as long as the leader's behavior is more follower-focused and coherent (i.e., standing back and empowering or humble) team performance benefits. More specifically, the combination of leadership clarity and coherent positive leadership behaviors eventually determines the effect on performance.

Theoretical Implications

An important contribution is that our study extends the research done by West et al. (2003). Our study shows that leadership clarity is especially important if teams work together for a longer period of time. If the team has a short life cycle, the competitiveness of team members who all want to exert their influence might help them excel (see time point 1, Figure 3.3). But if they have to work together for longer periods of time, this need to exert influence by multiple team members without allowing for team leadership to emerge might cause conflict and ambiguity about goals and processes (Mathieu & Schulze, 2006). This eventually causes the team to perform worse (see time line Figure 3.3). Important to notice is that our study also indicates that the need for more people in a team to exert leadership

influence can actually be productive if there is a clear leader who is standing back. This finding is in line with the finding of Carson et al. (2007) that shared leadership is a factor that can improve team performance. Our study extends their finding by showing that leadership clarity and leader standing back are probably preconditions for team members to have effective leadership input. Leadership clarity is for instance important to avoid ambiguity about goals and processes, and an acknowledged leader can also give team members a sense of security; they know who to turn to and who will take care of them. Leader standing back potentially reinforces this effect, especially in a learning context, because a standing back leader will communicate an authentic concern for others, which might make them feel valuable, give them a chance to voice their opinions and might encourage them to express suggestions (Srivastava et al., 2006), which could result in increased performance in a learning context.

A second contribution is that the results clearly imply that giving others credit for contributions, aids performance, especially when there are other leader behaviors to back this up. In other words, when a leader is standing back but neither empowering nor humble, this leader probably comes across as a ‘non-leader’ or a laissez-faire leader. Such leaders instill no confidence in their ability to supervise (Hinkin & Schriesheim, 2008). However, if a standing back leader is either empowering or humble, the praise or recognition will come across as more valid. Singh and Krishnan (2008) offer more depth to this reasoning. They state that if followers perceive that the leader’s action was because of role obligation or some cost-benefit analysis, followers will notice the discrepancy, and their intention of continuing the interaction as well as reciprocity would be less than what it would have been had the action arisen out of genuine affect and concern for the followers.

The third contribution is that we linked empowerment to objective performance. Specifically, we showed that empowerment was only positively related to objective performance if the leader was also standing back. Therewith, we have provided one of the few accounts of the beneficial effects of empowerment for objective team performance. A fourth and final contribution is that this paper provides the first evidence of the beneficial effects of leader humility for team performance. Although leader humility has been coined as ‘cornerstone of organizational learning’ (Vera and Rodriguez-Lopez, 2004) and the key to

organizational greatness (Collins, 2001a), to our knowledge this paper provides the first empirical evidence for the positive relationship between leader humility and performance.

Managerial Implications

This study has important implications for organizations, team leaders and managers. First, the results show that even in a SMT leadership clarity is important for team learning and performance. Therefore, organizations and the leaders themselves need to make sure everyone is on the same page regarding the leadership position and tasks. It needs to be clear who the leader is, so everyone knows who to turn to for guidance and support. However, the leader needs to be aware that allowing others to express their leadership qualities can benefit team learning and performance. More particularly, being rigid about the power position and being authoritative, could alienate followers, and might leave them unengaged and unmotivated. Followers might be less inclined to deliver input. On the contrary, if leaders are able to share their power, they might make followers feel valuable and might enable them to express their qualities. If this line of reasoning is correct, giving team members room to express their leader qualities and giving them credit for accomplishments will be an important managerial tool.

Second, our study suggests that leaders should act coherently; align their attitude and behaviors. This implies that leadership training aimed at teaching leaders or managers tricks to 'deal with' followers will fail if leaders do not totally embrace what they are claiming or trying to do. More particularly, failure of management development programs might very well be due to focusing behaviors or skills that are only effective if carried out genuinely and/or together. This might for example result in: asking for advice but ignoring the answer; lauding followers for performance, while their input wasn't used; telling followers their personal development is important but not further educating or empowering them. Followers will only take leaders seriously and let them have the lead if what they see and hear is in accordance with each other. The most successful leaders in our study were willing to acknowledge the leadership influence of others (standing back) and listen to their advice (humility) or empower them.

Third, team member competence should not be disregarded. Despite the significant interaction effect of standing back with empowerment and humility on team performance, a significant main effect of the control variable ‘HRM exam grade’ remains robust. This implies that leaders, or organizations for that matter, should stay attentive to the task specific competence of the people they include in their team(s). However, based on the results of this study we still recommend a clear and more coherent leadership style, regardless of the capacities of the team members.

Limitations and Future Research

We have to acknowledge that the study was conducted within a specific learning environment with a student sample. However, the task and team work were comparable to working in an organization. Furthermore, students are not expected to differ from other people in their behavior in achievement settings (Brown & Lord, 1999; van Knippenberg & van Knippenberg, 2005). Nevertheless, it will be valuable to replicate our findings in an organizational setting. Next, the validity of the scales we used for empowerment and humility might have suffered from the adaptations we made for our specific context. Therefore, we suggest to use more established measures in future research. Another limitation is that the students indicated who they thought their leader was after they knew the results of the HRM-Simulation. This might have diluted the results, especially with regard to the ‘unclear’ leadership teams. However, they didn’t know how well they had done the assignments on which their grade would be based. The final grades were published several weeks after the survey, which suggests that the results are probably robust. Another strong point is the multi-method nature of the study: objective outcome variables over time and overall performance, subjective ratings of leadership behavior by followers, and the leader nomination from which we could determine the leadership structure. The outcome variables for the GLM were computed by the HRM-Simulation’s computer program, and the team grade was a composite of grades given by independent raters who followed strict performance criteria and had no knowledge of the teams’ performances on other indicators. The fact that the outcome measures were collected over time makes the results more relevant since it provides information about how teams develop over time. Next, the whole study

took place within a relative short time frame of only three weeks in which the team work for the HRM-Simulation was the main focus of the participants. This allows for trust that the outcomes are directly related to what happened during the simulation. A further advantage of the controlled three week set-up is that it goes beyond cross-sectional research. In other words, first the teams had a leadership experience and then they delivered their performance. Furthermore, they had to learn HRM theory and apply that knowledge to get good results. This gives confidence in the discovered relations regarding performance in our learning context, and strengthens us to encourage future research on leadership clarity, standing back, empowerment and humility. A special focus should be placed on determining the effects on performance of leader behaviors that are (in)congruent with each other.

Conclusion

Working in teams within a learning context will remain important for organizational performance for years to come. Therefore, the need to understand how leaders can effectively contribute to team learning and performance increases. This study contributes to this demand by showing the importance of leadership clarity and the opportunity for team members to be acknowledged for their contribution to the team's performance by the leader. It is also clear from this study that the preconditions for a good single team effort differ from the factors that benefit team learning and performance over a longer period of time. Furthermore, this study makes salient that leaders need to be aware that empowering behavior will not always result in the desired outcomes, for example if they are not 'standing back'. In line with this, giving followers credit for achievements (standing back) is only credible when followers also perceive that the leader empowers them or deals with their input in a proper way (humility). More particularly, a simple managerial trick, such as asking questions, is often only convincing when leaders also act on that information. Leaders will need to behave more coherently in order to be successful. In conclusion, also taking the results of team performance over time into account, it is safe to say that an acknowledged leader who is willing to recognize the influence of other team members and able to be empowering or humble, has found an important ticket to success.

CHAPTER 4
THE SERVANT-LEADERSHIP SURVEY (SLS):
DEVELOPMENT AND VALIDATION OF
A MULTIDIMENSIONAL MEASURE

This paper describes the development and validation of the Servant-Leadership Survey. Based on an extensive literature review and expert judgment, 99 items were formulated. In three steps, using seven samples totaling 1167 persons with a diverse occupational background, a combined exploratory and confirmatory factor analysis approach resulted in an eight-dimensional measure of 30 items. These are: Standing back, Forgiveness, Courage, Empowerment, Accountability, Authenticity, Humility and Stewardship. The internal consistency of the subscales is good. The results show that the Servant-Leadership Survey has convergent validity with other leadership measures, and also adds unique elements to the leadership field. Evidence for criterion-related validity came from studies relating the eight dimensions to well-being and performance.

Introduction

The 21st century has launched a rocketing interest in leadership theories. This interest is understandable given the big challenges our planet is facing. Economic instability, financial crises, global warming, terrorism, poverty, all call for efficient solutions, and therefore, for adequate leadership. With the strong emphasis on enhancing motivation and information sharing for continued success of modern organizations, leadership has recently been suggested as a key factor for engaged employees (Luthans, 2002) and for innovative organizations (Garcia-Morales, Llorens-Montes, & Vredu-Jover, 2008). We expect servant-leadership to be a leadership theory that may be of great value in this respect. Coined by Greenleaf (1977) more than thirty years ago, this concept has recently been rediscovered by scholars. Servant-leadership may be useful in the present demand for a more ethical (Clegg, Kornberger, & Rhodes, 2007), people-centered effective leadership style. In particular because it introduces a moral component to transformational leadership (Graham, 1991), and puts explicit emphasis on the needs of followers (Patterson, 2003). Furthermore, in servant-leadership the ideal of service is embedded in the leader-follower relationship.

The aim of this article is to describe the construction of a valid and reliable instrument that measures servant-leadership in all its complexity, that is behaviorally oriented, that is focused on the role of the leader in the relationship with followers, and easy to administer. Despite previous attempts to construct a valid and reliable instrument, there is still a need for a concise scale representing the essential characteristics of servant-leadership within a multi-dimensional framework directly linked to Greenleaf's writings. Such an instrument would (a) be very valuable in encouraging empirical research to understand the real value of servant-leadership within modern organizations, (b) will help to understand which dimensions are critical for employee well-being and performance, and (c) will help to determine how servant-leadership differs from other leadership styles such as transformational and ethical leadership. We will first describe the foundations of our theoretical model on which we based the item formulation. Next, the psychometric analyses, including exploratory and confirmatory factor analyses, will be discussed. Finally, the content and criterion-related validity is addressed.

PHASE 1: DEVELOPMENT OF THE SERVANT-LEADERSHIP SURVEY

Robert Greenleaf introduced his basic ideas on servant-leadership in his seminal work: *The Servant as Leader* (Greenleaf, 1977). After spending 40 years working at AT&T, he retired in 1964 as director of management research. His inspiration for the servant-leader came from reading Herman Hesse's *The Journey to the East*, in which the first-person narrator is part of a group of pilgrims. One of the persons in the group is Leo, a servant who takes care of the daily chores, plays music, and looks after the well-being of the group. At some point Leo disappears, and the group falls into disarray. Years later, the first-person narrator again contacts the Order to which the group belonged. It turned out that Leo is, and was, the titular head of the Order, its spiritual guide and leader. Through this story, Greenleaf realized that it is possible to combine the roles of servant and leader in one person and that this may be characteristic of a real leader.

Servant-leadership is primarily about going beyond one's self-interest. The servant-leader is governed by something more important, namely serving one's fellow men and women (Luthans & Avolio, 2003) and creating opportunities that help them grow. It can be instrumental in creating a sense of psychological ownership among employees (Avey, Avolio, Crossley, & Luthans, 2009). To achieve this, servant-leaders need to understand their followers and gain their confidence.

To develop an adequate instrument to measure servant-leadership several criteria have to be met. Primarily, the multi-dimensionality of the concept should be guaranteed. The challenge with servant-leadership is that it encompasses a wide range of behaviors. These behaviors are hard to grasp in one or two constructs, and may sometimes seem difficult to disentangle. Several scholars have been instrumental in helping us understand servant-leadership. For example, Spears (1995) distinguished ten characteristics that are generally quoted as the essential elements of servant-leadership (listening, empathy, healing, awareness, persuasion, conceptualization, foresight, stewardship, commitment, building community). Laub (1999) developed a conceptual model of six clusters of servant-leadership characteristics (personal development, valuing people, building community, displaying authenticity, providing leadership, sharing leadership), each consisting of

three categories. Russell and Stone (2002) mentioned nine functional characteristics (vision, honesty, integrity, trust, service, modeling, pioneering, appreciation of others, empowerment) and eleven additional characteristics of servant-leadership and finally Patterson's (2003) model includes seven dimensions (agapao love, humility, altruism, vision, trust, empowerment, service).

It seems that from a theoretical point of view, one is inclined to include dozens of characteristics a leader needs to display to be called a servant-leader. But psychometrically and practically speaking it might be difficult to distinguish these characteristics. Indeed capturing the essential elements within one practical instrument and preserving the multi-dimensional nature of servant-leadership within one measure in a valid and reliable way proved to be a challenge. Earlier operationalizations of servant-leadership showed quite some content overlap in the different dimensions underlying the proposed measure. The first to develop a measure was Laub (1999). He developed a 60-item measure – the Organizational Leadership Assessment (OLA) – that clustered six key areas. Although having been of great use in encouraging servant-leadership research, the intercorrelations between the six areas are so high, that the overall OLA score is recommended for research purposes, whereby the multidimensional nature is lost. Another frequently used instrument is Page and Wong's (2000) Servant Leadership Profile. Building from a 12-dimensional conceptual framework, their first data analysis resulted in eight dimensions. In later versions the number of dimensions dropped via seven to five (Wong & Davey, 2007). Even that may be too many dimensions given that in an attempt to replicate this factor structure, Dennis and Winston (2003) reported a three-dimensional structure. Barbuto and Wheeler (2006) introduced a 23-item five dimensional instrument that would match the 10 characteristics described by Spears. However, a recent attempt to replicate their findings failed and showed that the instrument might only be one-dimensional (Dannhauser & Boshoff, 2007). Dennis and Bocarnea (2005) developed a five-dimensional instrument directly related to Patterson's (2003) seven-dimensional model. Unfortunately, their original study used one sample only. Recently, this instrument has been translated into Spanish and studied within a Latin American context (McIntosh & Irving, 2008). This study confirmed the reliability for only three of the scales.

Most recently, Sendjaya, Sarros, and Santora (2008) came up with an instrument consisting of 35 items representing 22 characteristics divided over six scales. Regretfully, their study does not provide information on the solidity of the hypothesized six-dimensional structure. The authors only tested the one-dimensionality of each of the six core dimensions separately. No data was presented on the factorial validity of the overall six-dimensional model. Given the high intercorrelations between the dimensions – ranging between .66 and .87 – this is a point of concern. As such, confirmation of the proposed multi-dimensional structure could not be found in an independent sample for any of the above scales. Only Liden, Wayne, Zhao, and Henderson (2008) included both an exploratory and a confirmatory sample within their article. They validated a 28-item seven dimensional servant-leadership scale in two samples, one consisting of 298 students, the other consisting of 182 individuals working for a production and distribution company. A confirmatory factor analysis confirmed their 7-factor model as the best fitting model.

In the ideal situation several studies would be conducted to reveal a multi-dimensional structure that holds across several samples. It is here that most previous studies failed. When used in other samples outside the development sample, the apparent separate constructs collapsed into one construct (e.g., Dannhauser & Boshoff, 2007; Dennis & Winston, 2003). Given these mostly unsuccessful attempts to develop a multi-dimensional instrument that can be validated in replication studies, it should come as no surprise that Ehrhart (2004) used a one-dimensional self-developed 14-item scale. However, a one-dimensional scale doesn't do justice to the concept servant-leadership.

Another important aspect one should not overlook is that the instrument should focus on both the 'servant' and the 'leadership' aspects of servant-leadership. Most, if not all, scales mainly pay attention to what we would call the 'people' side of servant-leadership. This includes aspects like: helping, serving, being honorable, authentic, and empathic, behaving ethically, healing, and accepting. Although these aspects are important and essential elements of servant-leadership, they do not cover the whole concept. The use of the term 'servant' in servant-leadership apparently causes people to attribute too much attention to the so-called people aspects of servant-leadership and may as result have a negative effect on the

implementation of servant-leadership in organizations. More particularly, it is very important to pay equal attention to the 'leader' part of servant-leadership. Servant-leadership is also about providing direction, being a leader. A servant-leader knows very well where to take the organization and the people in it (Greenleaf, 1977). A servant-leader needs to be a courageous steward who is able to hold people accountable for their own good. Most scales do not take these 'leader' aspects of servant-leadership into account. Liden et al. (2008) touch upon stewardship with their concepts 'creating value for the community' and 'conceptual skills', but ignore the important aspects accountability and courage.

We made an attempt to overcome the above mentioned shortcomings and will introduce a new instrument to measure servant-leadership, the Servant-Leadership Survey (SLS). This measure primarily focuses on the leader-follower relationship measured from the perspective of the follower. Our aim was that 1) it should cover the essential aspects of servant-leadership, 2) it should be easy to apply, and 3) be psychometrically valid and reliable. We will demonstrate the factorial validity, the internal consistency, the content validity, and the criterion-related validity of this instrument in three phases.

Acknowledging the importance of content validity when it comes to formulating items for a new measure (Hinkin, 1995) we conducted a study where a deductive phase was followed by an inductive phase. More particularly, after careful examination of the available literature we summarized the main characteristics of servant-leadership. Based on the insights of this phase a preliminary model of servant-leadership was formed (Van Dierendonck & Heeren, 2006). Then, semi-structured interviews were held with managers who, according to experts from the European Greenleaf Centre for Servant Leadership, exemplified servant-leadership. The insights from the literature, as put forward in the preliminary model, and from these interviews, were combined to capture the main aspects of servant-leadership. The key servant-leadership aspects we distinguished were the following:

(1) Empowerment: a motivational concept focused on enabling people (Conger, 2000). Empowerment aims at fostering a proactive, self-confident attitude among followers and gives them a sense of personal power. Empowering leadership behavior includes aspects like encouraging self-directed decision making, information sharing, and coaching for innovative performance (Konczak, Stelly, &

Trusty, 2000). In the end, people follow a servant-leader “voluntarily, because they are persuaded that the leader’s path is the right one for them” (Greenleaf, 1998, p.44). Servant-leaders empower followers through the use of persuasion more than by anything else. It excludes the use of coercion and manipulation; one trusts the others’ intuitive sense to discover for themselves which is the right direction. The servant-leader’s belief in the intrinsic value of each individual is the central issue in empowerment; it is all about recognition, acknowledgement and the realization of each person’s abilities and what the person can still learn (Greenleaf, 1998).

(2) Accountability: holding people accountable for performance they can control (Conger, 1989). This makes accountability a mechanism by which responsibility for outcomes is given to individuals and teams (Konczak et al., 2000). It ensures that people know what is expected of them, which is beneficial for both employees and the organization (Froiland, Gordon, & Picard, 1993). Furthermore, it is about acknowledging and making explicit each individual’s contribution, and should be dynamic and ‘tailor made’ (based on follower abilities, needs, and input) (Autry, 2004). Accountability is a powerful tool to show confidence in one’s followers; it provides boundaries within which one is free to achieve one’s goals. Although the popular literature on servant-leadership emphasized accountability as very relevant, it is mostly neglected by scholars and not incorporated in any of the other measures of servant-leadership.

(3) Standing back focuses on the extent to which a leader puts the interest of others first and provides them with essential support and praise. Standing back includes serving, which means offering time, energy, care and compassion to employees (Patterson, 2003). Serving is the first and foremost priority of a servant-leader. Serving includes a sense of responsibility (Greenleaf, 1996). In other words, leaders are accountable to those they serve (Dennis & Bocarnea, 2005). Serving is not the leader’s fate, but a privilege (Russell & Stone, 2002). Standing back is also about modesty; a servant-leader retreats into the background when a task has been successfully accomplished and gives the credits to the employees. Standing back will be closely related to most other aspects of servant-leadership such as authenticity, empowerment, humility, and stewardship.

(4) Humility: the ability to put one’s own accomplishments and talents in a proper perspective (Patterson, 2003). Servant-leaders dare to admit they can benefit

from the expertise of others. Humility arises from a proper understanding of one's strong and weak points, or as Morris, Brotheridge, and Urbanski (2005, p.1330) put it: "an awareness of all that one is and all that one is not". Servant-leaders acknowledge their limitations and therefore actively seek the contributions of others in order to overcome those limitations.

(5) Authenticity: is closely related to expressing the 'true self', expressing oneself in ways that are consistent with inner thoughts and feelings (Harter, 2002). Authenticity is related to integrity, the adherence to a generally perceived moral code (Russell & Stone, 2002). Authenticity is about being true to oneself, accurately representing – privately and publicly – internal states, intentions and commitments (Peterson & Seligman, 2004). It focuses on owning one's personal experiences, be they thoughts, emotions, needs, wants, preferences, or beliefs. A servant-leader's authenticity manifests itself in various aspects: doing what is promised, visibility within the organization, honesty (Russell & Stone, 2002) and vulnerability (Luthans & Avolio, 2003). The importance of authenticity is best exemplified by Avolio and Gardner's (2005) work on authentic leadership. From an organizational perspective it can be defined as behaving in such a way that professional roles remain secondary to whom the individual is as a person (Halpin & Croft, 1966).

(6) Courage: pro-active behavior that might be reflected in pioneering. Pioneering implies creating new ways, new approaches to old problems and strongly relying on values and convictions that govern one's actions (Russell & Stone, 2002). Pioneering is the opposite of *laissez-faire* (Goleman, Boyatzis, & McKee, 2002). Moreover, it means daring to take risks (Greenleaf, 1991). According to Greenleaf (1991) courage is an important characteristic that distinguishes a servant-leader from others. Furthermore, Autry (2004) argues it takes a lot of courage to be a servant-leader. Within the organizational context, courage is about challenging conventional models of working behaviors (Hernandez, 2008); it is essential for innovation and creativity.

(7) Interpersonal acceptance: the ability to understand and experience the feelings of others, understand where people come from (George, 2000), and the ability to let go of perceived wrongdoings and not carry a grudge into other situations (McCullough, Hoyt, & Rachal, 2000). In other words, interpersonal acceptance is about being able to forgive. Interpersonal acceptance includes being

able to cognitively adopt the psychological perspective of other people and experience feelings of warmth, compassion, and concern for others even when confronted with offences, arguments, and mistakes. For servant-leaders it is important to create an atmosphere of trust where people feel accepted, are free to make mistakes and know that they will not be rejected (Ferch, 2005). Hence, it facilitates the development of high quality interpersonal relationships through a better understanding of the behavior of others. Servant-leaders are not revengeful or eager to get even; this creates a setting which brings out the best in people.

(8) Stewardship: the willingness to take responsibility for the larger institution and go for service instead of control and self-interest (Block, 1993). Leaders should not only act as caretakers, but also act as role models for others (Hernandez, 2008). By setting the right example, leaders can stimulate others to act in the common interest. Stewardship is closely related to social responsibility, loyalty and team work. These constructs all “represent a feeling of identification with and sense of obligation to a common good that includes the self but that stretches beyond one’s own self-interest” (Peterson & Seligman, 2004, p.370).

In conclusion, based on an analysis of the servant-leadership literature and interviews with servant-leaders, these eight aspects were selected as the best indicators of what servant-leadership essentially is about. Therefore, these elements form the basis of the empirical phase.

STUDY 1

Method

Participants

The composite sample of this study consisted of four samples, including 668 persons. Sample 1 was collected through an open online survey. Participants received an e-mail sent to the mailing list of the Dutch Greenleaf Center. Additionally, an invitation was put on the Servant-Leadership website of the Center and e-mails were sent to people belonging to the social networks of the authors. All recipients were asked to forward the invitation to people they knew. The webpage with the start page of the questionnaire was checked by five-hundred-and-four

people of whom 213 persons filled out the complete list. Sample 2 was also an open online survey conducted within the network of a Master student. Five-hundred-and-three people checked out the webpage of whom 202 people filled out the complete list. The participants were employees working in various industries (e.g., financial, consultancy, health care, education, government). Sample 3 was obtained from a study at a Dutch high school. The teaching staff (678 persons) was asked in a personal e-mail to participate in a survey on leadership and well-being. One-hundred-sixty teachers completed the survey. Sample 4 was a combined sample of small studies conducted in a clinic, a restaurant, several shops, a fire brigade, and a small factory. Ninety-three people were part of this sample.

The mean age of this composite sample was 40.6 years ($SD = 12.1$), with 11.2 years ($SD = 10.4$) of work experience. The sample consisted of 47.9 percent men and 52.1 percent women. Forty-two percent worked in a profit organization, 58 percent in a non-profit organization. The majority had a male supervisor (71.5 percent) versus 28.5 percent who had a female supervisor.

Measures

Based on our conceptual model, the eight earlier mentioned aspects were operationalized. After the content analysis for critical aspects of servant-leadership, we checked the operationalizations of related constructs to develop a first pool of items. Most items were specifically formulated for our measure, with the exception of the items for empowerment that were taken from the Konczak et al. (2000) measure. We compared our operationalizations with those of the more general character strengths (Peterson & Seligman, 2004), and with those used in the servant-leadership specific constructs such as formulated by Page and Wong (2000).

These items were subjected to a critical review of three experts in the field who had to decide to what extent they felt that items reflected servant-leadership – as described in the eight concepts above – and whether crucial aspects had been overlooked. Based on the opinion of the experts, from the original item pool of 110 items, 20 items were removed and 9 new items were added, reaching a total of 99 items. All people in Study 1 responded to these 99 SLS items that were formulated in this item generation phase.

Results

In order to achieve a multi-dimensional psychometric sound measure that holds under cross-validation, exploratory factor analysis was used as a first step. The primary goal of exploratory factor analysis is to reduce a large set of measured variables to a smaller set. The goal here was to reduce the set of 99 items to those items that best exemplified one of the proposed dimensions without loading too high on one of the other dimensions. Exploratory factor analysis can be used to determine the extent that the proposed dimensions in the introduction indeed underlie the collected data. It should, however, be noted that even with exploratory factor analysis, theory stays an important guiding principle to decide which items to keep and which items to remove (Henson & Roberts, 2006).

The first stage in analyzing the data with exploratory factor analysis is checking the conditions for a stable factor structure (Ferguson & Cox, 1993). This means that the sample size needs to be large enough. The two most frequently used criteria are the absolute minimum number of subjects and the relative number indicated by the subjects-to-variables ratio. Somewhere between 100 and 300 subjects have been suggested as the minimum number of subjects, whereby Guadagnoli and Velicer (1988) even suggested that 100 subjects may be acceptable. With 668 subjects in our composite sample, this criterion is met. Recommendations for the subjects-to-variables ratio range between 2:1 and 10:1. The generally accepted minimum for reaching a stable factor structure is 5:1 (Ferguson & Cox, 1993). In our sample this ratio was 6.7:1, thus higher than the generally accepted minimum ratio.

The next step is to check whether the items are multivariate normally distributed by checking their skewness and kurtosis. Following Ferguson and Cox (1993), we checked whether no more than 25% exceeded the range of ± 2.0 . With respect to skewness, no items fell outside this range. With respect to kurtosis, only 6 out of 99 (6%) fell outside the range.

We then applied the Kaiser-Meyer-Olkin test and the Bartlett's test of sphericity to make sure that the correlation matrix was appropriate to produce a factor structure not found by chance. The Kaiser-Meyer-Olkin test was .980, well above the required minimum value of .5. The approximate chi-square of the Bartlett's test of sphericity was significant (51094.251, $df = 4851$, $p < .001$), indicating that a

discoverable factor structure exists in the data. Therefore, we can conclude that the necessary conditions for finding a stable factor structure exist within the dataset.

In stage 2 the number of factors to be extracted from the data is determined. The three most used techniques are the Kaiser 1 rule that is extracting the number of factors with an Eigenvalue higher than 1, the Scree test, and parallel analysis (Hayton, Allen, & Scarpello, 2004). The Kaiser 1 rule has the tendency to overestimate the number of factors; the Scree test is vulnerable to subjective interpretation on where the break in the plot is. Parallel analysis is considered the most accurate method to determine the number of factors to retain. We used both the Kaiser 1 rule to determine the maximum number of factors and parallel analysis for the exact number, following the guidelines and syntax provided by Hayton et al. (2004).

Fourteen factors were found with an Eigenvalue higher than 1. The Eigenvalues were 41.934, 4.927, 2.820, 2.251, 1.892, 1.800, 1.566, 1.418, 1.411, 1.310, 1.180, 1.115, 1.073, and 1.010. With parallel analysis a random generated set of Eigenvalues is compared to the empirically derived Eigenvalues. Using the syntax provided by Hayton et al. (2004) 50 random datasets were generated with SPSS each consisting of 668 persons and 99 variables. Next, all datasets were subjected to a factor analysis. The Eigenvalues of the first 14 factors were averaged across these 50 datasets. To determine the number of factors in our dataset, both plots were compared. The number of extractable factors is indicated by the point immediately before the point where both lines cross. The averaged random Eigenvalues were 1.857, 1.810, 1.773, 1.737, 1.706, 1.678, 1.625, 1.599, 1.577, 1.552, 1.533, 1.508, and 1.490. A comparison of both lists indicates that the crossing point lies between factor 6 and 7. Therefore, we may conclude that six factors probably is the most accurate number to be extracted from the data.

