How Psychological Capital and Sense of Coherence Enhance Servant Leadership and Buffer Leader Stress: Preliminary Insights from an Empirical Study

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Abstract

This article investigates the role of psychological capital and sense of coherence as antecedents of servant leadership, as well as their effects on the relationship between servant leadership and perceived stress of leaders. Results from our cross-sectional study found psychological capital to be positively related to servant leadership. Sense of coherence was identified as a moderator of the relationship between self-perceived servant leadership behavior and stress. While this relationship was positive for leaders with a low sense of coherence, servant leadership behavior was inversely related to leader stress at high levels of sense of coherence. These empirical findings contribute to a deeper understanding of the psychological processes that precede servant leadership behavior and result from it. Ways to strengthen servant leadership among leaders and the importance of individual resources for stress management are discussed as practical implications.

Keywords: Servant Leadership, Psychological Capital, Sense of Coherence, Leader Stress

Over the last decade, a great deal of attention has been devoted to the study of servant leadership, showing its positive effects on individual and organizational outcomes (Liden, Panaccio, Meuser, Hu, & Wayne, 2014; Parris & Peachey, 2012; van Dierendonck, 2011). Rooted in the early writings of Greenleaf (1977), servant leadership is unique among leadership approaches in that it posits humility and serving others as the central components of the leadership process. Thus, a frequently referenced definition of servant leadership describes it as "an understanding and practice of leadership that places the good of those led over the self-interest of the leader, emphasizing leader behaviors that focus on follower development, and de-emphasizing glorification of the leader (Hale & Fields, 2007, p. 397)." Among the most influential theoretical conceptualizations and measures of servant leadership that have emerged over the last years is the approach by Liden, Wayne, Zhao, and Henderson (2008). They described servant leadership as a composite of seven leader behaviors: emotional healing, putting subordinates first, helping subordinates grow and succeed, empowering, behaving ethically, creating value for the community, and conceptual skills.

Despite the growing prominence of servant leadership in leadership research, there are still many open questions (see Liden et al., 2014; Parris & Peachey, 2012; van Dierendonck, 2011). Most notably, researchers know very little about the preconditions of servant leadership and why some leaders engage in servant leadership and others do not. Although influential theoretical works have proposed a number of individual and contextual factors as antecedents of servant leadership (Liden et al., 2014; van Dierendonck, 2011), we are aware of only a few published empirical studies that explicitly addressed antecedents of servant leadership. Two studies investigated the role of personality traits for servant leadership and found a positive relationship between leader agreeableness and servant leadership (Hunter et al., 2013; Washington, Sutton, & Feild, 2006). In turn, leader extraversion was negatively related to servant leadership. Furthermore, Barbuto, Gottfredson, and Searle (2014) found that leaders' emotional intelligence was positively associated with servant leadership. Beck (2014) conducted a mixed methods study, combining quantitative survey data of followers with in-depth interviews of leaders and identified leadership experience as a correlate of servant leadership. However, empirical research on the underlying psychological processes that enhance a positive self-concept of leaders to engage in servant leadership is particularly scarce, leading recent review articles to conclude "that there is a definite need for research on antecedents of servant leadership (Liden et al., 2014, p. 373; see also Parris & Peachey, 2012)."

A second aspect that has attracted little attention in the servant leadership literature refers to the effects servant leadership may have for leaders themselves. Rather, the bulk of research has focused on follower outcomes of servant leadership, so far. This is particularly true with regard to psychological wellbeing. Whereas theory and empirical research generally support the notion that servant leadership promotes follower psychological wellbeing, this may not necessarily hold for leaders as well. Recently, Panaccio, Donia, Saint-Michel, and Liden (2015) argued that, besides self-actualization

and personal growth that may derive from developing and mentoring followers, servant leaders may also run the risk of role overload and emotional exhaustion. In fact, the consistent effort of servant leaders to use their expertise and competencies to better understand, support, and develop others may exceed their physical and psychological resources, especially when relevant stakeholders have conflicting interests.

With the above gaps in mind, the aim of this article is twofold. First, we investigate the role of leaders' psychological capital (Luthans, Youssef, & Avolio, 2007) and sense of coherence (Antonovsky, 1987) as potential antecedents of servant leadership. We assume that psychological capital (with its four elements -- efficacy, hope, resilience, and optimism) as well as a sense of coherence (with its focus on meaning and control) are specifically relevant in the psychological process to develop a stable and positive self-concept that equips leaders for taking on the demands and conflicts that may come with servant leadership. Related to this, the second aim of our study is to investigate whether and to what degree the effort to lead as a servant may enhance the level of perceived stress among leaders. Here, our work also contributes more generally to the leadership literature given that there is surprisingly little empirical research on the relationship between specific leadership styles and the stress level of leaders (Sherman et al., 2012). Whereas we assume that the leaders' ambition toward servant leadership behavior is accompanied by an increased exposure to potential sources of stress, we also posit that leaders' psychological capital and sense of coherence buffer against the stressful demands of servant leadership.

