Thriving in Times of Uncertainty:
Servant Leadership as a Pathway to Basic Need Satisfaction, Well-being and Retention

Inaugural-Dissertation

zur Erlangung des Doktorgrades der Philosophie

an der Ludwig-Maximilians-Universität

München

vorgelegt von

Xuan Feng

aus

Shanghai, China

München, 2015

Referent: Prof. Dr. Dieter Frey

Ludwig-Maximilians-Universität

Lehrstuhl für Sozialpsychologie

Korreferent: Prof. Dr. Claudia Peus

Technische Universität München

Professur für Forschungs- und Wissenschaftsmanagement

Tag der mündlichen Prüfung: 26.01.2015

Table of Contents

List of Tables

List of Figures

Acknowledgments

In the past years, I have received substantial assistance, encouragement, and inspirations from many people. I want to extend my gratitude to them for having accompanied and supported me on this extraordinary journey.

First and foremost, I would like to extend my sincere gratitude and appreciation to my two supervisors: Prof. Dr. Dieter Frey and Prof. Dr. Claudia Peus.

I would like to thank my first supervisor Prof. Dr. Dieter Frey wholeheartedly, for accepting me as his PhD candidate and for guiding and assisting me throughout the PhD study. In particular, his ideas and full support in times of crisis helped me conquer several biggest obstacles and obtain new resources needed for this research project. I am very grateful to his kindness.

I owe special gratitude to my second supervisor, Prof. Dr. Claudia Peus, who stood behind me whenever I had questions and needs. I greatly appreciate her joint efforts in planning the research project for the organization as well as her constructive suggestions, timely feedback, and guidance, with which I was able to quickly advance and proceed despite the unexpected challenges.

I am deeply indebted to Dr. Armin Pircher Verdorfer, who played multiple supporting roles in leading me through the process. I thank him for being a mentor, a teacher, a coach, a cheer person, a servant, and for his encouragement, patience, positive thinkíng and faith in my completion of this work.

I am extremely thankful to Judith Wallner and Marion Schöndorf. They provided me with conditions for the research, and spent tremendous time in planning,

coordinating and implementing the research with me. Especially, I would like to thank them for their persistence and for making the best efforts to help me collect data in some difficult times. I would like to thank Rüdiger Fox for his important support and his valuable ideas in the early phase of the research project. I also would like to extend my thanks to the management and the employees of the organization who provided important insights into the two complex surveys.

I am fortunate and grateful to have the assistance of outstanding experts in the field. From Liping Xu, I have gained first-hand statistical assistance and consultations. She made me become more interested in statistics and the ideas behind. My writing greatly benefited from the constructive suggestions from Prof. Dr. Brooke Shaughnessy, who also helped review the final version of this dissertation. Many thanks to both of them, for their support and inspirations. In addition, I would like to thank all the colleagues from the Research and Science Management Department at TUM, for their sharing of knowledge, resources and ideas.

This PhD study was partly financed by the organization where the research was conducted and partly supported by the LMU Graduate Center. My special thanks to both institutions for their financial assistance.

Looking back on this journey, there have been great leaders who have inspired, influenced and transformed me, to whom I am truly thankful. Above all, I want to thank my parents, who have walked every step of this with me faithfully and truthfully. Besides their unconditional love and support, they have given me the best examples, through the way they serve and sacrifice. I owe a lot to them!

Abstract

Servant leadership embodies a specific focus on needs and prosperity of followers. However, objectively measured follower outcomes have been rarely examined in the bulks of studies in this area. The current study aims to fill this gap by developing a theoretical model linking servant leadership to subjective and objective well-being and turnover which includes followers' basic need satisfaction and perceived job insecurity as crucial intervening variables. Data were gathered at a medium-sized consulting company in Germany during a merger process. Perceived leadership and self-reported outcomes were collected at two separate time points. In addition objective data on sickness absence and actual turnover were available. Based on a sample of 216 followers, structural equation modeling was used to test the hypothesized effects. Results showed that servant leadership was associated with followers' basic need satisfaction, which in turn predicted emotional exhaustion and turnover intentions, and ultimately led to followers' sickness absence and actual turnover. The effects of servant leadership on followers' well-being and turnover were further moderated by perceived job insecurity, although contrary to the hypothesized directions. Unique contributions to research on servant leadership and self determination theory as well as implications for practice were discussed. Future research avenues were presented to overcome the limitations in this study.

Keywords: Servant leadership, basic need satisfaction, objective well-being and turnover, job uncertainty, merger

Servant Leadership ist ein Führungsansatz, dessen Fokus auf den Bedürfnissen und Entwicklungsgsmöglichkeiten der Geführten liegt. Während eine Vielzahl von Studien die subjektiv erlebten Effekte auf Seiten der Beschäftigten belegt, gibt es wenig Evidenz bezüglich objektiv messbarer Auswirkungen. Die vorliegende Studie setzt an dieser Forschungslücke an und entwickelt ein theoretisches Modell, in welchem die Auswirkungen von Servant Leadership auf subjektive und objektive Wohlbefindensindikatoren der Mitarbeiter untersucht werden.

Die Daten der empirischen Untersuchung stammen aus einem mittelständischen Beratungsunternehmen, welches zum Zeitpunkt der Erhebung einen Fusionsprozess durchlief. Die Angaben zum wahrgenommen Führungsverhalten sowie den subjektiven Outcome-Variablen wurden zu verschiedenen Zeitpunkten erfasst. Außerdem standen objektive Daten zur krankheitsbedingten Abwesenheit der Beschäftigten sowie der Fluktuation zur Verfügung. Insgesamt flossen die Angaben von 216 Befragten in die Auswertung der Daten mittels Strukturgleichungsmodellierung ein. Die Ergebnisse zeigen einen starken Zusammenhang zwischen Servant Leadership und der Befriedigung psychologischer Grundbedürfnisse (basic need satisfaction) der Geführten. Diese wiederum standen in einem negativen Zusammenhang mit der emotionalen Erschöpfung sowie der Kündigungsabsicht der Befragten, welche ihrerseits substantielle Prädiktoren für die krankheitsbedingte Abwesenheit und die tatsächlich gemessene Fluktuation darstellten. Des Weiteren zeigen die Ergebnisse, dass der Zusammenhang zwischen Servant Leadership und dem Wohlbefinden bzw. den Kündigungsabsichten der

Beschäftigten durch die wahrgenommene Arbeitsplatzunsicherheit moderiert wird. Dabei wurden teilweise gegensätzliche Effekte für die unterschiedlichen Outcome-Variablen gefunden. Die spezifische Bedeutung von Servant Leadership für die Selbstbestimmungstheorie der Motivation sowie entsprechende praktische Implikationen werden aufgezeigt und diskutiert. Abschließend werden die Einschränkungen der vorliegenden Arbeit kritisch beleuchtet und Potentiale für künftige Forschung aufgezeigt.

Introduction

"Organizations exist to serve. Period. Leaders live to serve. Period." – Tom Peters

" To Serve is to Live." – Frances Hesselbein

Organizations must survive and flourish in a competitive environment of frequent changes and under high levels of uncertainty. Under such circumstances it is often debated whether profit-making organizations and business leaders can afford to consider employees' needs, well-being[1] and their sense of commitment (e.g., Chen, Chen, & Li, 2013; Peus, Kerschreiter, Frey, & Traut-Mattausch, 2010; Peus, Kerschreiter, Traut-Mattausch, & Frey, 2010). On the other hand, recent research points to the fact that leadership with an ethical orientation can successfully increase organizational profitability (i.e., facilitating performance) and promote humanistic management practices (i.e. facilitating human dignity) (Frey, Nikitopoulos, Peus, Weisweiler, & Kastenmüller, 2010; Peus & Frey, 2009; Peus, Kerschreiter, Frey et al., 2010). One important construct that has gained increasing recognition as an ethically oriented leadership style is servant leadership (Cropanzano & Walumbwa, 2010; Peus, Kerschreiter, Frey, et al., 2010; Van Dierendonck & Nuijten, 2011).

Servant leadership is characterized as a more ethical and people-centered theory of leadership (Clegg, Kornberger, & Rhodes, 2007; Van Dierendonck & Nuijten, 2011). It is based on the premise that leaders who focus least on satisfying their own personal needs and most on prioritizing the fulfillment of followers' needs

[1] According to the definition of World Health Organization, "health is a state of complete physical, mental and social well-being not merely the absence of disease or infirmity." (World Health Organization [WHO], 2006, p.1). The Chartered Institute of Personnel and Development (CIPD) defines well-being as "a broader bio-psycho-social construct that includes physical, mental and social health" (Tehrani, Humpage, Willmott, & Haslam, 2007, p.4). Viewing the similarity of these two definitions, in this paper, well-being and health are considered as synonyms.

(Greenleaf, 1970; Liden, Wayne, Liao, & Meuser, 2014) will take moral responsibility to subordinates, customers, and other organizationally relevant stakeholders as well as meet business goals of the organization (Greenleaf, 1977; Peterson, Galvin, & Lange, 2012; Van Dierendonck & Nuijten, 2011). Substantial empirical evidence has highlighted the positive relationships between servant leadership and desirable individual-level (e.g., Jaramillo, Douglas, Grisaffe, Chonko, & Roberts, 2009a; Sousa & Van Dierendonck, 2014; Van Dierendonck, Stam, Boersma, de Windt, & Alkema, 2014; Walumbwa, Hartnell, & Oke, 2010), team-level (e.g., Hu & Liden, 2011; Schaubroeck, Lam, & Peng, 2011) and organizational-level outcomes (e.g., Ehrhart, 2004; Hunter et al., 2013; Liden, Wayne et al., 2014; Peterson et al., 2012). On the other hand, as servant leadership theory is still at an early stage of development (Liden, Wayne et al., 2014), there remain important gaps in the extant literature of servant leadership. First, outcomes of servant leadership are mainly based on subjective measures. To date, objective data were only concerned with performance indicators (Peterson et al., 2012). Although servant leadership has been increasingly acknowledged as an important factor for follower well-being (e.g., Ilies, Morgeson, & Nahrgang, 2005; Parris & Peachey, 2013; Van Dierendonck & Nuitjen, 2011) and commitment toward the organization (e.g., Hunter et al., 2013; Jaramillo et al., 2009a), follower outcomes, to my knowledge, were measured exclusively by self-rated indicators which might incur subjectivity biases (Anagnostopoulos & Niakas, 2010). The lack of objective data on follower outcomes also raises the question of whether and to what extent servant leadership affects more objective outcomes (Sousa & Van

Dierendonck, 2014). Second, contexts can significantly influence the way in which servant leadership affects follower outcomes (Hunter et al., 2013; Liden, Panaccio, Meuser, Hu, & Wayne, 2014; Van Dierendonck, 2011). Yet, empirical research on the boundary conditions of servant leadership is rather insufficient (Mayer, 2010), inconsistent (Van Dierendonck et al., 2014), and relatively tangential, as organizational context was mainly treated as an artifact of the sample not an active variable (Kool & Van Dierendonck, 2012; Porter & McLaughlin, 2006; Sousa & Van Dierendonck, 2014). As such, scholars have voiced the need to take into account the contextual influences on leadership (e.g., Avolio, 2007; Boal & Hooijberg, 2000; Porter & McLaughlin, 2006; Zaccaro & Klimoski, 2001) because such research can benefit the servant leadership literature theoretically and empirically (Mayer, 2010; Van Dierendonck et al., 2014).

This study aims to fill the gaps existing in the current servant leadership literature by examining the relationships between servant leadership and followers' subjectively and objectively measured well-being and turnover. I propose and empirically justify a theoretical model that links servant leadership with followers' basic need satisfaction, a central construct of self determination theory (SDT) (Deci & Ryan, 2000), which in turn predicts emotional exhaustion and turnover intentions, and ultimately leads to employee sickness absence and actual turnover. In response to the call for context-specific studies (Porter & McLaughlin, 2006) and contextual variables that moderate leadership effectiveness (e.g., Mayer, 2010; Van Dierendonck et al., 2014), I examine the proposed relationships in a unique merger context and further

investigate a moderating function of employees' perceived job insecurity and its interplay with servant leadership, employee well-being and turnover.

By justifying this theoretical model, this research addresses three main research contributions to the emerging literature of servant leadership. First, it offers the first theoretical and empirical work linking servant leadership with employee well-being as operationalized by emotional exhaustion and objective data on sickness absence. Second, this is the first study of servant leadership that simultaneously examines employee turnover intentions and actual turnover in the research framework of servant leadership. In doing so, it extends beyond the understanding of the established relationships between servant leadership and followers' intentions to quit (Hunter et al., 2013; Jaramillo et al., 2009a; Liden, Wayne et al., 2014). Third, by testing the theoretical model in a merger context and further explicitly including a contextual moderator that could capture the high levels of uncertainty typical in mergers (i.e., perceive job insecurity), it provides an important insight to the processes behind the link between servant leadership and employee well-being and turnover. Finally, this research also contributes to SDT by validating the mediating role of basic need satisfaction in the servant leadership mechanism concerning employee well-being and turnover.

Theory and Hypothesis Development

Servant Leadership Theory

Derived from Greenleaf's (1970, 1977) classical notion of servant leaders as "people who desire to serve first and therefore aspire to lead", servant leadership is a leadership model that contains an explicitly moral dimension and an overarching focus on social relationships (Fairholm & Fairholm, 2009; Graham, 1991). It is uniquely concerned with the success of all organizational stakeholders, making sure that the needs of these stakeholders are the highest priority needs and are well met (Graham, 1991; Greenleaf, 1977). Servant leadership is ethical because it is about placing the good of others over the self-interest of the leader (Hale & Field, 2007) as well as about serving and helping people improve and develop for their own good, not using them as a means to reach the leader's or the organization's goal and interest (Ehrhart, 2004; Graham, 1991; Liden, Wayne, Zhao, & Henderson, 2008). More specifically, servant leadership embodies a strong focus on satisfying and fulfilling followers' personal needs, with its primary goal of helping followers grow, develop, prosper and reach their fullest potential in areas of task effectiveness, community stewardship, self-motivation, and future leadership capabilities (Graham, 1991; Greenleaf, 1970, 1977; Van Dierendonck, 2011; Van Dierendonck et al., 2014).

Following the pioneering work of Greenleaf (1970, 1977), scholars have developed theoretical models, with the aim to bring together the most distinguishing attributes of servant leadership (see Ehrhart, 2004; Laub, 1999; Liden et al., 2008; Patterson, 2003; Spears, 1995; Van Dierendonck & Nuijten, 2011). At present, the

models developed by Ehrhart (2004), Liden and colleagues (2008), as well as Van Dierendonck and Nuitjen (2011) are among the most influential and most widely used. The early models served as a foundation for all subsequent models, as is discussed below.

As one of the early theoretical constructs, Ehrhart (2004) identified seven dimensions of servant leadership. The first dimension involves forming relationships with followers. Servant leaders are those who spend quality time and forge interpersonal bonds with their followers. Three dimensions of servant leadership describe the behaviors that enable employees to thrive, grow and succeed. Examples of these behaviors include empowering followers, incorporating follower input on important managerial decisions, providing opportunities to enhance follower skills and putting followers first to promote their success. A fifth dimension indicates that servant leaders behave ethically. For instance, a servant leader will follow through on promises made to followers to demonstrate their adherence to strong ethical values. Sixth, servant leaders demonstrate conceptual skills, such as balancing daily work with future visions. Finally, servant leaders create value for others outside the organization, such as encouraging followers to engage in community service opportunities outside of work. (also see Hunter et al., 2013). Ehrhart's model of servant leadership is centered on two key aspects of servant leadership: ethical behavior and the prioritization of subordinates' concerns.

Based on the core aspects of three early servant leadership constructs developed by Ehrhart (2004), Barbuto and Wheeler (2006), as well as Page and Wong

(2000), Liden et al. (2008) established a seven-factor servant leadership construct. This construct consists of six factors similar to sub-dimensions of Ehrhart (2004). These factors are conceptual skills, empowering, helping subordinates grow and succeed, putting subordinates first, creating values for community and behaving ethically. One additional dimension that has not been explicitly indicated in Ehrhart's model is emotional healing, which refers to one's sensitivity to others' personal concerns.

More recently, after reviewing all established constructs of servant leadership, Van Dierendonck and Nuijten (2011) pointed out the aspect of "leader" was absent from previous servant leadership operationalizations. To address the shortcomings, they developed an eight-dimensional servant leadership model and its applicable measure. These dimensions are: empowerment, humility, accountability, stewardship, authenticity, forgiveness, courage and standing back. Empowerment represents a leader's motivation to recognize and acknowledge each person's ability as well as to support personal development and growth through the process of autonomous decision making, information sharing, coaching and mentoring (Conger, 2000; Greenleaf, 1998; Konczak, Stelly, & Trusty, 2000). Humility is about the modesty and self awareness of the leader which is demonstrated in one's ability to prioritize others' interests, to recognize one's mistakes and limitations, and to provide sufficient spaces for learning and contributions (Sousa & Van Dierendonck, 2014). Accountability concerns providing direction and holding people accountable for the outcomes they can deliver (Conger, 1989), while considering the capabilities, the specific needs and

possible contributions of their people (Sousa & Van Dierendonck, 2014). Stewardship refers to a leader's commitment to taking social responsibility and serving for the common good. It also emphasizes a leadership function as a role model (Pircher Verdorfer & Peus, 2014). Authenticity is about expressing one's "true self" in ways that are consistent with inner thoughts and feelings, internalized values and principles, as well as preferences and needs (Harter, 2002; Pircher Verdorfer & Peus, 2014). Forgiveness focuses on positive and forgiving responses to offenses, differences or mistakes of the followers (Pircher Verdorfer & Peus, 2014; Sousa & Van Dierendonck, 2014). Courage is characterized by the leader's willingness to face challenges, to take risks and to try out new approaches (Greenleaf, 1991; Pircher Verdorfer & Peus, 2014). Finally, standing-back refers to the degree to which a leader shifts the focus away from himself/herself, continually recognizes the contributions of others, and provides essential support and praise for their people (Pircher Verdorfer & Peus, 2014; Sousa & Van Dierendonck, 2014). A more thorough review of the model can be found in Sousa and Van Dierendonck (2014), Pircher Verdorfer and Peus (2014), as well as in Van Dierendonck and Nuijten (2011).

Despite the lack of a unified servant leadership model, researchers agreed that servant leadership is distinct from similar leadership theories, e.g., transformational leadership, authentic leadership, ethical leadership, and LMX (see Ehrhart, 2004; Liden, Panaccio et al., 2014; Liden et al., 2008; Van Dierendonck, 2011; Walumbwa et al., 2010). The essential difference between servant leadership and other traditional leadership approaches is a paradigm shift in "who a leader is" and "what a leader

does" (Dansereau, Seitz, Chiu, Shaughnessy, & Yammarino, 2013; Sendjaya & Sarros, 2002). Servant leadership builds up a leader self-concept based on the assumption that '*one is the leader therefore one serves*' (Graham, 1991; Greenleaf, 1977; Sendjaya & Sarros, 2002; Van Dierendonck, 2011) and a combined motivation to be(come) a leader with a need to serve (e.g., Ehrhart, 2004; Liden et al., 2008; Sendjaya & Sarros, 2002; Van Dierendonck et al., 2014). With the primary intent to serve others first, rather than to lead first (Dansereau et al., 2013; Greenleaf, 1977; Sendjaya & Sarros, 2002), servant leaders place the growth and needs of followers in the center, whereas the "leader-centered" transformational and charismatic leaders focus primarily on the visionary and inspirational appeals as well as on the objectives of the organization and/or the leader. (Bass, 2000; Graham, 1991; Van Dierendonck, 2011). Servant leadership shares common characteristics with authentic leadership and ethical leadership with regard to the strong emphasis on leaders' moral principles and behaviors (Van Dierendonck, 2011; Walumbwa et al., 2010). Servant leadership also contains attributes of authentic leadership, i.e., being authentic and humble (Van Dierendonck, 2011). In spite of some conceptual overlaps, servant leadership is distinguished from authentic leadership and ethical leadership by the unique concern servant leaders have with the success and growth of all organizational stakeholders (Walumbwa et al., 2010). Finally, although both LMX and servant leadership give priority of quality leader-follower relationship development, servant leadership also differs from LMX by its ethical compass and strong emphasis on responsibility and service to the community, both of which are not directly included in the LMX theory

(Ehrhart, 2004; Liden et al., 2008). A more detailed review of the differences between servant leadership and related leadership models can be found in Liden, Panaccio et al., (2014), Parolini, Patterson and Winston (2009), and Van Dierendonck (2011).

As a tenable theory of leadership, servant leadership's pervasive focus on serving and developing others is a cogent domain for investigating follower outcomes in organizations (Walumbwa et al., 2010). Van Dierendonck (2011) summarized three key dimensions of follower outcomes generated by servant leadership: (a) followers' personal growth in terms of self-actualization, (b) becoming healthier, wiser, free and more autonomous in terms of positive job attitudes, and (c) becoming service-oriented themselves in terms of organizational citizenship (OCB) and collaborative team work (p.1248). Empirical findings showed that servant leadership was related to followers' personal growth and self-actualization: It enhanced occupational self efficacy (Pircher Verdorfer & Peus, 2014; Walumbwa et al., 2010), organization-based self-esteem (Pircher Verdorfer & Peus, 2014), basic need satisfaction (Mayer, Bardes, & Piccolo, 2008; Van Dierendonck et al., 2014), team potency (Hu & Liden, 2011), psychological empowerment (Sousa & Van Dierendonck, 2014) and creativity (Liden, Wayne et al., 2014; Neubert, Kacmar, Carlson, Chonko, & Roberts, 2008). Servant leadership was found to promote positive work attitudes: It fostered trust (Schaubroeck, Lam, & Peng, 2011), identification with the unit (store) (Liden, Wayne et al., 2014) and the organization (Sousa & Van Dierendonck, 2014), commitment to the supervisor (Walumbwa et al., 2010), the organization (Jaramillo et al., 2009a; Jaramillo et al., 2009b; Liden et al., 2008; Van Dierendonck et al., 2014) and the

change process (Kool & Van Dierendonck, 2012), as well as decreased turnover intentions (Hunter et al., 2013; Jaramillo et al., 2009a; Liden, Wayne et al., 2014) and organizational cynicism (Pircher Verdorfer, Steinheider, & Burkus, 2014). Servant leadership improved overall well-being of the followers: It engendered positive psychological functioning including job satisfaction (Chung, Jung, Kyle, & Petrick, 2010; Jaramillo et al., 2009a; Mayer et al., 2008), work engagement (Sousa & Van Dierendonck, 2014; Van Dierendonck et al., 2014), and alleviated negative psychological experience, such as burnout (Babakusa, Yavas, & Ashill, 2011). Furthermore, by creating moral (Pircher Verdorfer et al., 2014) and justice work environment (Ehrhart, 2004; Walumbwa et al., 2010) as well as service climate and culture (Hunter et al., 2013; Liden, Wayne et al., 2014), servant leaders turned their followers into highly proactive servants themselves who display more organizational citizenship behavior (OCB) (Hu & Liden 2011; Liden et al., 2008). Finally, a healthier and more committed workforce enhanced performance at individual (Liden Wayne et al., 2014), team (Hu & Liden, 2011; Liden Wayne et al., 2014; Schaubroeck et al., 2011), store (Hunter et al., 2013; Liden Wayne et al., 2014) and organizational levels (Peterson et al., 2012).

Notably, servant leadership explained additional variance in the listed follower and organizational outcomes beyond those predicted by LMX and transformational leadership. Specifically, research found servant leadership predicted additional variance in employee commitment, satisfaction with supervisor, perceived supervisor support and procedural justice above and beyond that of transformational leadership

and LMX (Ehrhart, 2004). Servant leadership on the team level explained team performance above and beyond transformational leadership (Schaubroeck et al., 2011). The same was found to be true for citizenship behavior and in-role job performance beyond that predicted by LMX and transformational leadership (Liden et al., 2008).