In stage 3 the items that best fitted the six factors mentioned above were chosen. Varimax rotation was used because it seeks to maximize the variance across all factors. The selection criteria were that an item had to have a minimum factor loading of 0.4 on one factor only, and the minimum difference in factor loading on the remaining 5 factors of 0.2 (Ferguson & Cox, 1993). Subsequent factor analyses were performed, starting with all 99 items. Each time the items with the highest cross-loadings were excluded. Finally 28 items remained, whereby the six factors

explained 65% of the variance. Based on item content, these six dimensions could be described as Empowerment, Accountability, Standing back, Authenticity, Courage, and Forgiveness. It should be noted that a comparison of the original varimax rotated component matrix with the oblimin pattern matrix showed that both matrices were comparable, lending support to this 28-item selection.

The factor analysis forced us to review the measurement of the eight anticipated constructs. For the interpersonal acceptance dimension, only the items explicitly focused on forgiveness stayed as a separate factor, therefore we decided to rename this dimension Forgiveness. The empathy items loaded on several other dimensions. In comparing the six dimensions with our original conceptual model, it is striking that the items for Humility had disappeared. So, if we would purely follow the psychometric criteria, we would lose a very important conceptual element of servant-leadership. Double checking the factor structure showed that most of these items had double loadings on the dimensions Standing back and Empowerment, often as high as .50 on both factors. In a sense, Humility was a seventh factor loading between these dimensions. It is interesting that from a theoretical perspective this makes perfect sense since servant-leaders are supposed to combine a service attitude with empowering the people within their teams, and seem to be most successful if they are humble. Therefore, we decided to keep the 6 items that exemplified the Humility dimension best.

Finally, we found that the items we had selected for Stewardship did not accurately reflect this construct. Nevertheless, we hold the view that it is an important aspect in the whole concept of servant-leadership. Therefore, we decided to keep it as a dimension, but we reformulated two items and added three new ones. The SLS now counted 39 items with eight hypothesized underlying dimensions. These 39 SLS items were subjected to a confirmatory factor analysis in a new sample.

STUDY 2

Method

Participants

The sample of this study was collected through an open online survey. Participants were invited in an online newsletter sent to civil servants throughout the Netherlands. The webpage was checked by 734 people of whom 263 persons filled out the Servant-Leadership Survey.

The mean age of this fifth sample was 47.3 years ($SD = 9.1$), with 3.7 years ($SD = 4.7$) of work experience at their present job. The sample consisted of 64.2 percent men and 35.8 percent women. The majority had a male supervisor (80.5 percent) versus 19.5 percent with a female supervisor.

Measures

Servant-Leadership. Servant-leadership was measured with 39 items derived from the exploratory factor analysis in Study 1.

Results

With Study 2, we decided to use confirmatory factor analysis instead of exploratory factor analysis. In Study 1 we reduced the number of items to keep those with the strongest indications of conforming to the proposed underlying structure. Confirmatory factor analysis has the advantage that a hypothesized factor structure can be tested for its fit to the observed covariance structure (Henson & Roberts, 2006). It is the preferred analysis method if theory underlies the measured constructs. With confirmatory factor analysis different models can be tested and compared. In addition, information is provided (i.e., modification indices) to guide us towards further refining our measure.

Before testing the full eight-dimensional model, we tested the stability of the six-factor model with the 28 items derived directly from the exploratory factor analysis. MPlus 5.1 (Muthén & Muthén, 2007) was used to carry out all the confirmatory factor analyses. First, a one-factor model where all items loaded on 1 servant-leadership factor was tested. The chi-square was 1747.8, $df = 324$, $p < .001$, CFI = .61, TLI = .58, SRMR = .11, AIC = 19918.9, RMSEA = .13. Next, the six-factor model derived from the exploratory factor-analysis of Study 1 was tested. The six servant-leadership factors were allowed to correlate. The chi-square was 665.4, $df =$

309, $p < .001$, CFI = .90, TLI = .89, SRMR = .06, AIC = 18866.4, RMSEA = .07. Comparing these results confirms that the survey is multi-dimensional. The relative fit indices of the six-factor model are already reasonably good and the chi-square of the six-factor model is significantly better than the one-factor model ($\Delta\chi^2 = 1082.4$, $df = 15$, $p < .001$).

Because the relative fit indices of the six-factor model – with values lower than .90 for TLI – indicate some kind of model misfit, we checked the loadings on the factors. It turned out that all items loaded significantly on their respective factors with standardized factor loadings between .55 and .89. The modification indices were checked for possible misspecification in the model. Two items from the Empowerment scale and one item from the Authenticity scale – had relatively high double loadings. Therefore, these items were removed. This increased the fit of this model to a chi-square of 450.1, $df = 237$, CFI = .93, TLI = .92, SRMR = .06, AIC = 16803.3, RMSEA = .06, indicating a good fit to the data.

The next step was examining if this six-factor model could be extended to an eight-factor model by including the items of the Humility and the Stewardship factors in the model. Using MPlus 5.1, we examined whether these new dimensions could be empirically differentiated from the other six. The chi-square for the hypothesized 8-factor model was 1037.6, $df = 532$, CFI = .91, TLI = .90, SRMR = .06, AIC = 23712.3, RMSEA = .06. Not surprisingly, the relative fit indices were less than for the previous six-factor model. Please note that due to the fact that the models are not nested within each other, the chi-square values cannot be compared. In Study 1, the items of the Humility scale all had double loadings on two factors. It is likely that overlap between factors accounts for the lesser fit. Therefore, we eliminated those items that according to the modification indices had high double loadings in this study. Two Stewardship items, one Empowerment, one Standing back item, one Courage, and one Humility item were removed, resulting in relative fit indices comparable to the fit indices of the 6-factor model, that is a chi-square of 623.5, $df = 377$, CFI = .93, TLI = .92, SRMR = .05, AIC = 19354.6, RMSEA = .05. The standardized solution of this 8-factor model is shown in Table 4.1.

Table 4.1 Study 2 Factor loadings confirmatory factor analysis (standardized values)

<i>OIQ</i>	<i>Item</i>	1	2	3	4	5	6	7	8
1	Empo1	.67							
2	Empo2	.69							
3	Empo3	.82							
4	Empo4	.81							
12	Empo5	.79							
20	Empo6	.71							
26	Empo7	.72							
5	Stb1		.65						
13	Stb2		.71						
21	Stb3		.60						
6	Acc1			.57					
14	Acc2			.85					
22	Acc3			.63					
7	Forg1 (x)				.70				
15	Forg2 (x)				.75				
23	Forg3 (x)				.43				
8	Cour1					.50			
16	Cour2					.89			
9	Auth1						.69		
17	Auth2						.55		
24	Auth3						.67		
28	Auth4						.83		
10	Hum1							.75	
28	Hum2							.71	
25	Hum3							.85	
29	Hum4							.71	
30	Hum5							.88	
11	Stew1								.65
19	Stew2								.69
26	Stew3								.57

Notes. *OIQ* = Order In Questionnaire; 1 = Empowerment (Empo); 2 = Standing back (Stb); 3= Accountability (Acc); 4 = Forgiveness (Forg); 5 = Courage (Cour); 6 = Authenticity (Auth); 7 = Humility (Hum); 8 = Stewardship (Stew).

In conclusion, at this stage of the development of the instrument, our survey consisted of 8 factors captured by 30 items which can empirically be differentiated and conceptually interpreted. The following step is to confirm this new measurement model in a new study.

STUDY 3

Method

Participants

The composite sample of this study consisted of two samples, totaling 236 persons. The first sample of Study 3 (sample 6 of this paper) was collected through an open online survey. People at management positions within the network of the researchers were asked to help out with the research by asking their direct reports to fill out the survey anonymously. One-hundred-and-one persons filled out the SLS. The second sample of Study 3 (sample 7 of this paper) was drawn from employees working at gas stations from a large oil company. One-hundred-and-thirty-five people participated. The mean age of this composite sample was 40.1 years ($SD = 10.3$) with 6.4 years ($SD = 6.2$) of work experience. The sample consisted of 36.1 percent men and 63.9 percent women. Within this group the majority had a male supervisor (79.1 percent) and 20.9 percent had a woman as supervisor.

Measures

Servant-Leadership. Servant-leadership was measured with 30 items derived from the results of Study 2.

Results

The 8-factor model was confirmed in this study, with a chi-square of 562.5, $df = 377$, CFI = .94, TLI = .93, SRMR = .05, AIC = 17150.5, RMSEA = .05. The generally accepted values of good fit are close to .95 for the CFI and the TLI, and less than .08 for the SRMR and RMSEA, values that are generally regarded as indicating excellent fit (Fan & Sivo, 2007; Hu & Bentler, 1998). We can, therefore, conclude that we found confirmation for the factorial validity of the eight-factor model in an independent sample.

To enhance our understanding of the relations between the eight dimensions, we tested the 8-factor model with one underlying second order factor. With respect to the relative fit indices, the fit of this model is almost identical to that of the 8-factor model with all factors interrelated ($\chi^2 = 600.1$, $df = 397$, CFI = .94, TLI = .93, SRMR = .06, AIC = 17148.1, RMSEA = .05). The standardized factor loadings of the latent factors on this second order Servant-Leadership factor were .92 for Empowerment, .40 for Accountability, .84 for Standing back, .82 for Humility, .71 for Authenticity, .53 for Courage, .19 for Forgiveness, and .92 for Stewardship. Seven out of eight dimensions loaded moderately to high on this second order. The strongest indicators of servant-leadership seem to be Empowerment, Standing back, Humility and Stewardship with factor loadings of .80 and higher. Forgiveness seems to be different from the other seven dimensions. This could be due to the reversed scoring or the interpretability of the items. Or it may be due to the special and distinct meaning of forgiveness. Forgiveness, which is per se a respectful trait, only applies in situations where something has gone wrong as opposed to all other scales that focus on more generally applicable behaviors.

The reliability in terms of internal consistency was good for all scales. The combined sample of all three studies showed Cronbach's alpha's of .89 for Empowerment (7 items), .81 for Accountability (3 items), .76 for Standing back (3 items), .91 for Humility (5 items), .82 for Authenticity (4 items), .69 for Courage (2 items), .72 for Forgiveness (3 items), and .74 for Stewardship (3 items).

PHASE 2: CONTENT VALIDITY OF THE SLS

Servant-leadership has many parallels with transformational leadership, but moves beyond transformational leadership with its alignment of leaders' and followers' motives (Barbuto & Wheeler, 2006). More particularly, a servant-leader is genuinely concerned with serving followers (Greenleaf, 1977), while transformational leaders have a greater concern for the strategic use of followers to reach organizational goals (Stone, Russell, & Patterson, 2004). With the main focus of a leader on the people within the organization, there is room for safe and secure relationships. We expect that, although similar in many ways, servant-leadership will distinguish itself from transformational leadership on several essential characteristics emphasizing the role of the followers.

Servant-leadership can also be related to the more recent work on ethical leadership (Brown, Trevino, & Harrison, 2005). Ethical leadership is a more normative approach that focuses on the question of appropriate behavior in organizations. Ethical leadership is similar to servant-leadership in terms of caring for people, integrity, trustworthiness, and serving the good of the whole. In ethical leadership, however, the emphasis is more on directive and normative behavior, whereas servant-leadership has a stronger focus on the developmental aspect of the followers. The latter is not so focused on how things should be done given the norms within an organization, but more on how people themselves want and can do things. Considering the importance of caring for people and being trustworthy in both types of leadership, we expect to find high correlations between servant-leadership and ethical leadership.

The relation between leader and follower has been described as an exchange relation by leader-member exchange (LMX) theory (Dansereau, Graen, & Haga, 1975). LMX describes how leaders use their position power to develop exchange relationships with different followers. LMX assumes that leaders pay attention to the specific needs of individual followers and behave differently towards each member of their work group. More particularly, LMX theory emphasizes how leaders work with their followers on a one-to-one basis to develop high-quality relationships with each of them (Graen & Uhl-Bien, 1995). Within this relationship, respect for each other's capabilities, reciprocal trust and the expectation of

partnership are considered essential. Therefore, it is expected that followers of servant-leaders will experience a high LMX quality in this relationship.

Charismatic leaders are similar to servant-leaders in that they have clear goals for their followers, communicate high expectations for followers, exhibit confidence in followers' abilities to meet these expectations (Shamir, House, & Arthur, 1993; Shamir & Howell, 1999), and are courageous (Murphy & Ensher, 2008). However, other characteristics of charismatic leaders also include being dominant and manipulative, showing no regard for the benefits of others (Northouse, 2007). In this respect they are very different from servant-leaders, which we expect to find in the data.

Transactional leaders do not individualize the needs of followers or focus on their personal development. Moreover, they exchange things of value with subordinates to advance their own and their followers' agenda (Howell & Avolio, 1993). Transactional leadership is most likely found in well-ordered societies (Bass, Avolio, Jung, & Berson, 2003), and probably most effective when quantitative performance is required (Hoyt & Blascovich, 2003). Exhibiting transactional leadership means that followers agree with, accept, or comply with the leader in exchange for praise, rewards, and resources or the avoidance of disciplinary action. Transactional leadership, in its corrective form is called active management by exception. It means that the leader sets standards for compliance and performance, and may punish followers for not meeting these standards (Bass et al., 2003). This punitive leadership style implies that people are kept on a short leash, instead of being nurtured and facilitated. Research has shown that trust, satisfaction and work group cohesion are greater for transformational leaders than for transactional leaders (Hoyt & Blascovich, 2003). We therefore expect punishment behavior to have no significant relationship with servant-leadership behavior.

Method

Participants

For this phase a composite sample was used by combining the seven samples used in the three studies of Phase 1. This composite sample consisted of 1167 persons. Different concepts were measured in each of the samples, all on a six-point Likert scale.

Measures

Servant-Leadership Survey. The 30-item version derived from the development phase was used.

Servant-leadership, a one-dimensional scale. A general measure of servant-leadership developed by Ehrhart (2004) was included in sample 3. This measure consists of 14 items focused on ethical behaviors and prioritization of subordinates' concerns. It is used as a one-dimensional general scale of servant-leadership. The internal consistency is .95.

Transformational leadership. Transformational leadership was measured with the scale developed by Rafferty and Griffin (2004) in both samples in Study 3, sample 6 and 7. This scale consists of five 3-item subscales: vision, inspirational communication, intellectual stimulation, supportive leadership, and personal recognition. The internal consistencies are acceptable: .64, .63, .74, .77, and .85, respectively.

Ethical Leadership. Ethical leadership was measured with the 10-item scale developed by Brown et al. (2005) in samples 3 and 4 in Study 1. The internal consistency is high (alpha = .95).

LMX-7. Leader-member exchange was measured with Scandura and Graen's (1984) seven-item measure of LMX. This scale was included in sample 1. The internal consistency is .92.

Charismatic leadership. Perceived charisma of the leader was measured with a six-item scale developed by Damen, van Knippenberg, and van Knippenberg (2008) based on the work of Bass (1985) and Conger and Kanungo (1987). The scale was included in sample 3. The internal consistency of this scale is .94.

Punishment behavior. Contingent punishment has been suggested as an element of transactional leadership by Podsakoff, Todor, Grover, and Huber (1984). It was measured with their three-item measure in sample 7. The internal consistency was .75.

Results

Table 4.2 shows the correlations between the eight servant-leadership factors and the ten other leadership (sub)scales. The intercorrelations between the eight servant-leadership dimensions are in line with the differences between the dimensions, with correlations ranging from .02 to .71. Support for the content validity can be found in the correlation pattern of Ehrhart's one-dimensional servant-leadership scale and ethical leadership with Empowerment, Standing back, Humility, Authenticity, and Stewardship. Given the conceptual overlap, high correlations were expected and found. On the other hand, the correlations with punishment behavior turned out to be moderate to low. Clearly, as predicted, servant-leadership behavior differs from this dimension of transactional leadership. The pattern of transformational leadership, LMX-7 and charismatic leadership with the eight servant-leadership dimensions of the SLS are similar: strong correlations with Empowerment, Humility and Stewardship, followed by similarly strong relations with Authenticity and Standing back. Overall, the lowest correlations were found with Accountability, Courage and Forgiveness.

Table 4.2 Descriptive statistics and intercorrelations among leadership dimensions

	M	SD	N	1	2	3	4	5	6	7
Servant-Leadership Survey										
1. Empowerment	4.40	.88	1167							
2. Accountability	4.88	.68	1167	.46						
3. Standing back	3.67	.95	1167	.54	.15					
4. Humility	4.14	.92	1167	.71	.30	.60				
5. Authenticity	3.62	.94	1167	.55	.17	.52	.63			
6. Courage	3.86	1.08	1167	.47	.24	.29	.39	.35		
7. Forgiveness	3.87	1.05	1167	.14	.02	.15	.22	.08	-.02 ⁻	
8. Servantship	4.43	.91	495	.71	.40	.52	.64	.48	.49	.03 ⁻
Transformational leadership										
9. Vision	4.60	.80	235	.63	.38	.40	.46	.32	.27	-.03 ⁻
10. Inspirational communication	4.58	.70	235	.76	.36	.58	.65	.43	.37	-.06 ⁻
11. Intellectual stimulation	4.11	.80	235	.65	.36	.33	.45	.44	.41	-.19
12. Supportive leadership	4.37	.81	235	.77	.25	.64	.73	.55	.27	-.14
13. Personal recognition	4.51	.89	235	.74	.28	.52	.60	.47	.29	-.09 ⁻
Other leadership dimensions										
14. Punishment behavior	4.36	.76	135	.22	.41	.12 ⁺	.29	.14 ⁺	.23	-.41
15. Ethical leadership	4.36	.86	253	.74	.39	.64	.81	.61	.50	.34
16. Charismatic leadership	3.92	1.10	160	.81	.60	.65	.74	.62	.57	.32
17. LMX-7	3.39	.83	209	.85	.32	.61	.76	.70	.42	.52
18. Servant leadership (Ehrhart)	3.80	.94	160	.84	.64	.71	.85	.73	.58	.31

Note. All correlations are significant $p < .05$, except + $p = n.s.$

Table 4.2 Continued

	8	9	10	11	12	13	14	15	16	17
Servant-Leadership Survey										
1. Empowerment										
2. Accountability										
3. Standing back										
4. Humility										
5. Authenticity										
6. Courage										
7. Forgiveness										
8. Stewardship										
Transformational leadership										
9. Vision	.60									
10. Inspirational communication	.63	.61								
11. Intellectual stimulation	.54	.49	.56							
12. Supportive leadership	.55	.55	.69	.58						
13. Personal recognition	.53	.51	.68	.60	.69					
Other leadership dimensions										
14. Punishment behavior	.31	.15	.31	.40	.20	.26				
15. Ethical leadership	.76	-	-	-	-	-	-			
16. Charismatic leadership	-	-	-	-	-	-	-	-		
17. LMX-7	-	-	-	-	-	-	-	-	-	
18. Servant-leadership (Ehrhart)	-	-	-	-	-	-	-	-	.85	-

Note. All correlations are significant $p < .05$, except + $p = n.s.$

To enhance our insight in the connections underlying the servant-leadership, transformational leadership and transactional leadership subscales, an exploratory factor analysis was performed with MPlus 5.1. Because different scales were used in the different samples, missing values analysis was used to examine the overall underlying pattern. Using maximum likelihood estimation, MPlus uses missing values analysis to calculate an overall covariance table that is used as input for the factor analysis. The program provides goodness-of-fit indices to help decide the most likely number of factors underlying the 14 scales. For the one-factor model, the chi-square was 531.7, $df = 77$, CFI = .90, TLI = .88, SRMR = .08, AIC = 22855.3, RMSEA = .07. For the two-factor model the chi-square was 218.3, $df = 64$, CFI = .97, TLI = .95, SRMR = .06, AIC = 22567.9, RMSEA = .05. For the three-factor model the chi-square was 131.1, $df = 52$, CFI = .98, TLI = .97, SRMR = .04, AIC = 22504.7, RMSEA = .04. For the four-factor model the chi-square was 86.2, $df = 41$, CFI = .99, TLI = .98, SRMR = .03, AIC = 22481.8, RMSEA = .03. The significant best fitting model is the four-factor model, with an almost perfect fit to the data. Table 4.3 shows the oblique geomin rotated loadings provided by MPlus for all factor loadings $> .40$.

Given the high loading of Empowerment, Accountability and all five transformational leadership subscales, factor one can be interpreted as the 'leader'-side of servant-leadership. The 'leader'-side is about enabling followers to express their talents by setting clear goals, providing a meaningful work environment, challenges and the necessary tools and conditions. Factor two represents the 'servant'-side of servant-leadership, it is the 'service attitude' factor. The scales Standing back, Humility, and Authenticity signify the willingness to support, to listen to and to serve others. It is about being able to be authentic and stand back, thereby allowing the employees to flourish and become the best they can be. Factor three is related to factor two, but now with a stronger emphasis on the extent that a leader emphasizes the 'caretaker' role. Unique for this factor are Courage and Stewardship which both exemplify a leader's willingness to take overall responsibility and be pro-active. Factor four is the 'forgiveness' factor: it indicates that an error is understandable, that mistakes can accelerate learning, and that holding a grudge is dysfunctional. It is about forgiving people instead of punishing them, looking forward instead of looking back. Forgiveness and punishment

behavior load high on this third factor. Finally, the correlation table and the pattern emerging from the second order factor analysis, confirm the construct validity of the SLS. The results confirm our hypothesis that servant-leadership has overlap with other leadership styles, but also – most notably due to its multi-dimensional nature – adds unique elements to the leadership field.

Table 4.3 Factor structure second-order exploratory factor analysis (oblique geomin rotation)

	<i>I</i>	<i>II</i>	<i>III</i>	<i>IV</i>
Servant-Leadership (SLS):				
1. Empowerment	.84			
2. Accountability	.62			
3. Standing back		.48		
4. Humility		.41	.50	
5. Authenticity		.52	.47	
6. Courage			.43	
7. Forgiveness				.84
8. Stewardship			.89	
Transformational leadership:				
9. Vision	.61			
10. Inspirational communication	.66			
11. Intellectual stimulation	.78			
12. Supportive leadership	.69			
13. Personal recognition	.91			
Transactional leadership:				
14. Punishment behavior				-.58

Note. Significant factor loadings > .40, $p < .05$ are depicted.

PHASE 3: CRITERION-RELATED VALIDITY OF THE SLS

Given the central role of leaders in the social setting of most organizations, the behavior shown by leaders towards their followers plays an important role in how supportive a work setting is perceived. Moreover, leadership is an increasingly acknowledged factor for follower well-being (Ilies, Morgeson, & Nahrgang, 2005). There is abundant evidence that a controlling, less supportive leadership style, with vague responsibilities and lack of feedback, is related to lower levels of well-being (Cartwright & Cooper, 1994; Sosik & Godshalk, 2000; van Dierendonck, Haynes, Borrill, & Stride, 2004). A supportive environment, on the other hand, provides positive affect, a sense of predictability, and recognition of self-worth (Walter & Bruch, 2008). As such, it is likely that servant-leadership behavior is beneficial for follower engagement, job satisfaction and performance. To test this hypothesis we used the vitality measure by Ryan and Frederick (1997), Schaufeli, Salanova, González-Romá, and Bakker's (2002) engagement scale, and two estimates of job satisfaction. We also wanted to gain insight in the value of our instrument for positive follower behavior. For this purpose the instrument by Morrison and Phelps (1999) was added to measure Extra-role behavior: In-role behavior, Civic virtue, Altruism, and Taking charge. Previous studies have shown that supportive leadership is related to organizational citizenship behavior (e.g., Euwema, Wendt, & van Emmerik, 2007).

Method

Participants

A composite sample of the seven samples in three studies of Phase 1 was used, consisting of 1167 persons. Different concepts were measured in each of the samples.

Measures

Vitality. Vitality was measured with the seven items of the Subjective Vitality Scale (Ryan & Frederick, 1997) and showed an internal consistency of .88. The scale was included in Study 2.

Engagement. Engagement with work was measured with the nine-item short version of the Utrechtse Engagement Scale (Schaufeli et al., 2002). The scales consist of three sub-dimensions: vigor, absorption and dedication. For a general indication of engagement the average mean score across the nine items was used. The internal consistency is excellent with an alpha of .93.

Job Satisfaction. Job satisfaction was measured in two samples. In sample 2 of Study 1, three items derived from the Michigan Organizational Assessment Questionnaire that focus on global job satisfaction were included (Cammann, Fichman, Jenkins, & Klesh, 1979). Internal consistency is .78. In sample three, five items indicated to what degree employees were satisfied with their leader, management in general, their work, their work environment and their coworkers. Internal consistency is .79. The standardized average score (for each sample separately) was used in the analysis.

Extra-role Behavior. Extra-role behavior was measured with the scale of Morrison and Phelps (1999). The scale consists of 23 items divided over four subscales: In-role behavior, Civic virtue, Altruism, and Taking charge. This scale was filled out by the supervisors of 48 of the participants in sample 4 of Study 1. One leader assessed six persons, five leaders assessed two persons, and 32 leaders assessed one person. The internal consistencies are high, .91, .72, .87, and .94, respectively.

Results

To test the extent that servant-leadership is related to job-related well-being, the correlations between the eight servant-leadership dimensions and well-being at work were calculated, as is shown in Table 4.4. Engagement and job satisfaction were part of Study 1, so regrettably no correlations with Stewardship could be calculated. Nevertheless, the other seven dimensions are positively related to both engagement and job satisfaction. The strongest relations were found for Empowerment, Accountability and Humility, with correlations ranging between .33 and .62. Stewardship was measured in relation to vitality in Study 2, resulting in a significant positive correlation.

Table 4.4 Correlations between servant-leadership and well-being

	Vitality	Engagement	Job satisfaction
1. Empowerment	.25**	.43**	.62*
2. Accountability	.17**	.41**	.33*
3. Standing back	.21**	.18*	.32*
4. Humility	.23**	.33**	.48*
5. Authenticity	.20**	.29**	.35**
6. Courage	.12	.23**	.31**
7. Forgiveness	-.04	.08	.20**
8. Stewardship	.33**	-	-

Notes. $N = 244$ for vitality; $N = 379$ for job satisfaction, and $N = 180$ for engagement. Stewardship was not included in the studies with job satisfaction and engagement. ** $p < .01$, * $p < .05$.

Now that the relation between servant-leadership and well-being at work is confirmed, the last question to be answered is whether servant-leadership is related to actual follower behavior. Table 4.5 shows the correlations of servant-leadership and follower Extra-role behavior. Given the small sample size (48 employees), the power was low and it was impossible to use regression or multilevel analysis. Multilevel effects are also not expected given that in this sample there were 38 leaders, most of them assessing only one person. There are moderately strong relationships between Empowerment and In-role behavior, Civic virtue and Taking charge. Accountability is related to Civic virtue and Humility to Civic virtue, Altruism and Taking charge. All these correlations confirm the relevance of servant-leadership for actual behavior of followers. Interesting is the negative relation of Forgiveness with Civic virtue. It would seem that employees who are less well-behaved are being forgiven more often, probably because they need it more.

Table 4.5 Correlations between servant-leadership and extra-role behavior

	In-Role Behavior	Civic Virtue	Altruism	Taking Charge
1. Empowerment	.30*	.38**	.16	.35*
2. Accountability	.20	.28*	.19	.13
3. Standing back	.13	.18	-.13	-.07
4. Humility	.17	.35*	.33*	.49***
5. Authenticity	.10	.08	.13	.13
6. Courage	.20	.03	.24	.23
7. Forgiveness	-.08	-.29*	-.10	-.21

Note. N = 48. * $p < .05$, ** $p < .01$, *** $p < .001$; Stewardship was not included in this sample.

Discussion

In this article, we described the development and validation of the Servant-Leadership Survey. Intrigued by the concept of servant-leadership, which encompasses the elements that have been related to effective leadership since Socrates (Williamson, 2008), we focused on developing an instrument that establishes, defines and operationalizes the core features of servant-leadership. Our focus was on transparent leader behaviors that can influence follower well-being and performance. Having completed two qualitative and seven quantitative studies (with almost 1200 participants), we feel we have come a long way in getting to the heart of servant-leadership. By first defining the dimensions, we increased the chances that the dimensions of the SLS are easy to interpret and can be used in different settings (Venkatraman, 1989). After the qualitative research part, the construct validity was determined with exploratory and confirmatory factor analysis. The SLS consists of eight dimensions which have proven stable over several samples. Furthermore, the eight dimensions cover the most important aspects of servant-leadership and the inventory has added value because essential (servant)

leader characteristics that other leadership scales up to now neglected have been included. The internal consistency of the subscales is good across all samples. Finally, evidence for criterion-related validity came from studies relating the eight dimensions to well-being and performance.

We can, therefore, conclude that the SLS is a valid and reliable instrument to measure servant-leadership. The instrument has one underlying leadership dimension, which is servant-leadership. The overall confirmatory factor analyses in different samples support the theorized eight-factor structure and the interconnectedness of the dimensions. More particularly, the confirmation of the eight-dimensional structure across samples, gives confidence in the replication of its structure in future studies.

The external validation of the instrument with other leadership scales has shown that it is important to take the full 8-factor model into account to measure servant-leadership in its full breadth. As expected, there was overlap with ethical, charismatic and LMX leadership, but by including Courage, Accountability, and most of all Forgiveness, the instrument definitely has discriminant validity and added value. The second-order factor analysis (Table 4.3) with transformational and transactional leadership confirmed the hypothesized stronger focus of servant-leadership on an attitude characterized by service and on attending to the needs of followers. This confirms Stone et al.'s (2004) position on the essential difference between servant-leadership and transformational leadership. Forgiveness clearly is also a dimension that differentiates servant-leadership from transformational leadership; it has most overlap with the punishment aspect of transactional leadership, which negatively loads on the fourth 'forgiveness'-factor.

The most important contribution of this instrument to servant-leadership theory development is that it is the first instrument that includes the essential elements from the servant-leadership literature (Greenleaf, 2002) that can be psychometrically distinguished. The SLS not only measures the 'servant' but also the 'leader' part of servant-leadership. Accountability, Courage and Forgiveness are essential and the most important new additions compared to the existing servant-leadership instruments. None of them were included in one of the other servant-leadership measures. Especially Accountability appears to be an essential factor in effective leadership. In the way we define it, it has to our knowledge only been included in

the study about empowering leader behaviors by Konczak et al. (2000). However, explicitly giving followers responsibility is an essential element of effective and positive leadership. Accountability not only provides meaning, it is also beneficial for self-determination (feeling competent and autonomous), and therefore, provides a means to derive self-worth. Courage means the willingness to stand up and fight for what you believe, despite potential criticism and adversity. Servant-leaders are pioneers, they dare to make unconventional decisions in line with their values and will 'walk their talk' no matter what happens. Therefore, Courage is a crucial feature of servant-leaders. Finally, being able to forgive is an invaluable quality of any human being. Leaders who are able to forgive, can be more open (humble and authentic), objective and supportive of all their followers. Obviously, it does not mean that the leader has to like each follower and allow for constant mistakes and missteps. Forgiveness is simply about acceptance of the other person (Autry, 2004).

Especially since we included Humility, Standing back and Stewardship as essential aspects of servant-leadership, this measure may also contribute to research into level-5 leadership. First emphasized by Collins (2001a) in his seminal work on successful long-lasting corporations, the need for humility has attracted more and more attention. However, empirical research in which such behavior is tested in the day-to-day work setting is still lacking. It is our hope that this new measure facilitates and gives an impulse to more empirical research.

Limitations and strengths

Despite the extensiveness and thoroughness of the research, we admit there are some clear limitations too. Since our main focus was to construct a reliable and valid instrument of servant-leadership, our priority was to determine the psychometric qualities of the selected items as key determinants of the eight constructs. The amount of items in the SLS, especially in the first studies, precluded the inclusion of other leadership scales and outcome measures together. Therefore, to show the added value of the SLS in comparison to other leadership measures, we used a second-order exploratory factor analysis. This gave indications of potential overlap and differences between all the leadership scales. Another limitation is that we had to rely on convenience sampling for most of the studies. Especially with web-based online studies, it is impossible to know how many people actually received the call

to participate. Starting the data gathering with a web-based online survey was chosen in order not to have to rely on student samples, a frequently used strategy in the development of other leadership measures. A resulting strength, in comparison to previous measurement development articles, is that with the resulting heterogeneous composite sample with people working in diverse professions from profit and not-for-profit sectors, mono-sample bias is avoided. This gives confidence in the generalizability of the eight-factor structure. Next, we were unable to obtain sufficient multilevel data. Most leaders and followers that were willing to participate did so anonymously. Therefore, future research should obtain data that allow for using these more sophisticated techniques. We would like to emphasize that when using the survey in future research, it is important to avoid changes in the wording and in the response scales, or even delete items. This may have implications for the validity of the scales as presented here.

It stands to reason that we are aware that our data is cross-sectional. So, even though we have indications that servant-leadership as measured by the SLS is related to well-being and performance, it is impossible to draw firm causal conclusions about the predictive validity of the SLS. Future research should use longitudinal designs to see if this instrument for measuring servant-leader behavior is indeed able to predict follower well-being and performance over time. Nevertheless, the data presented in this article give confidence that this instrument meets the psychometric qualities to measure servant-leadership from the perspective of the follower in a reliable and valid way. As such, we have an instrument that can be used to establish what the effects of servant-leadership are on individuals and organizations. More and better insights grounded in empirically based findings are essential in order to alert organizations to the necessity of being open to the needs and wishes of staff, acknowledging their worth and achievements, but also of being stewards and making people feel responsible for their work.

CHAPTER 5
SERVANT-LEADERSHIP AND TRUST: THE IMPACT OF
FOLLOWERS' ORGANIZATION-BASED SELF-ESTEEM

Trust is very important for team and organizational effectiveness. However, the crises and corporate scandals have led people to distrust leadership these days more than ever. This paper suggests that servant-leadership might help bring back the trust, because servant-leadership differs from other leadership styles in two important ways: (1) it is ethical, and (2) its main focus is identifying and meeting the needs of the follower. Both aspects are likely to prevent ethical misconduct and leader self-serving behaviors. With 183 followers from a wide variety of industries and job levels we showed that five of the eight servant-leadership behaviors from the Servant-Leadership Survey (SLS) (empowerment, stewardship, courage, humility, forgiveness) are positively related to trust. Accountability was negatively related to trust, but this effect was caused by people low in Organization-Based Self-Esteem (OBSE). Furthermore, OBSE also moderated the effects of courage and standing back on trust. More particularly, low-OBSE individuals reacted significantly negative to lack of courage and standing back compared to high-OBSE employees. The study provides the first proof of the relationship between the eight servant-leader behaviors as proposed by the SLS and trust, and shows that follower Organization Based Self-Esteem moderates the effects of servant-leadership on trust in several instances. Therewith this paper contributes to servant-leadership theory and provides a potential refinement of the dominant theories of self-esteem.

Introduction

Leaders and the trust that we have in them are crucial for the well-functioning of teams, organizations and society (Burke, Sims, Lazzara, & Salas, 2007; Colquitt, Scott, & LePine, 2007; Dirks & Ferrin, 2002; Dirks & Skarlicki, 2009; Kim, Dirks, & Cooper, 2009; Kramer, 1999; Mayer and Davis, 1999). However, the financial crisis, the many examples of mismanagement, ethical misconduct, and dishonesty by leaders have led us to not take our leaders seriously anymore (Caldwell, Hayes, Karri, & Bernal, 2008) and to even distrust them (George, Sims, McLean, & Mayer, 2007; Fairholm & Fairholm, 2000). Paradoxically, in these situations in which trust in leadership is most challenged, the importance of having leaders that can be trusted is magnified (Dirks & Ferrin, 2002; Mishra, 1996). Therefore, leaders are called upon to regain the trust of their followers by behaving as ‘ethical stewards’ (Caldwell et al., 2008).

That leaders are able to evoke trust has been shown in many studies relating leadership to trust (Colquitt et al., 2007; Dirks & Ferrin, 2002; Jung & Avolio, 2000; Mayer, Davis, & Schoorman, 1995; Pillai, Schriesheim, & Williams, 1999; Podsakoff, MacKenzie, & Bommer, 1996; Podsakoff, MacKenzie, Moorman, & Fetter, 1990; Yukl, 2006). Unfortunately, however, the leadership styles studied, mainly transformational, transactional and charismatic leadership, are not necessarily ethical, and are always aimed at transforming people so that they might identify with and accept the goals of the leader or organization (Price, 2003). This focus on organizational or leader personal goals, increase the chances that leaders ‘forget’ about the followers’ interests and act in a self-serving and unethical manner. Therefore, these leadership styles will not prevent future missteps by leaders and do not fit the idea of ‘ethical stewardship’ (Caldwell et al., 2008). Being an ethical steward means ‘service over self-interest’ and treating employees like ‘owners and partners’ (Caldwell et al., 2008). This is in line with servant-leadership theory (Greenleaf, 1977) in which ‘serving others’ and the leader as ‘primus inter pares’ are key themes. Furthermore, Greenleaf (1977) indicated trust as central to servant-leadership; he noted “that the sound basis for trust is for people to have the solid experience of being served by their institutions” (p.83).

Some preliminary evidence for the link between servant-leadership and trust has been reported in two small studies (Joseph & Winston, 2005; Reinke, 2004). We will add to these studies by using a multidimensional valid and reliable instrument to measure servant-leadership, and we will have the survey filled out by participants from all over the Netherlands from a wide variety of industries and job levels. Furthermore, given the current call for research to take into account follower individual differences (De Cremer, van Knippenberg, van Dijke, and Bos, 2004; Elangovan and Xie, 1999) we will include follower self-esteem as a moderator variable. We chose self-esteem, and in particular Organization Based Self-Esteem (OBSE) (Pierce, Gardner, Dunham, & Cummings, 1993; Wiesenfeld, Swann, Brockner, & Bartel, 2007), because OBSE has been coined and proven to influence peoples' reactions to work related stimuli (De Cremer et al., 2004; Duffy, Shaw, & Stark, 2000; Jex & Elacqua, 1999). Furthermore, OBSE has been shown to fully mediate the effects of 'propensity to trust' on organizational citizenship (Van Dyne, Vandewalle, Kostova, Latham, and Cummings, 2000), and 'propensity to trust' has been hypothesized to be an important moderator of concepts relating to trust (Colquitt et al., 2007; Dirks & Ferrin, 2002). In their overview of the Organization-Based Self-Esteem (OBSE) literature, Pierce and Gardner (2004) showed that low OBSE individuals are more reactive to environmental cues than high OBSE people and that high OBSE employees are more positive in general (Baumeister, Campbell, Krueger, & Vohs, 2003).

In sum, the prior findings lead us to expect that servant-leadership and OBSE will be positively related to trust, and that trust in leadership for high OBSE employees depends less on the type of servant-leadership behavior, whereas for low OBSE employees trust in the leader will be contingent upon the type of servant-leadership behavior (i.e., 'conditional'/'unconditional').

Trust

The significance of follower trust in the leader has been recognized by researchers from different fields as essential for leadership effectiveness for almost half a century (see Dirks & Ferrin, 2002; Dirks & Skarlicki, 2009; Kramer, 1999). Specifically, research has shown that trust in the leader is related to positive outcomes for organizations, such as: positive job attitudes, organizational justice,

effectiveness in terms of communication, organizational relationships, and conflict management (Dirks & Skarlicki, 2009), cooperation and teamwork (Jones & George, 1998), team performance (Dirks, 2000), citizenship behavior (Pillai et al., 1999), ability to focus (Mayer & Gavin, 2005), organizational commitment, reduced turnover, and job performance (Lewicki, Tomlinson, & Gillespie, 2006). Trust has been defined as “the intention to accept vulnerability based upon positive expectations of the intentions or behavior of another” (Rousseau, Sitkin, Burt, & Camerer, 1998, p.395). Employees have been noted to distinguish between two trust referents or trustees: (a) specific individuals or groups (e.g., leader or co-worker) and (b) generalized representatives (e.g., employer) (Chen, Aryee, & Lee, 2005). We will focus on the former as exemplified by ‘trust in the leader’.

Theorizing on trust in leadership takes either a character-based perspective or a relationship-based perspective (Dirks & Ferrin, 2002). According to the character-based perspective, trust-related concerns about a leader’s character are important because the leader usually has the authority to make decisions that have a significant impact on the follower and the follower’s ability to achieve personal goals (e.g., promotions, pay, training, layoffs) (Dirks & Skarlicki, 2009). The relationship-based perspective focuses on how the follower understands the nature of the relationship. When the exchange denotes a high quality relationship, and issues of care and consideration in the relationship are central, the leader and follower probably operate on the basis of trust (Dirks & Ferrin, 2002). Mayer and Gavin (2005) argued that when employees believe their leaders cannot be trusted based on their character (e.g., because leaders are perceived not to have integrity or not to care for the employee) followers will divert energy toward ‘covering their backs’, which detracts from their work performance. From a relationship-based perspective it can be argued that, if leaders don’t show care or consideration for the employee, the employee will not be inclined to trust the leader and deliver optimal performance. Therefore, perceptions of the character of the leader and the relationship with the leader are an exemplary of the trustworthiness of the leader.

The trustworthiness of the trustee, the leader in this case, in the eyes of the trustor (here: the follower), depends on three characteristics from which a follower can draw character- and relationship-based inferences: ability, benevolence, and integrity (Colquitt et al., 2007). Ability is the perception that a leader has skills and

competencies in the domain of interest (Mayer & Gavin, 2005). Benevolence implies the leader cares about the follower (Mayer & Gavin, 2005), and wants to do good for the follower, apart from any profit motives (Colquitt et al., 2007). Benevolence is characterized by loyalty, openness, care and supportiveness (Mayer et al., 1995). Integrity is the perception a leader adheres to a set of moral and ethical principles the follower finds acceptable (Mayer & Gavin, 2005). Integrity is communicated through fairness, justice, consistency and promise fulfillment (Colquitt et al., 2007). These three characteristics which form the basis for trust in the leader are in theory embodied by a servant-leader. We will elaborate on the link between trustworthiness and servant-leadership below.

Servant-leadership

In the 70s Greenleaf laid down the base for servant-leadership theory (Greenleaf, 1977). He reasoned that “the great leader is seen as servant first, and that simple fact is the key to his greatness” (1977, p.21). The main difference with other leadership styles is “in the care taken by the servant-first to make sure that other people’s highest priority needs are being served” (Greenleaf, 1977, p.27). According to Graham (1991), servant-leadership is more likely to be ‘transforming’ (Burns, 1978) than ‘transformational’ leadership (Bass, 1985), because it restores a moral compass. By adding a moral dimension to transformational leadership, servant-leadership wards against the excesses possible from charismatic effects. Considering the crises (Mishra, 1996) and the examples of mismanagement, ethical misconduct, and dishonesty (Hale & Fields, 2007), this might just be the type of leadership we need (Caldwell et al., 2008). In line with this argument, former CEO of SHELL, Jeroen van de Veer (Davos: World Economic Forum 2009) said: “...It is not only a banking crisis, it is a crisis of trust ... of course you need leadership in companies, but the public likes to see the emphasis on servant-leadership... that all helps to bring back the trust...”.

Some preliminary evidence of the relationship between servant-leadership and trust has been given by two studies (Joseph & Winston, 2005; Reinke, 2004). The study by Joseph and Winston was conducted with a very small sample (66, mostly employed students from a Christian high school in the Republic of Trinidad and Tobago) and a one dimensional operationalization of servant-leadership. Reinke had

a larger sample (254), but used an operationalization of servant-leadership based on a pilot with 18 cadets (openness, stewardship, vision) that had alpha's of .52 to .88, an unclear number of items per scale, and a factor structure that didn't hold up. Therefore, we know a positive relationship between trust and servant-leadership can be shown, but due to the flaws in both studies a more robust study, with a valid measure, is very much needed.

Furthermore, we find it of utmost importance to be able to distinguish which different servant-leadership behaviors invoke trust. To acknowledge the multidimensional nature of servant-leadership, we will use the Servant-Leadership Survey (SLS) by van Dierendonck and Nuijten (2009) for this purpose. The Servant-Leadership Survey (SLS) primarily focuses on the leader-follower relationship measured from the perspective of the follower. The SLS aims to cover the essential aspects of servant-leadership and has been shown to be psychometrically valid and reliable (see chapter 4). The eight key servant-leadership aspects measured by the SLS are: empowerment, accountability, stewardship, courage, standing back, forgiveness, humility, and authenticity. Each aspect will be discussed below in relationship to trustworthiness.

Servant-leadership and trustworthiness

Empowerment

Empowerment is a motivational concept focused on enabling people (Conger, 2000). Empowerment aims at fostering a proactive, self-confident attitude among followers and gives them a sense of personal power. Empowering leadership behavior includes aspects like encouraging self-directed decision making, information sharing, and coaching for innovative performance (Konczak, Stelly, & Trusty, 2000). A servant-leader believes in the intrinsic value of each individual. He or she recognizes and acknowledges what each person can do and what that person can still learn (Greenleaf, 1998). Understanding employees' needs and requirements is essential for trust (Fairholm & Fairholm, 2000). Through this awareness a servant-leader is able to realize the potential of the followers. More particularly, empowerment does signal benevolence. This implies that empowerment should be positively related to trust in the leader.

Accountability

Accountability is about holding people accountable for performance they can control (Conger, 1989). This makes accountability a mechanism by which responsibility for outcomes is given to individuals and teams (Konczak et al., 2000). It ensures that people know what is expected of them, which is beneficial for both employees and the organization (Froiland, Gordon, & Picard, 1993). Furthermore, it is about acknowledging and making explicit each individual's contribution, and should be dynamic and 'tailor made' (based on follower abilities, needs, and input) (Autry, 2004). Accountability is a powerful tool to show confidence in one's followers; it provides boundaries within which one is free to achieve one's goals. In line with this reasoning, Fairholm and Fairholm (2000, p.104) state that when leaders are not clear, they betray trust and show that they are not "intimate enough with what the group intends to be or how it is progressing toward its potential". Therefore, accountability is a sign of the capability and benevolence of the leader.

Stewardship

Stewardship is the willingness to take responsibility for the larger institution and go for service instead of control and self-interest (Block, 1993). Leaders should not only act as caretakers, but also act as role models for others (Hernandez, 2008). By setting the right example, leaders can stimulate others to act in the common interest. Stewardship is closely related to social responsibility, loyalty and team work. These constructs all "represent a feeling of identification with and sense of obligation to a common good that includes the self but that stretches beyond one's own self-interest" (Peterson & Seligman, 2004, p.370). Stewardship is about understanding the organization's role in the larger society and fostering a spirit of cooperation, which, according to Fairholm and Fairholm (2000), will instill trust. More specifically, stewardship in leadership is about adhering to a set of principles the employee finds acceptable, which means it is likely the 'steward' is seen as honorable, and thus, trustworthy by the follower.

Courage

Courage is pro-active behavior that might be reflected in pioneering. Pioneering implies creating new ways, new approaches to old problems and strongly relying on values and convictions that govern one's actions (Russell & Stone, 2002). Pioneering is the opposite of laissez-faire (Goleman et al., 2002). Moreover, it means daring to

take risks (Greenleaf, 1991). According to Greenleaf (1991) courage is an important characteristic that distinguishes a servant-leader from others. Furthermore, Autry (2004) argues it takes a lot of courage to be a servant-leader. Within the organizational context, courage is about challenging conventional models of working behaviors (Hernandez, 2008); it is essential for innovation and creativity. According to Fairholm and Fairholm (2000) an important activity of a leader to generate trust is placing high value on responsiveness to new demands and needs, which no doubt asks for courage. Courageous leaders give hope because even in the face of potential failure or adversity a courageous leader will stand up and protect the interests of the followers. This makes that the leader is seen as honorable and thus trustworthy.

Standing back

Standing back refers to the extent to which a leader puts the interest of others first, remains in the background and gives each individual credit for achievements. Standing back is about modesty; a servant-leader retreats into the background when a task has been successfully accomplished and gives the credit to the employees. Standing back is very much about serving others, and this concentration on service acts to limit the negative effects of self-interest (Fairholm & Fairholm, 2000). Standing back goes beyond transactional leadership's contingent reward (Judge & Piccolo, 2004) in that leaders who stand back not only reward employees because of policy or agreement, but also genuinely give them credit for results, acknowledge their contributions and don't take the credit themselves. A leader who focuses the attention on his or her followers, and lets the ones that achieved something take the applause will come across as benevolent and honorable, and therefore, be trusted more.

Humility

Humility is the ability to put one's own accomplishments and talents in a proper perspective (Patterson, 2003). Servant-leaders dare to admit they can benefit from the expertise of others. Humility arises from a proper understanding of one's strong and weak points, or as Morris, Brotheridge, and Urbanski (2005, p.1330) put it: "an awareness of all that one is and all that one is not". Servant-leaders acknowledge their limitations and therefore actively seek the contributions of others in order to overcome those limitations. Humility in leaders is a defense against hubris. Humble

leaders not only listen to followers and other stakeholders, but also allow themselves to be influenced by what they hear, and this makes them more powerful than those who rule by fiat (Graham, 1991). According to Butler (1991) this openness and receptivity are key to being perceived as benevolent. Everyone has the need to feel known and understood (Wiesenfeld et al., 2007). Therefore, leaders who listen, and understand and act on that information are likely to be appreciated, come across as capable, honorable and benevolent, and therefore as trustworthy.

Forgiveness

Forgiveness is about the ability to forgive for example offences, arguments, and mistakes. It means letting go of perceived wrongdoings and not carry a grudge into other situations (McCullough, Hoyt, & Rachal, 2000). For servant-leaders it is important to create an atmosphere of trust where people feel accepted, are free to make mistakes and know that they will not be rejected (Ferch, 2005). Hence, forgiveness facilitates the development of high quality interpersonal relationships through a better understanding of and accepting stance toward others. Servant-leaders are not revengeful or eager to get even, which will create a setting that will bring out the best in people. Being forgiving and accepting are signs of a person's integrity and good will, and that breeds trust (Butler, 1991).

Authenticity

Authenticity is closely related to expressing the 'true self', expressing oneself in ways that are consistent with inner thoughts and feelings (Harter, 2002). Authenticity is related to integrity, the adherence to a generally perceived moral code (Russell & Stone, 2002). Authenticity is about being true to oneself, accurately representing – privately and publicly – internal states, intentions and commitments (Peterson & Seligman, 2004). It focuses on owning one's personal experiences, be they thoughts, emotions, needs, wants, preferences, or beliefs. A servant-leader's authenticity manifests itself in various aspects: doing what is promised, visibility within the organization, honesty (Russell & Stone, 2002) and vulnerability (Luthans & Avolio, 2003). Butler (1991) argues promise fulfillment, availability and integrity are important factors of benevolence and integrity. Therefore, authenticity should be closely related to trustworthiness.

Based on the above we formulate the following hypothesis:

Hypothesis 1: Each of the eight servant-leadership characteristics is positively related to trust.

Inconsistent results in prior research relating leadership to trust (Podsakoff et al., 1990) and the clear call for more research examining the importance of the social self (e.g., self-esteem) in public settings (e.g., De Cremer et al., 2004) made us aware that main effects do not necessarily say it all. Individual differences in how people react to environments indeed often play a role in the relation between for instance leadership behaviors and outcome variables (Colquitt et al., 2007; De Cremer et al., 2004; Dirks & Ferrin, 2002; Elangovan & Xie, 1999; Gregson & Wendell, 1994). Self-esteem and Organization Based Self-Esteem (OBSE) in particular, have been mentioned as potential moderators in organizational research (Brockner, Heuer, Siegel, Wiesenfeld, Martin, Grover, et al., 1998; Brutus, Ruderman, Ohlott, & McCauley, 2000; Duffy et al., 2000; Hui & Lee, 2000; Pierce et al., 1993; Pierce & Gardner, 2004; Wiesenfeld et al., 2007). Therefore, we will focus in turn on OBSE.

Organization-Based Self-Esteem (OBSE)

The conceptual breadth of self-esteem requires its measurement at the appropriate level and in a contextual frame relevant to the criterion of interest (Brutus et al., 2000; Pierce Gardner, Cummings, & Dunham, 1989). Organization-Based Self-Esteem (OBSE) is an organization specific measure of self-esteem developed by Pierce, et al. (1989) following the suggestion that the power of an attitude to predict a behavior is a function of how closely that attitude is related to the act in question (Fishbein & Ajzen, 1975; Tharenou, 1979). Pierce, et al. (1989) defined OBSE as the “self-perceived value that individuals have of themselves as organization members acting within an organizational context” (p.625). Employees with high OBSE are secure in the belief that they are trusted, valued, contributing organization members (Pierce et al., 1993). Through the years, there has been some empirical support for the effect of follower self-esteem on reactions to organizational characteristics (e.g., leadership, pay) (Brockner et al., 1998; Brutus et al., 2000; De Cremer et al., 2004; Duffy et al., 2000; Hui & Lee, 2000; Jex & Elacqua, 1999; Lee & Pececi, 2007; Wiesenfeld et al., 2007). Most of these studies

show high OBSE people are more positive in general than low OBSE individuals, and most, but not all, moderation effects are in line with behavioral plasticity theory.

Behavioral plasticity theory posits that individuals low in self-esteem (low SEs) are more behaviorally plastic (reactive) than those with high self-esteem (high SEs) (Brockner, 1988). More specifically, the theory of behavioral plasticity proposes that, as a result of lack of confidence in their own thoughts and feelings, low SEs tend to rely on information from outside sources to guide their thoughts and actions. Therefore, low SEs react with greater intensity to characteristics of the work environment (Brutus et al., 2000; Gregson & Wendell, 1994). Besides behavioral plasticity theory, two dominant theories of self-esteem are self-consistency or self-verification theory (Korman, 1970) and self-enhancement theory (Dipboye, 1977). Self-consistency theory states that people tend to verify their self-views. Individuals who have a positive image of themselves will tend to adopt attitudes that reinforce that positive image, whereas low SEs will tend to confirm their negative self-views. Self-enhancement theory, on the other hand, assumes that humans have a fundamental need to achieve and maintain high levels of self-esteem (Dipboye, 1977). This more hedonic view implies that low SEs also seek positive feedback and evaluations. Somewhat in line with self-enhancement theory, Brockner (1988) states that low SEs have a higher need for approval from others, than do high SEs. Furthermore, studies have shown that negative feedback has a more adverse effect on the subsequent performance of low than high SEs, and low SEs are more susceptible to the influence of failure (Brockner, 1988).

The theories of self-esteem have been confirmed in studies. Therefore, it remains unclear which theory is 'right'. One thing is sure though, no matter which theoretical perspective we take, the views of low SEs are usually influenced more by their environment than the views of high SEs (Brockner, 1988), and high self-esteem individuals hold more positive views in general (Bandura, 1977). Furthermore, the empirical evidence and an integration of the theories leads us to argue that high SEs will react with high trust to positive leader behaviors, and that their reaction will be relatively stable.

For low SEs, however, the picture is less clear cut. Since they seek approval, but have trouble with evaluative feedback and potential failure, we argue that low SEs will trust a leader more in situations where they can self-enhance (get approval) and

less in situations where they tend to self-verify: when they are faced with evaluative feedback or failure. More particularly, we think that low SEs will prefer to self-enhance and be sensitive to positive support from their leader. However, when faced with a challenge they lose faith in themselves (and their leader) and they will seek the ‘easy way out’. This means that they will see the challenge as a threat which they anticipate will be difficult for them to meet, and therefore, they prefer not to make an effort, but rather self-verify their low ‘worth’ by doing nothing.

For a servant-leader this implies that ‘unconditional’ approval (empowerment, courage, standing back and forgiveness) of employees will increase trust in the leader for low SEs, whereas ‘conditional’ approval (accountability, stewardship, humility, authenticity) will decrease the trust in the leader for low SEs. With ‘conditional’ approval we mean the followers will have to show behaviors themselves in order to ‘live up to’ the positive leader behaviors (e.g., be accountable, take care of society, give input). Trust in the leader will be relatively unaffected and high for high SEs, due to their stable and positive regard of their environment. This leads us to formulate the following hypotheses:

Hypothesis 2: Organization Based Self-Esteem (OBSE) is positively related to trust.

Hypothesis 3: The relation between servant-leader behavior and trust is stronger for low OBSE individuals than for high OBSE individuals. Specifically, for low OBSE individuals more ‘unconditional approval’ will be related to more trust in the leader, whereas more ‘conditional approval’ will be related to less trust in the leader.

Method

Participants

Data were collected from 183 employees across a wide variety of different industries, organizational settings, and job levels through an open online survey. The majority of the respondents held white collar, managerial, and professional positions. The sample was drawn from several SMEs and large companies located throughout the Netherlands. The mean age of this composite sample was 39.6 years

($SD = 9.4$), with 8.4 years ($SD = 8.6$) of work experience. The sample consisted of 62.3 percent (114) men and 37.7 percent (69) women.

Procedure

Links to the survey were sent by the researchers or the company's HR-manager via e-mail. The links were included in a letter which explained the general nature of the study. Furthermore, all respondents were assured that their individual responses would remain anonymous.

Measures

OBSE. OBSE was measured with the 10-item scale developed by Pierce et al. (1989) on a 6-point Likert scale (1 = *totally disagree*, 6 = *totally agree*). Sample items include "I count at work" and "I am taken seriously at work". The scale's α reliability in this study is .82.

Trust. Trust was measured on a 6-point Likert scale (1 = *totally disagree*, 6 = *totally agree*) using two items from Giessner and van Knippenberg (2008) "I absolutely trust my team leader" and "I think that my team leader does the right thing", $\alpha = .78$.