To summarize, as a distinctive leadership theory, servant leadership represents a positive approach to organizational behavior (Cameron & Spreitzer, 2012). It is viable and valuable on an individual and on a collective level, which can lead to increased overall effectiveness of individuals, teams and organizations beyond that predicted by similar leadership constructs (Parris & Preachey, 2013).

Servant Leadership as a Pathway to Basic Need Satisfaction

"What are you in business for? The answer may be: I am in the business of growing people — people who are stronger, healthier, more autonomous, more self-reliant, more competent. Incidentally, we also make and sell at a profit things that people want to buy so we can pay for all this." — *Greenleaf, 1977/2002, p. 159*

Servant leaders are naturally motivated to satisfy the real needs of the people. Along with this essential characteristic of servant leadership, researchers purported that the satisfaction of basic psychological needs may be the primary underlying psychological mechanism linking servant leadership to optimal employee work attitudes and behaviors (e.g., Mayer, 2010; Mayer et al., 2008; Van Dierendonck et al., 2014; Yang & Zhang, 2014).

According to SDT, needs are innate psychological nutriments that are essential

for survival, ongoing psychological growth, integrity, proactivity, optimal development, learning, and well-being of people (Deci & Ryan, 2000; Deci & Vansteenkiste, 2004). Based on this definition of needs (c.f. other theories on needs see Baard, Deci, & Ryan, 2004; Deci & Ryan, 2000), SDT has proposed that individuals have basic psychological needs. Satisfaction of these basic psychological needs is essential for individuals' optimal functioning and well-being (Deci & Ryan, 2000; Ryan, 1995). It is also assumed to represent the underlying motivational mechanism that energizes and directs people's behavior (Deci & Ryan, 2000; Van den Broeck, Vansteenkiste, De Witte, Soenens, & Lens, 2010).

In SDT, three basic psychological needs have been identified. First is the need for competence, which 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, 2002, p. 7). Next is the need for autonomy, which represents one's experience of having choice and psychological freedom when carrying out an activity as well as a feeling of in control of one's environment (Baard et al., 2004; Deci & Ryan, 2000; Mayer, 2010; Van den Broeck et al., 2010). Finally is the need for relatedness, which is defined as individuals' inherent propensity to feel 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, 2002, p. 7).

Because servant leaders, by definition, place the needs of their subordinates before their own needs, this study parallels recent work on servant leadership as a

primary antecedent of followers' basic need satisfaction (e.g., Mayer, 2010; Mayer et al., 2008; Van Dierendonck et al., 2014). Servant leaders satisfy the followers' need for competence. With strong intention to bring out the best in their followers as well as a strong interest in guiding and supporting followers to grow and succeed (Hu & Liden, 2011; Mayer et al., 2008; Van Dierendonck, 2011; Walumbwa et al., 2010), servant leaders listen and initiate one-on-one communication to recognize, understand, acknowledge and realize the abilities, needs, desires, goals, and potentials of their followers (Greenleaf, 1998; Liden et al., 2008; Van Dierendonck, 2011; Walumbwa et al., 2010). They also provide opportunities and resources for followers to develop new skills and assist them in using these new competences to achieve their maximum potentials, goals as well as optimal organizational and career success (Greenleaf, 1977; Liden et al., 2008). Especially, servant leaders "want their subordinates to improve and develop for their own good" (Ehrhart, 2004, p. 69). This indicates that servant leadership supports need fulfillment of autonomy by giving space to allow their followers to do their own work (Mayer, 2010), encouraging self-initiation and self-directed decision making (Gagne & Deci, 2005; Konczak et al., 2000), allowing for the possibility of failure and mistakes (Gilbert & Kelloway, 2014), as well as leading and sharing information in a non-controlling way (Deci & Ryan, 2000; Gagne & Deci, 2005). Finally, servant leaders foster the relatedness need satisfaction through building quality relationships and a moral and caring work climate (Pircher Verdorfer et al., 2014). These behaviors help followers to gain more trust and respect toward the leaders, become more committed to their work and create a greater sense of belonging

in the organization (Mayer, 2010; Schaubroeck et al., 2011; Van Dierendonck et al., 2014).

In summary, servant leadership is closely related to followers' basic need satisfaction and it generates optimal work outcomes through this motivational function (Van Dierendonck et al., 2014).

Servant Leadership as a Pathway to Reduced Emotional Exhaustion: The Mediating Role of Basic Need Satisfaction

At the negative side of the continuum of employees' psychological relationships to their jobs, emotional exhaustion is defined as a specific stress-related reaction that refers to feelings of being overextended and depleted of one's emotional and physical resources caused by work (Maslach & Leiter, 2008; Maslach, Schaufeli & Leiter, 2001; Saxton, Phillips, & Blakeney, 1991). It captures the basic stress experienced by an individual (Maslach & Leiter, 2008; Maslach, Leiter, & Schaufeli, 2009) and has a close association with mental fatigue (Van den Broeck, Vansteenkiste, De Witte, & Lens, 2008), strain (Lee & Ashforth 1990; Leiter, 1989), frustration and psychological distress (Maslach & Jackson, 1981a, 1981b). As the most significant energy-related dimension in the formulation of employee burnout (Demerouti, Mostert, & Bakker, 2010; Halbesleben & Buckley, 2004; Maslach & Jackson, 1981a, 1981b; Maslach & Leiter, 2008; Maslach et al., 2001; Van den Broeck et al., 2008), emotional exhaustion is considered to fit closely the concept of work-related well-being and has received the most thorough analysis as well as the most consistent empirical support in its association with health-related outcomes (Maslach & Leiter, 2008; Van den Broeck et

al., 2008). Especially in performance-driven organizations, employees were reported to be at high risk for emotional exhaustion (e.g., in forms of accumulated physical and mental fatigue) due to the intense performance-related pressures and demands, as well as strains and anxieties derived from environmental uncertainties (Chen et al., 2011; Green, Miller, & Aarons, 2013; Väänänen, Pahkina, Kalimoa, & Buunkc, 2004).

In the present paper, I purport servant leadership to be a powerful buffer against emotional exhaustion. In fact, referred to as one of many possible sources of employee well-being (Nyberg, Bernin, & Theorell, 2005), leadership is more likely to be associated with psychological symptoms (e.g., exhaustion, anxiety, depression, or stress related to work) than with physical health that pertains to the physical and ergonomic contents of the work (Kuoppala, Lamminpää, Liira, & Vainio, 2008). Acknowledged as the most explicit form of leadership that regards the well-being of the followers as the primary goal (Greenleaf, 1977/2002; Kool & Van Dierendonck, 2012; Van Dierendonck, 2011), servant leadership was found to significantly reduce burnout through the mediation function of person-job fit (Babakus et al., 2011). Servant leadership was also related to followers' work engagement, which was theoretically and empirically conceived as the antithesis of burnout (e.g., Demerouti, Bakker, Vardakou, & Kantas, 2003; Demerouti et al., 2010; González-Romá, Schaufeli, Bakker, & Lloret, 2006; Schaufeli & Bakker, 2003).

As relevant to the current study, Van Dierendonck and colleagues (2014) found servant leadership was positively related to work engagement (i.e., vigor, dedication, absorption) and this effect of servant leadership on work engagement was fully

mediated by basic need satisfaction. They examined the relationship between servant leadership and work engagement in a merger context. Their findings explained that servant leadership worked through organizational identification and psychological empowerment to enhance work engagement during the time of change. Based on previous findings concerning servant leadership effects on burnout and work engagement, I assume a similar negative indirect path from servant leadership toward followers' emotional exhaustion.

Furthermore, I propose that the negative relationship between servant leadership and emotional exhaustion will be explained by followers' basic need satisfaction. As a key determinant of well-being (Deci & Ryan, 2000, 2014; Vansteenkiste, Niemiec, & Soenens, 2010), basic need satisfaction is essential for humans to actualize their potentials, to flourish and to be protected from ill health and maladaptive functioning (Van den Broeck et al., 2008). Whereas employee's report of basic need satisfaction enhances self-esteem, general health, vitality and reduces anxiety, somatization and burnout (Baard et al., 2004; Ilardi, Leone, Kasser, & Ryan, 1993; Van den Broeck et al., 2008), frustration of basic needs leads to energy depletion, malfunctioning and sickness (Elst, Van den Broeck, De Witte, & De Cuyper, 2012). Because concern for the needs of followers is more strongly emphasized in servant leadership theory than in any other leadership theories (Mayer, 2010; Van Dierendonck et al., 2014), it follows that basic need satisfaction will carry the effect of servant leadership onto followers' emotional exhaustion. Accordingly, I form the first hypothesis.

Hypothesis 1: Servant leadership yields a negative indirect effect on emotional exhaustion through basic need satisfaction.

Servant Leadership as a Pathway to Reduced Sickness Absence: The Mediating Roles of Basic Need Satisfaction and Emotional Exhaustion

Leadership is often mentioned in reviews of well-being (e.g., burnout) and stress (e.g., Van Dierendonck, Haynes, Borrill, & Stride, 2004), however, there is little knowledge regarding how leadership behaviors influence the immediate consequences of impaired well-being related to organizations (Nyberg, Westerlund, Magnusson Hanson, & Theorell, 2008). One of the immediate outcomes of impaired well-being is sickness absence (Anagnostopoulos & Niakas, 2010). Sickness absence is regarded to have both medical and behavioral aspects (Notenbomer, Roelen, & Groothoff, 2006) and is a common way of gauging the health of an organization (Halbesleben & Buckley, 2004; Sundquist, Al-Windi, Johansson, & Sundquist, 2007; Tehrani et al., 2007). Whereas long-term sickness absence is most likely to be associated with chronic medical problems (Andrea et al., 2003), short-term absence is more likely to arise from personal and social factors (Johnson, Croghan, & Crawford, 2003; Nicholson & Payne, 1987). Empirical studies have shown that burnout and especially emotional exhaustion is closely associated with sickness absence. For instance, Toppinen-Tanner, Ojajärvi, Väänänen, Kalimo and Jäppinen (2005) found that total burnout and emotional exhaustion in particular are related to increased medically certified sickness-leave absence (> 4 days) and also increased risks of future illness. Soler et al. (2008) showed that high levels of burnout have been associated with

sickness-leave utilization in health professionals from 12 European countries. Using a multidimensional burnout scale, Anagnostopoulos and Niakas (2010) clearly demonstrated emotional exhaustion to be a proximate predictor of short-term sickness absence (1-10 days) of nurses.

To date, there is no research evidence showing how servant leadership influences employee well-being measured by organizations, such as followers' sickness absence. Drawing from the direct relationship between emotional exhaustion and sickness absence revealed in previous studies, I suggest that servant leadership should not only lead to self-rated emotional exhaustion, but also link to employees' sickness absence measured by organizations. Because, servant leaders constantly take actions to satisfy followers' needs, which enables employees to gain controls, competences and social support at work in coping with high work demands or challenges derived from changes and uncertainties. The satisfaction of three needs (i.e., autonomy, competence and relatedness) reduces the level of emotional exhaustion and subsequently improves the physiological functions (Blais & Brière, 1992; Gilbert & Kelloway, 2014) as well as psychological adjustment characterized by more vitality and less anxiety (Baard et al., 2004). This improvement of physiological and psychological states in turn mitigates the likelihood of getting physically ill and taking sickness absence (Anagnostopoulos & Niakas, 2010; Blais & Brière, 1992; Elst et al., 2012).

On this basis, I extend the previously hypothesized servant leadership-emotional exhaustion link and propose a chain relationship between servant

leadership and employee sickness absence, fully mediated by basic need satisfaction and emotional exhaustion.

Hypothesis 2: Servant leadership yields a negative indirect effect on employee sickness absence through basic need satisfaction and emotional exhaustion.

Servant Leadership as a Pathway to Reduced Turnover Intentions: The Mediating Role of Basic Need Satisfaction

Voluntary turnover has long been a salient managerial issue. The disruptive nature of turnover has a pervasive effect on organization's ability to sustain and develop mutually beneficial relationships with revenue-producing clients. Turnover further generates high costs from the loss of human and financial capitals (e.g., Glebbeck & Bax, 2004; Hancock, Allen, Bosco, McDaniel, & Pierce, 2013; Jaramillo et al., 2009a; Wright & Bonett, 2007). For over 50 years, scholars have developed research models and concepts to understand what prompt for employees' self-initiated departures(see the review of Holtom, Mitchell, Lee, & Eberly, 2008). Historic research concerning voluntary turnover has taken job satisfaction and job alternatives as key antecedents (Griffeth, Hom, & Gaertner, 2000; Holtom et al., 2008; Lee & Mitchell, 1994; March & Simon,1958). Based on these two founding antecedents of voluntary turnover (March & Simon,1958), Mobley (1977) presented an intermediate linkages model describing voluntary turnover as an intrapsychic development process that is initiated by the individual's dissatisfaction with a current job or job environment. According to Mobley (1977) and Mobley, Griffeth, Hand and Meglino (1979), the common turnover process starts with evaluation of one's job to a cognitive

process of evaluating satisfaction and the utility of the present and future alternatives. This attitudinal evaluation leads to withdrawal cognitions (thoughts of quitting, job search decisions, turnover intentions), and eventually shapes the actual turnover (Hom, Caranikas-Walker, Prussia, & Griffeth, 1992; Hom, Griffeth, & Sellaro, 1984; Mobley, Hollingsworth, & Horner, 1978). In this study, I combine aspects of servant leadership with the turnover procedures described in the traditional linkages model by Mobley (1977). In particular, I propose that basic need satisfaction, which is a proximate predictor of job satisfaction (Deci & Ryan, 2014; Ilardi et al., 1993; Richer, Blanchard, & Vallerand, 2002) will carry the distal influence of servant leadership to employee turnover intentions.

Evidently, leadership plays a crucial role in explaining retention (e.g., Holtom et al., 2008; Jaramillo et al., 2009a; Palanski, Avey, & Jiraporn, 2013). Previous studies showed that servant leadership was negatively associated with turnover intentions. Jaramillo and colleagues (2009a) examined servant leadership and turnover intentions on an individual level. They found that servant leadership affected turnover intentions through a moderated and fully mediated chain-of-effects that involve ethical level, person-organization fit, and organizational commitment. Further, turnover intentions was also related to group-level servant leadership. Hunter and colleagues (2013) showed that it is through a full mediation path of service climate that group-level servant leadership affected individual turnover intentions. Although the relationship between servant leadership, basic need satisfaction and employee turnover intentions have not been empirically tested, servant leadership was found to

promote the satisfaction of basic needs and consequentially produce positive work attitudes and behaviors (Baard et al., 2004, Mayer, 2010), such as followers' job satisfaction (Mayer et al., 2008), work engagement (Van Dierendonck et al., 2014) and organizational commitment (Van Dierendonck, et al., 2014; Yang & Zhang, 2014). These positive work attitudes should lead to lower turnover intentions (Haivas, Hofmans, & Pepermans, 2013; Vansteenkiste, Neyrinck, Niemiec, Soenens, De Witte, & Van den Broeck, 2007). From a SDT perspective, Richer and colleagues (2002) found that satisfaction of basic needs enhanced self-determined work motivation and the latter positively linked to work satisfaction, and in turn work satisfaction attenuated turnover intentions. These previous findings suggest that a negative indirect effect of servant leadership on turnover intentions through basic need satisfaction is highly plausible. Furthermore, the theoretical rational of this potential indirect effect can be strengthened by "reciprocal" and social exchange between servant leaders and followers (Hunter et al.,2013). Hunter and colleagues (2013) indicated that when followers frequently witness their servant leader's commitment and moral obligation to take care of employees' needs and well-being, they become more satisfied and committed to their supervisor and the organization. In order to "payback", these employees may choose to stay with the organization rather than quit (Hughes, Avey, & Nixon, 2010; Hunter et al., 2013), even when they perceived less favorable job situations.

Therefore, similar to previous studies (see Hunter et al., 2013; Jaramillo et al., 2009a), I propose a full mediation path linking servant leadership to turnover

intentions via basic need satisfaction.

Hypothesis 3: Servant leadership yields a negative indirect effect on employee turnover intentions through basic need satisfaction.

Servant Leadership as a Pathway to Reduced Actual Turnover: The Mediating Roles of Basic Need Satisfaction and Turnover Intentions

Leaving a job in an organization is a radical reaction (Krausz, 2002). Most perspectives on turnover have considered actual turnover as the end product of a complex and deliberate process that encompasses multiple antecedents including distal determinants (e.g., characteristics of the work environment, alternative job opportunities, distributive justice and leadership) and proximal precursors (e.g., job satisfaction, organizational commitment, job search, comparison of alternatives, withdrawal cognitions, and quit intentions) (Griffeth et al., 2000; see also Hom et al., 1992; Hom & Griffeth, 1995). Among all the antecedents listed in the meta-analysis of Griffeth and colleagues (2000), turnover intentions remained the best predictor of actual turnover (ρ = .38) (except for job search methods), predicting above and beyond relevant concepts such as withdrawal cognitions, search intentions and thoughts of quitting (more details see Griffeth et al., 2000). Examining turnover in a merger context, Rafferty and Restubog (2010) found that voluntary turnover was predicted only by turnover intentions not by job satisfaction. Overall, the direct link between turnover intentions and actual turnover behaviors have been well documented in literature (e.g., Allen, Weeks, & Moffitt, 2005; Bentein, Vandenberg, Vandenberghe, & Stinglhamber, 2005; Podsakoff, LePine, & LePine, 2007;

Vandenberghe, Bentein, & Stinglhamber, 2004). These results fit with research on attitudes, intentions, and behaviors which demonstrates that intentions are the most proximate predictor of behaviors (Ajzen & Fishbein, 1977; Madden, Ellen, & Ajzen, 1992).

Consistent with this reasoning, I explore an extended chain-of-effect between servant leadership and actual turnover, which to my knowledge, has not been empirically tested. The rationale builds upon the suggestion of Hunter et al. (2013) to integrate early indicators (e.g., dissatisfaction), intermediate stages (e.g., turnover intentions), and actual turnover (Abelson, 1987) in the servant leadership process. A direct link between servant leadership and actual turnover behavior is not expected. Rather servant leadership shall affect turnover through attitudes (Gerstner & Day, 1997), especially through turnover intentions (Griffeth et al., 2000; Mobley et al., 1979). Furthermore a direct effect of basic need satisfaction on turnover is also not expected. Previously, Van den Broeck and colleagues (2010) observed a lack of direct association between basic need satisfaction as a composite and actual turnover. In fact, basic need satisfaction was found to influence actual turnover through a sequential chain mechanism involving work motivation, work satisfaction and turnover intentions (Richer et al., 2002). Therefore, the next hypothesis is concerned with the indirect effect of servant leadership on actual turnover, as explained by basic need satisfaction and turnover intentions.

Hypothesis 4: Servant leadership yields a negative indirect effect on employee actual turnover through basic need satisfaction and turnover intentions.

The hypothesized model of this study is displayed in Figure 1.

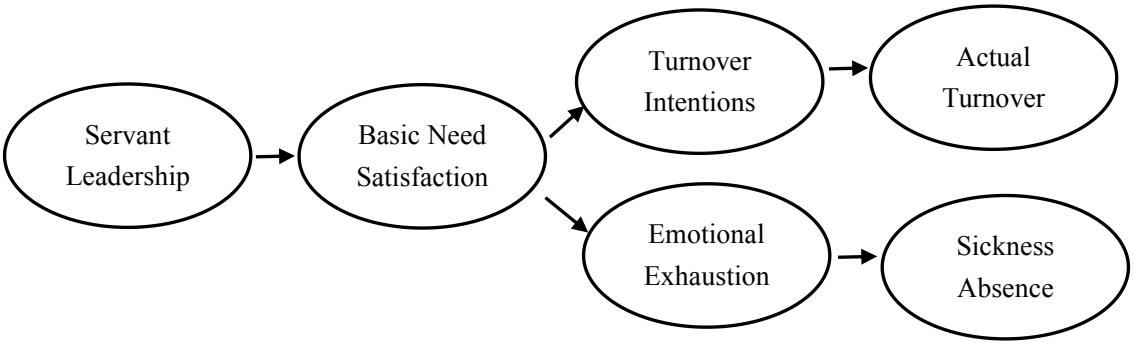

Figure 1. The hypothesized theoretical model.

Servant Leadership, Employee Well-being, and Retention in Times of High Uncertainty: The Moderating Role of Perceived Job Insecurity

Leadership never takes place in a context-free vacuum (Boal & Hooijberg, 2000; Porter & McLaughlin, 2006), yet there exists a relative void regarding the potential influences of contexts in the bulk of leadership literature, including the area of servant leadership (see Antonakis et al., 2004; Avolio, 2007; Mayer, 2010; Porter & McLaughlin, 2006; Shamir & Howell, 1999; Zaccaro & Klimoski, 2001). For this reason it is necessary to reflect the situational factors which influence leadership emergence and effectiveness (Osborn, Hunt, & Jauch, 2002; Porter & McLaughlin, 2006; Shamir & Howell, 1999). Following this research call, I examine the proposed servant leadership mechanism in a merger context which has been characterized by drastic changes, high levels of complexity, multiple transitions and uncertain future states, especially in relation to one's job and career situations (e.g., Appelbaum, Gandell, Shapiro, Belisle, & Hoeven, 2000a; Appelbaum, Gandell, Yortis, Proper, &

Jobin, 2000b; Ashford, Lee, & Bobko, 1989; Buono & Bowditch, 1989; Cartwright & Cooper, 1993; Covin, Sightler, Kolenko, & Tudor, 1996; Schweiger & Denisi, 1991).

Numerous studies have addressed the costs on employees derived from mergers and acquisitions, including high levels of stress, anxiety, exhaustion and dissatisfaction, loss of trust and commitment to the organization and the management, and intentions to quit. These intangible costs result in tangible losses such as increasing turnover rates and absenteeism (e.g., Ashford et al., 1989; Cartwright & Cooper, 1993; Covin et al., 1996; Fried, Tiegs, Naughton, & Ashforth, 1996; Newman & Krzystofiak, 1993; Schweiger & Denisi, 1991; Väänänen et al., 2004). Although humane and supportive leadership has been conceptually proposed to buffer against negativity (e.g., Ashford et al., 1989; Seo & Hill, 2005), it has rarely been systematically examined in the merger implementation process (Sitkin & Pablo, 2005; Waldman & Javidan, 2009). Furthermore, Babalola, Stouten and Euwema (2014) pointed out, research intending to connect leadership and organizational changes has relatively been one-sided, focusing mainly on the role of leadership competence and its support in managing change processes (e.g., Battilana, Gilmartin, Sengul, Pache, & Alexander, 2010; Herold, Fedor, Caldwell, & Liu, 2008). Little knowledge has been gained in an uncertain change context like mergers and acquisitions with regard to how leadership influences employee factors such as individual well-being and turnover.

In the field of servant leadership, to date, the research conducted by Sousa and Van Dierendonck (2014) is the only empirical study that examined servant leadership

mechanism within a merger scenario. Their findings confirmed an effective path from servant leadership toward employee work engagement, which is viewed as the opposite of burnout (e.g., Demerouti et al., 2010; González-Romá et al., 2006), in times of change. Using their approach, I argue that servant leadership is an important function to restore the energy and health aspects of employee well-being (i.e., reflected in decreased emotional exhaustion and sickness absence) and employees' loyalty toward the organization (i.e., in relation to low voluntary turnover) in a critical merger and acquisition context. Because servant leaders prioritize the well-being of the followers over that of the organization (Kool & Van Dierendonck, 2012), they are more attentive to the psychological needs and the behavioral tendency of their employees and are unlikely to allow the change process to sacrifice the needs and benefit of followers (Sousa & Van Dierendonck, 2014).