Servant-leadership. Servant-leadership was measured on a 6-point Likert scale (1 = *totally disagree*, 6 = *totally agree*) using 30 items from the Servant-Leadership Survey (SLS) (van Dierendonck & Nuijten, 2009). Examples of items and the reliabilities of the separate scales are as follows: (1) Empowerment: "My manager helps me to further develop myself". The scale's reliability in this study for 7 items is $\alpha = .86$. (2) Accountability: "My manager holds me and my colleagues responsible for the way we handle a job", $\alpha = .76$ for 3 items. (3) Stewardship: "My manager emphasizes the societal responsibility of our work", $\alpha = .67$ for 3 items. (4) Courage: "My manager takes risks even when he/she is not certain of the support from his/her own manager", $\alpha = .65$ for 2 items. (5) Standing back: "My manager keeps himself/herself in the background and gives credits to others", $\alpha = .61$ for 3 items. (6) Humility: "My manager learns from criticism", $\alpha = .85$ for 5 items. (7) Forgiveness: "My manager keeps criticizing people for the mistakes they have made in their work", $\alpha = .71$ for 3 items. (8) Authenticity: "My manager is prepared to express his/her feelings even if this might have undesirable consequences", $\alpha = .68$ for 4 items

Results

Means, standard deviations and correlations for the study variables are shown in Table 5.1. To test our hypotheses, a hierarchical regression analysis was conducted in which trust was predicted by the main effect terms (the eight servant-leadership behaviors and OBSE) at Step 1 and the interaction terms at Step 2 (see Table 5.2). Following Aiken and West (1991) all variables were centered by subtracting the mean from each score, and the interaction terms were based on these centered scores. Six of the eight servant-leadership behaviors were significantly related to trust. For five of them (empowerment, stewardship, courage, humility, and forgiveness) hypothesis 1 was confirmed. Accountability however, negatively predicted trust. Standing back and authenticity had no significant relationship with trust. Furthermore, in line with hypothesis 2, OBSE had a positive connection with trust.

Table 5.1 Means, standard deviations, reliabilities and intercorrelations among measures ^a

	Mean	SD	1	2	3	4	5	6	7	8	9	10
1. Empowerment	4.61	0.70	.86									
2. Accountability	4.88	0.49	.38**	.76								
3. Stewardship	4.45	0.85	.67**	.24**	.67							
4. Courage	3.92	0.96	.37**	.23**	.36**	.65						
5. Standing back	3.97	0.75	.52**	.12	.40**	.27**	.61					
6. Humility	4.39	0.66	.70**	.38**	.52**	.26**	.49**	.85				
7. Forgiveness	4.22	0.91	.34**	.10	.20**	-.02	.24**	.26**	.71			
8. Authenticity	3.18	0.75	.39**	.22**	.21**	.23**	.28**	.44**	.04	.68		
9. OBSE	4.93	0.36	.35**	.26**	.23**	.13	.19*	.30**	.12	.18*	.82	
10. Trust	4.55	0.78	.72**	.22**	.63**	.40**	.50**	.62**	.33**	.30**	.34**	.78

Note. ^aN = 183; * $p < .05$; ** $p < .01$

Table 5.2 Regression analysis: The interactive effect of servant-leadership and OBSE on trust ^a

	Step 1		Step 2		
	β	β	R^2	ΔR^2	F
IVs					
Empowerment	.29**	.32‡			
Accountability	-.11*	-.12*			
Stewardship	.22**	.20**			
Courage	.15**	.15**			
Standing back	.09	.11			
Humility	.19**	.16*			
Forgiveness	.12*	.13*			
Authenticity	-.00	.00			
OBSE	.11*	.14*	.61‡	.63‡	32.148‡
Interactions					
Empowerment*OBSE		-.04			
Accountability*OBSE		.16**			
Stewardship*OBSE		.05			
Courage*OBSE		-.13*			
Standing back*OBSE		-.14*			
Humility*OBSE		.06			
Forgiveness*OBSE		.03			
Authenticity*OBSE		.03	.63‡	.04*	19.390‡

Notes. ^a $N = 183$. Standardized regression coefficients and adjusted R^2 values are reported. The final β 's represent the standardized regression effects from the last step of the analyses. * $p < .05$; ** $p < .01$; ‡ $p < .001$

To test hypothesis 3, we need to take a look at the results of Step 2 of the hierarchical regression analysis. Step 2 shows that accountability ($\beta = .16, p = .006$), courage ($\beta = -.13, p = .045$) and standing back ($\beta = -.14, p = .048$) interact significantly with OBSE (see Figure 5.1, 5.2 and 5.3, respectively). Simple slope analyses were conducted to further analyze these interactions (Aiken & West, 1991). When OBSE was low (one SD below mean), accountability was significantly and negatively related to trust $\beta = -0.28, p < 0.01$, indicating that accountability is associated with lower trust for low OBSE individuals. However, when OBSE was high (one SD above the mean) accountability was not significantly related to trust, $\beta = 0.04, p > 0.63$. For courage low OBSE (one SD below mean) was significantly and positively related to trust, $\beta = 0.28, p < 0.01$, indicating that courage is indeed associated with higher trust for low OBSE individuals. However, when OBSE was high (one SD above the mean) courage was not significantly related to trust, $\beta = 0.03, p > 0.74$. For standing back low OBSE (one SD below mean) was significantly and positively related to trust, $\beta = 0.24, p < 0.01$, indicating that standing back is indeed associated with higher trust for low OBSE individuals. However, when OBSE was high (one SD above the mean) standing back was not significantly related to trust, $\beta = -0.03, p > 0.71$. Therewith, hypothesis 3, concerning the moderation effect of OBSE, is confirmed for three of the eight servant-leadership behaviors in relation to trust: accountability, courage and standing back.

Figure 5.1 Interaction effect OBSE and accountability on trust in the leader

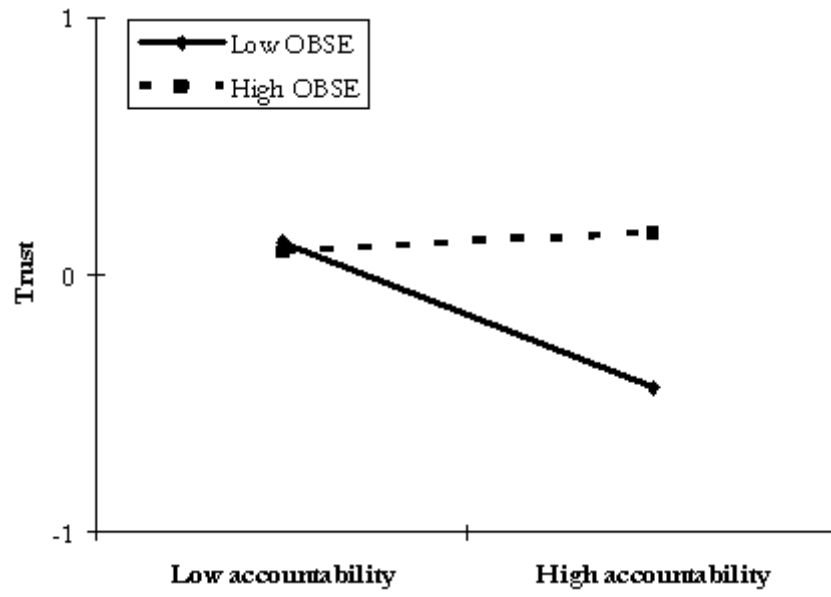


Figure 5.2 Interaction effect OBSE and courage on trust in the leader

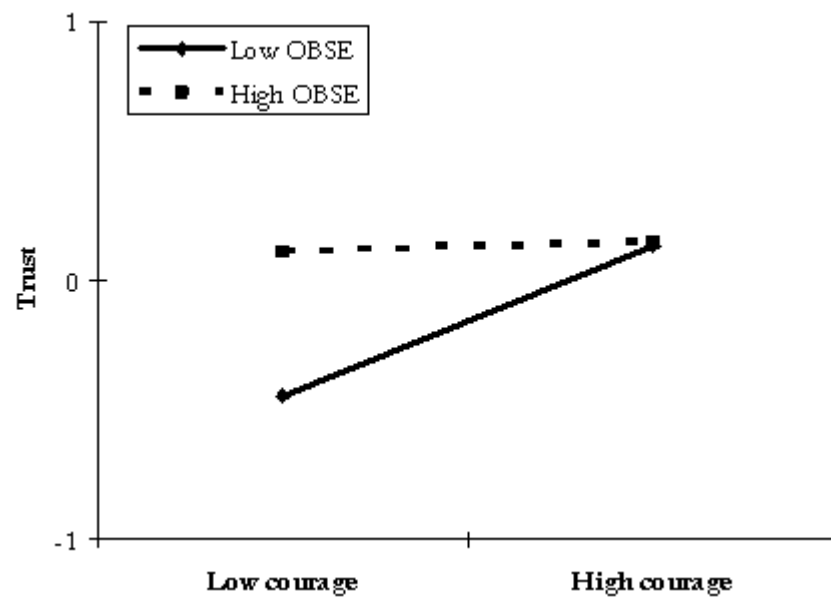
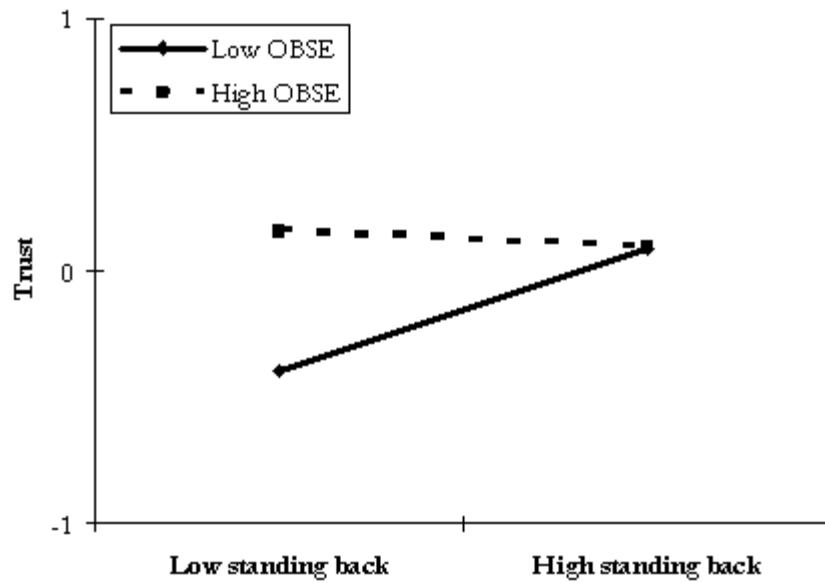


Figure 5.3 Interaction effect OBSE and standing back on trust in the leader



Discussion

In line with hypothesis 1, this study is among the first to provide evidence for the positive relation of separate servant-leadership behaviors with trust. Furthermore, as expected (hypothesis 2), the study shows that organization based self-esteem (OBSE) also has a significant positive relation with trust. Finally, OBSE was shown to moderate the relation between several servant-leadership behaviors and trust in the hypothesized directions (hypothesis 3). Moreover, the paper contributes to servant-leadership theory by showing the impact of the eight different servant-leader behaviors on trust, and how OBSE influences this relation. Our theorizing and the results of the study have some potentially valuable implications.

More precisely, the contributions of this paper are threefold. First, we have shown that trust is very important (Colquitt et al., 2007; Dirks & Ferrin, 2002), especially in these times of ethical misconduct and crises (Mishra, 1996; Caldwell et al., 2008). And we have argued that (authentic) transformational leadership and

related 'stand alone' leadership behaviors, which have been the focus of most trust research up till now (De Cremer et al., 2004; Lee & Peccei, 2007; McColl-Kennedy & Anderson, 2005; Podsakoff et al., 1996; Podsakoff et al., 1990) might not cater to the current demands, because these leadership styles often lack a moral component and always are first and foremost focused on the goals of the organization or of the leader. Servant-leadership on the other hand is moral and looks out for the individuals' needs in the organization first, and thereby (in the end) organizational goals are fulfilled (Graham, 1995). Next, besides creating awareness that servant-leadership could be a better leadership style for the 21st century than transformational leadership, we have provided one of the first tests of the relation between separate servant-leadership behaviors and trust.

Third, we have combined the knowledge of organizational research on self-esteem and OBSE (Brockner et al., 1998; Brutus et al., 2000; De Cremer et al., 2004; Duffy et al., 2000; Hui & Lee, 2000; Jex & Elacqua, 1999; Lee & Peccei, 2007; Wiesenfeld et al., 2007) and the dominant theories on self-esteem (Bandura, 1977; Brockner, 1988; Dipboye, 1977; Korman, 1970) to form our hypotheses. We reasoned that the converging ideas of previous theorizing and mixed results of prior research are related to overlooking the fact that environmental information can communicate 'unconditional' as well as 'conditional' approval. High OBSE individuals, as behavioral plasticity theory argues, will be less influenced by their environment, whereas low OBSE individuals will tend to self-enhance when they can get 'unconditional' approval, but self-verify when faced with 'conditional' approval (i.e., there is a challenge or potential for negative feedback). Our results indeed confirmed that two leadership behaviors that signal 'unconditional' approval, standing back and courage, increased trust of low OBSE individuals, and that accountability ('conditional' approval) decreased trust in the leader of low OBSE individuals. Trust in the leader for high OBSE individuals was unaffected as expected. Even though we only found the hypothesized interaction effects for three of the eight servant-leader behaviors, we argue that our theorizing has an important implication and should be taken into account in future research on self-esteem.

The implication is that the debate whether low SEs self-enhance or self-verify, might be solved by taking into account whether the situation poses a challenge

(threat?) or provides 'unconditional' support. If the situation (e.g., leader) gives low SEs praise and a secure environment low SEs will want to profit from this situation and self-enhance. When low SEs can only increase their self-esteem if they make a good effort (e.g., act responsible, provide input, communicate actively), they will be more inclined to 'bail out' of the situation and self-verify. More particularly, supportive behavior (or a supportive environment) that gives people a good feeling regardless of their performance will make people self-enhance, whereas supportive behavior that asks the supported person to make an effort too, might come across as threatening for low SEs, who will then be more inclined to self-verify. This is inline with Brockner (1988) who stated that low SEs have a high need for approval but a low tolerance for potential negative feedback and uncertainty.

Furthermore, since research has shown that OBSE can be boosted through supportive leader behavior (Pierce et al., 1993), it is interesting to see whether servant-leadership can increase OBSE on a long-term basis, and therewith decrease the number of low OBSE individuals in the team, and thus, prevent distrust of the leader due to low OBSE of the follower. Therefore, we do not only suggest that future research should study the conditions under which low SEs self-verify and self-enhance, but also that they should study if support from servant-leaders can help low OBSE individuals to become high OBSE individuals. It will be important to study this in a longitudinal design though, because prior studies have shown that an increase in self-esteem is usually temporary or situation specific (Brockner, 1988). Of course we would like to determine whether a more substantial, lasting increase in self-esteem can be achieved.

Limitations

The first limitation is that we have only one sample, but the good thing is that this sample consists of employees from a wide variety of backgrounds and job levels. Furthermore, the study is cross-sectional in nature, which means common method variance may have been at play. However, it should also be noted that common method variance cannot account for interactions in regressions (Evans, 1985). Therefore, we feel relatively confident about the validity of the present results. Nonetheless, one could argue that we found only three of the eight hypothesized interactions. Due to the relatively low power (the high number of

predictors reduced the degrees of freedom for the numerator of the F ratio), this is not surprising (Aguinis, 1995). More particularly, the low power makes our results stronger, because we were more likely to erroneously dismiss an interaction effect, that is, make a Type II error (Aguinis, 1995), and therefore, less likely to find significant moderating effects.

Practical implications

Servant-leadership is closely related to trust in the leader and since it adheres to several important principles that will prevent a leader from making missteps (i.e., first serve followers, moral) it holds promise for the future (Bass, 2000) and for maintaining (and restoring) high levels of trust. Leaders could be made aware that trust can be gained through being trustworthy. And that being trustworthy implies that they empower followers (empowerment), provide a clear and responsible vision for the followers and the company (stewardship), show they will stand for their ideas (and followers) no matter what (courage), show they can learn from followers and criticism (humility), and are able to forgive mistakes (forgiveness). Furthermore, leaders need to be aware that positive behaviors might back fire due to low self-esteem of the follower. Our research and theorizing has shown that low OBSE individuals sometimes trust a leader with good intentions less, because they seemingly do not trust themselves with the given ‘responsibility’ or challenge.

Conclusion

Servant-leadership is a promising leadership style for both research and practice. Servant-leaders have a strong moral compass and focus on their followers, which makes it unlikely they will act unethical or out of self-interest. Therefore, they are unlikely to betray the trust of followers. The study in this chapter shows servant-leadership is closely related to trust in the leader. Servant-leaders and researchers should be aware though that low SEs tend to be less trusting if they feel their self-esteem needs might be thwarted. This implies servant-leaders should take extra care to provide ‘unconditional’ support for low SEs and frame challenges (responsibilities) as less threatening. In the mean time, researchers could make an effort to determine if our theorizing for low SEs is correct, and seek to establish if servant-leadership has beneficial effects for follower self-esteem in the long run.

CHAPTER 6

GENERAL DISCUSSION

The importance of leadership for individuals, organizations and society at large is undeniable (Hogan & Kaiser, 2005; Yukl, 2006), so is the crucial role of trust in leaders (Dirks & Ferrin, 2002; Colquitt, Scott, & LePine, 2007). However, there seems to be a lack of trust in today's leaders (George, Sims, McLean, & Mayer, 2007; Fairholm & Fairholm, 2000). A follower-focused, more ethical type of leadership has been suggested to solve this crisis of trust, and to improve follower and organizational health and well-being (Bennis & George, 2008; Caldwell, Hayes, Karri, & Bernal, 2008; Hale & Fields, 2007). In this regard, servant-leadership has been coined as a sound basis for trust (Greenleaf, 1977). Furthermore, servant-leadership is an ethical and follower focused leadership style (Graham, 1991). Additionally, according to Bass (2000) this untested theory of servant-leadership holds much promise for organizations. However, the lack of scientific studies, and a clear definition and operationalization of servant-leadership (Hamilton, 2005; Stone, Russell, & Patterson, 2004), have made it impossible to assess the actual worth of servant-leadership. Therefore, this dissertation was written to provide a definition and operationalization of servant-leadership as well as to test the effects of servant-leadership on follower well-being, team performance, and trust. Based on the theorizing and collected evidence we hoped to be able to determine whether *servant-leadership* is a nonviable *paradox* or a *diamond in the rough*.

Servant-leadership: paradox or diamond in the rough?

To answer the question stated above, two sub-questions had to be answered: (1) *What is servant-leadership and how can we measure it?*, and (2) *What are the effects of servant-leadership on follower well-being and team performance?*

Through four empirical chapters we have attempted to provide insight into (1) how servant-leadership relates to follower psychological needs, (2) the link between

servant-leadership and team performance, (3) the behaviors that best characterize servant-leadership from a theoretical and empirical point of view, (4) the link between servant-leadership and trust, and (5) the influence of follower self-esteem on the relation between servant-leadership and trust. Below we will first summarize the main findings of our empirical chapters. Second, we will discuss the implications of our findings for the study of servant-leadership and provide some potentially fruitful directions for future research. Next, we will touch upon some of the strengths and limitations of this dissertation. Finally, we will discuss potential practical implications.

Summary of main findings

Chapter 2 – Servant-leadership and follower well-being

In chapter 2 we hypothesized that two core servant-leader behaviors: empowerment and humility would benefit a follower's feelings of autonomy, relatedness and competence via trust. In a longitudinal study with students participating in an HRM-Simulation we showed, that while controlling for time 1 measures of autonomy, relatedness and competence, humility and empowerment significantly and positively contributed to autonomy and relatedness at time 2 via trust. Competence was only influenced directly by empowerment. These findings were replicated in a field study. Since autonomy, relatedness and competence are exemplary of well-being and growth (Ryan & Deci, 2000), these results confirm the idea that servant-leadership facilitates the growth and well-being of followers (Bass, 2000; Greenleaf, 1977; Stone, Russell, & Patterson, 2004). Second, we show that trust is an important mediator between servant-leadership, and autonomy and relatedness. This substantiates the idea that servant-leadership is strongly related to trust (Greenleaf, 1977; Joseph & Winston, 2005; Reinke, 2004), and that trust is pivotal for follower self-determination (Deci, Ryan, & Connell, 1989). Third, our results show that it is important to respect the distinctiveness of the three basic psychological needs (McDonough & Crocker, 2007; Sheldon & Niemiec, 2006), because they are differentially influenced by the two servant-leader behaviors. More particularly, this study extends the results of Mayer, Bardes, and Piccolo (2008) in that it provides a more detailed account of the effects of servant-leadership on the

three basic psychological needs. In relation to this point, it is also valuable to distinguish the separate servant-leader behaviors, because the studies also show that empowerment and humility relate in their own unique way to trust and the basic psychological needs.

Chapter 3 – Servant-leadership and team performance

Chapter 3 investigated three different kinds of team leadership in relation to team performance. Our proposition was confirmed that teams with a ‘clear’ standing back leader outperformed teams with an unclear leadership structure and teams with a ‘clear’ non-standing back leader over time. Additionally, for the 101 clear leadership teams we conducted hierarchical regression analysis and showed that the teams with standing back leaders performed significantly better than teams with non-standing back leaders if these leaders were rated high on either empowerment or humility. This study led to some valuable contributions. First of all, the study extends the research done by West, Borrill, Dawson, Brodbeck, Shapiro, and Haward (2003). Our study shows that leadership clarity is especially important if teams work together for a longer period of time. If the team has a short life cycle, the competitiveness of team members who ‘all’ want to exert their influence might help them excel, but if they have to work together for longer periods of time, this need to exert influence by multiple team members without allowing for team leadership to emerge might cause conflict and ambiguity about goals and processes (Mathieu & Schulze, 2006). Another strong point of our study is that it also indicates that the need for more people in a team to exert leadership influence can actually be productive if there is a clear leader who is ‘standing back’. This finding is in line with the finding of Carson, Tesluk, and Marrone (2007) that shared leadership is a factor that can improve team performance. Our study extends their finding by showing that leadership clarity and leader standing back are probably preconditions for team members to have effective leadership input. A third contribution is that we related empowerment to objective performance measures and that we showed that empowerment aids team performance when the leader is standing back, but not when the leader is not standing back. A fourth contribution is that we gave the first evidence for the importance of leader humility for team performance. The results imply that leader humility is beneficial for team

performance when the leader also gives others credit for contributions (stands back). Together contribution three and four make clear that as long as there is coherent and positive leader behavior to back up empowerment or humility, these behaviors facilitate team performance. On the other hand, when a leader is ‘standing back’ but neither empowering nor humble, this leader might come across as a ‘non-leader’ or a laissez-faire leader. Such leaders instill no confidence in their ability to supervise (Hinkin & Schriesheim, 2008). We conclude that positive leader behaviors that substantiate each other, tell a coherent story to the follower, will most likely positively relate to team performance. Finally, we showed that team member task specific knowledge and skills should not be overlooked in team research.

Chapter 4 – Servant-leadership: a multidimensional measure

In chapter 4 we set out to develop an easy to administer, valid and reliable instrument that would be able to measure servant-leadership in its full breadth. We described the process of developing the Servant-Leadership Survey (SLS) and we provide evidence for the internal consistency, the convergent validity, and the predictive validity of the SLS. Specifically, the analysis led us to conclude we have succeeded in constructing a theoretically grounded, valid and reliable instrument to measure servant-leadership. The instrument has one underlying leadership dimension, which is servant-leadership. There is overlap with transformational and ethical leadership, but by including Courage, Accountability, and most of all Forgiveness, the instrument definitely has discriminant validity and added value. Finally, the external validation of the instrument has shown that it is important to take the full 8-factor model into account to measure servant-leadership in its full breadth. The most important contribution of this instrument is that it is the first instrument that includes the essential elements from the servant-leadership literature that can be psychometrically distinguished. Where other multidimensional servant-leadership scales tend to ‘collapse’ into 1-dimension, we are confident the 8-factor structure of the SLS is solid. Furthermore, other servant-leadership scales mostly neglected the ‘leader’ part of servant-leadership; the SLS measures both the ‘servant’ and the ‘leader’ part. We conclude that the SLS is an easy to administer, reliable and valid instrument that can be used to establish the effects of servant-leadership on individuals and organizations.

Chapter 5 – Servant-leadership and trust

In the final empirical chapter our aim was to provide a test of the full model of servant-leadership. The importance of trust for organizations (Dirks & Ferrin, 2002; Colquitt et al., 2007) and the proposed bond between servant-leadership and trust (Greenleaf, 1977), led us to choose trust as an outcome variable. Furthermore, since the follower is central in servant-leadership, we also wanted to provide a first test of the effect of follower characteristics on the impact of servant-leadership on trust. We did this by including follower Organization-Based Self-Esteem (OBSE) (Pierce, Gardner, Dunham, & Cummings, 1993) in our study. We argued that the eight servant-leadership behaviors would be positively related to trust in the leader and that OBSE would moderate this effect. We also proposed that the trust of high OBSE individuals would be high and more independent of servant-leadership behavior, than trust of low OBSE individuals. Specifically, low OBSE individuals would trust the leader more if the leader provided ‘unconditional’ approval and less if the leader provided ‘conditional’ approval. Accountability, stewardship, humility, and authenticity were categorized as ‘conditional’ and empowerment, courage, standing back, and forgiveness as ‘unconditional’ approval. The results make clear that empowerment, stewardship, courage, humility, forgiveness, and OBSE were significantly positively related to trust. Authenticity and standing back were not significantly related to trust and accountability was significantly negatively related to trust. The moderation analysis confirmed our hypotheses for accountability, courage, and standing back. The chapter provides a theoretical argument for how servant-leadership is different from other types of leadership, presents the first evidence of the link between our full-model of servant-leadership (as measured by the SLS) and trust, and provides a potential explanation for the debate between the self-consistency theory and the self-enhancement theory of self-esteem.

Theoretical implications and directions for future research

The previous paragraphs showed how each chapter is of value to leadership research in general and to servant-leadership research in particular. Furthermore, by including self-determination theory, objective performance measures, theories on trust and theories on self-esteem this dissertation also offers some useful insights to

the broader domain of organizational research. Below we will highlight the implications we deem most essential to the future study of leadership and servant-leadership.

First of all, this dissertation has significantly contributed to the literature by providing a valid and reliable multidimensional questionnaire of servant-leadership, the Servant-Leadership Survey (SLS). Together with the multidimensional scale developed by Liden, Wayne, Zhao, & Henderson (2008) the SLS provides a solid base for future research. These questionnaires are essential in stimulating high quality research on servant-leadership. Both measures provide the opportunity to infer which specific behaviors are important in different contexts (e.g., crises, mergers, complex tasks vs. repetitive tasks, working with highly qualified professionals vs. laborers, conflict, new hirers, time pressure), and which behaviors are particularly valuable to influence different outcome variables (e.g., absenteeism, satisfaction, performance, creativity, organization citizenship behavior, information sharing, turnover, production quality or quantity). Furthermore, based on the different servant-leadership characteristics research on the development of servant-leadership can finally come about. Moreover, the different characteristics provide a framework upon which future leadership research can build, and we strongly hope the SLS will encourage this future research on servant-leadership.

A second theoretical implication is that we have shown that servant-leadership is about putting the follower first. Specifically, we have made the theoretical argument that servant-leadership differs from other types of leadership in that it places the interests of those led above the self-interest of the leader. It will be valuable for future research to establish whether this distinctive feature of servant-leadership sets it apart from other types of leadership. Third, we have provided evidence that putting followers first not only means standing back, being humble, being forgiving, being empowering and being authentic, but also providing stewardship, being courageous and holding followers accountable for their own good. From this it will be clear that servant-leadership does not mean that 'the inmates are running the prison'. On the contrary, a servant-leader has very clear and established ideas about where the journey should be headed and will provide clear goals for followers to work towards. The difference with other leadership styles is that servant-leaders do not strive for their goals in a charismatic way, but rather, build a learning

organization where each person in the group can be valuable in his or her own way (van Dierendonck, Nuijten, & Heeren, 2009). To conclude, it is very important for future research to acknowledge the 'leader' part of servant-leadership.

Fourth, in this dissertation we have shown that through the SLS we can differentiate eight servant-leader behaviors that can all contribute in their unique way to organizational phenomena (e.g., follower well-being, trust in the leader, team performance). Below we will highlight each behavior and give suggestions for future research, because they can all contribute to the development of servant-leadership theory and leadership theories in general.

(1) Empowerment is one of the most researched and well established leader behaviors (Chen, Kirkman, Kanfer, Allen, & Rosen, 2007; Conger, 2000; Kirkman & Rosen, 1999; Liden, Wayne, & Sparrowe, 2000; Pearce & Sims, 2002; Spreitzer, 1995; Srivastava, Bartol, & Locke, 2006) that is also a key servant-leader behavior. Interestingly, we have shown in chapter 3 that the effectiveness of empowerment might depend on other leader behaviors, such as leader standing back. Therefore, we suggest that future research should pay attention to potential leader behaviors that constrain or facilitate the effectiveness of empowerment.

(2) Our research has shown that accountability can be viewed in a positive light as long as it is used in a servant manner: holding people accountable for performance they can control (Conger, 1989). In this way accountability provides purpose and a means from which people can infer if they did their job well and where they can improve. As such accountability is invaluable in stimulating the growth of others. We view this take on accountability as a viable perspective for future research on effective leadership and employee well-being and development.

(3) Stewardship is important to make people aware that they have a social responsibility. This is closely related to ethical leadership, and exactly what Caldwell et al. (2008) called for. Even though we operationalized, and therefore, studied stewardship at the leader-follower level, there is an unmistakable connection with research at the level of business and society management. Therefore, we hope that research on, for instance business ethics (e.g., research on Corporate Citizenship and Corporate Social Responsibility), will take notice of servant-leadership theory and in particular this aspect of stewardship. This is important in itself and because it could provide more insight into the second part of the test for servant-leadership as

suggested by Greenleaf (1977, p.27): “*And*, what is the effect on the least privileged in society? Will they benefit or at least not be further deprived?” Specifically, development of servant-leadership theory could benefit from investigations at more global levels of theorizing, because such research can show if servant-leadership provides positive results for society at large.