This extends further to circumstances beyond the servant leaders' sphere of control (Brockner, Grover, O'Malley, Reed, & Glynn, 1993; Mark, 1997). In such conditions, servant leaders show patience, kindness and respect to people, make themselves available to listen, empathize employees' concerns, reassure employees of their worth, show an understanding of what employees are going through instead of simply urging them to press on, find or create resources and opportunities and carry responsibilities in as many ways as they can (Appelbaum et al., 2000a, 2000b; Buono & Bowditch, 1989; Mark, 1997; Schweiger, Ivancevich, & Power, 1987; Seo & Hill, 2005; Sousa & Van Dierendonck, 2014). Research showed that continuous social support provides a major resource for employee health and commitment through

reducing the feeling of threat and uncertainty. In turn, gaining resources increases one's manageability and controllability of the situation (e.g., Ashford et al., 1989; Buono & Bowditch, 1989; Väänänen et al., 2004). These previous results imply that servant leadership can be exceptionally needed in times of change and play an even more important role in healing, maintaining and strengthening relationships, restoring security, health and commitment in their people, and ultimately creating the synergy for success. (Buono & Bowditch, 1989; Seo & Hill, 2005).

Additionally, I go beyond treating the uncertain change context merely as a secondary or background variable (Porter & McLaughin, 2006) and propose a moderating function of perceived job insecurity, a phenomenon which is inherent in large-scale changes like mergers (e.g., Appelbaum et al., 2000a; Cartwright & Cooper, 1993; Covin et al., 1996; Schweiger & Denisi, 1991; Schweiger & Ivancevich, 1985; Seo & Hill, 2005;).

Perceived job insecurity refers to employee's subjective appraisal of job continuity, perceived threat to imminent loss of job and other job-related features (e.g., working conditions, career opportunities), as well as feeling of powerlessness to react against these perceived threats (see Davy, Kinicki, & Scheck, 1997; De Witte, 1999; Kinnunen, Mäkikangas, Mauno, De Cuyper, & De Witte, 2014; Loi, Ngo, Zhang, & Lau, 2011; Probst, 2003; Sverke, Hellgren, & Näswall, 2002). Mergers incur multi-facet changes such as downsizing, job transfers, relocations, re-structuring, loss of status, benefits, and opportunities, unfavorable dismissals and layoffs (Appelbaum et al., 2000a, 2000b; Ashford et al., 1989; Seo & Hill, 2005). Research has shown that

people involved in an organization going through a merger often reported having experienced low job autonomy, lacking resources and ability to take controls, and feeling threatened of losing jobs or future development (e.g., Kinnunen et al., 2014; Mauno & Kinnunen, 2002; Vander Elst, De Cuyper & De Witte, 2011). Consequently, employees who experienced the negative effects of the merger might suffer from poorer well-being and impaired health, in terms of burnout and job exhaustion (Kinnunen, Mauno, Nätti, & Happonen, 1999), high mental strain (De Witte, 1999; Ferrie, Shipley, Stansfeld, & Marmot, 2002), depression (Ferrie, Shipley, Newman, Stansfeld, & Marmot, 2005), impaired self-rated health (Ferrie et al., 2002), and sickness (Kivimäki et al., 1997). As perceptions of job insecurity increase, positive work attitudes such as job satisfaction and trust may suffer, leading to withdrawal responses manifested in higher levels of turnover intentions, as well as actual withdrawal and turnover behaviors (see review of Sverke & Hellgren, 2002, also see Ashford et al., 1989; Cheng & Chan, 2008; Davy et al., 1997).

Moreover, perceived job insecurity can affect followers' assessment of leadership behaviors and their perceptions of the instrumentality of such behaviors for attaining personal outcomes or satisfying personal needs (Herold et al., 2008). Especially, the effect of leadership should be contingent on the personal impact that the change had on individuals (Herold et al., 2008). Previous research indicated that employees perceiving less job security were considered to be more sensitive to the support and resources obtained from the supervisors, therefore the strength of the leadership effect (e.g., transformational leadership, LMX) is more paramount to these

less secure employees (Herold et al., 2008; Loi et al., 2011). Van Dierendonck and colleagues (2014) examined the moderating effect of environmental and job uncertainty in the separate mediation process of servant leadership and transformational leadership. In contrast to their initial assumption that transformational leadership should exceed servant leadership in leading in the face of uncertainty, the results showed that transformational leadership was less effective for employees who perceived greater job uncertainty, yet, this similar effect was not observed for servant leadership. In view of the contradictory results, Van Dierendonck and colleagues (2014) suggested that servant leadership could be particularly effective when severity of the environmental change affects the individual specifically (such as job uncertainty), because servant leadership emphasizes individual needs. However their results did not confirm this assumption.

Based on the previous evidence and implications, I argue that the magnitude of the effect of servant leadership on follower outcomes shall be partially (if not entirely) dependent on the levels of perceived job insecurity. More precisely, the effect of servant leadership on employee well-being and turnover is likely to be stronger for employees perceiving high job insecurity than those who have perceived low job insecurity.

During the merger process, employees who perceive less job security feel a greater loss of control and sense more risks and uncertainties in their future employment (Ivancevich, Schweiger, & Power, 1987; Lee & Peccei, 2007). These people pay more attentions to the amount of support and resources obtained from their

supervisors (Loi et al., 2011). When servant leaders show behaviors such as attending to the affective and emotional needs of subordinates (Page & Wong, 2000), offering resources, opportunities and support that extend beyond the formal employment contract, and helping strengthen followers' competence and self-efficacy in managing changes and stress (Van den Heuvel, Demerouti, Bakker, & Schaufeli, 2010), less secure employees develop impressions about how much their supervisors care about their well-being and development. Based on these impressions, they may develop positive thoughts and also react more positively to the support from their supervisors by taking proactive controls and choosing to stay with their supervisors, instead of avoiding the stressful changes and leaving the organization (Fugate, Kinicki, & Prussia, 2008; Loi et al., 2011; Staufenbiel & König, 2010). Accordingly, the following hypotheses are proposed.

Hypothesis 5: Perceived job insecurity moderates the relationship between servant leadership and employee well-being. More specifically, there is a stronger negative indirect effect of servant leadership on (a) emotional exhaustion through basic need satisfaction, and on (b) sickness absence through basic need satisfaction and emotional exhaustion for employees who perceive high job insecurity as compared to employees who perceive low job insecurity.

Hypothesis 6: Perceived job insecurity moderates the relationship between servant leadership and employee turnover. More specifically, there is a stronger negative indirect effect of servant leadership on (a) employee turnover intentions via basic need satisfaction and on (b) actual turnover through basic need satisfaction and turnover intentions for employees who perceive high job insecurity as compared to employees who perceive low job insecurity.

Method

Organizational Context

Data were collected in 2013 at the German subsidiary of a large multinational corporation in the area of technology and innovation consultancy. By 2012, the German subsidiary had about 1150 employees in twelve locations, reaching a yearly revenue of over 100 million Euros. At the beginning of 2013, the top management announced the acquisition of a competitor company in Germany. The two companies had similar business models, functions and number of employees. The acquired company, however, had a better annual profit, earning a higher performance rank in the industry than the acquiring company. The major impetus behind the merger was the belief that considerable strategic advantages could be created by sharing client resources and enhancing the market position in Germany. Thus the merger was considered as a friendly synergy of two companies. The acquisition had been completed by the time the news was released. The integration of the acquiring and the acquired company was planned one year later. This means, the two companies were supposed to operate separately in 2013 with their original management teams and organizational structures. However, in the second half of 2013, a series of personnel changes occurred at the top level. After the resignation of the CEO from the acquiring company in the second quarter of the year, the CEO of the acquired company undertook the CEO positions of both companies. Followed by this change, half of the top management executives from the acquiring company left the organization consecutively. At the end of the third quarter, the CEO of the acquired company left

both companies. The group regional vice president of the acquiring side took over the interim CEO role and led both companies with a greatly reduced top management team in the last quarter of 2013. Although the management changes from the above were communicated in a timely manner, future strategies regarding integration, re-structuring, recruiting and promotion opportunities were not clarified. Yet, suspension of new recruitment, marketing campaigns and internal trainings as well as more strict cost control were evident. No general staffing decisions (e.g., large-scale layoffs, affected units) were announced at the middle management and the employee level. Nevertheless, dismissals of low performers were initiated in the second half of the year. This turbulent "post-acquisition and pre-integration" context, characterized by fluctuations at the top management level, ambiguous future strategies and downsizing phenomena, provided an attractive opportunity to test the proposed theoretical model, and in particular, the role of perceived job insecurity played in this proposed servant leadership mechanism.

Sample and Procedure

A research agreement had been signed by one member of the top management team and the work council of the acquiring firm (the German subsidiary of the consulting group) prior to the actual merger took place. This agreement defined the project scope, participants, procedures and terms of data protection (the so called " Betriebsvereinbarung"). According to this agreement, only employees and managers of the acquiring firm were invited to participate in the research study. Neither members of the top management team nor employees and management from the

acquired firm were involved in this research study.

Data collections took place in the acquiring firm 6 months after the acquisition had been completed. Prior to the formal launch of data collections, the top management team presented the research study at the employee town-hall events of each location and encouraged participation in the forthcoming surveys. Marketing campaigns of the research project, including distribution of news, flyers and publications at internal online platforms and via emails, were implemented with the support of the top management team as well as members from the marketing and HR departments. The purpose of the campaigns was to thoroughly introduce the research process, time schedule and policies of data protection to potential participants.

Two anonymous online surveys were administrated at two time points separated by approximate 8 weeks, which is a commonly used strategy to reduce biases pertaining to single sources and common methods (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). In each time point, the HR director provided the most up-to-date personal data of the employees, including email addresses and the business functions they belong to. Personalized survey links were created and emailed to all the employees and managers in the acquiring firm, which was amount to 1140 (top management team members were excluded). At time 1, participants were asked to rate their immediate supervisor's servant leadership behaviors. At time 2, respondents were required to fill in a questionnaire about individual work attitudes, i.e., basic need satisfaction, emotional exhaustion, turnover intentions and perceived job insecurity. At both time points, managerial participants were asked to fill in the same surveys as

their non-managerial employees. As participation of both surveys was voluntary, in order to identify participants who had filled in both surveys, self-generated identification codes were used for matching the data. Because the second survey was distributed during ongoing departures of senior management members, participants were additional asked to report whether they had changed supervisors between time 1 and time 2. Social demographic items were included in both surveys. To enhance participation, ongoing promotions were carried out in two periods of data collection, including weekly reminder emails as well as promotion articles in employee newsletters and at on-site employee events. Additionally employees were encouraged to participate in the two survey studies during their paid working hours. Finally, objective data, i.e., employee sickness absence and turnover data throughout 2013, were provided by the payroll manager at the beginning of 2014.

Overall 586 out of 1140 members of the company (including managers and non-managerial employees) responded at time 1 and 491 out of 1140 responded at time 2, reaching a response rate of 50% in average. To organize the data for analysis, a strict data cleaning process was applied. First, based on the personalized codes that participants provided in the two surveys, responses of participants who had only completed one survey were identified and eliminated. Next, responses of participants who had reported a change of supervisors between time 1 and time 2 were removed. In the third step, participants whose responses had more than 30 % missing values in both surveys as well as cases containing incomplete objective data (e.g., sickness absenteeism) were excluded from analysis (Schafer, 1999; Schafer & Graham, 2002).

To prevent systematic biases due to handling missing data in a not completely random way, the software NORM (Schafer, 1999) was used. Multiple imputation by the expectation-maximization (EM) algorithm was conducted in NORM, leaving 216 cases for further analysis.

In the final sample (N=216), 10.6% of the participants held leadership positions and 89.4% participants were non-managerial employees. Sixty-five percent of the participants were under 35 years old, 30% of the participants were between 35 and 50, and the rest 5% were between 50 and 60 years old. Eighty percent of the respondents were male and 20% were women. Seventy-five percent of the participants held a master degree, 5% with a doctorate degree and 8% with a bachelor degree. Fifty-two percent of the respondents had been working for their supervisor between two to three years, 38% had less than one year of working experience with their supervisor.

Measures

Servant leadership. Servant leadership was measured with the servant leadership survey developed by Ehrhart (2004). This scale includes 14 items covering seven essential dimensions of servant leadership behaviors. Two items represents each of the seven categories. Example items are “My department manager spends the time to form quality relationships with his/her employees” and “My department manager does what he or she promises to do”. All items were scored on a 5-point Likert scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). The Cronbach’s alpha coefficient for the servant leadership scale was .93.

Basic need satisfaction. The 18-item Work-related Basic Need Satisfaction Scale (W-BNS) developed by Van den Broeck and colleagues (2010) was used to measure followers' basic need satisfaction. The W-BNS consists of three sub-scales representing the three need satisfaction variables (autonomy, relatedness and competence) and each sub-scale contains six items. Sample items for each of the basic need satisfaction include "I feel free to do my job the way I think it could best be done" (autonomy), "I feel competent at my job" (competence), and "At work, I feel part of a group" (relatedness). All items were scored on a 7-point Likert scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). The Cronbach's alpha coefficient for this scale was .86.

Emotional exhaustion. Emotional exhaustion was measured by a short version of the emotional exhaustion scale from the Maslach Burnout Inventory (Büssing & Glaser, 1998; Schaufeli, Leiter, Maslach, & Jackson, 1996). The original emotional exhaustion sub-scale contains five items. This survey included three out of the five original items on a 7-point Likert scale, with anchors ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). The three items were: "I feel burned out from my work", "I feel emotionally drained from my work" and "I feel fatigued when I get up in the morning and have to face another day on the job". The Cronbach's alpha coefficient for this scale was .84.

Turnover intentions. The two-item turnover intentions scale adapted from the Michigan Organizational Assessment Questionnaire (Cammann, Fichman, Jenkins, & Klesh, 1979) was used to measure turnover intentions. These two items are " I often

think of leaving the organization" and "It is very possible that I will look for a new job next year". Responses were recorded on a 7-point Likert scale from 1 (*strongly disagree*) to 7 (*strongly agree*). The Cronbach's alpha coefficient for this scale was .92.

Perceived job insecurity. The four-item scale from Mauno and Kinnunen (2002), initially developed by Caplan, Cobb, French, Harrison, and Pinneau (1980), was used to describe the uncertainty of job continuity. Example items are: "How certain are you about what your future career picture looks like in your organization?" and "How certain are you about your job security?" All items were scored on a 7-point scale (1 = *not certain at all*, 7 = *very certain*). The Cronbach's alpha coefficient for this scale was .86.

Actual turnover and sickness absence. A full list of employees who had voluntarily resigned in the year of 2013 was delivered by the payroll manager of the acquiring company. Documents of leavers due to fixed-term contracts or dismissals were also provided by the company but this part of the data was eliminate from the analysis. Employees who stayed were coded as "0" and employees who left voluntarily were coded as "1". As to sickness absence, according to the German law, employers are legally obliged to pay employees on sickness leave full wages for up to six weeks (42 calender days) (Bundesministeriums der Justiz und für Verbraucherschutz, § 3 Abs. 1 EFZG). Sickness leave for over six weeks is considered as long-term absence and the sickness benefits are taken over and paid by the health-insurance fund (Krankengeld) not by the employer (European Commission

[EC], 2013). A full record of the yearly sickness absence up to six weeks was received from the payroll department. Duration of sickness absence was defined as the amount of calendar days from the first day of registered sickness leave to the day of return to work. Each sickness leave was documented, including names of the sick employees, hours of sickness absence as well as the manager and the business unit they belonged to when the sickness occurred.

The sickness absence was ranged from 0 to 41 days. These data were categorized into groups, which is a strategies employed by Väänänen et al. (2004). Three groups were formed accordingly: short-term sickness absence (0-2 days), middle-length sickness absence (3-9 days), and long-term sickness absence (10 days and above)[2].

Control variables. As some correspondents had relatively short supervisor tenure, supervisor tenure was controlled. Other control variables included age, gender and overall work tenure. Work and supervisor tenure were measured by months. Age was measured by a 9-point scale and gender was a dichotomous measurement scale.

Analytic Strategies

Structural equation modeling (SEM) was performed to test the model fit and the hypotheses in Mplus 7.2. According to Anderson and Gerbing (1988), a confirmatory analysis was first applied to test the adequacy of the measurement model.

---

[2] According to the German law, if the incapacity for work continues for more than 3 days, the employee must submit medical proofs and declare incapacity for work certified by a doctor from the 4th day of illness (EC, 2013). The annual health report of Techniker Krankenkasse, one of the largest national insurance firms in Germany showed that the yearly sickness leave of German technology firms in 2013 is 10.1 days in average (Techniker Krankenkasse [TK], 2014). The annual health report of the DAK-Gesundheit insurance firm showed that the yearly sickness leave of German consultancy firms in 2013 is between 10.2 and 10.4 days in average (DAK-Gesundheit, 2014). Based on these data, 3 days and 10 days were used as the criteria for dividing groups.

Once the measurement model had been specified, structural relations were modeled essentially into a path model. To identify the "true" best-fitted model (MacCallum, Wegener, Uchino, & Fabrigar, 1993), the hypothesized model was compared to alternative path models (Anderson & Gerbing, 1988). The hypothetical analysis consisted of testing a path model in a single and multiple-group framework.

Results

Descriptive Statistics

Table 1 presents the means, standard deviations, correlations and internal consistency reliabilities (on the diagonal) for the observed scale variables. In testing SEM models with categorical data, analyses are no longer based on sample variance-covariance matrix as is the case for continuous data. Rather, they must be based on the corrected correlation matrix (Byrne, 2012). In this part of the results, all correlations between continuous variables (servant leadership, basic need satisfaction, emotional exhaustion, turnover intentions and perceived job insecurity) and dichotomous variables (i.e., actual turnover and gender) were point-biserial correlations. Correlations between continuous variables and sickness absence, which was an ordered categorical variable, represented polyserial correlations. The correlation between two dichotomous variables (turnover and gender) was a tetrachoric correlation. Finally correlations between sickness absence and two dichotomous variables (turnover and gender) were polychoric correlations (Byrne, 2012; Wang & Wang, 2012).

Table 1

Means, standard deviations, Cronbach's alphas and correlations of study variables

	M	***SD***	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
1. Servant Leadership	3.51	.74	**.93**									
2. Basic Need Satisfaction	5.03	.77	.46***	**.86**								
3. Emotional Exhaustion	3.17	1.32	-.27***	-.62***	**.84**							
4. Turnover Intentions	3.54	1.67	-.40***	-.62***	.43***	**.92**						
5. Perceived Job Insecurity	3.80	1.46	-.44***	-.52***	.38**	.50***	**.86**					
6. Actual Turnover	—	—	-.18	-.36	.33*	.38**	.22	—				
7. Sickness Absence	—	—	-.15*	-.10	.23**	.13	.14	-.03	—			
8. Gender	—	—	-.04	0	-.04	0	.21*	.18	.32**	—		
9. Age	—	—	-.03	.06	-.03	-.09	.08	-.26	-.02	-.02	—	
10. Supervisor Tenure	19.00	25.13	0	-.01	-.01	.10	-.11	-.35	-.02	-.03	.04	—
11. Work Tenure	41.00	50.15	-.08	0	.04	.01	-.08	-.22	.06	-.09	.24***	.50***

Note. $N = 216$

Internal consistency coefficients, Cronbach's alphas, are reported in bold on the diagonal. Supervisor tenure and work tenure are measured by months

* $p < .05$ level (2-tailed).

** $p < .01$ level (2-tailed).

*** $p < .001$ level (2-tailed).

Test of Measurement Model

A confirmatory factor analysis (CFA) was conducted to assess the psychometric properties of the measures in a measurement model.

In the first step, model fit was examined with only the continuous variables (i.e., servant leadership, basic need satisfaction, emotional exhaustion[3] and turnover intentions). Item parcels were formulated, which is a frequently used strategy by previous researchers (e.g., Mayer et al., 2008; Van den Broeck et al., 2008, Van Dierendonck et al., 2014). Item parcels produce more reliable latent variables than individual items (Little, Cunningham, Shahar, & Wideman, 2002). The advantages of using parcels are that it maintains a favorable indicator-to-sample-size ratio, generates more stable parameter estimate and reduces the level of shared variance and bias that may result from working with the separate items directly (see Bagozzi & Edward, 1998; Bandalos, 2002; Little et al., 2002). The parcel-based modeling is more parsimonious when many items measure one construct (Little et al.,2002) and allow for more accurate estimation of latent variable models. A domain-representative approach (Little et al., 2002) was applied to construct parcels with items from the sub-dimensions of servant leadership and basic need satisfaction. Pairs of items that represented the specific dimensions of servant leadership and basic need satisfaction were combined into composites and made as one parcel (Ehrhart, 2004), resulting in seven parcels of the servant leadership factor (Ehrhart, 2004; Pircher Verdorfer et al.,

[3] The depersonalisation dimension was further included in the measurement model to explore whether a two-dimensional burnout construct provided a better model fit. The CFA result showed that the two-dimensional burnout construct led to an inadmissable model. Thus items of the depersonalisation dimension were excluded from the measurement model.

2014) and three parcels of the basic need satisfaction (Van den Broeck et al., 2010). For mathematical identification each latent variable must be estimated by at least two observed variables. Therefore, the original three items of emotional exhaustion scale as well as the original two items measuring turnover intentions were used as indicators. The CFA with latent continuous variables presented a good fit to the data (Hu & Bentler, 1999): $\chi 2$ (84) = 119.54, CFI = .98, TLI = .98, RMSEA = .04, SRMR = .06.

In the next step the observable indicators were added. They were the actual turnover rate, which was a dichotomous variable, and employee sickness absence, which was a polytomous variable. The final measurement model thus included a combination of latent continuous variables and observed variables that manifested the categorical dependent variables. All variables were allowed to correlate. For categorical data analysis, the WLSMV estimator, which is a weighted least square based robust estimator, was specified in Mplus (Wang & Wang, 2012). A critical assumption of SEM that all variables are continuous and normally distributed was violated, when categorical dependent variables are part of a measurement model (Chau, Dahling, Levy, & Diefendorff, 2009; Rhemtulla, Brosseau-Liard, & Savalei, 2012). The WLSMV estimator does not assume normally distributed variables, thus, it provides the best option for modeling categorical or ordered data (Brown, 2006; Muthén & Muthén, 1998-2012). Furthermore, WLSMV uses a mean-and-variance-corrected (second order) correction (Hox, Maas, & Brinkhuis, 2010), therefore it can be applied to estimate results when sample sizes are small and

non-normality is severe (Chau et al., 2009; Hox et al., 2010). As both categorical dependent variables were influenced by other latent variables, a THETA parameterization command was specified in Mplus. This allows residual variances for continuous latent response variables of observed categorical outcome variables to be parameters (Muthén & Muthén, 1998-2012). In the interest of scientific parsimony (Byrne, 2010), covariances that were not significant ($p > .05$) were removed[4]. The overall measurement model, containing non-normal distributed categorical data, had an acceptable model fit (Bentler, 1992): $\chi 2$ (110)= 163.23, CFI = .92, TLI = .90, RMSEA = .05 and WRMR = .69. On this basis the hypothesized structural model was to be formed.

Test of Structural Model

The hypothesized full mediation model was constructed in a SEM framework. James, Mulaik and Brett (2006) argued that the full mediation model should generally be the first model tested because it is a more parsimonious representation of mediation. This also applies to the situation when theory or prior research is insufficient (MacKinnon, 2012). Therefore, the approach of first testing a full mediation model is also statistically appropriate. Fit indices showed that the hypothesized model fitted the data well: $\chi 2$ (116) = 164.76, p <.001; CFI = .93, TLI = .92, REMSEA = .04, WRMR = .72.

Next, the hypothesized model was compared to several alternative models (Anderson & Gerbing, 1988). The purpose of comparing different models was to

[4] The covariance between actual turnover and emotional exhaustion was not significant (p = .07). When this covariance was removed, the model became inadmissable. Therefore this insignificant covariance relationship was kept to test the measurement model fit.

justify whether the hypothesized model was indeed the "true" model that fitted the data best (MacCallum et al., 1993). The hypothesized model was compared (model 1) to three nested partially mediated models that included direct paths (a) from basic need satisfaction to actual turnover and sickness absence (model 2), (b) from servant leadership to turnover intentions and emotional exhaustion (model 3), and (c) from servant leadership to actual turnover and sickness absence (model 4). Previous research showed that emotional exhaustion was positively related to turnover intentions which in turn predicted actual turnover (e.g., Chau et al., 2009, Son, Kim, & Kim, 2014). Thus, the hypothesized model was further compared to two additional non-nested models. The purpose of this model comparison was to examine whether adding a direct path between emotional exhaustion and turnover intentions would also fit the data well. The two non-nested models included a direct path from emotional exhaustion to turnover intentions while the direct path between basic need satisfaction and turnover intentions was kept (model 5) and the direct path from basic need satisfaction to turnover intentions was removed, letting turnover intentions be exclusively predicted by emotional exhaustion (model 6). The alternative models were displayed in Figure 3 - 7 in Appendix 1. All control variables were excluded in generating fit indices of alternative models and later added in examining the structural path parameters.