(4) Courage is about standing for your cause despite potential opposition. Furthermore, courageous leaders are willing to step out into the unknown in order to find new and better ways of doing things (Russell & Stone, 2002). We argue courage is an important leader characteristic because it communicates that leaders ‘walk their talk’ and that they won’t let their followers down. Some research has been conducted on proactivity (Bateman & Crant, 1993; Crant & Bateman, 2000) and personal initiative (Den Hartog & Belschak, 2007). Both aspects are related to the pioneering aspect of courage, but they are more about ‘taking the lead’ than about ‘standing up for personal values’ and ‘sticking to commitments’. Chapter 5 showed that low self-esteem followers trusted courageous leaders more than leaders they regarded as less courageous. Therefore, it will be interesting to see if courage proves to be an important leader behavior for individual well-being and organizational effectiveness.

(5) In chapter 2 and 3 we argued that humility and empowerment are two key servant-leader behaviors. However, in contrast with empowerment and despite the fact that Collins (2001a) showed that besides strong will, humility is the defining characteristic of leaders of great companies, humility has hardly been studied. Given the results from our empirical chapters, which attest to the value of humility for follower well-being, performance and trust in the leader, we strongly suggest future research focus on leader humility.

(6) Given the interactive effect of standing back with empowerment and humility (chapter 3), we propose to also study the conjoined effects of standing back and leader behaviors that can substantiate or inhibit the effect of standing back. Furthermore, standing back proved to be essential for team performance (chapter 3). As long as people are clear about who their leader is, standing back might facilitate perceptions of shared leadership (Carson et al., 2007), and potentially facilitate more active behaviors on behalf of the followers (e.g., voice, organization citizenship behavior). Future research could study in what way leader

standing back can contribute to valuable organizational outcomes, and for instance, shared leadership theory. An additional suggestion for future research related to standing back comes from an idea of Sendjaya, Santora, and Sarros (2008, p.407), who argue that “in stark contrast to insecure leaders who ‘operate with a deep, unexamined insecurity about their own identity’, servant-leaders are able to work behind the scenes willingly without constant acknowledgement or approval from others. Their secure sense of self enables them to... ‘abandon themselves to the strengths of others.’” It will be interesting to determine whether servant-leader behaviors are only effective if the leader has a ‘secure sense of self’. Furthermore, if this ‘secure sense of self’, or healthy ego (Dennis & Bocarnea, 2005), is a precondition for servant-leadership it is interesting to determine how leaders can develop such a ‘secure sense of self’.

(7) Forgiveness is the most complicated construct in the SLS. We were only able to keep three reverse scored items to measure it, and we are aware that it constitutes a very specific behavior. Specifically, people only need to be forgiven if they have done something wrong. This complicates the measure. However, forgiveness has been shown to be important for trust, therefore, we encourage future research to pay attention to forgiveness.

Finally, (8) authenticity is a vital concept of servant-leadership. The importance of authenticity is best exemplified by Avolio and Gardner’s (2005) work on authentic leadership. In 2005 Avolio and Gardner argued that servant-leadership is part of authentic leadership. They based their judgement upon the fact that the discussion of the constructs which are key to “servant leadership theory has been largely atheoretical and not grounded or supported by empirical research... Finally, contributions of servant leadership to sustainable and veritable performance are not currently articulated.” (p.331). Even though we are aware that Avolio and Gardner defined the concept of authenticity much broader than we did, based on the theory, the measure and the evidence (including positive effects on objective performance) for servant-leadership presented in this dissertation, we suggest their conclusion is open to debate. Specifically, it will be interesting to determine how authentic leadership and servant-leadership differ in their effects on followers, organizations, and societies. Furthermore, it is safe to conclude authenticity remains a fruitful research topic for years to come.

Fifth, our Servant-Leadership Survey (SLS) assesses servant-leader behaviors as perceived by the follower. However, it is important to take into account that according to Greenleaf servant-leadership is first and foremost a way of being (Spears, 1998). Specifically, Spears (1998, pp. 4-5) says “servant-leadership is not a ‘quick-fix’ approach... At its core, servant-leadership is a long-term, transformational approach to life and work – in essence, a way of being – that has the potential for creating positive change throughout our society.” Thus, servant-leadership is leadership from the heart, not a simple trick or behavior. We expect that simply showing these leader behaviors will not be enough if at the same time leaders serve their own purposes. Followers might notice the leader is not sincere, and then the effects might not be as aimed for. Therefore, we encourage future servant-leadership research to take into account that a servant-leader’s first and foremost priority is to serve. Specifically, it will be important to determine a leader’s power motivation and intentions. Therefore, future research should combine an assessment of a leader’s intentions (leader perspective) and behaviors (follower perspective). Only then can we positively identify true servant-leaders.

In the sixth place, the results of chapter 2 made it clear that the basic psychological needs are three distinct constructs and should be treated as such (McDonough & Crocker, 2007; Sheldon & Niemiec, 2006). As with servant-leadership, and other leadership studies for that matter, throwing everything into one big pile is not going to tell us much about the mechanisms at play. Therefore, we suggest future research respect the distinctiveness of the separate servant-leadership behaviors, as well as the multidimensionality of the outcomes it strives to predict, such as for instance, the basic psychological needs.

The seventh theoretical implication is that future studies on leadership and teams should not neglect the importance of time. We know that groups change (develop) systematically over time (Arrow, Poole, Henry, Wheelan, & Moreland, 2004). However, these temporal issues in groups are disregarded in the team literature (Harrison, Mohammed, McGrath, Florey, & Vanderstoep, 2003). Not taking into account time is a serious limitation in team research, because the dynamics of teams are a basic element of their effectiveness, therefore, it is unrealistic to generalize from one-shot ‘snapshots’ (Watson, Johnson, & Zgourides, 2002). Thus, it is necessary to include time elements when studying teams. Two

other contributions involve leadership clarity and follower task specific knowledge and skills. Specifically, an other important point to take from this dissertation is that leadership will be more effective if it is clear who the leader is (West et al., 2003). This sounds obvious, but if we look at the cross-sectional studies we conducted in chapter 2, 4, and 5, participants regularly made comments at the end of the survey that – they weren't sure if they had to fill the survey out for leader X or leader Y. This problem became also apparent when we talked to people from various organizations. We think field researchers should be aware of this finding and take it into account in future research. Next, we showed that regardless of the leader (behaviors), team member task specific knowledge was also very important for team performance. This confirms Collins' (2001a) idea that a leader should first of all get 'the right people on the bus'. Therefore, we suggest that future research studying the effects of any team variable on team performance, should also take into account team member task specific knowledge and skills.

Finally, we provided a first test of our integration of the different studies and theories of self-esteem (Baumeister, Campbell, Krueger, & Vohs, 2003; Brockner, 1988; De Cremer, van Knippenberg, van Dijke, and Bos, 2004; Dipboye, 1977; Korman, 1970; Lee & Pececi, 2007; Pierce Gardner, Cummings, & Dunham, 1989). We argued that it is not one predisposition people have: self-enhance or self-verify, but that the 'strategy' depends on the context. More particularly, we proposed that 'conditional' support of the leader (accountability, stewardship, humility, authenticity) would be interpreted as more threatening by low self-esteem individuals, because they would have to deliver performance potentially above their 'standard', and this would lead them to prefer 'self-verification' and distrust the leader more. 'Unconditional' support (empowerment, courage, standing back, forgiveness) on the other hand would be perceived as more positive by low self-esteem individuals, and would be related to more trust in the leader and be seen as an opportunity to self-enhance. In line with behavioral plasticity theory (Brockner, 1988) high self-esteem individuals were expected to be less influenced by their environment (i.e., their leader). The main implication is that it will be an interesting avenue for future research to take into account the 'conditionality' of the social support that low self-esteem individuals receive from their environment.

Limitations

The studies in this dissertation would benefit from several improvements. First of all, we included only 6 items of the basic psychological needs measure (Sheldon, Elliot, Kim, & Kasser, 2001) (chapter 2). It will be useful to replicate the current findings with a more extensive measure of the three basic psychological needs. We suggest future studies use the original 21 item scale (see Baard, Deci, & Ryan, 2004). Furthermore, besides the HRM-Simulation study, which made it possible to draw causal conclusions regarding the servant-leadership experience and its impact on follower basic psychological needs and team performance, we only used cross-sectional field studies to test our hypotheses. It will be important to use different methods in future research, so that causality can be established (e.g., scenario experiments, laboratory experiments, longitudinal field studies). However, a strong point of chapter 3 is the multi-method nature of the study: objective performance indicators over time and of overall performance, subjective ratings of leadership behavior by individual followers, and the leader nomination from which we could determine the leadership structure.

We are aware of the fact that the research would benefit from a multilevel perspective. However, this requires leaders and followers to give personal information to the researchers. Most participants prefer to be anonymous; therefore this will be a challenge for future research. Next, a strength of our research is that we were able to collect data from a wide variety of industries and job levels. Therefore, although we had to depend on a student sample in two occasions, we can be confident that our results are representative for the effects of leader behaviors in organizations. Finally, in chapter 5 the power of the statistical analysis is very low due to the many variables and the small sample. Therefore, we were more likely to erroneously dismiss an interaction effect, that is, make a Type II error (Aguinis, 1995), and therefore, less likely to find significant moderating effects. Future tests of the full-model of servant-leadership require bigger sample sizes to increase the power.

Practical Implications

The most important practical implication is that businesses now have the possibility to have their servant-leadership assessed. The Servant-Leadership Survey (SLS) has been received well by the managers we were able to give feedback to, based upon the SLS. The SLS gives a clear overview of a person's servant-leadership qualities and where improvements can be made. Therefore, the SLS offers a valuable starting point for training and leadership development. The SLS can also be used to monitor a leader's servant-leadership, that is, provide regular feedback so the leader and organization can track improvement on specific behaviors. The data over time will be invaluable to companies (and science) to determine the effectiveness of training and leadership development programs for relevant organizational outcomes.

Furthermore, this dissertation has some specific implications based on the separate characteristics as measured by the SLS for organizations and managers. (1) Humility has been proven to be beneficial for the fulfillment of follower basic psychological needs, for team performance and for trust. The idea that being humble (i.e., acknowledging one doesn't know it all, taking criticism to heart) is a sign of weakness can, therefore, be refuted as of now. We suggest that being humble as a leader is actually a sign that the leader is secure enough to acknowledge another person's point of view. Being able to listen to and learn from others is essential in most businesses. Specifically, a humble leader will enable followers to speak their mind and share useful, valuable and potentially vital information (Reave, 2005). Therefore, by listening to followers and taking their input to heart, leaders will probably be better able to, among other things, make decisions and innovate. Potential positive side effects are that the followers will feel valued, competent, related, and engaged.

Based on our findings we encourage leaders to use (2) accountability in a servant-way. Specifically, providing employees with clear standards and personal goals will potentially not only benefit the organization, but the follower as well. When followers are clear about what has to be done, they will be able to fulfill their tasks in an autonomous way and to infer if they have done a good job or if they can

still improve. Therewith, it is likely that at least two of the three basic psychological needs, autonomy and competence, can be fulfilled.

(3) Stewardship has been related to important outcome variables too. Based on our results we hope leaders will be more determined to formulate and communicate a clear picture of the future that ensures the social responsibility of the organization and the followers. From this vision followers can potentially derive their corporate pride, enthusiasm and engagement. (4) Standing back, which means giving genuine praise to followers for achievements and staying in the background as a leader, has been shown to aid team performance and is potentially related to trust in the leader. Everyone likes to get credit for achievements and be acknowledged (Wiesenfeld, Swann, Brockner, & Bartel, 2007). Therefore, we suggest leaders have followers take the applause; give followers the feeling that when the job is done, they did it themselves. Next we encourage leaders to be more forgiving (5). Forgiving people for mistakes potentially creates a more open and safe environment, and prevents things from being covered up or becoming worse because no attention is paid to it.

A practical implication that was already clear from prior research is that leaders are often more effective if they (6) empower their followers. Therefore, we suggest leaders identify the needs and talents of their followers and give them the opportunity and tools to meet their needs and develop their talents. This dissertation has brought (7) authenticity to the forefront again. From other research we infer that being authentic (Avolio & Gardner, 2005) will benefit a leader's cause. Therefore, we encourage leaders to get more in touch and comfortable with whom they really are, so they will be more able to act from their personal values and be more 'true to themselves'. Finally, we emphasize the importance of (8) courage as an essential element of leadership. We suggest that by 'walking their talk', being there for employees and backing them up, and being a proactive role model, leaders are not only courageous, but also more likely to be trusted, and therefore, effective.

Concluding remark

This dissertation has shown that servant-leadership is not a paradox. It is very well possible to combine the servant and leader role. Specifically, the empirical results of this dissertation lead us to conclude that servant-leadership is more likely a diamond in the rough than a nonviable paradox. We have developed a multidimensional measure of servant-leadership which can be used to cut the diamond in the future, and we strongly hope research will seize this opportunity to polish this potentially invaluable diamond.

REFERENCES

- Aguinis, H. (1995). Statistical power problems with moderated multiple regression in management research. *Journal of Management*, *21*, 1141-1158.
- Aiken, L. S., & West, S. G. (1991). *Multiple regression: Testing and interpreting interactions*. Thousand Oaks, CA: Sage.
- Alper, S., Tjosvold, D., & Law, K. S. (1998). Interdependence and controversy in group decision making: Antecedents to effective self-managing teams. *Organizational Behavior and Human Decision Processes*, *74*, 33-52.
- Altman, Y., & Iles, P. (1998). Learning, leadership, teams: corporate learning and organizational change. *Journal of Management Development*, *17*, 44-55.
- Amy, A. H. (2007). Leaders as facilitators of individual and organizational learning. *Leadership & Organizational Development Journal*, *29*, 212-234.
- Anderson, J. C., & Gerbing, D. W. (1988). Structural equation modeling in practice: A review and recommended two-step approach. *Psychological Bulletin*, *103*, 411-423.
- Arnold, J. A., Arad, S., Rhoades, J. A., & Drasgow, F. (2000). The empowering leadership questionnaire: The construct and validation of a new scale for measuring leader behaviors. *Journal of Organizational Behavior*, *21*, 249-269.
- Arrow, H., Poole, M. S., Henry, K. B., Wheelan, S., & Moreland, R. (2004). Time, change, and development: The temporal perspective on groups. *Small Group Research*, *35*, 73-105.
- Austin, J. R. (2003). Transactive memory in organizational groups: The effects of content, consensus, specialization, and accuracy on group performance. *Journal of Applied Psychology*, *88*, 866-878.
- Autry, J. A. (2004). *The servant leader: How to build a creative team, develop great morale, and improve bottom-line performance*. New York: Three Rivers Press.
- Avey, J. B., Avolio, B. J., Crossley, C. D., & Luthans, F. (2009). Psychological ownership: theoretical extensions, measurement and relation to work outcomes. *Journal of Organizational Behavior*, *30*, 173-191.

- Avolio, B. J. & Gardner, W. L. (2005). Authentic leadership development: Getting to the root of positive forms of leadership. *The Leadership Quarterly*, *16*, 315-338.
- Avolio, B. J., & Yammarino, F. J. (1990). Operational charismatic leadership using a levels-of-analysis framework. *The Leadership Quarterly*, *1*, 193-208.
- Baard, P. P., Deci, E. L., & Ryan, R. M. (2004). Intrinsic need satisfaction: A motivational basis of performance and well-being in two work settings. *Journal of Applied Social Psychology*, *34*, 2045-2068.
- Bakker, A. B., & Schaufeli, W. B. (2008). Positive organizational behavior: Engaged employees in flourishing organizations. *Journal of Organizational Behavior*, *29*, 147-154.
- Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behaviour change. *Psychological Review*, *84*, 191-215.
- Barbuto, J. E. Jr., & Wheeler, D. W. (2006). Scale Development and Construct Clarification of Servant Leadership. *Group & Organization Management*, *31*, 300-326.
- Bass, B. M. (1985). *Leadership and performance beyond expectations*. New York: Free Press.
- Bass, B. M. (1999). Two decades of research and development in transformational leadership. *European Journal of Work and Organizational Psychology*, *8*, 9-32.
- Bass, B. M. (2000). The future of leadership in learning organizations. *Journal of Leadership & Organizational Studies*, *7*, 18-40.
- Bass, B. M., & Avolio, B. J. (1994). *Improving organizational effectiveness through transformational leadership*. Thousand Oaks, CA: Sage.
- Bass, B. M., Avolio, B. J., Jung, D. I., & Berson, Y. (2003). Predicting unit performance by assessing transformational and transactional leadership. *Journal of Applied Psychology*, *88*, 207-218.
- Bass, B. M., & Steidlmeier, P. (1999). Ethics character, and authentic transformational leadership behavior. *The Leadership Quarterly*, *10*, 181-217.
- Bateman, T. S., & Crant, J. M. (1993). The Proactive Component of Organizational Behavior: A Measure and Correlates. *Journal of Organizational Behavior*, *14*, 103-118.

- Baumeister, R. F., Campbell, J. D., Krueger, J. I., & Vohs, K. D. (2003). Does high self-esteem cause better performance, interpersonal success, happiness, or healthier lifestyles? *Psychological Science in the Public Interest*, 4, 1-44.
- Baumeister, R. F. & Leary, M. R. (1995). The need to belong: Desire for interpersonal attachments as a fundamental human motivation. *Psychological Bulletin*, 117, 497-529.
- Bliese, P. D. (2000). Within-group agreement, non-independence, and reliability: implications for data aggregation and analysis. In K. J. Klein, & S. W. Kozlowski (Eds.), *Multilevel theory, research and methods in organizations: Foundations, extensions and new directions* (pp. 349-381). San Francisco: Jossey-Bass.
- Block, P. (1993). *Stewardship: Choosing service over self-interest*. San Francisco: Berrett-Koehler.
- Boyatzis, R., & McKee, A. (2005). *Resonant leadership: Renewing yourself and connecting with others through mindfulness, hope, and compassion*. Boston, MA: Harvard Business School Press.
- Brockner, J. (1988). *Self-esteem at work*. Lexington, MA: Lexington Books.
- Brockner, J., Heuer, L., Siegel, P. A., Wiesenfeld, B., Martin, C., Grover, S., Reed, T., & Bjorgvinsson, S. (1998). The moderating effect of self-esteem in reaction to voice: Converging evidence from five studies. *Journal of Personality and Social Psychology*, 75, 394-407.
- Brown, D. J., & Lord, R. G. (1999). The utility of experimental research in the study of transformational/charismatic leadership. *The Leadership Quarterly*, 10, 531-539.
- Brown, M. E., & Trevino, L. K. (2004). Managing to be ethical: Debunking five business ethics myths. *Academy of Management Executive*, 18, 69-81.
- Brown, M. E., & Trevino, L. K. (2006). Ethical leadership: A review and future directions. *The Leadership Quarterly*, 17, 595-616.
- Brown, M. E., Trevino, L. K., & Harrison, D. A. (2005). Ethical leadership: A social learning perspective for construct development and testing. *Organizational Behavior and Human Decision Processes*, 97, 117-134.

- Brutus, S., Ruderman, M. N., Ohlott, P. J., & McCauley, C. D. (2000). Developing from job experiences: The role of Organization Based Self-Esteem. *Human Resource Development Quarterly*, *11*, 367-380.
- Bryman, A. (1993). Charismatic leadership in business organizations: Some neglected issues. *The Leadership Quarterly*, *4*, 289-304.
- Bunderson, J. S., & Sutcliffe, K. M. (2003). Management team learning orientation and business unit performance. *Journal of Applied Psychology*, *88*, 52-560.
- Burke, C. S., Sims, D. E., Lazzara, E. H., & Salas, E. (2007). Trust in leadership: A multilevel review and integration. *The Leadership Quarterly*, *18*, 606-632.
- Burns, J. M. (1978). *Leadership*. New York: Harper & Row.
- Butler, J. K. (1991). Toward understanding and measuring conditions of trust: Evolution of a conditions of trust inventory. *Journal of Management*, *17*, 643-663.
- Caldwell, C., Hayes, L. A., Karri, R., & Bernal, P. (2008). Ethical stewardship: Implications for leadership and trust. *Journal of Business Ethics*, *78*, 153-164.
- Camman, C., Fichman, M., Jenkins, D., & Klesh, J. (1979). *The Michigan organizational assessment questionnaire*. Unpublished manuscript, University of Michigan at Ann Arbor.
- Carson, J. B., Tesluk, P. E., & Marrone, J. A. (2007). Shared leadership in teams: An investigation of antecedent conditions and performance. *Academy of Management Journal*, *50*, 1217-1234.
- Cartwright, S., & Cooper, C. L. (1994). The human effects of mergers and acquisitions. In C. L. Cooper & D. M. Rousseau (Eds.), *Trends in Organizational Behavior: Vol. 1*. (pp. 47-61). New York: Wiley.
- Chen, G., Kirkman, B. L., Kanfer, R., Allen, D., & Rosen, B. (2007). A multilevel study of leadership, empowerment, and performance in teams. *Journal of Applied Psychology*, *92*, 331-346.
- Chen, Z. X., Aryee, S., & Lee, C. (2005). Test of a mediation model of perceived organizational support. *Journal of Vocational Behavior*, *66*, 457-470.
- Chen, Z., Lam, W., & Zhong, J. A. (2007). Leader-member exchange and member performance: A new look at individual-level negative feedback seeking behavior and team-level empowerment climate. *Journal of Applied Psychology*, *92*, 202-212.

- Choi, Y., & Mai-Dalton, R. R. (1998). On the leadership function of self-sacrifice. *The Leadership Quarterly, 9*, 475-501.
- Choi, Y., & Mai-Dalton, R. R. (1999). The model of followers' responses to self-sacrificial leadership: An empirical test. *The Leadership Quarterly, 10*, 397-421.
- Clegg, S., Kornberger, M., & Rhodes, C. (2007). Business ethics as practice. *British Journal of Management, 18*, 107-122.
- Collins, J. (2001a). *Good to great: Why some companies make the leap and others don't*. New York: Harper-Collins.
- Collins, J. (2001b). Level-5 leadership: The triumph of humility and fierce resolve. *Harvard Business Review, 79*, 66-76.
- Colquitt, J. A., Scott, B. A., & LePine, J. A. (2007). Trust, trustworthiness, and trust propensity: A meta-analytic test of their unique relationships with risk taking and job performance. *Journal of Applied Psychology, 92*, 909-927.
- Conger, J. A. (1989). *The charismatic leader: Behind the mystique of exceptional leadership*. San Francisco: Jossey-Bass.
- Conger, J. A. (1999). Charismatic and transformational leadership in organizations: An insider's perspective on these developing streams of research. *The Leadership Quarterly, 10*, 145-179.
- Conger, J. A. (2000). Motivate performance through empowerment. In E. A. Locke (Ed.), *The Blackwell Handbook of Principles of Organizational Behavior* (pp. 137-149). Oxford: Blackwell.
- Conger J. A., & Kanungo R. N. (1987). Toward a behavioral theory of charismatic leadership in organizational settings. *Academy of Management Review, 12*, 637-647.
- Conger, J. A., & Kanungo, R. N. (1988). The empowerment process: Integrating theory and practice. *Academy of Management Review, 13*, 471-482.
- Conger, J. A., & Kanungo, R. (1994). Charismatic leadership in organizations: Perceived behavioral attributes and their measurement. *Journal of Organizational Behavior, 15*, 439-452.
- Crane, A., & Matten, D. (2008). Incorporating the corporation in citizenship: A response to Néron and Norman. *Business Ethics Quarterly, 18*, 27-33.

- Crant, J. M., & Bateman, T. S. (2000). Charismatic Leadership Viewed from above: The Impact of Proactive Personality. *Journal of Organizational Behavior, 21*, 63-75.
- Cury, F., Elliot, A. J., Da Fonseca, D., & Moller, A. (2006). The social-cognitive model of achievement motivation and the 2 x 2 achievement goal framework. *Journal of Personality and Social Psychology, 90*, 666-679.
- Damen, F., van Knippenberg, B., & van Knippenberg, D. (2008). Affective match: Leader emotional displays, follower positive affect, and follower performance. *Journal of Applied Social Psychology, 38*, 868-902.
- Danna, K. & Griffin, R. W. (1999). Health and well-being in the workplace: A review and synthesis of the literature. *Journal of Management, 25*, 357-384.
- Dannhauser, Z., & Boshoff, A. B. (2007). Structural equivalence of the Barbutto and Wheeler (2006) Servant Leadership Questionnaire on North American and South African samples. *International Journal of Leadership Studies, 2*, 148-168.
- Dansereau, F., Graen, G., & Haga, W. J. (1975). A vertical dyad linkage approach to leadership within formal organizations: A longitudinal investigation of the role making process. *Organizational Behavior and Human Performance, 13*, 46-78.
- Deci, E. L. (1975). *Intrinsic motivation*. New York: Plenum.
- Deci, E. L., Connell, J. P., & Ryan, R. M. (1989). Self-determination in a work organization. *Journal of Applied Psychology, 74*, 580-590.
- De Cremer, D. (2006). Affective and motivational consequences of leader self-sacrifice: The moderating effect of autocratic leadership. *The Leadership Quarterly, 17*, 79-93.
- De Cremer, D., & van Knippenberg, D. (2002). How do leaders promote cooperation? The effects of charisma and procedural fairness. *Journal of Applied Psychology, 87*, 858-866.
- De Cremer, D., & van Knippenberg, D. (2004). Leader self-sacrifice and leadership effectiveness: The moderating role of leader self-confidence. *Organizational Behavior and Human Decision Processes, 95*, 140-155.
- De Cremer, D., van Knippenberg, D., van Dijke, M., & Bos, A. E. R. (2004). How self-relevant is fair treatment? Social self-esteem moderates interactional justice effects. *Social Justice Research, 17*, 407-419.

- Den Hartog, D. N., & Belschak, F. D. (2007). Personal initiative, commitment and affect at work. *Journal of Occupational and Organizational Psychology, 80*, 601-622.
- den Nieuwenboer, N. A., & Kaptein, M. (2008). Spiraling down into corruption: A dynamic analysis of the social identity processes that cause corruption in organizations to grow. *Journal of Business Ethics, 83*, 133-146.
- Dennis, R. S., & Bocarnea, M. (2005). Development of the servant leadership assessment instrument. *Leadership & Organization Development Journal, 26*, 600-615.
- Dennis, R., & Winston, B. E. (2003). A factor analysis of Page and Wong's servant leadership instrument. *Leadership & Organizational Development Journal, 24*, 455-459.
- Detert, J. R., & Burris, E. R. (2007). Leadership behavior and employee voice: Is the door really open? *Academy of Management Journal, 50*, 869-884.
- Dipboye, R. L. (1977). A critical review of Korman's self-consistency theory of work motivation and occupational choice. *Organizational Behavior and Human Performance, 18*, 108-126.
- Dirks, K. T. (2000). Trust in leadership and team performance: Evidence from NCAA basketball. *Journal of Applied Psychology, 85*, 1004-1012.
- Dirks, K. T., & Ferrin, D. L. (2002). Trust in leadership: Meta-analytic findings and implications for research and practice. *Journal of Applied Psychology, 87*, 611-628.
- Dirks, K. T., & Skarlicki, D. P. (2009). The relationship between being perceived as trustworthy by coworkers and individual performance. *Journal of Management, 35*, 136-157.
- Duffy, M. K., Shaw, J. D., & Stark, E. M. (2000). Performance and satisfaction in conflicted interdependent groups: When and how does self-esteem make a difference? *Academy of Management Journal, 43*, 772-782.
- Edmondson, A. C. (2003a). Managing the risk of learning: Psychological safety in work teams. In M. A. West, D. Tjosvold, & K. G. Smith (Eds.), *International handbook of organizational teamwork and cooperative working* (pp. 255-275). London: Blackwell.
- Edmondson, A. C. (2003b). Speaking up in the operating room: How team leaders promote learning in interdisciplinary action teams. *Journal of Management Studies, 40*, 1419-1452.