For comparing the nested models (i.e., model 1 v.s model 2, 3, 4), chi-square

difference tests[5] were performed. The most parsimonious model should be chosen as the best-fitting model when model invariance has been confirmed (MacKinnon, 2012; Wang & Wang, 2012). For comparing non-nested models, Bayesian Information Criterion (BIC) difference tests[6] were performed (Muthén & Muthén, 1998-2012). BIC is an estimate of a function of the posterior probability of a model being true, under a certain Bayesian setup (Dziak, Coffman, Lanza, & Li, 2012; Zucchini, 2000). It gives a rough approximation to the logarithm of the Bayes factor, which does not require alternative models to be nested (Kass & Raftery, 1995). The BIC difference test is recommended for comparing non-nested models which ordinary test such as the chi-square difference test can not do. A BIC difference value (ΔBIC) beyond 10[7] implies a very strong evidence against the null hypothesis that the two models are equal (Kass & Raftery, 1995). Once the null hypothesis is rejected (i.e., $\Delta BIC > 10$), the model with a lower BIC value reflects a better fitted model which is considered to be the true model (Kass & Raftery, 1995; interpretations of BIC difference test results can also be found at the Mplus Website). In addition to the chi-square and BIC difference tests, path analysis was conducted to examine the significance of each regression path within the models.

The results of the chi-square difference tests revealed that the alternative partially mediated models (Model 2 - 4) and the hypothesized full mediation model fit

---

[5] When WLSMV is used for model estimation, a traditional chi-square difference test can not be performed. Muthén and Muthén (1998-2012) developed a two-step procedure to perform chi-square difference test with WLSMV estimator. Details can be found in Muthén and Muthén (1998-2012) and at the Mplus website.

[6] To get the BIC value, MLR (maximum likelihood estimation with robust standard errors) was applied in order to generate the loglikelihood value. This value can not be generated by using the WLSMV estimator. More details can be found in the Mplus Discussion Forum.

[7] Less strictly a difference between 6 and 10 can provide evidence against H0, meaning the two models differ.

the data equally well, given the insignificant chi-square difference values in Table 2. Because full mediation model is more parsimonious than partial mediation model (MacKinnon, 2012), the hypothesized full mediation model was the better-fitted model in comparison with alternative partial mediation models. The hypothesized model was then compared to two non-nested models. In the alternative non-nested model 5, turnover intentions was allowed to be related with both basic need satisfaction and emotional exhaustion. The BIC different test showed that model 5 fit the data equally well as the hypothesized model (ΔBIC is .28). However, path analysis showed that emotional exhaustion did not affect turnover intentions (β = -.06, *ns*), rather turnover intentions were exclusively predicted by basic need satisfaction (β = -.87, $p < .001$). Finally, the hypothesized model was compared to the alternative model 6, where turnover intentions were allowed to be related with emotional exhaustion, but not with basic need satisfaction. The result showed that ΔBIC was beyond 10 (ΔBIC = 49.23) and a lower BIC value was observed in the hypothesized model (*BIC* = 8703.60). This result implied an overall better fit of the hypothesized model.

Results of all the model comparisons (hypothesized model v.s nested and non-nested models) were summarized in Table 2. Path coefficients of the hypothesized model were displayed in Figure 2. Path coefficients of the alternative models were presented in Figure 3 - 7 in the Appendix 1. Results of both the chi-square difference tests for comparing the nested models and the BIC difference tests for comparing the non-nested models indicated that the best fitted model was the

hypothesized model. Therefore, the hypothesized model could now be applied to test the hypotheses.

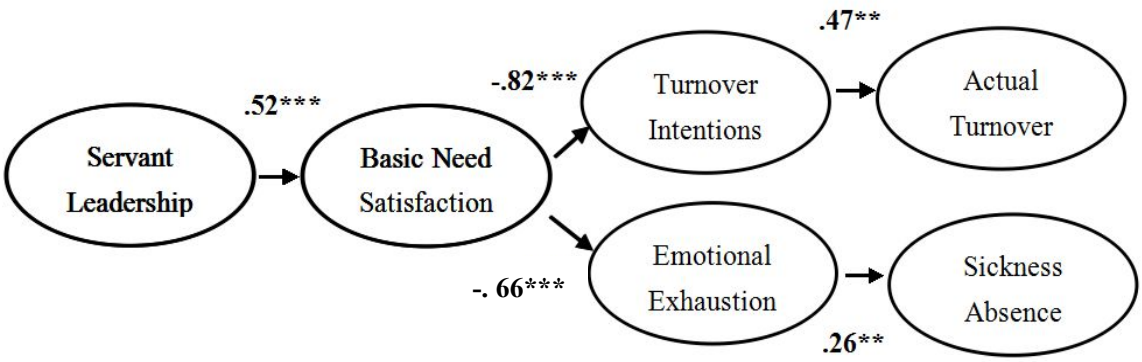

Figure 2. Test of the hypothesized model.

Note. $N = 216$.

The regression path coefficients displayed in the model were standardized coefficients using the WLSMV estimator.

** $p < .01$. *** $p < .001$.

Table 2

Results of model comparisons (Fit indices)

Models	$\chi 2$	*df*	CFI	TLI	REMSEA	$\Delta\chi 2(df)$	*P* value	BIC	ΔBIC
Model 1: Hypothesized Model	164.76	116	.93	.92	.04	—	—	8703.60	
Model 2: Based on Model 1 add two paths Need satisfaction → Sickness absence Need satisfaction → Actual turnover	165.44	114	.92	.91	.05	1.44 (2)	ns	8714.12	10.52
Model 3: Based on Model 1 add two paths Servant leadership → Turnover intentions Servant leadership → Emotional exhaustion	160.88	114	.93	.92	.04	3.67 (2)	ns	8712.19	8.59
Model 4: Based on Model 1 add two paths Servant leadership → Sickness absence Servant leadership → Actual turnover	177.76	114	.91	.89	.05	1.24 (2)	ns	8709.81	6.21
Model 5: Based on Model 1 add one path Emotional exhaustion → Turnover intentions	164.56	115	.93	.91	.05	—	—	8703.88	.28
Model 6: Based on model 5, remove the path Need Satisfaction → Turnover intentions	203.03	115	.87	.85	.06	—	—	8752.83	49.23

Note: Model 2 - 4 are nested models. Model 5 and 6 are non-nested models. $\Delta\chi 2(df)$ and ΔBIC represent the difference value regarding the hypothesized model (Model 1) and the respective alternative model. *ns* = not significant.

Test of Hypotheses

For testing the indirect effects (Hypothesis 1 - 4), bootstrapping with 5000 resampled based on a 95% bias-corrected confidence interval was used. This approach enables estimations of the indirect effect between normally distributed continuous variables and non-normally distributed categorical dependent variables (Preacher & Hayes, 2008; Preacher, Rucker, & Hayes, 2007).

Hypothesis 1 concerned a mediation effect of servant leadership on emotional exhaustion via basic need satisfaction. The unstandardized estimated indirect coefficient linking servant leadership to emotional exhaustion through basic need satisfaction was -.51, $p < .001$, 95% CI [-.73, -.30]. Thus Hypothesis 1 was supported. In Hypothesis 2, to test a chain mediation effect between continuous latent variables (servant leadership, basic need satisfaction and emotional exhaustion) and a categorical dependent variable (sickness absence), the estimator command WLSMV with Bootstrapping was specified.[8] The unstandardized indirect coefficient of this mechanism was -.12, $p = .021$, 95% CI [-.28, -.02], showing that servant leadership yielded a negative indirect effect on sickness absence through two mediating factors: basic need satisfaction and emotional exhaustion. Hypothesis 2 was thus supported.

Next, the indirect effect of servant leadership on employee turnover was examined. Hypothesis 3 stated that basic need satisfaction would mediate the relationship between servant leadership and turnover intentions. The indirect effect of servant leadership on turnover intentions through basic need satisfaction was

[8] While specifying a WLSMV command, the categorical outcome y is turned into a latent response variable y*. The probit regression coefficient is transferred into a linear regression coefficient. Therefore the conventional a*b*c product formula can be used in calculating an indirect effect (Muthen & Asparouhov, 2014, p. 8).

significant (unstandardized[9] indirect coefficient = -.79, $p < .001$, 95% CI [-1.04, -.53]), thus, Hypothesis 3 was supported. Hypothesis 4 stated an extended mediation chain effect of servant leadership on actual turnover. The result confirmed a significant indirect relationship between servant leadership and actual turnover via basic need satisfaction and turnover intentions (unstandardized indirect coefficient = -.32, $p = .003$, 95% CI [-.78, -.05]). Hypothesis 4 was supported. Table 3 summarized the Bootstrapping results for the hypothesized indirect effects.

Hypothesis 5 and Hypothesis 6 examined the moderating effect of perceived job insecurity. In order to test this effect, a multiple group analysis was employed. Prior to the hypothesis testing, the total sample was divided into two sub-samples by median splitting scale that measured perceived job insecurity, which is a commonly used strategy recommend by Iacobucci (2008) and Sosik (2005). The first sub-sample contained 117 followers who scored low in perceived job insecurity and the second sub-sample consisted of 99 followers who demonstrated high perceived job insecurity.

Next, the multiple group analysis was conducted in Mplus to study group differences in measurement and structural parameters by simultaneously analyzing two groups of followers (Muthén & Muthén, 2009). The hypothesized theoretical model, containing the same regression paths and variables that had been tested in the total sample, was tested in the two subgroups. The multiple group analysis involved two stages. In the first stage, to test cross-group invariance, two nested models were

[9] For mediation analysis, Heyes recommended not reporting standardized coefficients when dichotomous variables are used, for standardized coefficients for dichotomous variables generally have no useful substantive interpretation. See FAQ (27) at Hayes's website or similar discussions at Mplus discussion forum. A even more robust test of indirect effects is to use Bayes estimation. Result based on Bayes estimation and its interpretation can be found in Appendix 2.

compared: a baseline model wherein no constraints were specified and a more constrained model where all path parameters were held equal across groups. A violation of cross-group invariance is the pre-condition of testing the moderated mediation effect, because it implies the existence of "differences" across groups (Iacobucci, 2008; Molina, Alegría, Mahalingam, 2013; Muthén & Muthén, 1998-2012). Control variables were not included in testing the measurement invariance. The results showed that when the constrained model was compared to the freely estimated model, the invariance assumption was violated. The constrained model had a statistically significant poorer overall model fit: $\Delta\chi 2$ (17) = 31.22, p = .019. The rejection of cross-group invariance enabled me to proceed into the second stage (Muthén & Muthén, 2009). In this stage, the hypothesized full mediation model (displayed in Figure 2) was specified for each subgroup with all the regression paths as well as the control variables. The indirect effects in the two employee sub-samples (i.e., employees with high perceived job insecurity and employees with low perceived job insecurity) were examined. A Z-score test was applied to test the differences of the same set of indirect coefficients across groups. Table 4 showed the estimates of indirect effects in subgroups as well as the results of z-score tests.

Hypothesis 5 compared two indirect effect paths linking servant leadership to employee well-being: the first path involved an indirect relationship between servant leadership and emotional exhaustion via basic need satisfaction and the second path contained an extended link from servant leadership to sickness absence via basic need satisfaction and emotional exhaustion. In regard to the servant leadership - basic need

satisfaction - emotional exhaustion relationship, the indirect effect was significant in each of the group (Subgroup of low perceived job insecurity: unstandardized indirect coefficient = -.35, p = .001, n = 117; Subgroup of high perceived job insecurity: unstandardized indirect coefficient = -.35, p = .012, n = 99), indicating that servant leadership affected emotional exhaustion via basic need satisfaction for employees of both groups. However, the insignificant z value (z =.003, *ns*) revealed that the indirect effect paths did not differ statistically between the employee subgroups of low and high perceived job insecurity. Thus, the indirect effect of servant leadership on emotional exhaustion was not moderated by perceived job insecurity. Then the extended indirect effect of servant leadership on sickness absence via basic need satisfaction and emotional exhaustion was tested. A significant indirect effect was found for the employee subgroup of low perceived job insecurity, but this indirect effect was not significant for the employee subgroup of high perceived job insecurity (Subgroup of low perceived job insecurity: unstandardized indirect coefficient = -.13, p = .046, n = 117; Subgroup of high perceived job insecurity: unstandardized indirect coefficient = -.05, p = .186, n = 99). The moderating effect of perceived job insecurity on this extended mediation path was confirmed. Overall, Hypothesis 5 was partially supported.

Hypothesis 6 involved two indirect effects of servant leadership on turnover: an indirect effect of servant leadership on turnover intentions and an extended indirect effect on actual turnover as an end product. The indirect effect of servant leadership on turnover intentions was statistically significant in each employee group (Subgroup

of low perceived job insecurity: unstandardized indirect coefficient = -.77, p <.001, n = 117; Subgroup of high perceived job insecurity: unstandardized indirect coefficient = -.28, p = .018, n = 99). The z-score test showed that servant leadership had a stronger effect on turnover intentions via basic need satisfaction for employees perceiving low job insecurity (z = -.48, p = .013), confirming that perceived job insecurity did indeed moderate the relationship between servant leadership and turnover intentions. Finally the sequential mediation effect of servant leadership on actual turnover was examined. This indirect effect was found significant in the employee group of high perceived job insecurity, but insignificant in the employee group of low perceived job insecurity (Subgroup of low perceived job insecurity: unstandardized indirect coefficient = -.16, p = .054, n = 117; Subgroup of high perceived job insecurity: unstandardized indirect coefficient = -.15, p = .017, n = 99). This implied that perceived job insecurity also moderated the mediation effect of servant leadership on actual turnover. Hypothesis 6 was generally supported. Contrary to the hypothesized direction, servant leadership had a weaker, instead of stronger, indirect effect on turnover intentions for employees with high perceived job insecurity.

Table 3

Bootstrapping results for the indirect effects

Indirect paths in the model	Indirect coefficient	LL95% CI	UL95% CI
H1. Servant leadership → Basic need satisfaction → Emotional exhaustion	-.51***	-.73	-.30
H2. Servant leadership → Basic need satisfaction → Emotional exhaustion → Sickness absence	-.12*	-.28	-.02
H3. Servant leadership → Basic need satisfaction → Turnover intentions	-.79***	-1.40	-.53
H4. Servant leadership → Basic need satisfaction → Turnover intentions → Actual turnover	-.32**	-.78	-.05

Note. $N = 216$.
The indirect coefficients were unstandardized. H1 = Hypothesis 1, H2 = Hypothesis 2, H3 = Hypothesis 3, H4 = Hypothesis 4.
Bootstrap sample size = 5000.
* $p < .05$, ** $p < .01$, *** $p < .001$.
LL95% CI = Lower limit of the 95% confidence interval, UL95% CI = Upper limit of the 95% confidence interval.

Table 4

Moderating effects of perceived job insecurity on indirect paths

Indirect paths in the model	Employees with low perceived job insecurity (n = 117)	Employees with high perceived job insecurity (n = 99)	z-value (difference of indirect coefficients)	Moderating effect (Yes/No)
	Indirect coefficient	Indirect coefficient		
H5a. Servant leadership → Basic need satisfaction → Emotional exhaustion	-.35**	-.35*	—	No
H5b. Servant leadership → Basic need satisfaction → Emotional exhaustion → Sickness absence	-.13*	-.05	-.08	Yes
H6a. Servant leadership → Basic need satisfaction → Turnover intentions	-.77***	-.28 *	-.48*	Yes
H6b. Servant leadership → Basic need satisfaction → Turnover intentions → Actual turnover	-.16	-.15*	-.01	Yes

Note. The indirect coefficients were unstandardized. H5a = Hypothesis 5(a), H5b = Hypothesis 5(b), H6a = Hypothesis 6(a), H6b = Hypothesis 6(b)

* $p < .05$, ** $p < .01$, *** $p < .001$

Discussion

Although servant leadership pre-dates key leadership approaches studied today (Greenleaf, 1977; Liden, Wayne et al., 2014), scientifically designed empirical research on servant leadership in organizations is recent and the set of outcomes, mechanisms, contingencies considered has been limited (Liden, Panaccio et al., 2014). This study serves to enhance knowledge of servant leadership in organizations. It addresses two major gaps in the literature concerning the absence of objective measures of employee outcomes (Sousa & Van Dierendonck, 2014) as well as contexts and potential moderators (Mayer, 2010). To fill these research gaps, the current study included subjective and objective measurements of employee outcomes pertaining to well-being and turnover (i.e., emotional exhaustion, sickness absence, turnover intentions and actual turnover), a critical organizational context (i.e., merger and acquisition) and a situational moderator (i.e., perceived job insecurity).

A mediation mechanism was constructed linking servant leadership with employee well-being and turnover through basic need satisfaction. The findings showed that servant leadership exerted a negative indirect effect on followers' emotional exhaustion and turnover intentions through a fully mediated function of basic need satisfaction. With objective employee outcomes placed as the end products, servant leadership was related to lower sickness absence (through basic need satisfaction and emotional exhaustion) and decreased actual turnover behavior (through basic need satisfaction and turnover intentions). Overall, these findings support the notion that servant leadership is an important force to restore health and

loyalty into employees in times of high uncertainty due to a merger and acquisition event.

Furthermore, this mediation process was proposed to be moderated by perceived job insecurity. Results showed that the extent of servant leadership impact was conditional upon followers' levels of perceived job insecurity, confirming the moderating effect of perceived job insecurity on the servant leadership mechanism. Although not all the hypotheses were supported in the expected directions, the findings provided insights into the impact of servant leadership contingent upon followers' perceptions of job insecurity.

In the following section, several implications for extant literature are to be discussed.

Theoretical Implications

The findings of this study draw attention to previous research anticipating new/extended avenues and integrative approaches for understanding servant leadership in organizations (Avolio, 2007; Liden, Panaccio et al., 2014; Van Dierendonck et al., 2014; Yukl, 2010).

First, the presented study explicates and extends the research avenue concerning servant leadership and employee well-being. Lying in the center of servant leadership theory, employee well-being is one of the most extensively researched areas of servant leadership (Parris & Peachey, 2012; Van Dierendonck, 2011; Van Dierendonck & Nuijten, 2011). In a recent review on servant leadership, Parris and Peachey (2012) illustrated that servant leaders promoted a positive work climate (e.g.,

Jaramillo et al., 2009a; Neubert et al., 2008) as well as follower well-being such as enhancement of job satisfaction (Mayer et al., 2008) and decreased reports of burnout (Babakus et al., 2011). In two current empirical studies, servant leadership was found to foster work engagement of the followers (Sousa & Van Dierendonck, 2014; Van Dierendonck et al., 2014). Consistent with previous evidence on the linkage between servant leadership and follower well-being, the current research furthers the understanding of this relationship via an extended mechanism linking servant leadership with basic need satisfaction to emotional exhaustion. This result confirms the negative relationship between servant leadership and burnout, which was first demonstrated in the study of Babakus et al. (2011). It also provides a different view on the empirically established link between servant leadership, basic need satisfaction and followers' work engagement (Van Dierendonck et al., 2014). Explicitly, the finding indicates that apart from being an effective facilitator of positive energy in terms of work engagement (Sousa & Van Dierendonck, 2012; Van Dierendonck et al., 2014), servant leadership serves as an important buffer against energy loss reflected in emotional exhaustion. Therefore, the notion that servant leadership can improve followers' well-being (Parris & Preachey, 2011; Van Dierendonck & Nuijten, 2011) receives further empirical support in the current work.

The study provides a first empirical link between servant leadership and sickness absence, a key objective business indicator that reflects work-related well-being of employees (Tehrani et al., 2007). Although leadership behaviors that embody characteristics such as showing consideration and relationship building

(Westerlund et al., 2010), providing social support and coaching (Kuoppala et al., 2008), and giving inspirations (Nyberg, Westerlund, Magnusson Hanson, & Theorell, 2008) were found to be moderately correlated with short-term sickness absence, no prior studies have examined the link between actual health conditions of employees (i.e., objectively measured well-being) and theory-based servant leadership. This study makes an important contribution to servant leadership literature by showing the first empirical evidence regarding the buffering effect of servant leadership on actual sickness absence of the followers beyond subjectively measured well-being (i.e., emotional exhaustion). This result indicates that servant leadership not only prevents employees from experiencing emotional exhaustion, but also inhibits illness and consequently reduces absenteeism due to sickness. Indeed, this more complete servant leadership and well-being path strengthens the conceptual notion that servant leadership is a positive form of leading by making their followers healthier (Greenleaf, 1977; Van Dierendonck, 2011) and engaging them as "whole individuals with heart, mind and spirit" (Van Dierendonck & Patterson, 2010, p.5).

Second, this study sheds light on the influence of servant leadership on the entire turnover process, which includes basic need satisfaction as an early indicator, turnover intentions as an intermediate stage and actual turnover as a final outcome (Abelson, 1987; Hunter et al., 2013; Mobley, 1977). This research confirms that servant leadership attenuates turnover intentions through an intermediary function of basic need satisfaction. Unlike the previous empirical focus on service climate as an intermediary function (e.g., Hunter et al., 2013) and followers' commitment and

identification with the organization (Jaramillo et al., 2009a; Liden, Wayne et al., 2014) in the servant leadership and turnover intentions process, using individual basic need satisfaction as a mediator provides evidence for the common turnover process depicted in the intermediate linkages model (Mobley, 1977). That is, by fulfilling the basic needs of their followers, servant leaders could influence followers' cognitive process of evaluating satisfaction and further shape their turnover intentions. Thus, the earlier conceptions and findings on leadership as a distal indicator and satisfaction as a more proximate predictor of intentions to quit (e.g., Griffeth et al., 2000; Holtom et al., 2008; Mobley, 1977; Mobley et al., 1979) are supported within the research framework of servant leadership. Beyond the well-established leadership-turnover intentions relationships, this study makes a notable contribution to the servant leadership literature by providing the first empirical extension that links servant leadership to actual turnover through a mediation chain concerning basic need satisfaction and turnover intentions. This finding makes the study rather unique as it demonstrates an unexplored chain process of how servant leadership influences turnover behaviors beyond its influence on attitudes (Gerstner & Day, 1997), mainly concerning turnover intentions (Chau et al., 2009).

Third, the present study empirically substantiates and extends theoretical propositions (Liden, Panaccio et al., 2014; Mayer, 2010) and previous empirical findings (Sousa & Van Dierendonck, 2014; Van Dierendonck et al., 2014) pertaining to the boundary conditions of servant leadership. Using a similar approach as Sousa and Van Dierendonck (2014), this study affirms the buffering effects of servant

leadership on employee well-being and turnover in a merger and acquisition situation — a critical condition that could generate significant impacts on employee attitudes and behaviors (Guerrero, 2008). The study findings provide further empirical support for the effectiveness of servant leadership in change contexts (Kool & Van Dierendonck, 2012; Sousa & Van Dierendonck, 2014; Van Dierendonck et al., 2014). In particular, this study supplements and expands the study of Sousa and Van Dierendonck (2014) in several ways: (a) it presents a different mechanism linking servant leadership to emotional exhaustion, which is the antithesis of work engagement, through basic need satisfaction in a similar merger and acquisition context of high uncertainty; (b) it exerts a second empirical path from servant leadership to employee turnover in the merger context; (c) it addresses a critical limitation in their study concerning a lack of objective employee outcomes. Sousa and Van Dierendonck (2014) clearly stated that capturing objective work-related measures in change contexts can overcome methodological biases. By including two objective business indicators (sickness absence and actual turnover), this study not only compensates some of the biases which might arise from common sources, but also confirms the link between servant leadership and follower outcomes in times of change and uncertainty.

Additionally, in the present study, the merger context is treated not merely as a background variable but as an active intervening variable as well (Porter & McLaughin, 2006). This study emphasizes the interaction of servant leadership and perceived job insecurity, which is embedded in and triggered by the merger event, and

specifies the conditional strengths of servant leadership effects. Interactions between environmental and job uncertainty and servant leadership were initially examined in the study of Van Dierendonck et al. (2014), however, their findings did not clarify the extent to which uncertainty played a role in the link between servant leadership and its outcomes. Following the suggestion of Van Dierendonck and colleagues (2014) to focus on the individual-specific job uncertainty rather than the uncertainty of the environment, this study examined the moderating role of perceived job insecurity between servant leadership and relevant mechanisms and outcomes.

The results of this study showed that in a merger process the effects of servant leadership on well-being and turnover were conditional upon perceived job insecurity. With regard to the relationships between servant leadership and employee well-being, perceived job insecurity was found to moderate the effect of servant leadership on sickness absence but not on emotional exhaustion. Contrary to the hypothesized direction, a negative indirect effect of servant leadership on employees' sickness absence was only found for employees with low perceived job insecurity but not for employees with high perceived job insecurity. These results indicate that the buffering effect of servant leadership on subjectively measured well-being (i.e.,emotional exhaustion) might be universal, regardless of the contexts in which leadership is practiced and followers' perceptions of job insecurity, whereas the relationship between servant leadership and sickness absence is more contingent on one's perceived job insecurity.

Concerning the relationships between servant leadership and turnover,

perceived job insecurity was found to moderate the effects of servant leadership on both turnover intentions and actual turnover behaviors. However, some unexpected results were observed. In accordance with previous reported findings (Herold et al., 2008; Loi et al., 2011), the more salient effects of servant leadership on turnover intentions and behaviors were expected for employees with high perceived job insecurity. However, the findings stand in opposition to this proposition. Although the effect of servant leadership on turnover intentions significantly differed across two employee groups, servant leadership yielded a weaker, instead of a stronger, indirect effect on turnover intentions for employees with high perceived job insecurity. As to the indirect link between servant leadership and actual turnover behavior, servant leadership affected turnover behaviors of employee with high perceived job insecurity via basic need satisfaction and turnover intentions. But the same indirect effect was not found within the employee group of low perceived job insecurity.

By examining the moderating effects of perceived job insecurity, this study points to a meaningful implication for the servant leadership theory that the effectiveness of servant leadership as well as the mechanism through which servant leadership yields influences is conditional. The effects and the mechanisms are not only related to the environment in which leadership is embedded and operates, but also dependent upon the degree to which followers perceive the environment as more or less secure toward themselves.

In addition to the implications for the servant leadership literature, this study contributes to SDT by being the first one to have empirically explained the mediating

effect of basic need satisfaction in the servant leadership-well-being and turnover mechanism. Especially, the study emphasizes that in a change context, basic need satisfaction can support servant leadership in maintaining a healthier and more committed workforce (Deci & Ryan, 2014). Thus this study provides its first presence in SDT that integrates basic need satisfaction, leadership and studies of change in organizations and indicates a change perspective in a leadership and SDT framework (Deci & Ryan, 2014).

The empirical tests of the hypothesized effects yielded some unexpected results. Potential explanations are offered based on relevant theories and previous empirical findings as follow.

The first unexpected result in this study is that servant leadership was only associated with emotional exhaustion but not with sickness absence of employees with high perceptions of job insecurity through the proposed mechanism. Previous research pointed out that job insecurity might be a double-edged sword consisting of simultaneously a hindrance stressor that generates negative outcomes and a challenge stressor that leads to positive effects (Podsakoff, LePine, & LePine, 2007; Staufenbel & König, 2010). Job insecurity may ignite fear of loosing one's job and thus motivates employees to actively cope with the threat. Previous findings underlined that enhanced job insecurity led to under-reporting of absence (Probst, 2006; Probst, Barbaranelli, & Petitta, 2013) and stimulated sickness presence (Aronsson & Gustafsson, 2005; Claes, 2011) as absence is seen as unfavourable work behavior which could increase the likelihood of being laid-off (Staufenbiel & König, 2010),

especially in the time of organizational transitions. In other words, it is likely that servant leadership also affects the physical health conditions of highly insecure employees in this study sample, but these ill employees may choose not to take sickness leaves and stay present at work because they feared losing jobs in the phase of merger and acquisition when the likelihood of downsizing and layoffs becomes higher (Hansen & Andersen, 2008).

The second unexpected finding is that servant leadership and basic need satisfaction only influenced actual turnover of employees perceiving high job insecurity. This finding implies that for employees who are less secure about their jobs, the action of quitting seems to follow a traditional procedure that begins with dissatisfaction, then develops into turnover intentions and eventually comes into actions to leave (Hom et al., 1992; Mobley, 1977). It signifies that practicing servant leadership as an engine to promote employees' basic need satisfaction is particularly effective in retaining employees who have perceived high job insecurity. However this might not be the best mechanism to explain turnover behaviors of employees who perceive low job insecurity.

Lee and Mitchell (1994) challenged the traditional turnover model and stressed turnover decisions are not always the result of accumulated job dissatisfaction and the culmination of a progressive process. Instead, they argued a "take-off" decision might be less relevant to how their supervisors lead, to what extent they feel satisfied at work, or whether leaving has been thought and planned, rather it could be purely due to a "shock to the system", which is a jarring environmental event

that confronts with the system of the person's beliefs or values and triggers psychological analyses involved in quitting (also see Holtom et al., 2008; Krausz, 2002). When the shock triggers the enactment of a pre-existing script or violates the image one holds (i.e., incompatibility of one's value, goals, and strategies, and the current job situation) (see Lee, Mitchell, Wise, & Fireman, 1996), a person leaves rather quickly without considering his current attachment to the organization and can be completely independent of the level of satisfaction and the evaluation of their supervisors' leadership skills (more elaborations of the alternative turnover paths can be found in the unfolding model by Lee & Mitchell, 1994 and Lee et al., 1996). Considering merger as a tremendous "shock to system" to most of the employees, it could incur an immediate quitting decision for more secure employees, when they perceived a severe image violation or value unfit.

On the other hand, it is also likely that employees with high perceived job insecurity are "slower leavers" according to models of withdrawal behaviors (e.g., Herzberg, Mausner, Peterson, & Capwell, 1957; also see review of Harnisch, 2002). For example, Herzberg et al. (1957)'s progression of withdraw model described that withdrawal from an unsatisfying work environment progresses from mild to more severe modes of behavior. The progression starts with behaviors such as lateness, continues to absenteeism and eventually culminates into turnover (see also Krausz, 2002). Mobley (1977) and Mobley et al. (1978) also agreed that while quitting is the most severe action one can take toward dissatisfaction, employees might choose other forms of withdrawal in coping with unfavorable situations. This might explain why

servant leadership had a more significant effect on turnover intentions of the employees whose perception of job insecurity was low, but not on the actual turnover behavior. If this is the reason, other withdrawal behaviors in addition to the more drastic action to quit shall be considered as potential outcomes or intermediate factors linking turnover intentions to leaving behaviors of employees with low job insecurity.

The third divergent result in this study is the weaker rather than stronger indirect effect of servant leadership on turnover intentions among employees with high job insecurity. It is possible that showing servant leadership behavior, or solely meeting the basic needs of the employees, is not sufficient to explain turnover intentions of employees who feel less secure about their jobs. Rather, these employees might expect more inspiring visions and future directions (Eisenbach, Watson, & Pillai, 1999; Kotter, 2001), clearer structures (Kotter, 2001; Schriesheim & Murphy, 1976), and highly transparent communications about changes and change procedures (Norman, Avolio, & Luthans, 2010). Thus other leadership forms, such as transformational/charismatic leadership (Bass, 1985; Shamir, House, & Arthur, 1993), authentic leadership (Avolio & Gardner, 2005; Walumbwa, Avolio, Gardner, Wernsing, & Peterson, 2008), change-specific (Herold et al., 2008) and high structure leadership (Schriesheim & Murphy, 1976) might yield stronger impacts on turnover intentions of employees who have perceived high job uncertainty (Herold et al., 2008, Norman et al., 2010; Waldman & Javidan, 2009). Although coping and managing change is not the research focus of this study, it might be interesting to look at how gaining more commitment to change in addition to fulfillment of needs might help employees to

cope with challenges instead of thinking of escaping and quitting (Cunningham, 2006).

Practical Implications

The research findings of this study provide important implications for practicing managers and organizations.

First, compared to managers working in other contexts, managers of technology organizations often interact with turbulent situations and work under extreme challenges, time constraints, and pressures to perform (Chen et al., 2013; Sosik, Jung, Berson, Dionne, & Jaussi, 2004). One of the greatest challenges for these managers is to make sure employees who are undergoing similarly high performance pressures remain healthy and committed to the work and the organization (Chen et al., 2013), as impaired health and withdrawals generate high costs both psychologically and financially (Palanski et al., 2014; Sagie, Birati, & Tziner, 2002). Business leaders, especially those who seek employee retention strategies, are encouraged to adopt servant leadership behaviors according to the positive results presented in this study. While using servant leadership as a main strategy, it is important for leaders to attend to and meet three basic psychological needs of their followers, i.e., need for competence, autonomy and relatedness. By satisfying these needs, leaders are able to build and sustain a healthy and engaged workforce, which can in turn enhance the overall organizational effectiveness.

Second, within significant change activities, such as mergers and acquisitions, employee well-being and retention becomes a salient issue. Under such conditions,

leaders are supposed to play a more critical role in sustaining the well-being and loyalty of their people (Fernandes, Knowles, & Erickson, 2007). However, for middle-level managers, this is not easy. In a merger process, middle-level managers might have little authority to provide their followers with clear visions and future directions especially when post-merger strategies have not been clarified from the top. Hence, it could be hard for managers at the middle level to effectively practice transformational leadership and charismatic leadership behaviors, the success of which largely counts on the extent to which leaders can motivate people through the clear articulation of visions, missions and through inspirations and stimulation (Bass, 1985). These managers may also have limited information to communicate to their subordinates and have little control over the situation (Brockner et al., 1993). Therefore the effects of practicing authentic leadership might also be limited. The findings of this study suggest that practicing servant leadership could be a particularly useful strategy for middle-level managers who are not much involved in the strategic decision making at the corporate level during the merger process, especially when preventing negative employee outcomes (e.g., impaired well-being, intentions to leave) is part of the management goal. On the other hand, although cultivation of servant leadership buffers the negative employee outcomes in general, leaders should be aware of individual perceptions of change and uncertainty. Understanding employees' concerns about job and future development as well as their level of perceived job insecurity can assist leaders to discover employees' more implicit psychological states and health situations, to identify what could motivate or discourage employees to stay

and thus be more flexible to adjust their strategies when necessary. For example, when managers sense that followers with low job insecurity might have leaving intentions, they could start an early prevention by exerting more servant leadership behaviors and make more efforts to satisfy their three basic needs.

Third, the research findings provide important implications at the organizational level. Provided by the positive results generated by servant leadership, even in the time of turbulence, organizations that favor long-term people-centered strategies and attempt to improve organizational competitiveness through enhanced employee well-being and commitment (Chen et al., 2013; Hansen, Ibarra & Peyer, 2013) should consider hiring managerial candidates who show qualities of servant leadership or developing the current managers into more servant-based leaders. Especially organizations that are undergoing major changes or in the middle of merger and acquisition processes could integrate servant leadership perspectives into the leader selection procedures, training designs or relevant interventions pertaining to change management.

Limitations and Future Directions

This study is not without limitations that should be aware of when interpreting the findings. Since it is the first study that has explicitly combined research of servant leadership with subjectively and objectively measured well-being and turnover via the mediating function of basic need satisfaction, I strongly encourage researchers to further validate and extend this research model. Future research could benefit from addressing the limitations presented as follow.

First, this study in nature is a cross-sectional design, which may be subject to common source and common method bias (Podsakoff et al., 2003). To attenuate the potential common-method bias, self-reported survey data were collected at two time points separated by eight weeks. In addition, company data on employee well-being and turnover were included as a second source of data. Nevertheless, any definitive inferences about causality based on results from a cross-sectional study shall not be made. Furthermore, although a major strength of this study is the measurement of employee outcomes via objective data, this part of the data is based on company statistics over a relatively short time period, i.e., one-year statistics of short-term sickness absence and employee turnover (the year when the research took place). The one-year sickness absence record was used in the data analysis. Yet only employee turnover that took place after the survey administrations could be employed for data analysis. This resulted in a two-month turnover record and an overall very low turnover rate of 3%. Although significant results concerning the objective data were confirmed in this study (even with a short-period turnover record), it would be ideal if the objective data could have covered a longer period of time. For example, some prior studies used longitudinal data pertaining to short-term sickness absence (record for more than one year) (e.g., Fried et al., 2002; Kivimäki et al., 1997) and employee turnover data collected at least six months after survey data collections (e.g., Bentein et al., 2005; Chau et al., 2009; Harris, Wheeler, & Kacmar, 2011). In this research, the unexpected fluctuations and changes at the top management level largely altered the scope of data collections. Due to this uncontrollable circumstance, it was impossible

to collect data covering longer period of time and over repeated observations. Future research should consider longitudinal designs wherein both qualitative and quantitative data are collected over repeated observations or tracked over a relatively long time period.

Second, results concerning perceived job insecurity were observed to be in contrary to predicted directions in this study. Although potential causes of these unexpected findings have been elaborated in the theoretical implications, the inconsistent findings also reveal some limitations which future researchers could improve in their work to deliver more precise results. In this study, servant leadership was related to two objective employee outcomes, i.e., sickness absence and actual turnover. As mentioned in the theoretical implications, employees perceiving less job insecurity might choose to be present rather than absent from work though their health conditions have worsen. This could explain why the indirect effect of servant leadership was only observed on subjective well-being (i.e., emotional exhaustion) but not on objective well-being (i.e., record of short-term sickness absence). Although sickness absence record is one of the most commonly used measures of health in organizations, this indicator might not truly reflect the actual health status of employees who perceive high job insecurity, if they choose to "sacrifice" their health for saving the job status that could be in danger due to mergers. To further explore this link between servant leadership and objective well-being, I encourage future researchers to include additional business or non-business related indicators, other than sickness absence, to measure the consequence of emotional exhaustion,

especially among people who have perceived greater threat to their job. Future research can also consider using the three-dimensional burnout scale instead of using the single exhaustion scale to get a more complete picture of how psychological well-being carries the influence of leadership onto the physical well-being.

Another unexpected finding of this study is that servant leadership affected the turnover intentions of employees who perceived low job insecurity but it did not influence their actual turnover behaviors. Two explanations of this unexpected finding were presented in the previous section. One explanation is that employees leave quickly because of shock and violation of one's ideal picture of the organization. In this case, leadership and basic need satisfaction may be less relevant to their decisions. An alternative explanation is that employees with low perceived job insecurity take progressive leaving strategies, that is to first take mild withdrawal behaviors, actively seek for other job opportunities and gradually develop into an actual quitting (see Griffeth et al., 2000; Harnisch, 2002). To clarify the leadership-turnover process in more complex contexts, future research could include perspectives from other turnover models, e.g., the unfold model (Lee & Mitchell, 1994) and models of withdrawal behaviors (e.g., Herzberg et al., 1957). Future research may also link servant leadership with additional intervene variables, such as organizational job embeddedness (Harris et al., 2011) and person-organizational fit (Kristof-Brown, Zimmerman, & Johnson, 2005) as potential mediators, and impulsivity (Holtom et al., 2008), negative affectivity (Thoresen, Kaplan, Barsky, Warren, & de Chermont, 2003), self-monitors and risk aversion (Allen et al., 2005) as moderating factors. In addition,

future studies could include other withdrawal behaviors, such as tardiness and unexcused absence (Harnisch, 2002; Holtom et al., 2008), as alternative employee outcomes or intermediate functions relating to actual turnover behaviors, especially when turnover records over longer time period are not available.

Third, the research model of this study focuses on the relations between servant leadership, basic need satisfaction, employee well-being and turnover. Thereby, other forms of leadership were not taken into consideration. As Kool and Van Dierendonck (2012) emphasized that no single best form of leadership can be applied to maximize the follower outcomes, future research should examine servant leadership in combination with other similar leadership forms, e.g., transformational (charismatic) leadership, LMX, authentic leadership (Liden, Panaccio et al., 2014; Van Dierendonck, 2011) and explore how different forms of leadership interact in affecting employee well-being and turnover. Future researchers could also include other potential mediators, such as trust in the organization and/or supervisor as a mediator between servant leadership and turnover (Braun, Peus, Weisweiler, & Frey, 2012; Buono & Bowditch, 1989), and moderators, such as positive psychological capital (e.g., Cheung, Tang, & Tang, 2011), in further exploring and extending the servant leadership-well-being and turnover process examined in this study.

Fourth, the research was conducted under the background of sequential personnel changes at the top management level. These personnel changes were unexpected and far beyond one's control. In consequence, employee cases that indicated a change of supervisors between two data collection time points had to be

removed out of the sample. The cases that contained incomplete sickness absence records were also not included in the data analysis. These uncontrollable factors caused a great drop of sample cases from about 500 to 216 cases used in the final data analysis. This final sample size is acceptable but not very large. Additionally, the data were gathered in one high-tech consulting company. Although effectiveness of servant leadership was observed in a highly competitive and performance-driven organization, the validated effect and mechanism of servant leadership in this study shall not be generalized. Future research should consider larger employee samples from other industries or work domains to test similar relationships.

Fifth, this study was conducted in a merger setting with significant organizational changes. I explained a complex moderated mediation model linking servant leadership, employee well-being and turnover with two intervene variables, basic need satisfaction and perceived job insecurity. Although the confounding impacts of servant leadership on employee outcomes were clarified with theoretical and empirical evidence, only a small angle of a sophisticated change process was discovered. Other individual factors (e.g., one's personality traits and experience of dealing with changes) (Avey, Hughes, Norman, & Luthans, 2008; Hinduan, Wilson-Evered, Moss, & Scannell, 2009), relational factors (e.g., emotional contagions from co-workers) (e.g., Krackhardt & Porter, 1986) or contextual factors (e.g., organizational culture, work climate) (e.g., Pircher Verdorfer et al., 2014) could also influence the magnitude and scope servant leadership operates in a changing process. As a corporate merger is a relatively long and complicated process, I

encourage future researchers to use methods and instruments other than survey design (e.g., interviews, case studies) and consider longitudinal field research where one can get more in-depth views of what consequences are relevant and irrelevant with servant leadership, how and when servant leadership serves as a buffer in times of change and uncertainty.

Lastly, in this study, Ehrhart's (2004) scale was used to measure servant leadership. This scale is a one-dimensional scale that has been validated in several empirical studies and organizational contexts (e.g., Hunter et al., 2013; Mayer et al., 2008; Parris & Peachey, 2013; Van Dierendonck et al., 2014; Walumbwa et al., 2010). However, considering the whole concept of servant leadership is more comprehensive, Van Dierendonck and Nuijten (2011) stressed, "it is not likely that the one-dimensional scale could do justice to the concept of servant leadership" (p.251). As the generally agreed upon definition of servant leadership behavior is still lacking, there are different servant leadership measures (Van Dierendonck, 2011; Van Dierendonck & Nuijten, 2011). For instance, two recently developed servant leadership scales by Liden et al. (2008) and by Van Dierendonck and Nuijten (2011) have been empirically confirmed as valid constructs in various work contexts (e.g., Hu & Liden, 2011; Liden, Wayne et al., 2014; Peterson et al., 2012) and in different cultures (e.g., Hu & Liden, 2011; Pircher Verdorfer & Peus, 2014; Schaubroeck et al., 2011; Sousa & Van Dierendonck, 2014). With support of these robust outcomes derived from the two recently developed servant leadership measures (e.g., Liden, Wayne et al., 2014; Peterson et al., 2012; Sousa & Van Dierendonck, 2014), future

researchers could consider using two relatively new servant leadership scales as alternative measurements of servant leadership in their empirical work.

Conclusion

Despite the growing body of empirical evidence on the follower behavioral and attitudinal outcomes of servant leadership, questions remain regarding how and to what extent servant leadership is effective in sustaining and fostering followers' actual well-being and commitment—especially in a time that the appropriate leadership is needed to lead "right into the turbulent future" (Hesselbein, 2012, p. 60). This research displays pathways to employee well-being and retention paved by servant leadership. Especially, by incorporating objective organizational data, this study provides support for a chain mechanism wherein servant leadership mitigates emotional exhaustion and sickness absence as well as reduces turnover intentions and actual turnover behaviors of followers through enhanced basic need satisfaction. Further, this mechanism was confirmed in a unique merger context, allowing for a context specific investigation of the effects of servant leadership on followers' well-being and turnover as moderated by their perceived job insecurity.

Overall, this study provides important and original insights on how servant leadership operates as a key function in healing and unifying their followers, also in times of uncertainty. I hope this research has enriched the research field of servant leadership and can draw more scholarly attentions to different types of outcomes, mechanisms and contingencies of servant leadership.

References

Abelson, M. A. (1987). Examination of avoidable and unavoidable turnover. *Journal of Applied Psychology, 72*(3), 382–386. doi: 10.1037/0021-9010.72.3.382

Ajzen, I., & Fishbein, M. (1977). Attitude-behavior relations: A theoretical analysis and review of empirical research. *Psychological Bulletin, 84*(5)*,* 888–918. doi: 10.1037/0033-2909.84.5.888

Allen, D. G., Weeks. K. P., & Moffit, K. R. (2005). Turnover intentions and voluntary turnover: The moderating roles of self-monitoring, locus of control, proactive personality, and risk aversion. *Journal of Applied Psychology, 90*(5)*,* 980–990. doi: 10.1037/0021-9010.90.5.980

Anagnostopoulos, F., & Niakas, D. (2010). Job burnout, health-related quality of life, and sickness absence in Greek health professionals. *European Psychologist, 15*(2), 132–141. doi: 10.1027/1016-9040/a000013

Anderson, J. G., & Gerbing, D. W. (1988). Structural equation modeling in practice: A review and recommended two-step approach. *Psychological Bulletin, 107,* 238–246. doi:10.1037/0033-2909.103.3.411

Andrea, H., Beurskens, A. J. H. M., Metsemakers, J. F. M., Van Amelsvoort, L. G. P. M., Van den Brandt, P. A., & Schayck, C. P. (2003). Health problems and psychosocial work environment as predictors of long term sickness absence in employees who visited the occupational physician and/or general practitioner in relation to work: A prospective study. *Occupational and Environmental Medicine, 60,* 295–300. doi:10.1136/oem.60.4.295

Antonakis, J., Schriesheim, C. A., Donovan, J. A., Gopalakrishna-Pillai, K., Pellegrini, E. K., & Rossomme, J. L. (2004). Methods for studying leadership. In J. Antonakis, A. R. Cianciolo, & R. J. Sternberg (Eds.), *The nature of leadership* (pp. 48−70). Thousand Oaks: Sage.