- Ehrhart, M. G. (2004). Leadership and procedural justice climate as antecedents of unit-level organizational citizenship behavior. *Personnel Psychology, 57*, 61-95.
- Elangovan, A. R., & Xie, J. L. (1999). Effects of Perceived Power of Supervisor on Subordinate Stress and Motivation: The Moderating Role of Subordinate Characteristics. *Journal of Organizational Behavior, 20*, 359-373.
- Euwema, M. C., Wendt, H., & van Emmerik, H. (2007). Leadership styles and group organizational citizenship behavior across cultures. *Journal of Organizational Behavior, 28*, 1035-1057.
- Evans, M. G. (1985). A Monte Carlo study of the effects of correlated method variance in moderated multiple regression analysis. *Organizational Behavior and Human Decision Processes, 36*, 305-323.
- Fairholm, M. R., & Fairholm, G. (2000). Leadership amid the constraints of trust. *Leadership & Organization Development Journal, 21*, 102-109.
- Fan, X., & Sivo, S. A. (2007). Sensitivity of fit indices to model misspecification and model types. *Multivariate Behavioral Research, 42*, 509-529.
- Ferch, S. (2005). Servant-leadership, forgiveness, and social justice. *The International Journal of Servant-Leadership, 1*, 97-113.
- Ferguson, E., & Cox, T. (1993). Exploratory factor analysis: A users' guide. *International Journal of Selection and Assessment, 1*, 84-94.
- Fishbein, M., & Ajzen, I. (1975). *Belief, attitude, intention, and behavior: An introduction to theory and research*. Reading, MA: Addison-Wesley.
- Froiland, P., Gordon, J., & Picard, M. (1993). In search of accountability. *Training, 30*, 59.
- Garcia-Morales, V. J., Llorens-Montes, F. J., & Verdu-Jover, A. J. (2008). The effects of transformational leadership on organizational performance through knowledge and innovation. *British Journal of Management, 19*, 299-319.
- George, B., & Bennis, W. (2008). *Authentic leadership: Rediscovering the secrets to creating lasting value*. San Francisco: Jossey-Bass.
- George, B., Sims, P., McLean, A. N., & Mayer, D. (2007). Discovering your authentic leadership. *Harvard Business Review, 85*, 129-138.
- George, J. M. (2000). Emotions and leadership: the role of emotional intelligence. *Human Relations, 53*, 1027-1055.

- Giessner, S. R., & van Knippenberg, D. (2008). "Licence to fail": Goal definition, leader Group prototypicality, and perceptions of leadership effectiveness after leader failure. *Organizational Behavior and Human Decision Processes*, 105, 14-35.
- Goleman, D., Boyatzis, R., & McKee, A. (2002). *Primal Leadership: realizing the power of emotional intelligence*. Boston, MA: Harvard Business School Press.
- Graen, G. B., & Uhl-Bien, M. (1995). Relationship-Based Approach to Leadership. Development of Leader-Member Exchange LMX Theory. *The Leadership Quarterly*, 6, 219-247.
- Graham, J. W. (1991). Servant-leadership in organizations: Inspirational and moral. *The Leadership Quarterly*, 2, 105-119.
- Graham, J. W. (1995). Leadership, moral development, and citizenship behavior. *Business Ethics Quarterly*, 5, 43-54.
- Greenleaf, R. K. (1977). *Servant leadership: A journey into the nature of legitimate power and greatness*. New York: Paulist Press.
- Greenleaf, R. K. (2002). *Servant leadership: A journey into the nature of legitimate power and greatness*. New York: Paulist Press.
- Greenleaf, R. K. (1991). *The Servant as leader*. Indianapolis: The Greenleaf Center.
- Greenleaf, R. K. (1996). *On Becoming a Servant Leader*. San Francisco: Jossey-Bass.
- Greenleaf, R. K. (1998). Servant: Retrospect and Prospect. In L. C. Spears (Ed.), *The power of servant leadership* (pp. 17-60). San Francisco: Berrett-Koehler.
- Gregson, T., & Wendell, J. (1994). Role conflict, role ambiguity, job satisfaction and the moderating effect of job-related self-esteem: A latent variable analysis. *Journal of Applied Business Research*, 10, 106-113.
- Gruenfeld, D. H., Mannix, E. A., Williams, K. Y., & Neale, M. A. (1996). Group composition and decision making: How member familiarity and information distribution affect process and performance. *Organizational Behavior and Human Decision Processes*, 67, 1-15.
- Guadagnoli, E., & Velicer, W. (1988). Relation of sample size to the stability of component patterns. *Psychological Bulletin*, 103, 265-275.
- Hale, J. R. & Fields, D. L. (2007). Exploring servant leadership across cultures: A study of followers in Ghana and the USA. *Leadership*, 3, 397-417.

- Halpin, A., & Croft, D. (1966). Organizational climate of schools. In A. Halpin (Ed.), *Theory and research in administration* (pp. 131-249). New York: Prentice Hall.
- Hamilton, F. (2005). Practicing servant-leadership: Succeeding through trust, bravery, and forgiveness. *Academy of Management Review*, *30*, 875-877.
- Harrison, D. A., Mohammed, S., McGrath, J. E., Florey, A. T., & Vanderstoep, S. W. (2003). Time matters in team performance: Effects of member familiarity, entrainment, and task discontinuity on speed and quality. *Personnel Psychology*, *56*, 633-669.
- Harter, S. (2002). Authenticity. In C. R. Snyder & S. J. Lopez (Eds.), *Handbook of Positive Psychology* (pp. 382-394). New York: Oxford University Press.
- Hayton, J. C., Allen, D. G., & Scarpello, V. (2004). Factor retention in exploratory factor analysis: A tutorial on parallel analysis. *Organizational Research Methods*, *7*, 191-205.
- Heinrichs, J. H., & Lim, J.-S. (2005). Model for organizational knowledge creation and strategic use of information. *Journal of the American society for information science and technology*, *56*, 620-629.
- Henson, R. K. & Roberts, J. K. (2006). Use of exploratory factor analysis in published research. Common errors and some comment on improved practice. *Educational and Psychological Measurement*, *66*, 393-416.
- Hernandez, M. (2008). Promoting stewardship behavior in organizations: A leadership model. *Journal of Business Ethics*, *80*, 121-128.
- Heugens, P. P. M. A. R., Kaptein, M., & van Oosterhout, J. (2008). Contracts to communities: A processual model of organizational virtue. *Journal of Management Studies*, *45*, 100-121.
- Hiller, N. J., Day, D. V., & Vance, R. J. (2006). Collective enactment of leadership roles and team effectiveness: A field study. *The Leadership Quarterly*, *17*, 387-397.
- Hinkin, T. R. (1995). A review of scale development practices in the study of organizations. *Journal of Management*, *21*, 967-988.
- Hinkin, T. R., & Schriesheim, C. A. (2008). An examination of “nonleadership”: From laissez-faire leadership to leader reward omission and punishment omission. *Journal of Applied Psychology*, *93*, 1234-1248.

- Hogan, R., & Kaiser, R. B. (2005). What we know about leadership. *Review of General Psychology, 9*, 169-180.
- Howell, J. M., & Avolio, B. J. (1993). Transformational leadership, transactional leadership, locus of control, and support for innovation: Key predictors of consolidated-business-unit-performance. *Journal of Applied Psychology, 78*, 891-902.
- Hoyt, C. L., & Blascovich, J. (2003). Transformational and Transactional Leadership in Virtual and Physical Environments. *Small Group Research, 34*, 678-715.
- Hu, L., & Bentler, P. M. (1998). Fit indices in covariance structure modeling: Sensitivity to underparameterized model misspecification. *Psychological Methods, 3*, 424-453.
- Hui C., & Lee, C. (2000). Moderating effects of Organization Based Self-Esteem (OBSE) on organizational uncertainty: Employee response relationships. *Journal of Management, 26*, 215-232.
- Ilies, R., Morgeson, F. P., & Nahrgang, J. D. (2005). Authentic leadership and eudaimonic well-being: Understanding leader-follower outcomes. *The Leadership Quarterly, 16*, 373-394.
- Irving, J. A., & Longbotham, G. J. (2007). Team effectiveness and six essential servant leadership themes: A regression model based on items in the Organizational Leadership Assessment. *International Journal of Leadership Studies, 2*, 98-113.
- James, L. R. (1982). Aggregation bias in estimates of perceptual agreement. *Journal of Applied Psychology, 67*, 219-29.
- Jex, S. M., & Elacqua, T. C. (1999). Self-esteem as a moderator: A comparison of global and organization-based measures. *Journal of Occupational and Organizational Psychology, 72*, 71-81.
- Jones, G. R., & George, J. M. (1998). The experience and evolution of trust: Implications for cooperation and teamwork. *Academy of Management Review, 23*, 531-546.
- Joseph, E. E., & Winston, B. E. (2005). A correlation of servant leadership, leader trust and organizational trust. *Leadership and Organization Development Journal, 26*, 6-22.
- Jossi, F. (1997). Mentoring in changing times. *Training, 34*, 50-54.

- Judge, T. A., & Piccolo, R. F. (2004). Transformational and Transactional leadership: A meta-analytic test of their relative validity. *Journal of Applied Psychology, 89*, 755-768.
- Jung, D. I., & Avolio, B. J. (2000). Opening the black box: An experimental investigation of the mediating effects of trust and value congruence on transformational and transactional leadership. *Journal of Organizational Behavior, 21*, 949-964.
- Kakabadse, A. P., Kakabadse, N. K., & Lee-Davis, L. (2007). Three temptations of leaders. *Leadership & Organization Development Journal, 28*, 196-208.
- Keith, K. M. (2008). *The case for servant leadership*. Westfield, IN: Greenleaf Center for Servant Leadership.
- Kim, P. H., Dirks, K. T., & Cooper, C. D. (2009). The repair of trust: A dynamic bilateral perspective and multilevel conceptualization. *Academy of Management Journal, 34*, 401-422.
- Kirkman, B. L., & Rosen, B. (1999). Beyond self-management: Antecedents and consequences of team empowerment. *Academy of Management Journal, 42*, 58-74.
- Konczak, L. J., Stelly, D. J., & Trusty, M. L. (2000). Defining and measuring empowering leader behaviors: Development of an upward feedback instrument. *Educational and Psychological measurement, 60*, 301-313.
- Korac-Kakabadse, N., Korac-Kakabadse, A., & Kouzmin, A. (2001). Leadership renewal: Towards the philosophy of wisdom. *International Review of Administrative Sciences, 67*, 207-227.
- Korman, A. (1970). Toward an hypothesis of work behavior. *Journal of Applied Psychology, 54*, 31-41.
- Kramer, R. M. (1999). Trust and distrust in organizations: Emerging perspectives, enduring questions. *American Psychological Review, 50*, 569-598.
- Laub, J. A. (1999). *Assessing the servant organization: Development of the organizational leadership assessment (OLA) instrument*. Doctoral dissertation, Boca Raton, Florida.
- Lee, J., & Peccei, R. (2007). Perceived organizational support and affective commitment: the mediating role of organization-based self-esteem in the context of job insecurity. *Journal of Organizational Behavior, 28*, 661-685.

- Lewicki, R. J., Tomlinson, E. C., & Gillespie, N. (2006). Models of interpersonal trust development: Theoretical approaches, empirical evidence, and future directions. *Journal of Management*, *32*, 991-1022.
- Liden, R. C., Wayne, S. J., & Sparrowe, R.T. (2000). An examination of the mediating role of psychological empowerment and the relations between the job, interpersonal relationships and work outcomes. *Journal of Applied Psychology*, *85*, 407-416.
- Liden, R. C., Wayne, S. J., Zhao, H., & Henderson, D. (2008). Servant leadership: Development of a multidimensional measure and multi-level assessment. *The Leadership Quarterly*, *19*, 161-177.
- Luthans, F. (2002). The need and meaning of positive organizational behavior. *Journal of Organizational Behavior*, *23*, 695-706.
- Luthans, F., & Avolio, B. (2003). Authentic leadership development. In K. S. Cameron & J. E. Dutton (Eds), *Positive Organizational Scholarship* (pp. 241-254). San Francisco: Berrett-Koehler Publications.
- Macik-Frey, M., Quick, J. C., & Cooper, C. L. (2009). Authentic leadership as a pathway to positive health. *Journal of Organizational Behavior*, *30*, 453-458.
- Manz, C. C., & Sims, H. P. (1987). Leading workers to lead themselves: The external leadership of self-managing work teams. *Administrative Science Quarterly*, *32*, 106-129.
- Marinho, R. (2006). The servant-leader and the team: Love without measure! *The International Journal of Servant-Leadership*, *2*, 261-285.
- Mathieu, J. E., & Schulze, W. (2006). The influence of team knowledge and formal plans on episodic team process-performance relationships. *Academy of Management Journal*, *49*, 605-619.
- Mayer, D. M., Bardes, M., & Piccolo, R. F. (2008). Do servant-leaders help satisfy follower needs? An organizational justice perspective. *European Journal of Work and Organizational Psychology*, *17*, 180-197.
- Mayer, R. C., & Davis, J. H. (1999). The effect of the performance appraisal system on trust for management: A field quasi-experiment. *Journal of Applied Psychology*, *84*, 123-136.
- Mayer, R. C., Davis, J. H., & Schoorman, F. D. (1995). An integrative model of organizational trust. *Academy of Management Review*, *20*, 709-734.

- Mayer, R. C., & Gavin, M. B. (2005). Trust in management and performance: Who minds the shop while the employees watch the boss? *Academy of Management Journal*, *48*, 874-888.
- McCull-Kennedy, J. R., & Anderson, R. D. (2005). Subordinate-manager gender combination and perceived leadership style influence on emotions, self-esteem and organizational commitment. *Journal of Business Research*, *58*, 115-125.
- McCullough, M. E., Hoyt, W. T., & Rachal, K. C. (2000). What we know (and need to know) about assessing forgiveness constructs. In M. E. McCullough, K. I. Pargament & C. E. Thoresen (Eds.), *Forgiveness: Theory, research, and practice* (pp. 65-88). New York: Guilford Press.
- McDonough, M. H., & Crocker, P. R. E. (2007). Testing self-determined motivation as a mediator of the relationship between psychological needs and affective and behavioral outcomes. *Journal of Sport & Exercise Psychology*, *29*, 645-663.
- McIntosh, T. A., & Irving, J. A. (2008). Evaluating the Instrumento de Contribucion al Liderazgo de Siervo (ICLS) for reliability in Latin America. *Proceedings of the 2008 Servant Leadership Research Roundtable*. Retrieved April 28, 2009, from http://www.regent.edu/acad/global/publications/sl_proceedings/2008/mcintosh-irving.pdf
- McWilliams, A., & Siegel, D. (2001). Corporate Social Responsibility: A theory of the firm perspective. *Academy of Management Review*, *26*, 117-127.
- McWilliams, A., Siegel, D. S., & Wright, P. M. (2006). Corporate Social Responsibility: Strategic implications. *Journal of Management Studies*, *43*, 1-18.
- Mishra, A. K. (1996). Organizational responses to crisis: The centrality of trust. In R. M. Kramer & T. Tyler (Eds.), *Trust in organizations* (pp. 261-287). Newbury Park, CA: Sage.
- Morris, J. A., Brotheridge, C. M., & Urbanski, J. C. (2005). Bringing humility to leadership: Antecedents and consequences of leader humility. *Human Relations*, *58*, 1323-1350.
- Morrison, E. W., & Phelps, C. C. (1999). Taking charge at work: Extra-role efforts to initiate workplace change. *Academy of Management Journal*, *42*, 403-419.

- Murphy S. E., & Ensher, E. A. (2008). A qualitative analysis of charismatic leadership in creative teams: The case of television directors. *Leadership Quarterly, 19*, 335-352.
- Muthén, L. K., & Muthén, B. O. (2007). *MPlus user's guide* (5th ed.). Los Angeles: Muthén & Muthén.
- Néron, P.-Y., & Norman, W. (2008). Citizenship, Inc. Do we really want businesses to be good corporate citizens? *Business Ethics Quarterly, 18*, 1-26.
- Neubert, M. J., Kacmar, K. M., Carlson, D. S., Chonko, L. B., & Roberts, J. A. (2008). Regulatory focus as a mediator of the influence of initiating structure and servant leadership on employee behavior. *Journal of Applied Psychology, 93*, 1220-1233.
- Northouse, P. G. (2007). *Leadership: Theory and practice* (4th ed.). Thousand Oaks, CA: Sage Publications.
- Page, D., & Wong, P. T. P. (2000). A conceptual framework to measuring servant leadership. In S. Adjibolosoo (Ed.), *The human factor in shaping the course of history and development*. Boston, MA: University Press of America.
- Patterson, K. (2003). *Servant-leadership: A theoretical model*. Unpublished doctoral dissertation, Regent University, Virginia Beach.
- Patterson, M. G., West, M. A., Wall, T. D. (2004). Integrated manufacturing, empowerment, and company performance. *Journal of Organizational Behavior, 25*, 641-665.
- Pearce, C. L., & Sims, Jr., H. P. (2002). Vertical versus shared leadership as predictors of the effectiveness of change management teams: An examination of aversive, directive, transactional, transformational, and empowering leader behaviors. *Group Dynamics: Theory, Research, and Practice, 6*, 172-197.
- Pescosolido, A. T. (2002). Emergent leaders as managers of group emotion. *The Leadership Quarterly, 13*, 583-599.
- Peterson, C. & Seligman, M. E. P. (2004). *Character strengths and virtues: A handbook and classification*. Oxford, England: Oxford University Press.
- Philips, K. W., Mannix, E. A., Neale, M. A., & Gruenfeld, D. H. (2004). Diverse groups and information sharing: The effects of congruent ties. *Journal of Experimental Social Psychology, 40*, 497-510.

- Pierce, J. L., & Gardner, D. G. (2004). Self-esteem within the work and organizational context: A review of the organization-based self-esteem literature. *Journal of Management*, *30*, 591-622.
- Pierce, J. L., Gardner, D. G., Cummings, L. L., & Dunham, R. B. (1989). Organization-based self-esteem: construct definition, measurement, and validation. *Academy of Management Journal*, *32*, 622-648.
- Pierce, J. L., Gardner, D. G., Dunham, R. B., & Cummings, L. L. (1993). Moderation by organization-based self-esteem of role condition-employee response relationship. *Academy of Management Journal*, *36*, 271-288.
- Pillai, R., Schriesheim, C. A., & Williams, E. S. (1999). Fairness perceptions and trust as mediators for transformational and transactional leadership: A two-sample study. *Journal of Management*, *25*, 897-933.
- Plato (2004). *The Republic*. Trans. C. D. C. Reeve. Indianapolis, IN: Hackett.
- Podsakoff, P. M., MacKenzie, S. B., & Bommer, W. H. (1996). Transformational leader behaviors and substitutes for leadership as determinants of employee satisfaction, commitment, trust, and organizational citizenship behaviors. *Journal of Management*, *22*, 259-298.
- Podsakoff, P. M., MacKenzie, S. B., Moorman, R. H., & Fetter, R. (1990). Transformational leader behaviors and their effects on followers' trust in leader, satisfaction, and organizational citizenship behaviors. *Leadership Quarterly*, *1*, 107-142.
- Podsakoff, P. M., Todor, W. D., Grover, R. A., & Huber, V. L. (1984). Situational moderators of leader reward and punishment behaviors: Fact or fiction? *Organizational Behavior and Human Performance*, *34*, 21-63.
- Powell, W. W., & Snellman, K. (2004). The knowledge economy. *Annual Review Sociology*, *30*, 199-220.
- Price, T. L. (2003). The ethics of authentic transformational leadership. *The Leadership Quarterly*, *14*, 67-81.
- Prosser, S. (2008). 'Purity versus popularity': potential opportunities and tensions among the differing emphases of servant-leadership. Paper presented at the *1st Global Servant-Leadership Research Roundtable*, Rotterdam, the Netherlands.
- Rafferty, A. E., & Griffin, M. A. (2004). Dimensions of transformational leadership: Conceptual and empirical extensions. *The Leadership Quarterly*, *15*, 329-354.

- Reave, L. (2005). Spiritual values and practices related to leadership effectiveness. *The Leadership Quarterly, 16*, 655-687.
- Reinke, S. J. (2004). Service before self: towards a theory of servant-leadership. *Global Virtue Ethics Review, 3*, 30-57.
- Reis, H. T., Sheldon, K. M., Gable, S. L., Roscoe, J., & Ryan, R. M. (2000). Daily well-being: The role of autonomy, competence, and relatedness. *Personality and Social Psychology Bulletin, 26*, 419-435.
- Rosa, H. (2003). Social acceleration: Ethical and political consequences of a desynchronized high-speed society. *Constellations, 10*, 3-33.
- Rousseau, D. M., Sitkin, S. B., Burt, R. S., & Camerer, C. (1998). Not so different after all: A cross discipline view of trust. *Academy of Management Review, 23*, 393-404.
- Russell, R. F. & Stone, A. G. (2002). A review of servant leadership attributes: Developing a practical model. *Leadership & Organization Development Journal, 23*, 145-157.
- Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist, 55*, 68-78.
- Ryan, R. M., & Deci, E. L. (2001). On Happiness and Human Potentials: A review of research on hedonic and eudaimonic well-being. *Annual Review of Psychology, 52*, 141-166.
- Ryan, R. M., & Deci, E. L. (2004). An overview of self-determination theory: An organismic-dialectical perspective. In E. L. Deci & R. M. Ryan (Eds.), *Handbook of self-determination research* (pp. 3-33). Rochester, NY: The University of Rochester Press.
- Ryan, R. M., & Deci, E. L. (2006). Self-regulation and the problem of human autonomy: Does psychology need choice, self-determination, and will? *Journal of Personality, 74*, 1557-1586.
- Ryan, R. M., & Frederik, C. M. (1997). On energy, personality, and health: Subjective vitality as a dynamic reflection of well-being. *Journal of Personality, 65*, 529-565.

- Ryan, R. M., Kuhl, J., & Deci, E. L. (1997). Nature and autonomy: An organizational view of social and neurobiological aspects of self-regulation in behavior and development. *Development and Psychopathology*, *9*, 701-728.
- Ryff, C. D. (1989). Happiness is everything, or is it? Explorations on the meaning of psychological well-being. *Journal of Personality and Social Psychology*, *57*, 1069-1081.
- Ryff, C. D. & Singer, B. (1998). The contours of positive human health. *Psychological Inquiry*, *9*, 1-25.
- Scandura, T., & Graen, G. B. (1984). Moderating effects of initial leader-member exchange status on the effects of a leadership intervention. *Journal of Applied Psychology*, *69*, 428-436.
- Schaufeli, W. B., Salanova, M., González-Romá, V., & Bakker, A. B. (2002). The measurement of burnout and engagement: A confirmatory factor analytic approach. *Journal of Happiness Studies*, *3*, 71-92.
- Schmitt, N. (1996). Uses and abuses of coefficient alpha. *Psychological Assessment*, *8*, 350-353.
- Seltzer, J., & Numerof, R. E. (1988). Supervisory leadership and subordinate burnout. *Academy of Management Journal*, *31*, 439-446.
- Sendjaya, S. (2003). Development and validation of servant leadership behavioral scale. Paper presented at the *Servant Leadership Roundtable - August 2003*, Regent University, Virginia Beach.
- Sendjaya, S., Sarros, J. C., & Santora, J. C. (2008). Defining and measuring servant-leadership behaviour in organizations. *Journal of Management Studies*, *45*, 402-424.
- Shamir, B., & Howell, J. M. (1999). Organizational and contextual influences on the emergence and effectiveness of charismatic leadership. *The Leadership Quarterly*, *10*, 257-283.
- Shamir, B., House, R. J., & Arthur, M. B. (1993). The motivational aspects of charismatic leadership: A self-concept theory. *Organizational Science*, *4*, 1-17.
- Sheldon, K. M., & Elliot, A. J. (1999). Goal striving, need satisfaction, and longitudinal well-being: The self-concordance model. *Journal of Personality and Social Psychology*, *76*, 482-497.

- Sheldon, K. M., Elliot, A. J., Kim, Y., & Kasser, T. (2001). What is satisfying about satisfying events? Testing 10 candidate psychological needs. *Journal of Personality and Social Psychology, 80*, 325-339.
- Sheldon, K. M., & Niemiec, C. P. (2006). It's not just the amount that counts: Balanced need satisfaction also affects well-being. *Journal of Personality and Social Psychology, 91*, 331-341.
- Shirom, A. (2005). Reflections on the study of burnout. *Work & Stress, 19*, 263-270.
- Singh, N., & Krishnan, V. R. (2008). Self-sacrifice and transformational leadership: Mediating role of altruism. *Leadership and Organizational Development Journal, 29*, 261-274.
- Smith, B. N., Montagno, R. V., & Kuzmenko, T. N. (2004). Transformational and servant leadership: Content and contextual comparison. *Journal of Leadership and Organizational Studies, 10*, 80-91.
- Smith, J. R., & Golden, P. A. (2005). *Human resource management simulation: Players Manual* (2nd ed.). Upper Saddle River, NJ: Prentice Hall.
- Sosik, J. J., & Godshalk, V. M. (2000). Leadership, mentoring functions received, and job-related stress: A conceptual model and preliminary study. *Journal of Organizational Behavior, 21*, 365-390.
- Spears, L. C. (1995). *Reflections on Leadership: How Robert K. Greenleaf's Theory of Servant-Leadership Influenced Today's Top Management Thinkers*. New York: Wiley.
- Spears, L. C. (1998). Introduction. In L. C. Spears (Ed.), *The power of servant leadership* (pp. 1-15). San Francisco: Berrett-Koehler.
- Spears, L. C. (2002). Tracing the past, present, and future of servant-leadership. In L. C. Spears (Ed.), *Focus on leadership: Servant-leadership for the 21st century* (pp. 1-16). New York: John Wiley.
- Spreitzer, G. M. (1995). Psychological empowerment in the workplace: Dimensions, measurement, and validation. *Academy of Management Journal, 38*, 1442-1465.
- Srivastava, A., Bartol, K. M., & Locke, E. A. (2006). Empowering leadership in management teams: Effects on knowledge sharing, efficacy, and performance. *Academy of Management Journal, 49*, 1239-1251.
- Stewart, G. L., & Barrick, M. R. (2000). Team structure and performance: Assessing the mediating role of intrateam process and the moderating role of task type. *Academy of Management Journal, 43*, 135-148.

- Stewart, G. L., & Manz, C. C. (1995). Leadership for self-managing work teams: A typology and integrative model. *Human Relations, 48*, 747-770.
- Stogdill, R. M. (1974). *Handbook of leadership: A survey of theory and research*. New York: Free Press.
- Stone, A. G., Russell, R. F., & Patterson, K. (2004). Transformational versus servant leadership: a difference in leader focus. *Leadership & Organizational Development Journal, 25*, 349-361.
- Taggar, S., & Ellis, R. (2007). The role of leaders in shaping formal team norms. *The Leadership Quarterly, 18*, 105-120.
- Taggar, S., Hackett, R., & Saha, S. (1999). Leadership emergence in autonomous work teams: Antecedents and outcomes. *Personnel Psychology, 52*, 899-926.
- Tharenou, P. (1979). Employee self-esteem: A review of the literature. *Journal of Vocational Behavior, 15*, 331-346.
- Thomas, K. W. & Velthouse, B. A. (1990). Cognitive elements of empowerment: An "interpretive" model of intrinsic task motivation. *Academy of Management Journal, 4*, 666-681.
- Trevino, L. K., Weaver, G. R., & Reynolds, S. J. (2006). Behavioral ethics in organizations: A review. *Journal of Management, 32*, 951-990.
- Tsang, E. W. K. (1997). Organizational learning and the learning organization: A dichotomy between descriptive and prescriptive research. *Human Relations, 50*, 73-89.
- van der Vegt, G. S., & Bunderson, J. S. (2005). Learning and performance in multidisciplinary teams: The importance of collective team identification. *Academy of Management Journal, 48*, 532-547.
- van de Veer, J. (2009). CNN, Davos, Switzerland: Solving the crisis: New Ideas. Retrieved June 20, 2009, from <http://www.servantleadershipcenter.net/news.asp?id=39>
- van Dierendonck, D., Haynes, C. Borrill, C., & Stride, C. (2004). Leadership behavior and subordinate well-being. *Journal of Occupational Health Psychology, 9*, 165-175.
- van Dierendonck, D., & Heeren, I. (2006). Toward a research model of servant-leadership. *The International Journal of Servant-Leadership, 2*, 147-169.

- van Dierendonck, D., & Nuijten, I. (2009). Servant-Leadership: A multidimensional conceptualization and measurement. Symposium on Servant-leadership, measurement and relevance for commitment, flow and performance, at the 14th European Association for Work and Organizational Psychology Conference, Santiago de Compostella, Spain.
- van Dierendonck, D., Nuijten, I., & Heeren, I. (2009). Servant-leadership, key to follower well-being. In Tjosvold, D. & Wisse, B. (Eds.), *Power and Interdependence in Organizations* (pp. 319-337). New York: Cambridge.
- van Dyne, L., Vandewalle, D., Kostova, T., Latham, M. E., & Cummings, L. L. (2000). Collectivism, propensity to trust and self-esteem as predictors of organizational citizenship in a non-work setting. *Journal of Organizational Behavior*, 21, 3-23.
- van Knippenberg, B., & Van Knippenberg, D. (2005). Leader self-sacrifice and leadership effectiveness: The moderating role of leader prototypicality. *Journal of Applied Psychology*, 90, 25-37.
- van Knippenberg, D., De Cremer, D., & van Knippenberg, B. (2007). Leadership and fairness: The state of the art. *European Journal of Work and Organizational Psychology*, 16, 113-140.
- van Vugt, M., Hogan, R., & Kaiser, R. (2008). Leadership, followership, and evolution: Some lessons from the past. *American Psychologist*, 63, 182-196.
- Vecchio, R. P. (1990). Theoretical and empirical examination of cognitive resource theory. *Journal of Applied Psychology*, 75, 141-147.
- Venkatraman, N. (1989). Strategic Orientation of Business Enterprises: The Construct, Dimensionality, and Measurement. *Management Science*, 35, 942-962.
- Vera, D., & Crossan, M. (2004). Strategic leadership and organizational learning. *Academy of Management Review*, 29, 222-240.
- Vera, D., & Rodriguez-Lopez, A. (2004). Strategic virtues: Humility as a source of competitive advantage. *Organizational Dynamics*, 33, 393-408.
- Wall, T. D., Cordery, J. L., & Clegg, C. W. (2002). Empowerment, performance and operational uncertainty: A theoretical integration. *Applied Psychology: An International Review*, 51, 146-169.

- Walter, F., & Bruch, H. (2008). The positive group affect spiral: a dynamic model of the emergence of positive affective similarity in work groups. *Journal of Organizational Behavior, 29*, 239-261.
- Watson, W. E., Johnson, L., & Zgourides, G. D. (2002). The influence of ethnic diversity on leadership, group process, and performance: An examination of learning teams. *International Journal of Intercultural Relations, 26*, 1-16.
- West, M. A., Borrill, C. S., Dawson, J. F., Brodbeck, F., Shapiro, D. A., & Haward, B. (2003). Leadership clarity and team innovation in health care. *The Leadership Quarterly, 14*, 393-410.
- Wiesenfeld, B. M., Swann, W. B. Jr., Brockner, J., & Bartel, C. A. (2007). Is more fairness always preferred? Self-esteem moderates reactions to procedural justice. *Academy of Management Journal, 50*, 1235-1253.
- Williamson, T. (2008). The good society and the good soul: *Plato's Republic* on leadership. *The Leadership Quarterly, 19*, 397-408.
- Wolff, S. B., Pescosolido, A. T., & Druskat, V. U. (2002). Emotional intelligence as the basis of leadership emergence in self-managing teams. *The Leadership Quarterly, 13*, 505-522.
- Wong, P. T. P., & Davey, D. (2007). Best practices in servant leadership. Paper presented at the *Servant Leadership Research Roundtable - July 2007*, Regent University, Virginia Beach.
- Wright, T. A., & Bonett, D. G. (2007). Job satisfaction and psychological well-being as nonadditive predictors of workplace turnover. *Journal of Management, 33*, 141-160.
- Wright, T. A., & Quick, J. C. (2009). The emerging positive agenda in organizations: greater than a trickle, but not yet a deluge. *Journal of Organizational Behavior, 30*, 147-159.
- Wright, T. A., Cropanzano, R., Bonett, D. G., & Diamond, J. (2009). The role of employee psychological well-being in cardiovascular health: when the twain shall meet. *Journal of Organizational Behavior, 30*, 193-208.
- Yammarino, F. J., Dionne, S. D., Schriesheim, C. A., Dansereau, F. (2008). Authentic leadership and positive organizational behavior: A meso, multi-level perspective. *The Leadership Quarterly, 19*, 693-707.

- Yorges, S. L., Weiss, H. M., & Strickland, O. J. (1999). The effect of leader outcomes on influence, attributions, and perceptions of charisma. *Journal of Applied Psychology, 84*, 428-436.
- Yukl, G. (2006). *Leadership in Organizations* (6th ed.). Englewood Cliffs, NJ: Prentice Hall.

NEDERLANDSE SAMENVATTING

Dit proefschrift slaat een brug tussen het conceptuele denken over dienend-leiderschap en kwantitatief leiderschapsonderzoek. Het doel was vast te stellen of dienend-leiderschap een ‘paradox is of een ruwe diamant’. Dit werd nagegaan door dienend-leiderschap te definiëren, meetbaar te maken en na te gaan wat de effecten van dienend-leiderschap zijn op vertrouwen, welzijn en prestaties. De literatuurstudie maakt in de eerste plaats duidelijk dat dienend-leiderschap ethisch is en anders dan andere vormen van leiderschap omdat de belangen van de mensen waar de leider invloed op heeft op de eerste plaats komen. Daarnaast tonen studies in het proefschrift aan dat dienend-leiderschapsgedrag uit twee kerndimensies bestaat: ‘dienen’ (zich op de achtergrond houden, bescheidenheid, authenticiteit, vergeving) en ‘leiden’ (empowerment, rentmeesterschap, verantwoordelijk houden, moed). Deze gedragsaspecten kunnen gemeten worden met behulp van het multidimensionale meetinstrument uit dit proefschrift, de Servant-Leadership Survey (SLS). Met behulp van deze vragenlijst werd onderzocht of dienen en leiden samen kunnen gaan en positief effect sorteren. Positieve effecten waarmee dienend-leiderschap over het algemeen in verband wordt gebracht zijn vertrouwen en organisatiesucces. Verder suggereert conceptueel denken op het gebied van dienend-leiderschap dat mensen die dienend geleid worden zich gezonder, wijzer, vrijer en meer autonoom voelen en dat er een grotere kans is dat zij ook dienend gaan leiden. Uit de onderzoeken in dit proefschrift blijkt dat dienend-leiderschap inderdaad positief samenhangt met welzijn, teamprestaties en vertrouwen. Twee studies tonen aan dat er een positief verband is tussen dienend-leiderschap en de drie belangrijkste psychologische basisbehoeften: autonomie, verbondenheid en competentie. Een andere studie laat zien hoe dienend-leiderschap (in het bijzonder zich op de achtergrond houden, empowerment en bescheidenheid) positief samenhangt met teamprestaties (gemeten over tijd en overall). Een laatste studie toont aan dat de meeste gedragsaspecten van dienend-leiderschap positief samenhangen met vertrouwen. Uit deze laatste studie blijkt echter ook dat het op de organisatie gebaseerde zelfvertrouwen van medewerkers op verschillende manieren invloed heeft op de relatie tussen de dienend-leiderschapsaspecten en vertrouwen.

Kortom, het proefschrift biedt een multidimensionaal meetinstrument voor dienend-leiderschap en laat zien dat dienend-leiderschap waardevol is omdat het welzijn, prestaties en vertrouwen van medewerkers positief kan beïnvloeden. Op basis van de literatuur- en empirische studies concluderen we dat dienend-leiderschap eerder een ruwe diamant is dan een paradox.

ABOUT THE AUTHOR



Inge Nuijten completed her Master of Science at the University of Amsterdam. She specialized in Organizational Psychology, Work & Health Psychology, and Sport Psychology. In November 2005 she started her PhD at the department of Organization and Personnel Management, Rotterdam School of Management, Erasmus University. In her dissertation she develops the relatively new theory of servant-leadership by providing a definition, a multidimensional measure and empirical evidence for the effects of servant-leadership.

Her research interests revolve primarily around leadership, motivation, self-esteem, trust, well-being and mindfulness. Inge has presented her work at several international conferences, such as the *European Association for Work and Organizational Psychology*, the *Society for Industrial and Organizational Psychology*, the *European Conference on Positive Psychology*, and the *Greenleaf Center Annual International Conference*. Currently, Inge is an Assistant Professor in Organizational Psychology at the Rijksuniversiteit Groningen.

Next to her academic activities, Inge has also been working as a sport psychologist, predominantly in golf. The talented team she has been coaching for the past three years managed to win the Dutch Championship for Golf Teams in 2009. Furthermore, she has given lectures, seminars and workshops on servant-leadership. In 2009 she was the representative for the next-generation on the board of the Greenleaf Center for Servant-Leadership Europe.

ERASMUS RESEARCH INSTITUTE OF MANAGEMENT (ERIM)

ERIM PH.D. SERIES

RESEARCH IN MANAGEMENT

ERIM Electronic Series Portal: <http://hdl.handle.net/1765/1>

Agatz, N.A.H., *Demand Management in E-Fulfillment*, Promotor: Prof.dr.ir. J.A.E.E. van Nunen, EPS-2009-163-LIS, ISBN: 978-90-5892-200-7, <http://hdl.handle.net/1765/15425>

Althuizen, N.A.P., *Analogical Reasoning as a Decision Support Principle for Weakly Structured Marketing Problems*, Promotor: Prof.dr.ir. B. Wierenga, EPS-2006-095-MKT, ISBN: 90-5892-129-8, <http://hdl.handle.net/1765/8190>

Alvarez, H.L., *Distributed Collaborative Learning Communities Enabled by Information Communication Technology*, Promotor: Prof.dr. K. Kumar, EPS-2006-080-LIS, ISBN: 90-5892-112-3, <http://hdl.handle.net/1765/7830>

Appelman, J.H., *Governance of Global Interorganizational Tourism Networks: Changing Forms of Co-ordination between the Travel Agency and Aviation Sector*, Promotors: Prof.dr. F.M. Go & Prof.dr. B. Nooteboom, EPS-2004-036-MKT, ISBN: 90-5892-060-7, <http://hdl.handle.net/1765/1199>

Assem, M.J. van den, *Deal or No Deal? Decision Making under Risk in a Large-Stake TV Game Show and Related Experiments*, Promotor: Prof.dr. J. Spronk, EPS-2008-138-F&A, ISBN: 978-90-5892-173-4, <http://hdl.handle.net/1765/13566>

Baquero, G., *On Hedge Fund Performance, Capital Flows and Investor Psychology*, Promotor: Prof.dr. M.J.C.M. Verbeek, EPS-2006-094-F&A, ISBN: 90-5892-131-X, <http://hdl.handle.net/1765/8192>

Berens, G., *Corporate Branding: The Development of Corporate Associations and their Influence on Stakeholder Reactions*, Promotor: Prof.dr. C.B.M. van Riel, EPS-2004-039-ORG, ISBN: 90-5892-065-8, <http://hdl.handle.net/1765/1273>

Berghe, D.A.F. van den, *Working Across Borders: Multinational Enterprises and the Internationalization of Employment*, Promotors: Prof.dr. R.J.M. van Tulder & Prof.dr. E.J.J. Schenk, EPS-2003-029-ORG, ISBN: 90-5892-05-34, <http://hdl.handle.net/1765/1041>

Berghman, L.A., *Strategic Innovation Capacity: A Mixed Method Study on Deliberate Strategic Learning Mechanisms*, Promotor: Prof.dr. P. Mattysens, EPS-2006-087-MKT, ISBN: 90-5892-120-4, <http://hdl.handle.net/1765/7991>

Bijman, W.J.J., *Essays on Agricultural Co-operatives: Governance Structure in Fruit and Vegetable Chains*, Promotor: Prof.dr. G.W.J. Hendrikse, EPS-2002-015-ORG, ISBN: 90-5892-024-0, <http://hdl.handle.net/1765/867>

Bispo, A., *Labour Market Segmentation: An investigation into the Dutch hospitality industry*, Promotors: Prof.dr. G.H.M. Evers & Prof.dr. A.R. Thurik, EPS-2007-108-ORG, ISBN: 90-5892-136-9, <http://hdl.handle.net/1765/10283>

Blindenbach-Driessen, F., *Innovation Management in Project-Based Firms*, Promotor: Prof.dr. S.L. van de Velde, EPS-2006-082-LIS, ISBN: 90-5892-110-7, <http://hdl.handle.net/1765/7828>

Boer, C.A., *Distributed Simulation in Industry*, Promotors: Prof.dr. A. de Bruin & Prof.dr.ir. A. Verbraeck, EPS-2005-065-LIS, ISBN: 90-5892-093-3, <http://hdl.handle.net/1765/6925>

Boer, N.I., *Knowledge Sharing within Organizations: A situated and Relational Perspective*, Promotor: Prof.dr. K. Kumar, EPS-2005-060-LIS, ISBN: 90-5892-086-0, <http://hdl.handle.net/1765/6770>

Boer-Sorbán, K., *Agent-Based Simulation of Financial Markets: A modular, Continuous-Time Approach*, Promotor: Prof.dr. A. de Bruin, EPS-2008-119-LIS, ISBN: 90-5892-155-0, <http://hdl.handle.net/1765/10870>

Boon, C.T., *HRM and Fit: Survival of the Fittest!?*, Promotors: Prof.dr. J. Paauwe & Prof.dr. D.N. den Hartog, EPS-2008-129-ORG, ISBN: 978-90-5892-162-8, <http://hdl.handle.net/1765/12606>

Braun, E., *City Marketing: Towards an Integrated Approach*, Promotor: Prof.dr. L. van den Berg, EPS-2008-142-MKT, ISBN: 978-90-5892-180-2, <http://hdl.handle.net/1765/13694>

Brito, M.P. de, *Managing Reverse Logistics or Reversing Logistics Management?* Promotors: Prof.dr.ir. R. Dekker & Prof.dr. M. B. M. de Koster, EPS-2004-035-LIS, ISBN: 90-5892-058-5, <http://hdl.handle.net/1765/1132>

Brohm, R., *Polycentric Order in Organizations: A Dialogue between Michael Polanyi and IT-Consultants on Knowledge, Morality, and Organization*, Promotors: Prof.dr. G. W. J. Hendrikse & Prof.dr. H. K. Letiche, EPS-2005-063-ORG, ISBN: 90-5892-095-X, <http://hdl.handle.net/1765/6911>

Brumme, W.-H., *Manufacturing Capability Switching in the High-Tech Electronics Technology Life Cycle*, Promotors: Prof.dr.ir. J.A.E.E. van Nunen & Prof.dr.ir. L.N. Van Wassenhove, EPS-2008-126-LIS, ISBN: 978-90-5892-150-5, <http://hdl.handle.net/1765/12103>

Burgers, J.H., *Managing Corporate Venturing: Multilevel Studies on Project Autonomy, Integration, Knowledge Relatedness, and Phases in the New Business Development Process*, Promotors: Prof.dr.ir. F.A.J. Van den Bosch & Prof.dr. H.W. Volberda, EPS-2008-136-STR, ISBN: 978-90-5892-174-1, <http://hdl.handle.net/1765/13484>

Campbell, R.A.J., *Rethinking Risk in International Financial Markets*, Promotor: Prof.dr. C.G. Koedijk, EPS-2001-005-F&A, ISBN: 90-5892-008-9, <http://hdl.handle.net/1765/306>

Chen, C.-M., *Evaluation and Design of Supply Chain Operations Using DEA*, Promotor: Prof.dr. J.A.E.E. van Nunen, EPS-2009-172-LIS, ISBN: 978-90-5892-209-0, <http://hdl.handle.net/1765/1>

Chen, H., *Individual Mobile Communication Services and Tariffs*, Promotor: Prof.dr. L.F.J.M. Pau, EPS-2008-123-LIS, ISBN: 90-5892-158-1, <http://hdl.handle.net/1765/11141>

Chen, Y., *Labour Flexibility in China's Companies: An Empirical Study*, Promotors: Prof.dr. A. Buitendam & Prof.dr. B. Krug, EPS-2001-006-ORG, ISBN: 90-5892-012-7, <http://hdl.handle.net/1765/307>

Damen, F.J.A., *Taking the Lead: The Role of Affect in Leadership Effectiveness*, Promotor: Prof.dr. D.L. van Knippenberg, EPS-2007-107-ORG, <http://hdl.handle.net/1765/10282>

Daniševská, P., *Empirical Studies on Financial Intermediation and Corporate Policies*, Promotor: Prof.dr. C.G. Koedijk, EPS-2004-044-F&A, ISBN: 90-5892-070-4, <http://hdl.handle.net/1765/1518>

Delporte-Vermeiren, D.J.E., *Improving the Flexibility and Profitability of ICT-enabled Business Networks: An Assessment Method and Tool*, Promotors: Prof. mr. dr. P.H.M. Vervest & Prof.dr.ir. H.W.G.M. van Heck, EPS-2003-020-LIS, ISBN: 90-5892-040-2, <http://hdl.handle.net/1765/359>

Derwall, J.M.M., *The Economic Virtues of SRI and CSR*, Promotor: Prof.dr. C.G. Koedijk, EPS-2007-101-F&A, ISBN: 90-5892-132-8, <http://hdl.handle.net/1765/8986>

Diepen, M. van, *Dynamics and Competition in Charitable Giving*, Promotor: Prof.dr. Ph.H.B.F. Franses, EPS-2009-159-MKT, ISBN: 978-90-5892-188-8, <http://hdl.handle.net/1765/14526>

Dietz, H.M.S., *Managing (Sales)People towards Performance: HR Strategy, Leadership & Teamwork*, Promotor: Prof.dr. G.W.J. Hendrikse, EPS-2009-168-ORG, ISBN: 978-90-5892-210-6, <http://hdl.handle.net/1765/1>

Dijksterhuis, M., *Organizational Dynamics of Cognition and Action in the Changing Dutch and US Banking Industries*, Promotors: Prof.dr.ir. F.A.J. van den Bosch & Prof.dr. H.W. Volberda, EPS-2003-026-STR, ISBN: 90-5892-048-8, <http://hdl.handle.net/1765/1037>

Eijk, A.R. van der, *Behind Networks: Knowledge Transfer, Favor Exchange and Performance*, Promoters: Prof.dr. S.L. van de Velde & Prof.dr.drs. W.A. Dolfsma, EPS-2009-161-LIS, ISBN: 978-90-5892-190-1, <http://hdl.handle.net/1765/14613>

Elstak, M.N., *Flipping the Identity Coin: The Comparative Effect of Perceived, Projected and Desired Organizational Identity on Organizational Identification and Desired Behavior*, Promotor: Prof.dr. C.B.M. van Riel, EPS-2008-117-ORG, ISBN: 90-5892-148-2, <http://hdl.handle.net/1765/10723>

Erken, H.P.G., *Productivity, R&D and Entrepreneurship*, Promotor: Prof.dr. A.R. Thurik, EPS-2008-147-ORG, ISBN: 978-90-5892-179-6, <http://hdl.handle.net/1765/14004>

Fenema, P.C. van, *Coordination and Control of Globally Distributed Software Projects*, Promotor: Prof.dr. K. Kumar, EPS-2002-019-LIS, ISBN: 90-5892-030-5, <http://hdl.handle.net/1765/360>

Fleischmann, M., *Quantitative Models for Reverse Logistics*, Promoters: Prof.dr.ir. J.A.E.E. van Nunen & Prof.dr.ir. R. Dekker, EPS-2000-002-LIS, ISBN: 35-4041-711-7, <http://hdl.handle.net/1765/1044>

Flier, B., *Strategic Renewal of European Financial Incumbents: Coevolution of Environmental Selection, Institutional Effects, and Managerial Intentionality*, Promoters: Prof.dr.ir. F.A.J. van den Bosch & Prof.dr. H.W. Volberda, EPS-2003-033-STR, ISBN: 90-5892-055-0, <http://hdl.handle.net/1765/1071>

Fok, D., *Advanced Econometric Marketing Models*, Promotor: Prof.dr. Ph.H.B.F. Franses, EPS-2003-027-MKT, ISBN: 90-5892-049-6, <http://hdl.handle.net/1765/1035>

Ganzaroli, A., *Creating Trust between Local and Global Systems*, Promoters: Prof.dr. K. Kumar & Prof.dr. R.M. Lee, EPS-2002-018-LIS, ISBN: 90-5892-031-3, <http://hdl.handle.net/1765/361>

Gertsens, H.F.M., *Riding a Tiger without Being Eaten: How Companies and Analysts Tame Financial Restatements and Influence Corporate Reputation*, Promotor: Prof.dr. C.B.M. van Riel, EPS-2009-171-ORG, ISBN: 90-5892-214-4, <http://hdl.handle.net/1765/1>

Gilsing, V.A., *Exploration, Exploitation and Co-evolution in Innovation Networks*, Promoters: Prof.dr. B. Nooteboom & Prof.dr. J.P.M. Groenewegen, EPS-2003-032-ORG, ISBN: 90-5892-054-2, <http://hdl.handle.net/1765/1040>

Gijsbers, G.W., *Agricultural Innovation in Asia: Drivers, Paradigms and Performance*, Promotor: Prof.dr. R.J.M. van Tulder, EPS-2009-156-ORG, ISBN: 978-90-5892-191-8, <http://hdl.handle.net/1765/14524>

Gong, Y., *Stochastic Modelling and Analysis of Warehouse Operations*, Promoters: Prof.dr. M.B.M. de Koster & Prof.dr. S.L. van de Velde, EPS-2009-180-LIS, ISBN: 978-90-5892-219-9, <http://hdl.handle.net/1765/1>

Govers, R., *Virtual Tourism Destination Image: Glocal Identities Constructed, Perceived and Experienced*, Promotors: Prof.dr. F.M. Go & Prof.dr. K. Kumar, EPS-2005-069-MKT, ISBN: 90-5892-107-7, <http://hdl.handle.net/1765/6981>

Graaf, G. de, *Tractable Morality: Customer Discourses of Bankers, Veterinarians and Charity Workers*, Promotors: Prof.dr. F. Leijnse & Prof.dr. T. van Willigenburg, EPS-2003-031-ORG, ISBN: 90-5892-051-8, <http://hdl.handle.net/1765/1038>

Greeven, M.J., *Innovation in an Uncertain Institutional Environment: Private Software Entrepreneurs in Hangzhou, China*, Promotor: Prof.dr. B. Krug, EPS-2009-164-ORG, ISBN: 978-90-5892-202-1, <http://hdl.handle.net/1765/15426>

Groot, E.A. de, *Essays on Economic Cycles*, Promotors: Prof.dr. Ph.H.B.F. Franses & Prof.dr. H.R. Commandeur, EPS-2006-091-MKT, ISBN: 90-5892-123-9, <http://hdl.handle.net/1765/8216>

Guenster, N.K., *Investment Strategies Based on Social Responsibility and Bubbles*, Promotor: Prof.dr. C.G. Koedijk, EPS-2008-175-F&A, ISBN: 978-90-5892-206-9, <http://hdl.handle.net/1765/1>

Gutkowska, A.B., *Essays on the Dynamic Portfolio Choice*, Promotor: Prof.dr. A.C.F. Vorst, EPS-2006-085-F&A, ISBN: 90-5892-118-2, <http://hdl.handle.net/1765/7994>

Hagemeijer, R.E., *The Unmasking of the Other*, Promotors: Prof.dr. S.J. Magala & Prof.dr. H.K. Letiche, EPS-2005-068-ORG, ISBN: 90-5892-097-6, <http://hdl.handle.net/1765/6963>

Halderen, M.D. van, *Organizational Identity Expressiveness and Perception Management: Principles for Expressing the Organizational Identity in Order to Manage the Perceptions and Behavioral Reactions of External Stakeholders*, Promotor: Prof.dr. S.B.M. van Riel, EPS-2008-122-ORG, ISBN: 90-5892-153-6, <http://hdl.handle.net/1765/10872>

Hartigh, E. den, *Increasing Returns and Firm Performance: An Empirical Study*, Promotor: Prof.dr. H.R. Commandeur, EPS-2005-067-STR, ISBN: 90-5892-098-4, <http://hdl.handle.net/1765/6939>

Hermans, J.M., *ICT in Information Services; Use and Deployment of the Dutch Securities Trade, 1860-1970*, Promotor: Prof.dr. drs. F.H.A. Janszen, EPS-2004-046-ORG, ISBN 90-5892-072-0, <http://hdl.handle.net/1765/1793>

Hessels, S.J.A., *International Entrepreneurship: Value Creation Across National Borders*, Promotor: Prof.dr. A.R. Thurik, EPS-2008-144-ORG, ISBN: 978-90-5892-181-9, <http://hdl.handle.net/1765/13942>

Heugens, P.P.M.A.R., *Strategic Issues Management: Implications for Corporate Performance*, Promotors: Prof.dr.ir. F.A.J. van den Bosch & Prof.dr. C.B.M. van Riel, EPS-2001-007-STR, ISBN: 90-5892-009-9, <http://hdl.handle.net/1765/358>

-
- Heuvel, W. van den, *The Economic Lot-Sizing Problem: New Results and Extensions*, Promotor: Prof.dr. A.P.L. Wagelmans, EPS-2006-093-LIS, ISBN: 90-5892-124-7, <http://hdl.handle.net/1765/1805>
- Hoedemaekers, C.M.W., *Performance, Pinned down: A Lacanian Analysis of Subjectivity at Work*, Promotors: Prof.dr. S. Magala & Prof.dr. D.H. den Hartog, EPS-2008-121-ORG, ISBN: 90-5892-156-7, <http://hdl.handle.net/1765/10871>
- Hooghiemstra, R., *The Construction of Reality: Cultural Differences in Self-serving Behaviour in Accounting Narratives*, Promotors: Prof.dr. L.G. van der Tas RA & Prof.dr. A.Th.H. Pruy, EPS-2003-025-F&A, ISBN: 90-5892-047-X, <http://hdl.handle.net/1765/871>
- Hu, Y., *Essays on the Governance of Agricultural Products: Cooperatives and Contract Farming*, Promotors: Prof.dr. G.W.J. Hendrikse & Prof.dr. B. Krug, EPS-2007-113-ORG, ISBN: 90-5892-145-1, <http://hdl.handle.net/1765/10535>
- Huij, J.J., *New Insights into Mutual Funds: Performance and Family Strategies*, Promotor: Prof.dr. M.C.J.M. Verbeek, EPS-2007-099-F&A, ISBN: 90-5892-134-4, <http://hdl.handle.net/1765/9398>
- Huurman, C.I., *Dealing with Electricity Prices*, Promotor: Prof.dr. C.D. Koedijk, EPS-2007-098-F&A, ISBN: 90-5892-130-1, <http://hdl.handle.net/1765/9399>
- Iastrebova, K., *Manager's Information Overload: The Impact of Coping Strategies on Decision-Making Performance*, Promotor: Prof.dr. H.G. van Dissel, EPS-2006-077-LIS, ISBN: 90-5892-111-5, <http://hdl.handle.net/1765/7329>
- Iwaarden, J.D. van, *Changing Quality Controls: The Effects of Increasing Product Variety and Shortening Product Life Cycles*, Promotors: Prof.dr. B.G. Dale & Prof.dr. A.R.T. Williams, EPS-2006-084-ORG, ISBN: 90-5892-117-4, <http://hdl.handle.net/1765/7992>
- Jansen, J.J.P., *Ambidextrous Organizations*, Promotors: Prof.dr.ir. F.A.J. Van den Bosch & Prof.dr. H.W. Volberda, EPS-2005-055-STR, ISBN: 90-5892-081-X, <http://hdl.handle.net/1765/6774>
- Jaspers, F.P.H., *Organizing Systemic Innovation*, Promotor: Prof.dr.ir. J.C.M. van den Ende, EPS-2009-160-ORG, ISBN: 978-90-5892-197-, <http://hdl.handle.net/1765/14974>
- Jennen, M.G.J., *Empirical Essays on Office Market Dynamics*, Promotors: Prof.dr. C.G. Koedijk & Prof.dr. D. Brounen, EPS-2008-140-F&A, ISBN: 978-90-5892-176-5, <http://hdl.handle.net/1765/13692>
- Jiang, T., *Capital Structure Determinants and Governance Structure Variety in Franchising*, Promotors: Prof.dr. G. Hendrikse & Prof.dr. A. de Jong, EPS-2009-158-F&A, ISBN: 978-90-5892-199-4, <http://hdl.handle.net/1765/14975>

Jiao, T., *Essays in Financial Accounting*, Promotor: Prof.dr. G.M.H. Mertens, EPS-2009-176-F&A, ISBN: 978-90-5892-211-3, <http://hdl.handle.net/1765/1>

Jong, C. de, *Dealing with Derivatives: Studies on the Role, Informational Content and Pricing of Financial Derivatives*, Promotor: Prof.dr. C.G. Koedijk, EPS-2003-023-F&A, ISBN: 90-5892-043-7, <http://hdl.handle.net/1765/1043>

Kaa, G. van, *Standard Battles for Complex Systems: Empirical Research on the Home Network*, Promotors: Prof.dr.ir. J. van den Ende & Prof.dr.ir. H.W.G.M. van Heck, EPS-2009-166-ORG, ISBN: 978-90-5892-205-2, <http://hdl.handle.net/1765/1>

Keizer, A.B., *The Changing Logic of Japanese Employment Practices: A Firm-Level Analysis of Four Industries*, Promotors: Prof.dr. J.A. Stam & Prof.dr. J.P.M. Groenewegen, EPS-2005-057-ORG, ISBN: 90-5892-087-9, <http://hdl.handle.net/1765/6667>

Kijkuit, R.C., *Social Networks in the Front End: The Organizational Life of an Idea*, Promotor: Prof.dr. B. Nooteboom, EPS-2007-104-ORG, ISBN: 90-5892-137-6, <http://hdl.handle.net/1765/10074>

Kippers, J., *Empirical Studies on Cash Payments*, Promotor: Prof.dr. Ph.H.B.F. Franses, EPS-2004-043-F&A, ISBN: 90-5892-069-0, <http://hdl.handle.net/1765/1520>

Klein, M.H., *Poverty Alleviation through Sustainable Strategic Business Models: Essays on Poverty Alleviation as a Business Strategy*, Promotor: Prof.dr. H.R. Commandeur, EPS-2008-135-STR, ISBN: 978-90-5892-168-0, <http://hdl.handle.net/1765/13482>

Knapp, S., *The Econometrics of Maritime Safety: Recommendations to Enhance Safety at Sea*, Promotor: Prof.dr. Ph.H.B.F. Franses, EPS-2007-096-ORG, ISBN: 90-5892-127-1, <http://hdl.handle.net/1765/7913>

Kole, E., *On Crises, Crashes and Comovements*, Promotors: Prof.dr. C.G. Koedijk & Prof.dr. M.J.C.M. Verbeek, EPS-2006-083-F&A, ISBN: 90-5892-114-X, <http://hdl.handle.net/1765/7829>