Appelbaum, S. H., Gandell, J., Shapiro, B. T., Belisle, P., & Hoeven, E. (2000a). Anatomy of a merger: Behavior of organizational factors and processes throughout the pre-during-post-stages (part 2). *Management Decision, 38*(10), 674–684. doi: 10.1108/00251740010360579

Appelbaum, S. H., Gandell, J., Yortis, H., Proper, S., Jobin, F. (2000b). Anatomy of a merger: Behavior of organizational factors and processes throughout the pre-during-post-stages (part 1). *Management Decision, 38*(9), 649–662. doi: 10.1108/00251740010357267

Aronsson, G., & Gustafsson, K. (2005). Sickness presenteeism: Prevalence, attendancepressure factors, and an outline of a model for research. *Journal of Occupational and Environmental Medicine, 47*(9), 958–966. doi: 10.1097/01.jom.0000177219.75677.17

Ashford, S., Lee, C., & Bobko, P. (1989). Content, causes, and consequences of job insecurity: A theory-based measure and substantive test. *Academy of Management Journal, 32*, 803–829. doi: 10.2307/256569

Avey, J. B., Hughes, L. W., Norman, S. W., & Luthans, K. W. (2008). Using positivity, transformational leadership and empowerment to combat employee negativity. *Leadership & Organization Development Journal, 29*(2), 110–126. doi:

10.1108/01437730810852470

Avolio, B. J. (2007). Promoting More Integrative Strategies for Leadership Theory-Building. *American Psychologist, 62*(1), 25–33. doi: 10.1037/0003-066X.62.1.25

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. doi:10.1016/j.leaqua.2005.03.001

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*(10), 2045–2068. doi: 10.1111/j.1559-1816.2004.tb02690.x

Babakus, E., Yavas, U., & Ashill, N. J. (2011). Service worker burnout and turnover intentions: Roles of person-job fit, servant leadership, and customer orientation. *Services Marketing Quarterly, 32*(1), 17–31. doi: 10.1080/15332969.2011.533091

Babalola, M. T., Stouten, J., & Euwema, M. (2014). Frequent change and turnover intention: The moderating role of ethical leadership. *Journal of Business Ethics,* 1–12. doi: 10.1007/s10551-014-2433-z

Bagozzi, R. P., & Edwards, J. R. (1998). A general approach to construct validation in organizational research: Application to the measurement of work values. *Organizational Research Methods, 1*, 45–87. doi: 10.1177/109442819800100104

Bandalos, D. L. (2002). The effects of item parceling on goodness-of-fit and parameter estimate bias in structural equation modeling. S*tructural Equation Modeling: A Multidisciplinary Journal, 9*(1)*,* 78–102. doi:10.1207/S15328007SEM0901_5

Barbuto, J. E., Jr., & Wheeler, D. W. (2006). Scale development and construct clarification of servant leadership. *Group and Organizational Management, 31* (3)*,* 300–326. doi: 10.1177/1059601106287091

Bass, B. M. (1985). *Leadership and performance beyond expectations*. New York: The Free Press.

Bass, B. M. (2000). The future of leadership in the learning organization. *Journal of Leadership Studies, 7*(3)*,* 18–38. doi:10.1177/107179190000700302

Battilana, J., Gilmartin, M., Sengul, M., Pache, A-C., & Alexander, J. A. (2010). Leadership competencies for implementing planned organizational change. *The Leadership Quarterly, 21,* 422–438. doi:10.1016/j.leaqua.2010.03.007

Bentein, K., Vandenberg, R., Vandenberghe, C., & Stinglhamber, F. (2005). The role of change in the relationship between commitment and turnover: A latent growth modeling approach. *Journal of Applied Psychology, 90*, 468–482. doi: 10.1037/0021-9010.90.3.468

Bentler, P. M. (1992). On the fit of models to covariances and methodology to the *Bulletin*. *Psychological Bulletin, 112*(3)*,* 400–404. doi: 10.1037/0033-2909.112.3.400

Blais, M. R., & Brière, N. M. (1992). *On the mediational role of feelings of*

self-determination in the workplace: Further evidence and generalization. Unpublished manuscript, University of Quebec at Montreal.

Block, P. (1993). *Stewardship: Choosing service over self-interest.* San Francisco: Berrett-Koehler.

Boal, K. B., & Hooijberg, R. (2000). Strategic leadership research: Moving on. *The Leadership Quarterly, 11,* 515−549. doi:10.1016/S1048-9843(00)00057-6

Braun, S.*, Peus, C.*, Weisweiler, S., & Frey, D. (2013). Transformational leadership, job satisfaction, and team performance: A multilevel mediation model of trust. *Leadership Quarterly, 24,* 270–283. doi:10.1016/j.leaqua.2012.11.006

Brockner, J., Grover, S., O'Malley, M. N., Reed, T., & Glynn, M. A. (1993). Threat of future layoffs, self-esteem, and survivors' reactions: Evidence from the laboratory and the field. *Strategic Management Journal, 14,* 153–166. doi: 10.1002/smj.4250140912

Brown, T. (2006). *Confirmatory factor analysis for applied research.* New York: Guildford.

Byrne, B. M. (2010). *Structural equation modeling with AMOS: Basic concepts, applications, and programming (2nd Edition).* New York: Routledge.

Byrne, B. M. (2012). *Structural Equation Modeling with Mplus: Basic Concepts, Applications, and Programming.* New York: Routledge.

Bundesministeriums der Justiz und für Verbraucherschutz. *Entgeltfortzahlungsgesetz vom 26. Mai 1994 (BGBl. I S. 1014, 1065), das zuletzt durch Artikel 1a des Gesetzes vom 21. Juli 2012 (BGBl. I S. 1601) geändert worden ist.* Retrieved

from http://www.gesetze-im-internet.de/bundesrecht/entgfg/gesamt.pdf

Buono, A. F., & Bowditch, J. L. (1989). *The human side of mergers and acquisitions.* San Francisco: Jossey-Bass.

Büssing, A., & Glaser, J. (1998). *Managerial Stress und Burnout. A Collaborative International Study (CISMS). Die deutsche Untersuchung*. [Managerial stress and burnout. The German study]. (Bericht Nr. 44 aus dem Lehrstuhl für Psychologie). München: Technische Universität, Lehrstuhl für Psychologie.

Cameron, K. S., & Spreitzer, G. M. (2012). *The Oxford handbook of positive organizational scholarship.* New York: Oxford University Press.

Cammann, C., Fichman, M., Jenkins, D., & Klesh, J. (1979). *The Michigan Organizational Assessment Questionnaire*. Unpublished manuscript, University of Michigan , Ann Arbor.

Caplan, R. D., Cobb, S., French, J. R. P., Jr., Harrison, R. V., & Pinneau, S. R. (1980). *Job demands and worker health: Main effects and occupational differences.* Ann Arbor, Mich.: Institute for Social Research.

Cartwright, S., & Cooper, C. L. (1993). The psychological impact of merger and acquisition on the individual: A study of building society managers. *Human Relations, 46*(3)*,* 327–358. doi:10.1177/001872679304600302

Chau, S. L., Dahling, J. J., Levy, P. E., & Diefendorff, M. (2009). A predictive study of emotional labor and turnover. *Journal of Organizational Behaviour, 30*, 1151–1163. doi:10.1002/job.617

Chen, C., Chen, C. V., & Li, C. (2013). The Influence of Leader's Spiritual Values of

Servant Leadership on Employee Motivational Autonomy and Eudaemonic Well-Being. *Journal of Religion and Health, 52* (2)*,* 418–438. doi: 10.1007/s10943-011-9479-3

Cheng, G. H., & Chan, D. K. (2008). Who suffers more from job insecurity? A meta-analytic review. *Applied Psychology: An International Review, 57,* 272–303. doi:10.1111/j.1464-0597.2007.00312.x

Cheung, F., Tang, C. S., & Tang, S. (2011). Psychological capital as a moderator between emotional labor, burnout, and job satisfaction among school teachers in China. *International Journal of Stress Management, 18*(4)*,* 348–371. doi: 10.1037/a0025787

Chung, J., Jung, C. S., Kyle, G. & Petrick, J. F. (2010). Servant Leadership in the U.S. National Park Service: The Antecedents of Job Satisfaction. *Journal of Park and Recreation Administration, 28* (3), 1–15.

Claes, R. (2011). Employee correlates of sickness presence: A study across four European countries. *Work & Stress, 25*(3)*,* 224–242. doi: 10.1080/02678373.2011.605602

Clegg, S., Kornberger, M., & Rhodes, C. (2007). Business ethics as practice. *British Journal of Management, 18,* 107–122. doi: 10.1111/j.1467-8551.2006.00493.x

Conger, J. A. (1989). *The charismatic leader: Behind the mystique of exceptional leadership.* San Francisco: Jossey-Bass.

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 Publishing.

Covin, T. J., Sightler, K. W., Kolenko, T. A., & Tudor, R. K. (1996). An investigation of post-acquisition satisfaction with the merger. *The Journal of Applied Behavioral Science, 32*(2)*,* 125–146. doi: 10.1177/0021886396322001

Cropanzano, R., & Walumbwa, F. O. (2010). Moral Leadership: A Short Primer of Competing Perspectives. In M. Schminke (Ed.), *Managerial Ethics: Managing the Psychology of Morality* (pp. 21–52). New York: Psychology Press/Routledge/Taylor & Francis.

Cunningham, G. B. (2006). The relationships among commitment to change, coping with change, and turnover intentions. *European Journal of Work & Organizational Psychology, 15*(1)*,* 29–45. doi: 10.1080/13594320500418766

DAK-Gesundheit. (2014). *Gesundheitsreport 2014.* Retrieved from http://www.dak.de/dak/download/Vollstaendiger_bundesweiter_Gesundheitsreport_2014-1374196.pdf

Dansereau, F., Seitz, S., Chiu, C., Shaughnessy, B. A., & Yammarino, F. J. (2013). What makes leadership, leadership? Using self-expansion theory to integrate traditional and contemporary approaches. *The Leadership Quarterly, 24,* 798–821. doi: 10.1016/j.leaqua.2013.10.008

Davy, J. A., Kinicki, A. J., & Scheck, C. L. (1997). A test of job security's direct and mediated effects on withdrawal cognitions. *Journal of Organizational Behavior, 18,* 323–349. doi: 10.1002/(SICI)1099-1379(199707)18:4<323::AID-JOB801>3.0.CO;2-#

Deci, E. L., & Ryan, R. M. (2000). The “what” and “why” of goal pursuits: Human needs and the self-determination of behavior. *Psychological Inquiry, 11,* 227–268. doi:10.1207/S15327965PLI1104_01

Deci, E. L., & Ryan, R. M. (2014). The importance of universal psychological needs for understanding motivation in the workplace. In M. Gagné (Ed.), *The Oxford Handbook of Work Engagement, Motivation, and Self-Determination Theory* (pp.13–32). New York: Oxford University Press.

Deci, E. L., & Vansteenkiste, M. (2004). Self-determination theory and basic need satisfaction: Understanding human development in positive psychology. *Ricerche di Psichologia, 27*, 17–34.

Demerouti, E., Bakker, A. B., Vardakou, I., & Kantas, A. (2003). The convergent validity of two burnout instruments: A multitrait-multimethod analysis. *European Journal of Psychological Assessment, 19*(1)*,* 12–23. doi: 10.1027//1015-5759.19.1.12

Demerouti, E., Mostert, K., & Bakker, A. B. (2010). Burnout and work engagement: A thorough investigation of the independency of both constructs. *Journal of Occupational Health Psychology, 15*(3)*,* 209–222. doi: 10.1037/a0019408

De Witte, H. (1999). Job insecurity and psychological well-being: Review of the literature and exploration of some unresolved issues. *European Journal of Work and Organizational Psychology, 8,* 155–177. doi:10.1080/135943299398302

Dziak, J. J., Coffman, D. L., Lanza, S. T., & Li, R. (2012). *Sensitivity and specificity of information criteria* (Technical Report Series 12–119). Retrieved from

http://methodology.psu.edu/media/techreports/12-119.pdf

Ehrhart, M. G. (2004). Leadership and procedural justice climate as antecedents of unit-level organizational citizenship behavior. *Personnel Psychology, 57,* 61–94. doi:10.1111/j.1744-6570.2004.tb02484.x

Eisenbach, R., Watson, K., & Pillai, R. (1999). Transformational leadership in the context of organizational change. *Journal of Organizational Change Management, 12*(2)*,* 80–89. doi:10.1108/09534819910263631

Elst, T. V., Van den Broeck, A., De Witte, H., & De Cuyper, N. (2012). The mediating role of frustration of psychological needs in the relationship between job insecurity and work-related well-being. *Work & Stress, 26*(3), 252–271. doi. 10.1080/02678373.2012.703900

European Commission. (2013). *Your social security rights in Germany.* Retrieved from http://ec.europa.eu/employment_social/empl_portal/SSRinEU/Your%20social%20security%20rights%20in%20Germany_en.pdf

Fairholm, M. R., & Fairholm, G. W. (2009). *Understanding Leadership Perspectives: Theoretical and Practical Approaches.* New York: Springer.

Fernandes, E., Knowles, K., & Erickson, R. A. (2007). Retention after a merger: Keeping your employees from “jumping ship” and your intellectual capital and client relationships “on board”. In E. Fernandes, J. Fiore, & K. Knowles (Eds), *Leading through transition Perspectives on the people side of M&A* (pp. 67–69). Retrieved from

http://www2.deloitte.com/content/dam/Deloitte/us/Documents/mergers-acqisitions/us-ma-consulting-leading-through-transition-010510.pdf

Ferrie, J. E., Shipley, M. J., Newman, K., Stansfeld, S. A., & Marmot, M. (2005). Self-reported job insecurity and health in the Whitehall II study: Potential explanations of the relationship. *Social Science & Medicine, 60,* 1593–1602. doi:10.1016/j.socscimed.2004.08.006

Ferrie, J. E., Shipley, M. J., Stansfeld, S. A., & Marmot, M. (2002). Effects of chronic job insecurity and change in job security on self reported health, minor psychiatric morbidity, physiological measures, and health related behaviours in British civil servants: The Whitehall II study. *Journal of Epidemiology & Community Health, 56,* 450–454. doi:10.1136/jech.56.6.450

Frey, D., Nikitopoulos, A., Peus, C., Weisweiler, S., & Kastenmüller, A. (2010). Unternehmenserfolg durch ethikorientierte Unternehmens- und Mitarbeiterführung [Business success by means of ethically-oriented leadership]. In U. Meier & B. Sill (Eds.), *Führung. Macht. Sinn: Ethos und Ethik für Entscheider in Wirtschaft, Gesellschaft und Kirche.* (pp. 637–656). Regensburg, Germany: Pustet.

Fried, Y., Tiegs, R. B., Naughton, T., & Ashforth, B. E. (1996). Managers' reactions to a corporate acquisition: A test of an integrative model. *Journal of Organizational Behavior, 17*(5)*,* 22–59. doi:10.1002/(SICI)1099-1379(199609)

Fugate, M., Kinicki, A. J., & Prussia, G. E. (2008). Employee coping with organizational change: An examination of alternative theoretical perspectives

and models. *Personnel Psychology, 61,* 1–36. doi: 10.1111/j.1744-6570.2008.00104.x

Gagné, M., & Deci, E. L. (2005). Self-determination theory and work motivation. *Journal of Organizational Behavior, 26* (4), 331–362. doi:10.1002/job.322

Gerstner, C. R., & Day, D. V. (1997). A meta-analytic review of leader-member exchange theory: Correlates and construct issues. *Journal of Applied Psychology, 82*, 827–844.

Gilbert, S. L., & Kelloway, E. K. (2014). Leadership. In M. Gagné (Ed.), *The Oxford Handbook of Work Engagement, Motivation, and Self-Determination Theory* (pp. 181–198). New York: Oxford University Press.

Glebbeck, A. C., & Bax, E. H. (2004). Is high employee turnover really harmful? An empirical test using company records. *The Academy of Management Journal, 47*(2)*,* 277–286. doi: 10.2307/20159578

González-Romá, V., Schaufeli, W. B., Bakker, A. B., & Lloret, S. (2006). Burnout and work engagement: Independent factors or opposite poles? *Journal of Vocational Behavior, 68,* 165–174. doi:10.1016/j.jvb.2005.01.003

Graham, J. W. (1991). Servant leadership in organizations: Inspirational and moral. *Leadership Quarterly, 2,* 105–119.

Green, A. E., Miller, E. A., & Aarons, G. A. (2013). Transformational leadership moderates the relationship between emotional exhaustion and turnover intention among community mental health providers. *Community Mental Health Journal, 49*(4)*,* 373–379. doi:10.1007/s10597-011-9463-0.

Greenleaf, R. K. (1970). *The servant as leader*. Newton Centre, MA: The Robert K. Greenleaf Center.

Greenleaf, R. K. (1977). S*ervant 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. (1998). *The power of servant-leadership.* San Francisco: Berrett-Koehler.

Greenleaf, R. K. (1977/2002). *Servant leadership: A journey into the nature of legitimate power and greatness.* Mahwah, NJ: Paulist Press.

Griffeth, R. W., Hom, P. W., & Gaertner, S. (2000). A meta-analysis of antecedents and correlates of employee turnover: Update, moderator tests, and research implications for the millennium. *Journal of Management, 26*(3)*,* 463–488. doi: 10.1177/014920630002600305

Guerrero, S. (2008). Changes in employees' attitudes at work following an acquisition: A comparative study by acquisition type. *Human Resource Management Journal, 18*(3), 216–236.

Haivas, S., Hofmans, J., & Pepermans, R. (2013). Volunteer engagement and intention to quit from a self-determination theory perspective. *Journal of Applied Social Psychology, 43*(9)*,* 1869–1880. doi: 10.1111/jasp.12149

Halbesleben, J. R. B., & Buckley, M. R. (2004). Burnout in Organizational Life. *Journal of Management, 30*(6)*,* 859–879. doi:10.1016/j.jm.2004.06.004

Hale, J. R., & Fields, D. (2007). Exploring servant leadership across cultures: A study

of followers in Ghana and the USA. *Leadership, 3*(4), 397–417. doi: 10.1177/1742715007082964

Hancock, J. I., Allen, D. G., Bosco, F. A., McDaniel, K. R., & Pierce, C. A. (2013). Meta-Analytic review of employee turnover as a predictor of firm performance. *Journal of Management, 39*(3), 573–603. doi:10.1177/0149206311424943

Hansen, C. D., & Andersen, J. H. (2008). Going ill to work - What personal circumstances, attitudes and work-related factors are associated with sickness presenteeism? *Social Science & Medicine, 67*(6), 956–964. doi:10.1016/j.socscimed.2008.05.022

Hansen, M., Ibarra, H., & Peyer, U (2013). The best-performing CEOs in the world. *Harvard Business Review, 91*(1), 81–95.

Harnisch, K. A. (2002). The timing of thinking about quitting: The effect on job attitudes and behaviors. In M. Koslowsky, & M. Krausz (Eds.) *Voluntary employee withdraewal and inattendance* (pp. 193–211). New York: Kluwer Academic/Plenum Publishers.

Harris, K. J., Wheeler, A. R., & Kacmar, K. M. (2011). Leader-Member Exchange and empowerment: Direct and interactive effects on job satisfaction, turnover intentions, and performance. *Leadership Quarterly, 20*(3), 371–382. doi: 10.1016/j.leaqua.2011.02.003

Harter, S. (2002). Authenticity. In C. R. Snyder & S. J. Lopez (Eds.), *Handbook of positive psychology* (pp. 382–394). New York: Oxford University Press.

Herold, D. M., Fedor, D. B., Caldwell, S. D., & Liu, Y. (2008). The effects of

transformational leadership and change leadership on employees' commitment to a change: A multi-Level study. *Journal of Applied Psychology, 93*(2), 346–357. doi: 10.1037/0021-9010.93.2.346

Herzberg, F., Mausner, B., Peterson, R. D., & Capwell, D. F. (1957). *Job attitudes: Review of research and opinions.* Pittsburgh: Psychological Service of Pittsburgh.

Hesselbein, F. (2002). *Hesselbein on Leadership.* San Francisco:Jossey-Bass.

Hesselbein, F. (2012). *More Hesselbein on Leadership*. San Francisco:Jossey-Bass.

Hinduan, Z. R., Wilson-Evered, E., Moss, S., & Scannell, S. (2009). Leadership, work outcomes and openness to change following an Indonesian bank merger. *Asia Pacific Journal of Human Resources, 47*(1), 59–78. doi: 10.1177/1038411108099290

Holtom, B., Mitchell, T., Lee, T., & Eberly, M. (2008). Turnover and retention research: A glance at the past, a closer review of the present, and a venture into the future. *Academy of Management Annals 2*(1), 231–274. doi: 10.1080/19416520802211552

Hom, P. W., Caranikas-Walker, F., Prussia, G. E., & Griffeth, R. W. (1992). A meta-analytical structural equations analysis of a model of employee turnover. *Journal of Applied Psychology, 77*(6), 890–909. doi:10.1016/0030-5073(84)90001-1

Hom, P. W., Griffeth, R. W., & Sellaro, C. L. (1984). The validity of Mobely's Model of Employee Turnover. *Organizational Behavior and Human Performance, 34,*

141–174.

Hox, J. J., Maas, C. J. M., & Brinkhuis, M. J. S. (2010). The effect of estimation method and sample size in multilevel structural equation modeling. *Statistica Neerlandica, 64,* 157–170. doi:10.1111/j.1467-9574.2009.00445.x

Hu, L., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling, 6,* 1–55. doi:10.1080/10705519909540118

Hu, J., & Liden, R. C. (2011). Antecedents of team potency and team effectiveness: An examination of goal and process clarity and servant leadership. *Journal of Applied Psychology, 96*(4)*,* 851–862. doi:10.1037/a0022465

Hughes, L.W., Avey, J. B., & Nixon, D. R. (2010). Relationships between leadership and follower quitting intentions and job search behaviors. *Journal of Leadership and Organizational Studies, 17*(4)*,* 351–362. doi: 10.1177/1548051809358698

Hunter, E. M., Neubert, M. J., Perry, S. J., Witt, L. A., Penney, L. M., & Weinberger, E. (2013). Servant leaders inspire servant followers: Antecedents and outcomes for employees and the organization. *The Leadership Quarterly, 24*(2), 316–331. doi: 10.1016/j.leaqua.2012.12.001

Iacobucci, D. (2008). *Mediation Analysis.* Thousand Oaks, CA: Sage Publications.

Ilardi, B. C., Leone, D., Kasser, R., & Ryan, R. M. (1993). Employee and supervisor ratings of motivation: Main effects and discrepancies associated with job satisfaction and adjustment in a factory setting. *Journal of Applied Social*

Psychology, 23, 1789–1805. doi: 10.1111/j.1559-1816.1993.tb01066.x

Ilies, R., Morgeson, F. P., & Nahrgang, J. D. (2005). Authentic leadership and eudaimonic well-being: Understanding leaderfollower outcomes. *The Leadership Quarterly, 16,* 373–394. doi:10.1016/j.leaqua.2005.03.002

Ivancevich, J. M., Schweiger, D. M., & Power, F. R. (1987). Strategies for managing human resources during mergers and acquisitions. *Human Resource Planning*, *10*(1)*,* 19–35.

James, L. R., Mulaik, S. A., & Brett, J. M. (2006). A tale of two methods. *Organizational Research Methods, 9*(2)*,* 233–244. doi: 10.1177/1094428105285144

Jaramillo, F., Grisaffe, D. B., Chonko, L. B., & Roberts, J. A. (2009a). Examining the impact of servant leadership on sales person's turnover intentions. *Journal of Personal Selling and Sales Management, 29* (2)*,* 351–365.

doi: 10.2753/PSS0885-3134290404

Jaramillo, F., Grisaffe, D. B., Chonko, L. B., & Roberts, J. A. (2009b). Examining the impact of servant leadership on sales force performance. *Journal of Personal Selling and Sales Management, 29,* 257–275. doi: 10.2753/PSS0885-3134290304

Johnson, C. J., Croghan, E., & Crawford, J. (2003). The problem and management of sickness absence in the NHS: Considerations for nurse managers. *Journal of Nursing Management, 11,* 336–342. doi:10.1046/j.1365-2834.2003.00404.x

Kass, R. E., & Raftery, A. E. (1995). Bayes factors. *Journal of the American*

Statistical Association , 90, 773–795.