Kooij-de Bode, J.M., *Distributed Information and Group Decision-Making: Effects of Diversity and Affect*, Promotor: Prof.dr. D.L. van Knippenberg, EPS-2007-115-ORG, <http://hdl.handle.net/1765/10722>

Koppius, O.R., *Information Architecture and Electronic Market Performance*, Promotors: Prof.dr. P.H.M. Vervest & Prof.dr.ir. H.W.G.M. van Heck, EPS-2002-013-LIS, ISBN: 90-5892-023-2, <http://hdl.handle.net/1765/921>

Kotlarsky, J., *Management of Globally Distributed Component-Based Software Development Projects*, Promotor: Prof.dr. K. Kumar, EPS-2005-059-LIS, ISBN: 90-5892-088-7, <http://hdl.handle.net/1765/6772>

Krauth, E.I., *Real-Time Planning Support: A Task-Technology Fit Perspective*, Promotors: Prof.dr. S.L. van de Velde & Prof.dr. J. van Hilleegersberg, EPS-2008-155-LIS, ISBN: 978-90-5892-193-2, <http://hdl.handle.net/1765/14521>

Kuilman, J., *The Re-Emergence of Foreign Banks in Shanghai: An Ecological Analysis*, Promotor: Prof.dr. B. Krug, EPS-2005-066-ORG, ISBN: 90-5892-096-8, <http://hdl.handle.net/1765/6926>

Kwee, Z., *Investigating Three Key Principles of Sustained Strategic Renewal: A Longitudinal Study of Long-Lived Firms*, Promotors: Prof.dr.ir. F.A.J. Van den Bosch & Prof.dr. H.W. Volberda, EPS-2009-174-STR, ISBN: 90-5892-212-0, <http://hdl.handle.net/1765/1>

Langen, P.W. de, *The Performance of Seaport Clusters: A Framework to Analyze Cluster Performance and an Application to the Seaport Clusters of Durban, Rotterdam and the Lower Mississippi*, Promotors: Prof.dr. B. Nootboom & Prof. drs. H.W.H. Welters, EPS-2004-034-LIS, ISBN: 90-5892-056-9, <http://hdl.handle.net/1765/1133>

Le Anh, T., *Intelligent Control of Vehicle-Based Internal Transport Systems*, Promotors: Prof.dr. M.B.M. de Koster & Prof.dr.ir. R. Dekker, EPS-2005-051-LIS, ISBN: 90-5892-079-8, <http://hdl.handle.net/1765/6554>

Le-Duc, T., *Design and Control of Efficient Order Picking Processes*, Promotor: Prof.dr. M.B.M. de Koster, EPS-2005-064-LIS, ISBN: 90-5892-094-1, <http://hdl.handle.net/1765/6910>

Leeuwen, E.P. van, *Recovered-Resource Dependent Industries and the Strategic Renewal of Incumbent Firm: A Multi-Level Study of Recovered Resource Dependence Management and Strategic Renewal in the European Paper and Board Industry*, Promotors: Prof.dr.ir. F.A.J. Van den Bosch & Prof.dr. H.W. Volberda, EPS-2007-109-STR, ISBN: 90-5892-140-6, <http://hdl.handle.net/1765/10183>

Lentink, R.M., *Algorithmic Decision Support for Shunt Planning*, Promotors: Prof.dr. L.G. Kroon & Prof.dr.ir. J.A.E.E. van Nunen, EPS-2006-073-LIS, ISBN: 90-5892-104-2, <http://hdl.handle.net/1765/7328>

Li, T., *Informedness and Customer-Centric Revenue Management*, Promotors: Prof.dr. P.H.M. Vervest & Prof.dr.ir. H.W.G.M. van Heck, EPS-2009-146-LIS, ISBN: 978-90-5892-195-6, <http://hdl.handle.net/1765/14525>

Liang, G., *New Competition: Foreign Direct Investment and Industrial Development in China*, Promotor: Prof.dr. R.J.M. van Tulder, EPS-2004-047-ORG, ISBN: 90-5892-073-9, <http://hdl.handle.net/1765/1795>

Liere, D.W. van, *Network Horizon and the Dynamics of Network Positions: A Multi-Method Multi-Level Longitudinal Study of Interfirm Networks*, Promotor: Prof.dr. P.H.M. Vervest, EPS-2007-105-LIS, ISBN: 90-5892-139-0, <http://hdl.handle.net/1765/10181>

Loef, J., *Incongruity between Ads and Consumer Expectations of Advertising*, Promotors: Prof.dr. W.F. van Raaij & Prof.dr. G. Antonides, EPS-2002-017-MKT, ISBN: 90-5892-028-3, <http://hdl.handle.net/1765/869>

Maeseneire, W., de, *Essays on Firm Valuation and Value Appropriation*, Promotor: Prof.dr. J.T.J. Smit, EPS-2005-053-F&A, ISBN: 90-5892-082-8, <http://hdl.handle.net/1765/6768>

Londoño, M. del Pilar, *Institutional Arrangements that Affect Free Trade Agreements: Economic Rationality Versus Interest Groups*, Promotors: Prof.dr. H.E. Haralambides & Prof.dr. J.F. Francois, EPS-2006-078-LIS, ISBN: 90-5892-108-5, <http://hdl.handle.net/1765/7578>

Maas, A.A., van der, *Strategy Implementation in a Small Island Context: An Integrative Framework*, Promotor: Prof.dr. H.G. van Dissel, EPS-2008-127-LIS, ISBN: 978-90-5892-160-4, <http://hdl.handle.net/1765/12278>

Maeseneire, W., de, *Essays on Firm Valuation and Value Appropriation*, Promotor: Prof.dr. J.T.J. Smit, EPS-2005-053-F&A, ISBN: 90-5892-082-8, <http://hdl.handle.net/1765/6768>

Mandele, L.M., van der, *Leadership and the Inflection Point: A Longitudinal Perspective*, Promotors: Prof.dr. H.W. Volberda & Prof.dr. H.R. Commandeur, EPS-2004-042-STR, ISBN: 90-5892-067-4, <http://hdl.handle.net/1765/1302>

Meer, J.R. van der, *Operational Control of Internal Transport*, Promotors: Prof.dr. M.B.M. de Koster & Prof.dr.ir. R. Dekker, EPS-2000-001-LIS, ISBN: 90-5892-004-6, <http://hdl.handle.net/1765/859>

Mentink, A., *Essays on Corporate Bonds*, Promotor: Prof.dr. A.C.F. Vorst, EPS-2005-070-F&A, ISBN: 90-5892-100-X, <http://hdl.handle.net/1765/7121>

Meyer, R.J.H., *Mapping the Mind of the Strategist: A Quantitative Methodology for Measuring the Strategic Beliefs of Executives*, Promotor: Prof.dr. R.J.M. van Tulder, EPS-2007-106-ORG, ISBN: 978-90-5892-141-3, <http://hdl.handle.net/1765/10182>

Miltenburg, P.R., *Effects of Modular Sourcing on Manufacturing Flexibility in the Automotive Industry: A Study among German OEMs*, Promotors: Prof.dr. J. Paauwe & Prof.dr. H.R. Commandeur, EPS-2003-030-ORG, ISBN: 90-5892-052-6, <http://hdl.handle.net/1765/1039>

Moerman, G.A., *Empirical Studies on Asset Pricing and Banking in the Euro Area*, Promotor: Prof.dr. C.G. Koedijk, EPS-2005-058-F&A, ISBN: 90-5892-090-9, <http://hdl.handle.net/1765/6666>

Moitra, D., *Globalization of R&D: Leveraging Offshoring for Innovative Capability and Organizational Flexibility*, Promotor: Prof.dr. K. Kumar, EPS-2008-150-LIS, ISBN: 978-90-5892-184-0, <http://hdl.handle.net/1765/14081>

-
- Mol, M.M., *Outsourcing, Supplier-relations and Internationalisation: Global Source Strategy as a Chinese Puzzle*, Promotor: Prof.dr. R.J.M. van Tulder, EPS-2001-010-ORG, ISBN: 90-5892-014-3, <http://hdl.handle.net/1765/355>
- Mom, T.J.M., *Managers' Exploration and Exploitation Activities: The Influence of Organizational Factors and Knowledge Inflows*, Promotors: Prof.dr.ir. F.A.J. Van den Bosch & Prof.dr. H.W. Volberda, EPS-2006-079-STR, ISBN: 90-5892-116-6, <http://hdl.handle.net/1765>
- Moonen, J.M., *Multi-Agent Systems for Transportation Planning and Coordination*, Promotors: Prof.dr. J. van Hillegersberg & Prof.dr. S.L. van de Velde, EPS-2009-177-LIS, ISBN: 978-90-5892-216-8, <http://hdl.handle.net/1>
- Mulder, A., *Government Dilemmas in the Private Provision of Public Goods*, Promotor: Prof.dr. R.J.M. van Tulder, EPS-2004-045-ORG, ISBN: 90-5892-071-2, <http://hdl.handle.net/1765/1790>
- Muller, A.R., *The Rise of Regionalism: Core Company Strategies Under The Second Wave of Integration*, Promotor: Prof.dr. R.J.M. van Tulder, EPS-2004-038-ORG, ISBN: 90-5892-062-3, <http://hdl.handle.net/1765/1272>
- Nalbantov G.I., *Essays on Some Recent Penalization Methods with Applications in Finance and Marketing*, Promotor: Prof. dr P.J.F. Groenen, EPS-2008-132-F&A, ISBN: 978-90-5892-166-6, <http://hdl.handle.net/1765/13319>
- Nederveen Pieterse, A., *Goal Orientation in Teams: The Role of Diversity*, Promotor: Prof.dr. D.L. van Knippenberg, EPS-2009-162-ORG, <http://hdl.handle.net/1765/15240>
- Nguyen, T.T., *Capital Structure, Strategic Competition, and Governance*, Promotor: Prof.dr. A. de Jong, EPS-2008-148-F&A, ISBN: 90-5892-178-9, <http://hdl.handle.net/1765/14005>
- Niessen, E.M.M.I., *Regulation, Governance and Adaptation: Governance Transformations in the Dutch and French Liberalizing Electricity Industries*, Promotors: Prof.dr. A. Jolink & Prof.dr. J.P.M. Groenewegen, EPS-2009-170-ORG, ISBN: 978-90-5892-208-3, <http://hdl.handle.net/1765/1>
- Nieuwenboer, N.A. den, *Seeing the Shadow of the Self*, Promotor: Prof.dr. S.P. Kaptein, EPS-2008-151-ORG, ISBN: 978-90-5892-182-6, <http://hdl.handle.net/1765/14223>
- Ning, H., *Hierarchical Portfolio Management: Theory and Applications*, Promotor: Prof.dr. J. Spronk, EPS-2007-118-F&A, ISBN: 90-5892-152-9, <http://hdl.handle.net/1765/10868>
- Noeverman, J., *Management Control Systems, Evaluative Style, and Behaviour: Exploring the Concept and Behavioural Consequences of Evaluative Style*, Promotors: Prof.dr. E.G.J. Vosselman & Prof.dr. A.R.T. Williams, EPS-2007-120-F&A, ISBN: 90-5892-151-2, <http://hdl.handle.net/1765/10869>

- Oosterhout, J., van, *The Quest for Legitimacy: On Authority and Responsibility in Governance*, Promoters: Prof.dr. T. van Willigenburg & Prof.dr. H.R. van Gunsteren, EPS-2002-012-ORG, ISBN: 90-5892-022-4, <http://hdl.handle.net/1765/362>
- Oostrum, J.M., van, *Applying Mathematical Models to Surgical Patient Planning*, Promotor: Prof.dr. A.P.M. Wagelmans, EPS-2009-179-LIS, ISBN: 978-90-5892-217-5, <http://hdl.handle.net/1765/1>
- Paape, L., *Corporate Governance: The Impact on the Role, Position, and Scope of Services of the Internal Audit Function*, Promoters: Prof.dr. G.J. van der Pijl & Prof.dr. H. Commandeur, EPS-2007-111-MKT, ISBN: 90-5892-143-7, <http://hdl.handle.net/1765/10417>
- Pak, K., *Revenue Management: New Features and Models*, Promotor: Prof.dr.ir. R. Dekker, EPS-2005-061-LIS, ISBN: 90-5892-092-5, <http://hdl.handle.net/1765/362/6771>
- Pattikawa, L.H., *Innovation in the Pharmaceutical Industry: Evidence from Drug Introduction in the U.S.*, Promoters: Prof.dr. H.R. Commandeur, EPS-2007-102-MKT, ISBN: 90-5892-135-2, <http://hdl.handle.net/1765/9626>
- Peeters, L.W.P., *Cyclic Railway Timetable Optimization*, Promoters: Prof.dr. L.G. Kroon & Prof.dr.ir. J.A.E.E. van Nunen, EPS-2003-022-LIS, ISBN: 90-5892-042-9, <http://hdl.handle.net/1765/429>
- Pietersz, R., *Pricing Models for Bermudan-style Interest Rate Derivatives*, Promoters: Prof.dr. A.A.J. Pelsser & Prof.dr. A.C.F. Vorst, EPS-2005-071-F&A, ISBN: 90-5892-099-2, <http://hdl.handle.net/1765/7122>
- Poel, A.M. van der, *Empirical Essays in Corporate Finance and Financial Reporting*, Promoters: Prof.dr. A. de Jong & Prof.dr. G.M.H. Mertens, EPS-2007-133-F&A, ISBN: 978-90-5892-165-9, <http://hdl.handle.net/1765/13320>
- Popova, V., *Knowledge Discovery and Monotonicity*, Promotor: Prof.dr. A. de Bruin, EPS-2004-037-LIS, ISBN: 90-5892-061-5, <http://hdl.handle.net/1765/1201>
- Pouchkarev, I., *Performance Evaluation of Constrained Portfolios*, Promoters: Prof.dr. J. Spronk & Dr. W.G.P.M. Hallerbach, EPS-2005-052-F&A, ISBN: 90-5892-083-6, <http://hdl.handle.net/1765/6731>
- Prins, R., *Modeling Consumer Adoption and Usage of Value-Added Mobile Services*, Promoters: Prof.dr. Ph.H.B.F. Franses & Prof.dr. P.C. Verhoef, EPS-2008-128-MKT, ISBN: 978/90-5892-161-1, <http://hdl.handle.net/1765/12461>
- Puvanasvari Ratnasingam, P., *Interorganizational Trust in Business to Business E-Commerce*, Promoters: Prof.dr. K. Kumar & Prof.dr. H.G. van Dissel, EPS-2001-009-LIS, ISBN: 90-5892-017-8, <http://hdl.handle.net/1765/356>

Quak, H.J., *Sustainability of Urban Freight Transport: Retail Distribution and Local Regulation in Cities*, Promotor: Prof.dr. M.B.M. de Koster, EPS-2008-124-LIS, ISBN: 978-90-5892-154-3, <http://hdl.handle.net/1765/11990>

Quariguasi Frota Neto, J., *Eco-efficient Supply Chains for Electrical and Electronic Products*, Promotors: Prof.dr.ir. J.A.E.E. van Nunen & Prof.dr.ir. H.W.G.M. van Heck, EPS-2008-152-LIS, ISBN: 978-90-5892-192-5, <http://hdl.handle.net/1765/14785>

Radkevitch, U.L., *Online Reverse Auction for Procurement of Services*, Promotor: Prof.dr.ir. H.W.G.M. van Heck, EPS-2008-137-LIS, ISBN: 978-90-5892-171-0, <http://hdl.handle.net/1765/13497>

Rinsum, M. van, *Performance Measurement and Managerial Time Orientation*, Promotor: Prof.dr. F.G.H. Hartmann, EPS-2006-088-F&A, ISBN: 90-5892-121-2, <http://hdl.handle.net/1765/7993>

Romero Morales, D., *Optimization Problems in Supply Chain Management*, Promotors: Prof.dr.ir. J.A.E.E. van Nunen & Dr. H.E. Romeijn, EPS-2000-003-LIS, ISBN: 90-9014078-6, <http://hdl.handle.net/1765/865>

Roodbergen, K.J., *Layout and Routing Methods for Warehouses*, Promotors: Prof.dr. M.B.M. de Koster & Prof.dr.ir. J.A.E.E. van Nunen, EPS-2001-004-LIS, ISBN: 90-5892-005-4, <http://hdl.handle.net/1765/861>

Rook, L., *Imitation in Creative Task Performance*, Promotor: Prof.dr. D.L. van Knippenberg, EPS-2008-125-ORG, <http://hdl.handle.net/1765/11555>

Rosmalen, J. van, *Segmentation and Dimension Reduction: Exploratory and Model-Based Approaches*, Promotor: Prof.dr. P.J.F. Groenen, EPS-2009-165-MKT, ISBN: 978-90-5892-201-4, <http://hdl.handle.net/1765/15536>

Rus, D., *The Dark Side of Leadership: Exploring the Psychology of Leader Self-serving Behavior*, Promotor: Prof.dr. D.L. van Knippenberg, EPS-2009-178-ORG, <http://hdl.handle.net/1765/1>

Samii, R., *Leveraging Logistics Partnerships: Lessons from Humanitarian Organizations*, Promotors: Prof.dr.ir. J.A.E.E. van Nunen & Prof.dr.ir. L.N. Van Wassenhove, EPS-2008-153-LIS, ISBN: 978-90-5892-186-4, <http://hdl.handle.net/1765/14519>

Schaik, D. van, *M&A in Japan: An Analysis of Merger Waves and Hostile Takeovers*, Promotors: Prof.dr. J. Spronk & Prof.dr. J.P.M. Groenewegen, EPS-2008-141-F&A, ISBN: 978-90-5892-169-7, <http://hdl.handle.net/1765/13693>

Schauten, M.B.J., *Valuation, Capital Structure Decisions and the Cost of Capital*, Promotors: Prof.dr. J. Spronk & Prof.dr. D. van Dijk, EPS-2008-134-F&A, ISBN: 978-90-5892-172-7, <http://hdl.handle.net/1765/13480>

- Schramade, W.L.J., *Corporate Bonds Issuers*, Promotor: Prof.dr. A. De Jong, EPS-2006-092-F&A, ISBN: 90-5892-125-5, <http://hdl.handle.net/1765/8191>
- Schweizer, T.S., *An Individual Psychology of Novelty-Seeking, Creativity and Innovation*, Promotor: Prof.dr. R.J.M. van Tulder, EPS-2004-048-ORG, ISBN: 90-5892-077-1, <http://hdl.handle.net/1765/1818>
- Six, F.E., *Trust and Trouble: Building Interpersonal Trust Within Organizations*, Promotors: Prof.dr. B. Nooteboom & Prof.dr. A.M. Sorge, EPS-2004-040-ORG, ISBN: 90-5892-064-X, <http://hdl.handle.net/1765/1271>
- Slager, A.M.H., *Banking across Borders*, Promotors: Prof.dr. R.J.M. van Tulder & Prof.dr. D.M.N. van Wensveen, EPS-2004-041-ORG, ISBN: 90-5892-066-6, <http://hdl.handle.net/1765/1301>
- Sloot, L., *Understanding Consumer Reactions to Assortment Unavailability*, Promotors: Prof.dr. H.R. Commandeur, Prof.dr. E. Peelen & Prof.dr. P.C. Verhoef, EPS-2006-074-MKT, ISBN: 90-5892-102-6, <http://hdl.handle.net/1765/7438>
- Smit, W., *Market Information Sharing in Channel Relationships: Its Nature, Antecedents and Consequences*, Promotors: Prof.dr.ir. G.H. van Bruggen & Prof.dr.ir. B. Wierenga, EPS-2006-076-MKT, ISBN: 90-5892-106-9, <http://hdl.handle.net/1765/7327>
- Sonnenberg, M., *The Signalling Effect of HRM on Psychological Contracts of Employees: A Multi-level Perspective*, Promotor: Prof.dr. J. Paauwe, EPS-2006-086-ORG, ISBN: 90-5892-119-0, <http://hdl.handle.net/1765/7995>
- Speklé, R.F., *Beyond Generics: A closer Look at Hybrid and Hierarchical Governance*, Promotor: Prof.dr. M.A. van Hoepen RA, EPS-2001-008-F&A, ISBN: 90-5892-011-9, <http://hdl.handle.net/1765/357>
- Stam, D.A., *Managing Dreams and Ambitions: A Psychological Analysis of Vision Communication*, Promotor: Prof.dr. D.L. van Knippenberg, EPS-2008-149-ORG, <http://hdl.handle.net/1765/14080>
- Stienstra, M., *Strategic Renewal in Regulatory Environments: How Inter- and Intra-organisational Institutional Forces Influence European Energy Incumbent Firms*, Promotors: Prof.dr.ir. F.A.J. Van den Bosch & Prof.dr. H.W. Volberda, EPS-2008-145-STR, ISBN: 978-90-5892-184-0, <http://hdl.handle.net/1765/13943>
- Sweldens, S.T.L.R., *Evaluative Conditioning 2.0: Direct versus Associative Transfer of Affect to Brands*, Promotor: Prof.dr. S.M.J. van Osselaer, EPS-2009-167-MKT, ISBN: 978-90-5892-204-5, <http://hdl.handle.net/1765/1>
- Szkudlarek, B.A., *Spinning the Web of Reentry: [Re]connecting reentry training theory and practice*, Promotor: Prof.dr. S.J. Magala, EPS-2008-143-ORG, ISBN: 978-90-5892-177-2, <http://hdl.handle.net/1765/13695>

Teunter, L.H., *Analysis of Sales Promotion Effects on Household Purchase Behavior*, Promotors: Prof.dr.ir. B. Wierenga & Prof.dr. T. Kloek, EPS-2002-016-MKT, ISBN: 90-5892-029-1, <http://hdl.handle.net/1765/868>

Tims, B., *Empirical Studies on Exchange Rate Puzzles and Volatility*, Promotor: Prof.dr. C.G. Koedijk, EPS-2006-089-F&A, ISBN: 90-5892-113-1, <http://hdl.handle.net/1765/8066>

Tuk, M.A., *Is Friendship Silent When Money Talks? How Consumers Respond to Word-of-Mouth Marketing*, Promotors: Prof.dr.ir. A. Smidts & Prof.dr. D.H.J. Wigboldus, EPS-2008-130-MKT, ISBN: 978-90-5892-164-2, <http://hdl.handle.net/1765/12702>

Valck, K. de, *Virtual Communities of Consumption: Networks of Consumer Knowledge and Companionship*, Promotors: Prof.dr.ir. G.H. van Bruggen & Prof.dr.ir. B. Wierenga, EPS-2005-050-MKT, ISBN: 90-5892-078-X, <http://hdl.handle.net/1765/6663>

Valk, W. van der, *Buyer-Seller Interaction Patterns During Ongoing Service Exchange*, Promotors: Prof.dr. J.Y.F. Wynstra & Prof.dr.ir. B. Axelsson, EPS-2007-116-MKT, ISBN: 90-5892-146-8, <http://hdl.handle.net/1765/10856>

Verheul, I., *Is There a (Fe)male Approach? Understanding Gender Differences in Entrepreneurship*, Prof.dr. A.R. Thurik, EPS-2005-054-ORG, ISBN: 90-5892-080-1, <http://hdl.handle.net/1765/2005>

Verwijmeren, P., *Empirical Essays on Debt, Equity, and Convertible Securities*, Promotors: Prof.dr. A. de Jong & Prof.dr. M.J.C.M. Verbeek, EPS-2009-154-F&A, ISBN: 978-90-5892-187-1, <http://hdl.handle.net/1765/14312>

Vis, I.F.A., *Planning and Control Concepts for Material Handling Systems*, Promotors: Prof.dr. M.B.M. de Koster & Prof.dr.ir. R. Dekker, EPS-2002-014-LIS, ISBN: 90-5892-021-6, <http://hdl.handle.net/1765/866>

Vlaar, P.W.L., *Making Sense of Formalization in Interorganizational Relationships: Beyond Coordination and Control*, Promotors: Prof.dr.ir. F.A.J. Van den Bosch & Prof.dr. H.W. Volberda, EPS-2006-075-STR, ISBN 90-5892-103-4, <http://hdl.handle.net/1765/7326>

Vliet, P. van, *Downside Risk and Empirical Asset Pricing*, Promotor: Prof.dr. G.T. Post, EPS-2004-049-F&A, ISBN: 90-5892-07-55, <http://hdl.handle.net/1765/1819>

Vlist, P. van der, *Synchronizing the Retail Supply Chain*, Promotors: Prof.dr.ir. J.A.E.E. van Nunen & Prof.dr. A.G. de Kok, EPS-2007-110-LIS, ISBN: 90-5892-142-0, <http://hdl.handle.net/1765/10418>

Vries-van Ketel E. de, *How Assortment Variety Affects Assortment Attractiveness: A Consumer Perspective*, Promotors: Prof.dr. G.H. van Bruggen & Prof.dr.ir. A. Smidts, EPS-2006-072-MKT, ISBN: 90-5892-101-8, <http://hdl.handle.net/1765/7193>

- Vromans, M.J.C.M., *Reliability of Railway Systems*, Promotors: Prof.dr. L.G. Kroon, Prof.dr.ir. R. Dekker & Prof.dr.ir. J.A.E.E. van Nunen, EPS-2005-062-LIS, ISBN: 90-5892-089-5, <http://hdl.handle.net/1765/6773>
- Vroomen, B.L.K., *The Effects of the Internet, Recommendation Quality and Decision Strategies on Consumer Choice*, Promotor: Prof.dr. Ph.H.B.F. Franses, EPS-2006-090-MKT, ISBN: 90-5892-122-0, <http://hdl.handle.net/1765/8067>
- Waal, T. de, *Processing of Erroneous and Unsafe Data*, Promotor: Prof.dr.ir. R. Dekker, EPS-2003-024-LIS, ISBN: 90-5892-045-3, <http://hdl.handle.net/1765/870>
- Wall, R.S., *Netscape: Cities and Global Corporate Networks*, Promotor: Prof.dr. G.A. van der Knaap, EPS-2009-169-ORG, ISBN: 978-90-5892-207-6, <http://hdl.handle.net/1765/1>
- Watkins Fassler, K., *Macroeconomic Crisis and Firm Performance*, Promotors: Prof.dr. J. Spronk & Prof.dr. D.J. van Dijk, EPS-2007-103-F&A, ISBN: 90-5892-138-3, <http://hdl.handle.net/1765/10065>
- Weerdt, N.P. van der, *Organizational Flexibility for Hypercompetitive Markets: Empirical Evidence of the Composition and Context Specificity of Dynamic Capabilities and Organization Design Parameters*, Promotor: Prof.dr. H.W. Volberda, EPS-2009-173-STR, ISBN: 978-90-5892-215-1, <http://hdl.handle.net/1765/1>
- Wennekers, A.R.M., *Entrepreneurship at Country Level: Economic and Non-Economic Determinants*, Promotor: Prof.dr. A.R. Thurik, EPS-2006-81-ORG, ISBN: 90-5892-115-8, <http://hdl.handle.net/1765/7982>
- Wielemaker, M.W., *Managing Initiatives: A Synthesis of the Conditioning and Knowledge-Creating View*, Promotors: Prof.dr. H.W. Volberda & Prof.dr. C.W.F. Baden-Fuller, EPS-2003-28-STR, ISBN: 90-5892-050-X, <http://hdl.handle.net/1765/1042>
- Wijk, R.A.J.L. van, *Organizing Knowledge in Internal Networks: A Multilevel Study*, Promotor: Prof.dr.ir. F.A.J. van den Bosch, EPS-2003-021-STR, ISBN: 90-5892-039-9, <http://hdl.handle.net/1765/347>
- Wolters, M.J.J., *The Business of Modularity and the Modularity of Business*, Promotors: Prof. mr. dr. P.H.M. Vervest & Prof. dr. ir. H.W.G.M. van Heck, EPS-2002-011-LIS, ISBN: 90-5892-020-8, <http://hdl.handle.net/1765/920>
- Yang, J., *Towards the Restructuring and Co-ordination Mechanisms for the Architecture of Chinese Transport Logistics*, Promotor: Prof.dr. H.E. Harlambides, EPS-2009-157-LIS, ISBN: 978-90-5892-198-7, <http://hdl.handle.net/1765/14527>
- Yu, M., *Enhancing Warehouse Performance by Efficient Order Picking*, Promotor: Prof.dr. M.B.M. de Koster, EPS-2008-139-LIS, ISBN: 978-90-5892-167-3, <http://hdl.handle.net/1765/13691>

Zhang, X., *Strategizing of Foreign Firms in China: An Institution-based Perspective*, Promotor: Prof.dr. B. Krug, EPS-2007-114-ORG, ISBN: 90-5892-147-5, <http://hdl.handle.net/1765/10721>

Zhu, Z., *Essays on China's Tax System*, Promoters: Prof.dr. B. Krug & Prof.dr. G.W.J. Hendrikse, EPS-2007-112-ORG, ISBN: 90-5892-144-4, <http://hdl.handle.net/1765/10502>

Zwart, G.J. de, *Empirical Studies on Financial Markets: Private Equity, Corporate Bonds and Emerging Markets*, Promoters: Prof.dr. M.J.C.M. Verbeek & Prof.dr. D.J.C. van Dijk, EPS-2008-131-F&A, ISBN: 978-90-5892-163-5, <http://hdl.handle.net/1765/12703>