Kinnunen, U., Mäkikangas, A., Mauno, S., De Cuyper, N., & De Witte, H. (2014). Development of perceived job insecurity across two years: Associations with antecedents and employee outcomes. *Journal of Occupational Health Psychology, 19*(2)*,* 243–258. doi: 10.1037/a0035835

Kinnunen, U., Mauno, S., Nätti, J., & Happonen, M. (1999). Perceived job insecurity: A longitudinal study among Finnish employees. *European Journal of Work and Organizational Psychology, 8*, 243–260. doi:10.1080/135943299398348

Kivimäki, M., Vahtera, J., Thomson, L., Griffiths, A., Cox, T., & Pentti, J. (1997). Psychosocial factors predicting employee sickness absence during economic decline. *Journal of Applied Psychology, 82,* 858–872. doi: 10.1037//0021-9010.82.6.858

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* (2)*,* 301–313. doi: 10.1177/00131640021970420

Kool, M., & Van Dierendonck, D. (2012). Servant leadership and commitment to change, the mediating role of justice and optimism. *Journal of Organizational Change Management, 25*(3)*,* 422–433. doi:10.1108/09534811211228139

Kotter, J. P. (2001). What Leaders Really Do. *Harvard Business Review, 79*(11)*, 85*–96.

Krackhardt, D., & Porter, L. W. (1986). The snowball effect: Turnover embedded in

communication networks. *Journal of Applied Psychology, 71*(1)*,* 50–55. doi: 10.1037/0021-9010.71.1.50

Krausz, M. (2002). The many faces of voluntary employee turnover: A multi facet and multi-level approach. In M. Koslowsky, & M. Krausz (Eds.) *Voluntary employee withdraewal and inattendance* (pp. 53–70). New York: Kluwer Academic/Plenum Publishers.

Kristof-Brown, A. L., Zimmerman, R. D., & Johnson, E. C. (2005). Consequences of individuals' fit at work: A meta-analysis of person-job, person-organization, persongroup, and person-supervisor fit. *Personnel Psychology, 58*, 281–342. doi:10.1111/j.1744-6570.2005.00672.x

Kuoppala, J., Lamminpaa, A., Liira, J., & Vainio, H. (2008). Leadership, job well-being, and health effects - A systematic review and a meta-analysis. J*ournal of Occupational & Environmental Medicine, 50*(8)*,* 904–915. doi: 10.1097/JOM.0b013e31817e918d

Laub, J. A. (1999). *Assessing the servant organization: Development of the organizational leadership assessment (OLA) instrument*. Doctoral dissertation, Boca Raton, Florida.

Lee, R. T., & Ashforth, B. E. (1990). On the meaning of Maslach's three dimensions of burnout. *Journal of Applied Psychology, 75*(6)*,* 743–747. doi: 10.1037/0021-9010.75.6.743

Lee, T. W., & Mitchell, T. R. (1994). An alternative approach: The unfolding model of voluntary employee turnover. *The Academy of Management Review, 19*(1), 51–89. doi: 10.5465/AMR.1994.9410122008

Lee, T. W., Mitchell, T. R., Wise, L., & Fireman, S. (1996). An unfolding model of voluntary employee turnover. *Academy of Management Journal, 39*(1), 5–36. doi:10.5465/AMR.1994.9410122008

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*(6), 661–685. doi: 10.1002/job.431

Leiter, M. P. (1989). Conceptual implications of two models of burnout: A response to Golembiewski. *Group &Organization Studies, 14*(1), 15–22. doi: 10.1177/105960118901400103

Liden, R. C., Panaccio, A., Meuser, J. D., Hu, J., & Wayne, S. J. (2014). Servant leadership: Antecedents, processes, and outcomes. In D.V. Day (Ed.), *The Oxford handbook of leadership and organizations* (pp. 357–379). New York: Oxford University Press.

Liden, R. C., Wayne, S. J., Liao, C., & Meuser, J. D. (2014). Servant leadership and serving culture: Influence on individual and unit performance. *Academy of Management Journal, 57*, 1434–1452. doi:10.5465/amj.2013.0034

Liden, R. C., Wayne, S. J., Zhao, H., & Henderson, D. (2008). Servant leadership: Development of a multidimensional measures and multilevel assessment. *The*

Leadership Quarterly, 19, 161–177. doi:10.1016/j.leaqua.2008.01.006

Little, T. D., Cunningham, W. A., Shahar, G., & Wideman, K. F. (2002). To parcel or not to parcel: Exploring the question, weighing the merits. *Structural Equation Modeling, 9,* 151–173. doi:10.1207/S15328007SEM0902_1

Loi, R., Ngo, H. Y., Zhang, L. Q., & Lau, V. P. (2011). The interaction between leader-member exchange and perceived job security in predicting employee altruism and work performance. *Journal of Occupational and Organizational Psychology, 84*(4), 669–685. doi:10.1348/096317910X510468

MacCallum, R. C., Wegener, D. T., Uchino, B. N., & Fabrigar, L. R. (1993). The problem of equivalent models in applications of covariance structure analysis. *Psychological Bulletin, 114*(1), 185–199.

MacKinnon, D. (2012). *Introduction to Statistical Mediation Analysis.* New York: Taylor & Francis Group.

Madden, T. J., Ellen, P. S., & Ajzen, I. (1992). A comparison of the theory of planned behavior and theory or reasoned action. *Personality and Social Psychology Bulletin, 18*(1), 3–9. doi:10.1177/0146167292181001

March, J. G., & Simon, H. A. (1958). *Organizations.* New York: John Wiley.

Marks, M. L. (1997). Consulting in mergers and acquisitions: Interventions spawned by recent trends. *Journal of Organizational Change Management, 10*, 267–279. doi:10.1016/j.orgdyn.2006.08.004

Maslach, C., & Jackson, S. E. (1981a). *The Maslach Burnout Inventory.* Palo Alto, CA: Consulting Psychologists Press.

Maslach, C., & Jackson, S. E. (1981b). The measurement of experienced burnout. *Journal of Occupational Behavior, 2*(2), 99–113. doi:10.1002/job.4030020205

Maslach, C., & Leiter, M. P. (2008). Early predictors of job burnout and engagement. *Journal of Applied Psychology, 93* (3), 498–512. doi: 10.1037/0021-9010.93.3.498

Maslach, C., Leiter, M. P., & Schaufeli, W. B. (2009). Measuring burnout. In C. L. Cooper & S. Cartwright (Eds.), *The Oxford handbook of organizational well-being* (pp. 86–108). Oxford UK: Oxford University Press.

Maslach, C., Schaufeli, W. B., & Leiter, M. P. (2001). Job burnout. *Annual Review of Psychology, 52* (1), 397–422. doi: 10.1146/annurev.psych.52.1.397

Mauno, S., & Kinnunen, U. (2002). Perceived job insecurity among dual-earner couples: Do its antecedents vary according to gender, economic sector and the measure used? *Journal of Occupational and Organizational Psychology, 75*, 295–314. doi:10.1348/096317902320369721

Mayer, D. M. (2010). Servant leadership and basic psychological needs: Where do we go from here? In D. van Dierendonck, & K. Patterson (Eds.), *Servant leadership: Recent developments in theory and research* (pp. 147–154). Hampshire: Palgrave MacMillan.

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. doi:10.1080/13594320701743558

Mobley, W. H. (1977). Intermediate linkages in the relationship between job satisfaction and employee turnover. *Journal of Applied Psychology, 62,* 237–240. doi: 10.1037/0021-9010.62.2.237

Mobley, W. H., Griffeth, R. W., Hand, H. H., & Meglino, B. M. (1979). Review and conceptual analysis of the employee turnover process. *Psychological Bulletin, 86,* 493–522.

Mobley, W. H., Hollingsworth, A. T., & Horner, S. A. (1978). An Evaluation of Precursors of Hospital Employee Turnover. *Journal of Applied Psychology, 63*(4), 408–414.

Molina, K. M., Alegría, M., & Mahalingam, R. (2013). A multiple-group path analysis of the role of everyday discrimination on self-rated physical health among Latina/os in the USA. *Annals of Behavioral Medicine, 45*(1), 33–44. doi: 10.1007/s12160-012-9421-2.

Muthén, B., & Asparouhov, T. (2014). Causal effects in mediation modeling: An introduction with applications to latent variables. *Structural Equation Modeling: A Multidisciplinary Journal (forthcoming),* 12−23. doi: 10.1080/10705511.2014.935843

Muthén, L. K., & Muthén, B. O. (1998-2012). *Mplus user's guide. Seventh edition.* Los Angeles, CA: Muthén & Muthén.

Muthén, L. K., & Muthén, B. O. (2009). *Multilevel Modeling With Latent Variables Using Mplus: Cross-Sectional Analysis.* [Mplus Short Courses]. Retrieved from http://www.statmodel.com/download/Topic%207-v25.pdf

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*(6), 1220−1233. doi: 10.1037/a0012695

Newman, J. M., & Krzystofiak, F. J. (1993). Changes in employee attitudes after an acquisition: a longitudinal analysis. *Group & Organization Management, 18*(4), 390−411. doi: 10.1177/1059601193184002

Nicholson, N., & Payne, R. L. (1987). Absence from work: Explanations and attributions. *International Review of Applied Psychology, 36*, 121−132. doi: 10.1111/j.1464-0597.1987.tb00379.x

Norman, S. M., Avolio, B. J., & Luthans, F. (2010). The impact of transparency and positivity on trust in leaders and their perceived effectiveness. *The Leadership Quarterly, 21*(3), 350–364. doi:10.1016/j.leaqua.2010.03.002

Notenbomer, A., Roelen, C. A. M., & Groothoff, J. W. (2006). Job satisfaction and short-term sickness absence among Dutch workers. *Occupational Medicine, 56,* 279–281. doi:10.1093/occmed/kql031

Nyberg, A., Bernin, P., & Theorell, T. (2005). *The impact of leadership on the health of subordinates* (Report No 1). Retrieved from http://www.su.se/polopoly_fs/1.51750.1321891474!/P2456_AN.pdf

Nyberg, A., Westerlund, H., Magnusson Hanson, L. L., & Theorell, T. (2008). Managerial leadership is associated with self-reported sickness absence and

sickness presenteeism among Swedish men and women. *Scandinavian Journal of Public Health, 36*(8), 803−811. doi:10.1177/1403494808093329

Osborn, R. N., Hunt, J. G., & Jauch, L. R. (2002). Toward a contextual theory of leadership. *The Leadership Quarterly, 13,* 797−837. doi: 10.1016/S1048-9843(02)00154-6

Page, D., & Wong, P. T. P. (2000). A conceptual framework for measuring servant leadership. In S. Adjibolosoo (Ed.), *The human factor in shaping the course of history and development.* Boston: University Press of America.

Palanski, M., Avey, J., & Jiraporn, N. (2013). The Effects of Ethical Leadership and Abusive Supervision on Job Search Behaviors in the Turnover Process. *Journal of Business Ethics, 121* (1), 135–146. doi:10.1007/s10551-013-1690-6

Parolini, J., Patterson, K., & Winston, B. (2009). Distinguishing between transformational and servant leadership. *Leadership & Organization Development, 30*(3), 274–291. doi:10.1108/01437730910949544

Parris, D. L., & Peachey, J. W. (2013). A Systematic Literature Review of Servant Leadership Theory in Organization Contexts. *Journal of Business Ethics, 113*(3), 377–393. doi:10.1007/s10551-012-1322-6

Patterson, K. A. (2003). Servant leadership: A theoretical model. Doctoral dissertation, Regent University. ATT 3082719.

Peterson, S., Galvin, B. M., & Lange, D. (2012). CEO servant leadership: Exploring executive characteristics and firm performance. *Personnel Psychology, 65,* 565–596. doi: 10.1111/j.1744-6570.2012.01253.x

Peus, C., & Frey, D. (2009). Humanism at work: Crucial organizational cultures and leadership principles. In H. Spitzeck, M. Pirson, W. Amann, S. Khan, & E. von Kimakowitz (Eds.), *Humanism in Business: Perspectives on responsible business in society* (pp. 260–277). Cambridge: Cambridge University Press.

Peus, C., Kerschreiter, R., Frey, D., & Traut-Mattausch, E. (2010). What is the value? Economic effects of ethically-oriented leadership. *Zeitschrift für Psychologie/Journal of Psychology*, *218,* 198–212. doi: 10.1027/0044-3409/a000030

Peus, C., Kerschreiter, R., Traut-Mattausch, E., & Frey, D. (2010). Ethics and economic success: Do they contradict each other or belong together? *Zeitschrift für Psychologie/Journal of Psychology, 218,* 195–197. doi: 10.1027/0044-3409/a000029

Pircher Verdorfer, A., & Peus, C. (2014). The Measurement of Servant Leadership: Validation of a German Version of the Servant Leadership Survey (SLS). *Zeitschrift für Arbeits- und Organisationspsychologie, 58*(1), 1–17. doi: 10.1026/0932-4089/a000133

Pircher Verdorfer, A., Steinheider, B., & Burkus, D. (2014). Exploring the Socio-Moral Climate in Organizations: An empirical examination of determinants, consequences, and mediating mechanisms. *Journal of Business Ethics.* Advance online publication. doi:10.1007/s10551-014-2319-0

Podsakoff, N. P., LePine, J. A., & LePine, M. A. (2007). Differential challenge

stressor–hindrance stressor relationships with job attitudes, turnover intentions, turnover, and withdrawal behaviour: A meta-analysis. *Journal of Applied Psychology, 92*(2), 438–454. doi:10.1037/0021-9010.92.2.438

Podsakoff, P. M., MacKenzie, S. B., Lee, J. Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology, 88*, 879–903. doi: 10.1037/0021-9010.88.5.879.

Porter, L. W., & McLaughlin, G. B. (2006). Leadership and the organizational context: like the weather? *The Leadership Quarterly, 17*(6), 559–576. doi: 10.1016/j.leaqua.2006.10.002

Preacher, K. J., & Hayes, A. F. (2008). Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. *Behavior Research Methods, 40*(3), 879–891. doi: 10.3758/BRM.40.3.879

Preacher, K. J., Rucker, D. D., & Hayes, A. F. (2007). Addressing moderated mediation hypotheses: Theory, methods, and prescriptions. *Multivariate Behavioral Research, 42,* 185–227. doi:10.1080/00273170701341316

Probst, T. M. (2003). Development and validation of the job security index and the job security satisfaction scale: A classical test theory and IRT approach. *Journal of Occupational and Organizational Psychology, 76,* 451–467. doi: 10.1348/096317903322591587

Probst, T. M. (2006). *Job insecurity and accident under-reporting.* Paper presented at the 21st annual meeting of the Society for Industrial and Organizational

Psychology, Dallas, TX.

Probst, T. M., Barbaranelli, C., & Petitta, L. (2013). The relationship between job insecurity and accident underreporting: A test in two countries. *Work & Stress, 27*, 383–402. doi:10.1080/02678373.2013.850756

Rafferty, A. E., & Restubog, S. L. D. (2010). The impact of change process and context on change reactions and turnover during a merger. *Journal of Management, 36*(5), 1309–1338. doi: 10.1177/0149206309341480

Rhemtulla, M., Brosseau-Liard, P. E., & Savalei, V. (2012). When can categorical variables be treated as continuous? A comparison of robust continuous and categorical SEM estimation methods under suboptimal conditions. *Psychological Methods, 17*(3), 354–373. doi: 10.1037/a0029315

Richer, S. F., Blanchard, C., & Vallerand, R. J. (2002). A motivational model of work turnover. *Journal of Applied Social Psychology, 32,* 2089–2113. doi: 10.1111/j.1559-1816.2002.tb02065.x

Ryan, R. M. (1995). Psychological Needs and the Facilitation of Integrative Processes. *Journal of Personality, 63*(3), 397–427. doi: 10.1111/j.1467-6494.1995.tb00501.x

Ryan, R. M., & Deci, E. L. (2002). 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: University of Rochester.

Sagie, A., Birati, A., & Tziner, A. (2002). Assessing the costs of behavioral and

psychological withdrawal: A new model and an empirical illustration. *Applied Psychology: An International Review, 51,* 67–89. doi:10.1111/1464-0597.00079

Saxton, M. J., Phillips, J. S., & Blakeney, R. N. (1991). Antecedents and Consequences of Emotional Exhaustion in the Airline Reservations Service Sector. *Human Relations, 44*(6), 583–595. doi:10.1177/001872679104400604

Schafer, J. L. (1999). *NORM: Multiple imputation of incomplete multivariate data under a normal model, version 2.* [Software for Windows 95/98/NT]. Retrieved from http://sites.stat.psu.edu/*jls/misoftwa.html.

Schafer, J. L., & Graham, J. W. (2002). Missing data: Our view of the state of the art. *Psychological Methods, 7,* 147–177.

Schaubroeck, J., Lam, S. S. K., & Peng, A. C. (2011). Cognition-based and affect-based trust as mediators of leader behavior influences on team performance. *Journal of Applied Psychology, 96,* 863–871. doi: 10.1037/a0022625

Schaufeli, W. B., & Bakker, A. B. (2003). *UWES - Utrecht Work Engagement Scale: Test Manual.* Utrecht, The Netherlands: Department of Psychology, Utrecht University.

Schaufeli, W. B., Leiter, M. P., Maslach, C., & Jackson, S. E. (1996). The Maslach Burnout Inventory-General Survey. In C. Maslach, S. E. Jackson, & M. P. Leiter (Eds.), *Maslach Burnout Inventory* (pp. 19–26). Palo Alto, CA: Consulting Psychologists Press.

Schriesheim, C. A., & Murphy, C. J. (1976). Relationships between leader behavior

and subordinate satisfaction and performance: a test of some situational moderators. *Journal of Applied Psychology, 61,* 634–641. doi: 10.1037/0021-9010.61.5.634

Schweiger, D. M.,& Denisi, A. S. (1991). Communication with employees following a merger:Alongitudinal field experiment. *Academy of Management Journal, 24,* 110–135. doi: 10.2307/256304

Schweiger, D. M. & Ivancevich, J. M. (1985). Human resources: The forgotten factor in mergers and acquisitions. *Personnel Administrator, 30*(11), 47–61.

Schweiger, D. M., Ivancevich, J. M., & Power, F. R. (1987). Executive actions for managing human resources before and after acquisition. *Academy of Management Executive, 1,* 127–138. doi: 10.5465/AME.1987.4275830

Sendjaya, S., & Sarros, J. (2002). Servant leadership: Its origin, development, and application in organizations. *Journal of Leadership and Organizational Studies, 9*(2), 57–64. doi:10.1177/107179190200900205

Seo, M. G., & Hill, N. S. (2005). Understanding the Human Side of Merger and Acquisition. *The Journal of Applied Behavioral Science, 41,* 422–443. doi: 10.1177/0021886305281902

Shamir, B., House, R. J., & Arthur, M. B. (1993). The motivational effects of charismatic leadership: A self-concept based theory. *Organization Science, 4,* 577−594. doi:10.1287/orsc.4.4.577

Shamir, B., & Howell, J. M. (1999). Organizational and contextual influences on the emergence and effectiveness of charismatic leadership. *The Leadership*

Quarterly, 10, 257−283. doi:10.1016/S1048-9843(99)00014-4

Sitkin, S. B., & Pablo, A. L. (2005). The neglected importance of leadership in mergers and acquisitions. In G. K. Stahl & M. E. Mendenhall (Eds.), *Mergers and acquisitions: Managing culture and human resources* (pp. 208−223). Stanford, CA: Stanford Business Books.

Soler, J. K., Yaman, H., Esteva, M., Dobbs, F., Spiridonova-Asenova, R., Katic, M., ...Ungan, M., & (European General Practice Research Network Burnout Study Group). (2008). Burnout in European family doctors: The EGPRN study. *Family Practice, 25*(4), 245–265. doi:10.1093/fampra/cmn038.

Son, S. J., Kim, D-Y., & Kim, M. (2014). How perceived interpersonal justice relates to job burnout and intention to leave: The role of leader–member exchange and cognition-based trust in leaders. *Asian Journal of Social Psychology, 17*(1), 12–24. doi:10.1111/ajsp.12038

Sosik, J. J. (2005). The role of personal values in the charismatic leadership of corporate managers: A model and preliminary field study. *The Leadership Quarterly, 16,* 221–244. doi:10.1016/j.leaqua.2005.01.002

Sosik, J. J., Jung, D. I., Berson, Y., Dionne, S. D., & Jaussi, K. S. (2004). *The Dream Weavers: Strategy-Focused Leadership in Technology-Driven Organizations.* Greenwich, CT: Information Age.

Sousa, M. C., & Van Dierendonck, D. (2014). Servant leadership and engagement in a merge process under high uncertainty. *Journal of Organizational Change Management, 27*(6), 877–899. doi:10.1108/JOCM-07-2013-0133

Spears, L. C. (1995). *Reflections on leadership: How Robert K. Greenleaf's theory of servant-leadership influenced today's top management thinkers.* New York: John Wiley.

Staufenbiel, T., & König, C. J. (2010). A model for the effects of job insecurity on performance, turnover intention, and absenteeism. *Journal of Occupational and Organizational Psychology, 83,* 101–117. doi:10.1348/096317908X401912

Sundquist, J., Al-Windi, A., Johansson, S. E., & Sundquist, K. (2007). Sickness absence poses a threat to the Swedish Welfare State: A cross-sectional study of sickness absence and self-reported illness. *BMC Public Health, 7,* 45. doi: 10.1186/1471-2458-7-45

Sverke, M. & Hellgren, J. (2002). The nature of job insecurity: Understanding employment insecurity on the brink of a new millennium. *Applied Psychology: An International Review, 51*(1), 23–42. doi:10.1111/1464-0597.0077z

Sverke, M., Hellgren, J., & Näswall, K. (2002). No security: A meta-analysis and review of job insecurity and its consequences. *Journal of Occupational Health Psychology, 7,* 242–264. doi:10.1037/1076-8998.7.3.242

Techniker Krankenkasse. (2014). *Gesundheitsreport 2014.* Retrieved from http://www.tk.de/centaurus/servlet/contentblob/644772/Datei/121848/Gesundheitsreport-2014.pdf

Tehrani, N., Humpage, S.,Willmott, B., & Haslam, I. (2007). *What's happening with well-being at work?* Retrieved from http://www.cipd.co.uk/NR/rdonlyres/DCCE94D7-781A-485A-A702-6DAAB5

EA7B27/0/whthapwbwrk.pdf

Thoresen, C. J., Kaplan, S. A., Barsky, A. P., Warren, C. R., & de Chermont, K. (2003). The affective underpinnings of job perceptions and attitudes: a meta-analytic review and integration. *Psychological Bulletin, 129*(6), 914–945.doi:10.1037/0033-2909.129.6.914

Toppinen-Tanner, S., Ojajärvi, A., Väänänen, A., Kalimo, R., & Jäppinen, P. (2005). Burnout as a predictor of medically certified sick-leave absences and their diagnosed causes. *Behavioral Medicine, 31,* 18–27.

Väänänen, A., Pahkina, K., Kalimoa, R., & Buunkc, B. P. (2004). Maintenance of subjective health duringa merger: the role of experienced change and pre-merger social support at work in white- and blue-collar workers. *Social Science & Medicine 58*(10), 1903–1915. doi:10.1016/j.socscimed.2003.08.010

Vandenberghe, C., Bentein, K., & Stinglhamber, F. (2004). Affective commitment to the organization, supervisor, and work group: Antecedents and outcomes. *Journal of Vocational Behavior, 64,* 47–71. doi: 10.1016/S0001-8791(03)00029-0

Van den Broeck, A., Vansteenkiste, M., De Witte, H., & Lens, W. (2008). Explaining the relationships between job characteristics, burnout, and engagement: The role of basic psychological need satisfaction. *Work & Stress, 22*(3), 277–294. doi: 10.1080/02678370802393672

Van den Broeck, A., Vansteenkiste, M., De Witte, H., Soenens, B. & Lens, W. (2010). Capturing autonomy, competence, and relatedness at work: Construction and

initial validation of the Work-Related Basic Need Satisfaction Scale. *Journal of Occupational and Organizational Psychology, 83*(4), 981–1002. doi: 10.1348/096317909X481382

Van den Heuvel, M., Demerouti, E., Bakker, A. B., & Schaufeli, W. B. (2010). Personal resources and work engagement in the face of change. In J. Houdmont & S. Leka (Eds.), *Contemporary occupational health psychology: Global perspectives on research and practice* (pp. 124–150). Chichester: John Wiley & Sons Ltd.

Van Dierendonck, D. (2011). Servant leadership, review and synthesis. *Journal of Management, 37,* 1228–1261. doi: 10.1177/0149206310380462

Van Dierendonck, D., Haynes, C., Borrill, C., & Stride, C. (2004). Leadership behavior and subordinate well-being. *Journal of Occupational Health Psychology, 9*(2), 165–175. doi:10.1037/1076-8998.9.2.165

Van Dierendonck, D., & Nuijten, I. (2011). The Servant- Leadership Survey: Development and validation of a multidimensional measure. *Journal of Business and Psychology, 26,* 249–267. doi:10.1007/s10869-010-9194-1

Van Dierendonck, D., & Patterson, K. (2010). Servant leadership: An introduction. In D. Van Dierendonck & K. Patterson (Eds.), *Servant leadership: Developments in theory and research* (pp. 3–10). Palgrave Macmillan: London.

Van Dierendonck, D., Stam, D., Boersma, P., de Windt, N., & Alkema, J. (2014). Same difference? Exploring the differential mechanisms linking servant

leadership and transformational leadership to follower outcomes. *The Leadership Quarterly, 25*(3), 544–562. doi: 10.1016/j.leaqua.2013.11.014

Vander Elst, T., De Cuyper, N., De Witte, H. (2011). The role of Perceived Control in the Relationship between Job Insecurity and Psycholosocial Outcomes: Moderator or Mediator? *Stress and Health, 27,* 215–227. doi: 10.1002/smi.1371

Vansteenkiste, M., Neyrinck, B., Niemiec, C. P., Soenens, B., De Witte, H., & Van den Broeck, A. (2007). On the relations among work value orientations, psychological need satisfaction, and job outcomes: A self-determination theory approach. *Journal of Occupational and Organizational Psychology, 80,* 251–277. doi:10.1348/096317906X111024

Vansteenkiste, M., Niemiec, C. P., & Soenens, B. (2010). The development of the five mini-theories of self-determination theory: An historical overview, emerging trends, and future directions. In T. C. Urdan & S. A. Karabenick (Eds.), *Advances in motivation and achievement, vol. 16: The decade ahead: Theoretical perspectives on motivation and achievement* (pp. 105–165). London: Emerald Group Publishing Limited.

Waldman, D. A., & Javidan, M. (2009). Alternative forms of charismatic leadership in the integration of mergers and acquisitions. *The Leadership Quarterly, 20,* 130–142. doi:10.1016/j.leaqua.2009.01.008

Walumbwa, F. O., Avolio, B. J., Gardner, W. L., Wernsing, T. S., & Peterson, S. J. (2008). Authentic leadership: Development and analysis of a multidimensional

theory-based measure. *Journal of Management, 34*, 89–126. doi: 10.1177/0149206307308913

Walumbwa, F. O., Hartnell, C. A., & Oke, A. (2010). Servant leadership, procedural justice climate, service climate, employee attitudes, and organizational citizenship behavior: A cross-level investigation. *Journal of Applied Psychology, 95,* 517–529. doi: 10.1037/a0018867

Wang, J., & Wang, X. (2012). *Structural Equation Modeling: Applications Using Mplus.* New York: Wiley.

Westerlund, H., Nyberg, A., Bernin, P., Hyde, M., Oxenstiernaa, G., Jäppinend, P, ... Theorella, T. (2010). Managerial leadership is associated with employee stress, health, and sickness absence independently of the demand-control-support model. *Work, 37*(1), 71–79. doi:10.3233/WOR20101058

World Health Organization (1958). *The first ten years: the health organization.* Geneva: World Health Organization.

World Health Organization (2006). *Constitution of the World Health Organization.* Retrieved from http://www.who.int/governance/eb/who_constitution_en.pdf

Wright, T. A., & Bonett, D. G. (2007). Job satisfaction and psychological well-being as nonadditive predictors of workplace turnover. *Journal of Management, 33*(2), 141–160. doi:10.1177/0149206306297582

Yang, F., & Zhang, L. H. (2014, August). *How Does Servant Leadership Enhance Employee Outcomes? A Self-Determination Theory Perspective.* Paper presented at the 74th Annual meeting of the Academy of the Management,

Philadelphia.

Yukl, G. (2010). *Leadership in Organizations, 7th edition*. London: Prentice Hall.

Zaccaro, S. J., & Klimoski, R. J. (Eds.). (2001). *The nature of organizational leadership: Understanding the performance imperatives confronting today's leaders.* San Francisco: Jossey-Bass.

Zucchini, W. (2000). An Introduction to Model Selection. *Journal of Mathematical Psychology, 44,* 41–46. doi:10.1006/jmps.1999.1276

Appendix 1 - Alternative models (Model 2-6) with path coefficients

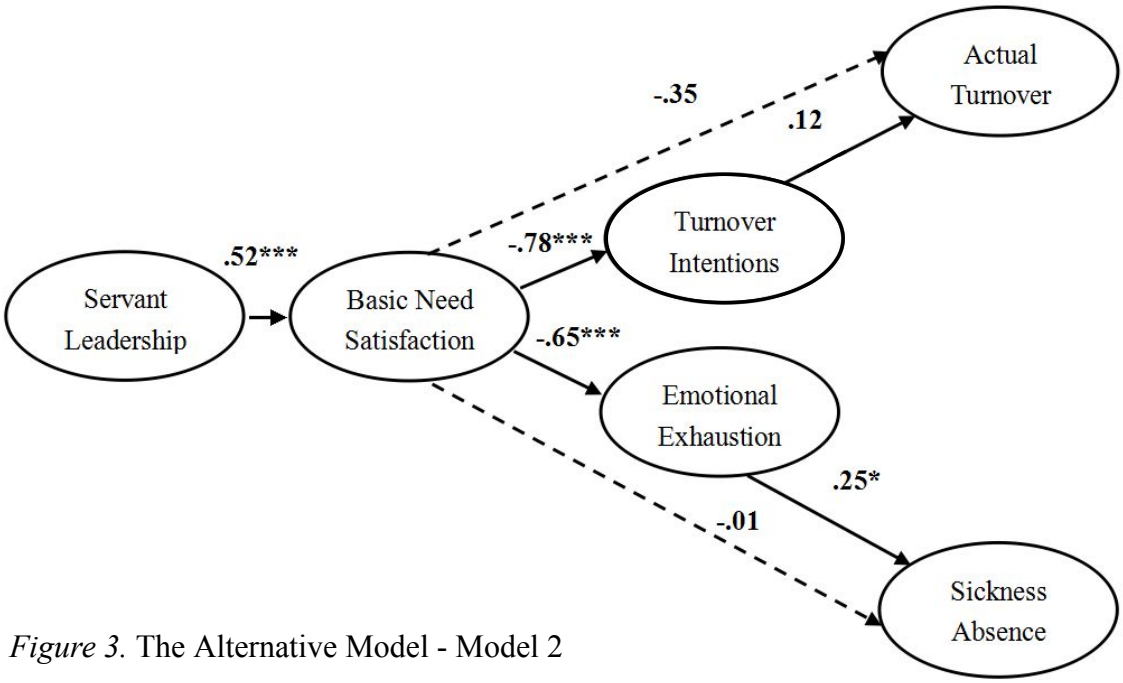

Figure 3. The Alternative Model - Model 2

Dashed lines represented insignificant paths

*** $p < .001$, * $p < .05$

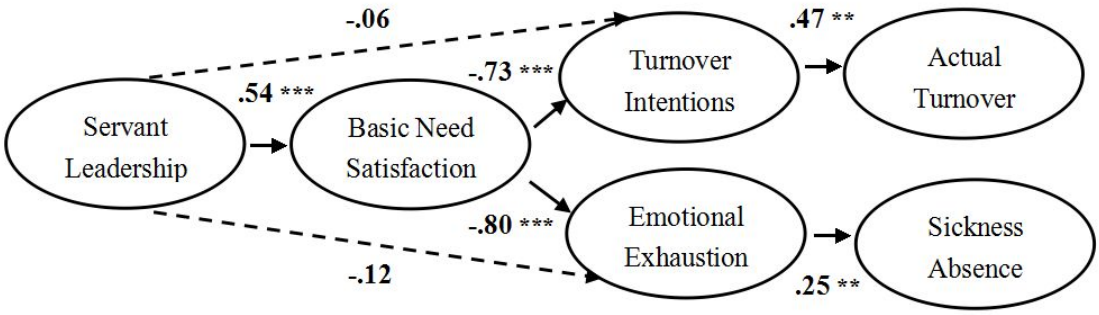

Figure 4. The Alternative Model - Model 3

Dashed lines represented insignificant paths

*** $p < .001$, ** $p < .01$

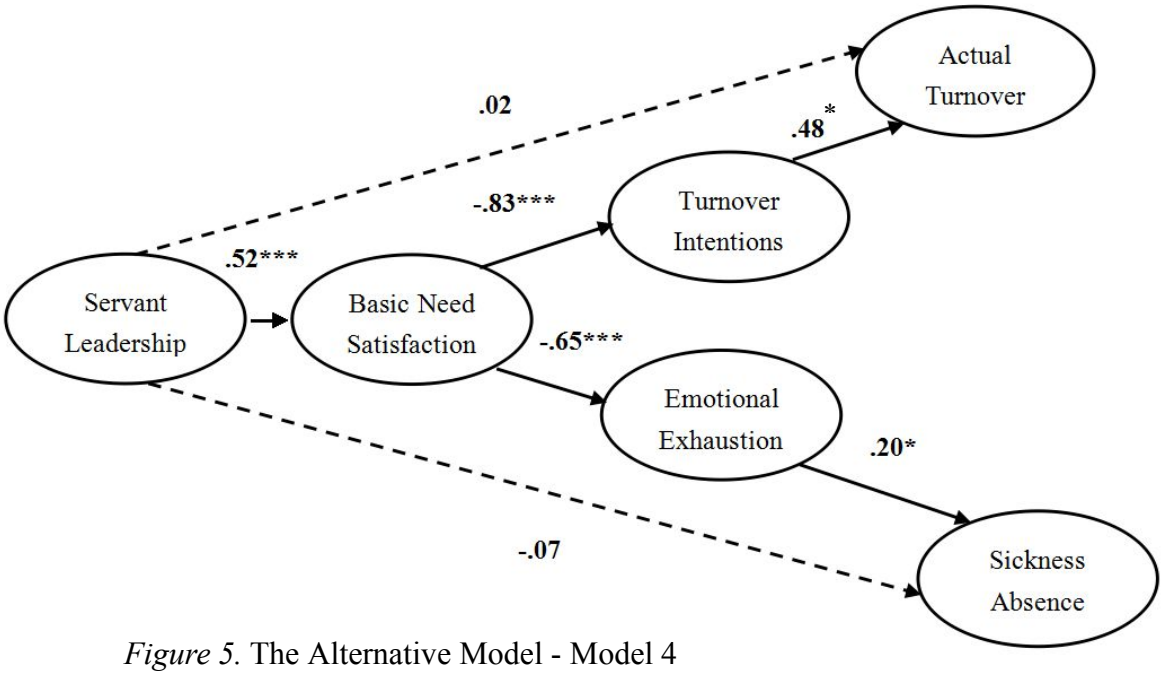

Figure 5. The Alternative Model - Model 4

Dashed lines represented insignificant paths

*** $p < .001$, * $p < .05$

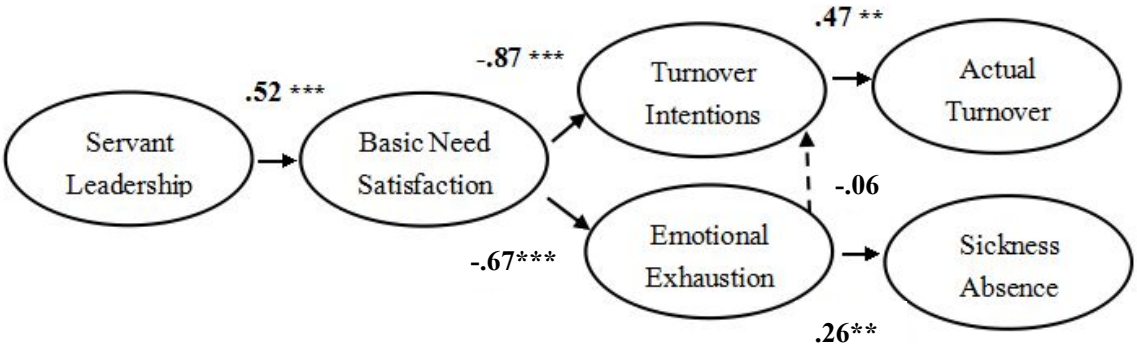

Figure 6. The Alternative Model - Model 5

Dashed lines represented insignificant paths

*** $p < .001$, ** $p < .01$

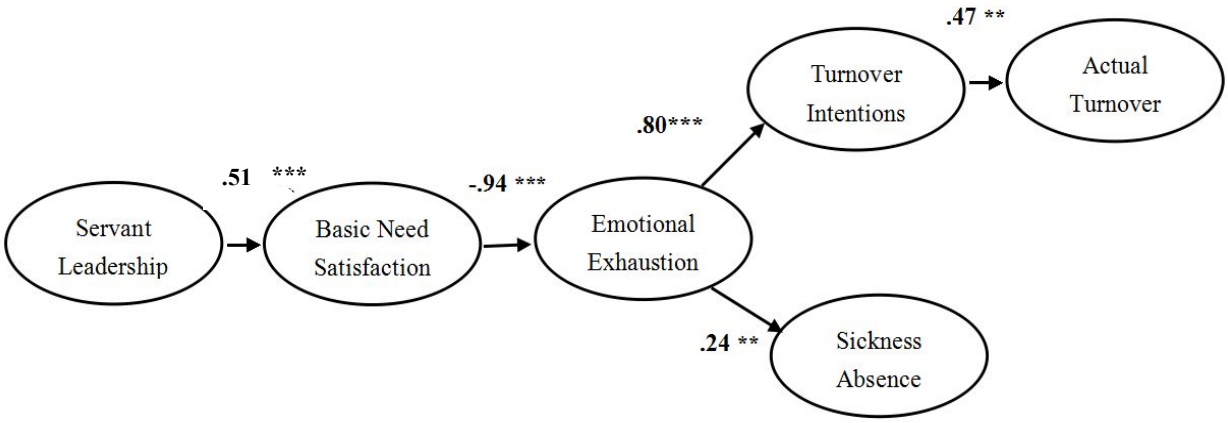

Figure 7. The Alternative Model - Model 6

*** $p < .001$, ** $p < .01$

Appendix 2 - Test of the hypothesized model using Bayes estimator

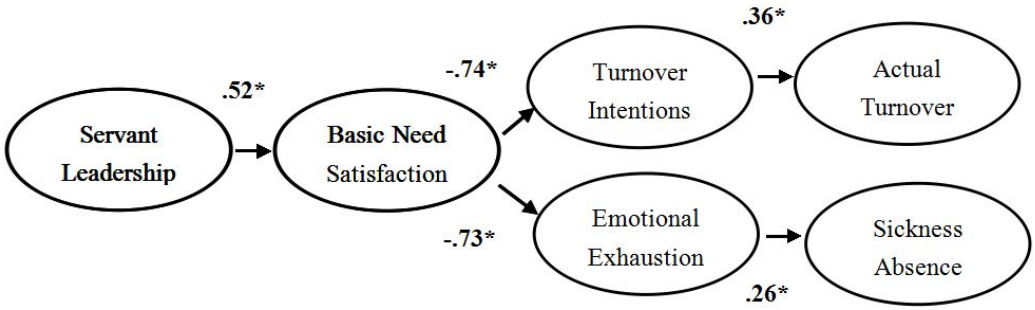

Figure 8. The hypothesized model with path coefficients using Bayes estimator.

* = posterior p value at 95% CI

Appendix 3 - Online Surveys

Leadership Questionnaire (Time 1)

Welcome to the ethically-oriented leadership online survey - evaluate your supervisor's leadership!

This is your chance to give individual and confidential feedback to your supervisor, which can provide an impulse to optimize your work relationship with your supervisor.

In the following survey you will be asked to answer questions about your supervisor. In order to create a broad picture, we will have a look at a variety of possible leadership behaviors a leader can employ. To situate these behaviors in the right context, you will also be asked to provide different aspects about how you perceive your working environment. The whole survey will take about **10 minutes** to complete. There are no right and wrong answers to all questions. Please answer all the questions honestly and spontaneously. If you can't complete the survey all at once, you can return later and finish it by clicking the link from the invitation email. **We appreciate you completing the whole survey before the given date.**

Result of the survey
Based on your and your colleagues' evaluation the project researcher will create a personal leadership profile for your supervisor. This profile will include feedback about strengths and areas of development as well as practical tips for improving collaboration in your business unit and team. To insure your anonymity a leadership profile will be created only, when five or more than five of your colleagues fill in the survey. All information will be provided at the aggregated level. After the assessment finishes, you will be informed about a summary of the result of the survey as well as an overview of the company's leadership landscape.

Anonymity and confidentiality
Your data will be collected by the external survey system Unipark and sent to the project researcher Xuan Feng. Xuan Feng and the research team at Ludwig Maximilians University und Technische Universität München will analyze the data and summarize the results. The data analysis and the making of your supervisor's leadership profile will be strictly confidential. Apart from the above listed researchers, no other parties have access to individual data.

Content of the Questionnaire

1. You are going to evaluate the leadership of your direct supervisor. Please write down the name of your direct supervisor here.

2. Please rate the behavior of the person you are evaluating with respect to the following statements. Please indicate how frequently this person acts in this way.

1 = not at all 2 = rarely 3 = sometimes 4 = often 5 = frequently/almost always

My leader spends the time to form quality relationships with his/her employees.	1	2	3	4	5
My leader creates a sense of community among his/her employees.	1	2	3	4	5
My leader's decisions are influenced by his/her employees' input.	1	2	3	4	5
My leader tries to reach consensus among his/her employees on important decisions.	1	2	3	4	5
My leader is sensitive to his/her employees' responsibilities outside the workplace	1	2	3	4	5
My leader makes the personal development of his/her employees a priority	1	2	3	4	5
My leader holds his/her employees to high ethical standards.	1	2	3	4	5
My leader does what he or she promises to do.	1	2	3	4	5
My leader balances concern for day-to-day details with projections for the future.	1	2	3	4	5
My leader displays wide-ranging knowledge and interests in finding solutions to work problems	1	2	3	4	5
My leader makes me feel like I work with him or her, not for him or her.	1	2	3	4	5
My leader works hard at finding ways to help others be the best they can be.	1	2	3	4	5
My leader encourages his/her employees to be involved in community service and volunteer activities outside of work.	1	2	3	4	5
My leader emphasizes the importance of giving back to the community.	1	2	3	4	5

3. Demographics

In this section you will be asked to provide some information about the organization and yourself. This information enables the researchers to do a more focused data analysis. Your information will only be used for research purposes, and only in aggregated with that of other respondents, ensuring confidentiality. Please write/select

the best answer for each question.

Your Gender
□ Male □ Female

Your Age
□ < 25 □ 26 - 30 □ 31- 35 □ 36 - 40 □ 41 - 45
□ 46 - 50 □ 51 - 55 □ 56- 60 □ > 60

Your highest education degree? (e.g., MBA, Bachelor). Please write down your education degree in the text field.

How long have you been working for your employer?

Years Months

How long have you been working with the current supervisor (the person you are evaluating)?

Years Months

Which job family do you belong to?

Do you have non-disciplinary supervisors in your team/at work in general?
□ Yes □ No

Do you lead employees or teams?
□ Yes □ No

Which business line were you mostly related to?

Where do you work in most of the time? (At clients or in office)
□ At Clients □ In Office

Online Survey

Work Attitudes (Time 2)

Welcome to the second ethically-oriented leadership online survey - Assess your work attitudes and values!

In this survey you are asked to reflect on your own work attitudes and personal values. The whole survey will take about **15 minutes** to complete. If you can't complete the survey all at once, you can return later and finish it by clicking the link from the invitation email (Please use the same computer to get back to the survey). We appreciate you completing the whole survey before the given date. There are no right and wrong answers to all questions. Please answer all the questions honestly and spontaneously. The researcher can only analyze data from completed surveys when all questions have been answered.

Result of the survey

Based on your feedback, a comprehensive data analysis will be conducted by the PhD researcher. The result of this survey will be presented to employees and leaders in anonymous form after all the survey assessments and data analyses have finished. The researcher will also propose future HR development strategies based on the input you have provided in all the project surveys.

Anonymity and confidentiality

Your data will be collected by the external survey system Unipark and sent to the project researcher Xuan Feng. Xuan Feng and the research team at Ludwig Maximilians Universität und Technische Universität München will analyze the data and summarize the results. The data analysis as well as the reporting of the result will be strictly confidential. Apart from the above listed researchers, no other parties have access to individual data. The result will be presented to all employees and leaders in aggregated and anonymous form.

Content of the Questionnaire

1. The following statements aim to tap your personal experiences at work. Please indicate in which degree you agree with these statements.

1 = totally disagree ..... 7 = totally agree * reversed score

I feel like I can be myself at my job.	1	2	3	4	5	6	7
At work, I often feel like I have to follow other people's commands.*	1	2	3	4	5	6	7
If I could choose, I would do things at work differently.*	1	2	3	4	5	6	7
The tasks I have to do at work are in line with what I really want to do.	1	2	3	4	5	6	7
I feel free to do my job the way I think it could best be done.	1	2	3	4	5	6	7
In my job, I feel forced to do things I do not want to do.*	1	2	3	4	5	6	7
I don't really feel competent in my job.*	1	2	3	4	5	6	7
I really master my tasks at my job.	1	2	3	4	5	6	7
I feel competent at my job.	1	2	3	4	5	6	7
I doubt whether I am able to execute my job properly.*	1	2	3	4	5	6	7
I am good at the things I do in my job.	1	2	3	4	5	6	7
I have the feeling that I can even accomplish the most difficult tasks at work.	1	2	3	4	5	6	7
I don't really feel connected with other people from my company at my job.*	1	2	3	4	5	6	7
At work, I feel part of my company.	1	2	3	4	5	6	7
I don't really mix with other people from my company at my job.*	1	2	3	4	5	6	7
At work, I can talk with people from my company about things that really matter to me.	1	2	3	4	5	6	7
I often feel alone when I am with my colleagues from my company.*	1	2	3	4	5	6	7
Some people from my company I work with are close friends of mine.	1	2	3	4	5	6	7
I feel burned out from my work							
I feel emotionally drained from my work	1	2	3	4	5	6	7
I feel fatigued when I get up in the morning and have to face another day on the job	1	2	3	4	5	6	7
I often think of leaving the organization.	1	2	3	4	5	6	7
It is very possible that I will look for a new job	1	2	3	4	5	6	7

next year.	
How certain are you about what your future career picture looks like in your organization?	1 2 3 4 5 6 7
How certain are you of the opportunities for promotion and advancement which will exist in the next few years?	1 2 3 4 5 6 7
How certain are you about your job security?	1 2 3 4 5 6 7
How certain are you about what your responsibilities will be six months from now	1 2 3 4 5 6 7

2. Demographics

In this section you will be asked to provide some information about the organization and yourself. This information enables the researchers to do a more focused data analysis. Your information will only be used for research purposes, and only in aggregated with that of other respondents, ensuring confidentiality. Please write/select the best answer for each question.

Is your current disciplinary supervisor the same person that you evaluated in the last survey - Subordinates evaluate leadership skills of the supervisor?

□ Yes □ No

Your Gender

□ Male □ Female

Your Age

□ < 25 □ 26 - 30 □ 31- 35 □ 36 - 40 □ 41 - 45

□ 46 - 50 □ 51 - 55 □ 56- 60 □ > 60

Your highest education degree? (e.g., MBA, Bachelor). Please write down your education degree in the text field.

How long have you been working for your employer?

Years Months

How long have you been working with the current supervisor (the person you rated in the last survey)?

Years Months

Which job family do you belong to?

Which business line were you mostly related to?

Please write down the name of your direct supervisor here. If your current supervisor is not the person you evaluated in the last survey, please write down the name of the person, who you evaluated in the last survey.