THEORY AND HYPOTHESES DEVELOPMENT

Psychological Capital and Servant Leadership

Psychological capital is a composite construct of efficacy, hope, resilience and optimism and grounded in the positive psychology literature (Luthans, Avolio, Avey, & Norman, 2007; Luthans, et al., 2007). According to Avey, Luthans, and Youssef (2010), efficacy is defined as confidence about one's motivational, cognitive and behavioral resources (Stajkovic & Luthans, 1998b). Hope describes a positive motivation toward the future and meeting goals (Avey et al., 2010). Resilience is defined as capacity to rebound from failure and conflict (Luthans, 2002), and the fourth component, optimism, manifests through a positive view of the future and an emphasis of positive events over negative ones (Carver & Scheier, 2002; Seligman, 1998). In the leadership literature, psychological capital (or elements of it) have already been considered as antecedents of particular leadership styles. For instance, Luthans and Avolio (2003) identified it as personal resources of the authentic leader. Peterson, Walumbwa, Byron, and Myrowitz (2009) found a positive relationship between hope, optimism, and resilience and transformational leadership. In what follows, we argue that psychological capital is an important antecedent of servant leadership because it provides the leader with a positive self-concept and awareness as an essential basis of servant leadership behavior.

First, inherent to the idea of psychological capital is that it represents a general resource for reinforcing positive cognitive appraisal, positive emotions, and agentic conation (Luthans & Youssef-Morgan, 2017; Youssef & Luthans, 2013). Through these psychological mechanisms, it can facilitate leaders' goal-directed motivation and behavior, promote perseverance when faced with obstacles, and foster wellbeing, satisfaction, and relationships (Luthans & Youssef-Morgan, 2017). All these aspects represent critical resources for leaders to be able to help subordinates grow and succeed as well as to empower and support them emotionally when faced with challenges. Furthermore, there is some evidence of contagious effects of psychological capital (e.g., Avey, Avolio, & Luthans, 2011; Story, Youssef, Luthans, Barbuto, & Bovaird, 2013), implying that a servant leader's psychological capital may spillover to followers and qualify them to grow, act responsibly and self-determined, and to eventually become servant leaders themselves.

Second, each psychological capital resource may have distinct implications for servant leadership. Whereas other leadership styles do not inherently require the leader to have a positive concept of his or her own skills and talents, the servant leadership dimensions of conceptual skills, empowering, and helping subordinates grow and succeed may do so in particular (Liden et al., 2014). Since efficacy has a strong and positive influence on work-related performance (Stajkovic & Luthans, 1998a), efficacious leaders can provide support to others by sharing valuable advice and success stories from their experiences to encourage self-directed decision making of their followers. Moreover, leaders who perceive themselves as efficacious presumably trust themselves more to exert servant leadership which is generally very demanding. In contrast, perceived inefficacy, which is linked to anxiety arousal (Bandura, 1988), could hinder them in doing so.

With regard to hope, van Dierendonck and Patterson (2015) stated that "servant leaders inspire hope and courage" (p. 124). Without hope, the notion of creating value for the community and helping followers to grow would become meaningless. This implies that hope is a crucial precondition of servant leadership which probably stems from the leader's psychological capital. In addition, hope could be an important resource for servant leaders as to exert emotional healing when they care about followers' personal problems.

Resilience appears as an important resource for servant leaders when faced with obstacles. On the one hand, obstacles and conflicts could arise, e.g., when servant leaders relinquish some control as they aim to empower and develop others. But some followers may also be reluctant or uncertain about how to perform in these unfamiliar roles. On the other hand, the risk of failure increases with the leader's courage to approach challenges and problems in new and unconventional ways. Therefore, servant leaders must be particularly resilient.

Finally, optimism is likely to be a vital psychological resource for servant leaders. When confronted with difficult decisions, servant leaders must not immediately lose confidence but display faith and perseverance. This can be enhanced through optimism which may convey this confidence in critical situations. Forgeard and Seligman (2012)

suggest that optimists are also less likely to deny problems than pessimists. Thus, optimistic leaders may rather speak out difficulties but provide at the same time constructive suggestions which can foster confidence among subordinates. As optimists generally appear to be more successful (Forgeard & Seligman, 2012; Seligman & Schulman, 1986), they may also represent better role models for their subordinates. Furthermore, optimists' motivation to engage in building strong relationships with others (e.g., Srivastava, McGonigal, Richards, Butler, & Gross, 2006) may be the foundation for a strong relationship of trust with followers which is central to servant leadership (Claar, Jackson, & TenHaken, 2014). Based on the theoretical reasoning above, we contend that:

Hypothesis 1: Leaders' psychological capital (i.e., efficacy, hope, resilience and optimism) is positively related to servant leadership.

Sense of Coherence and Servant Leadership

As a second potential resource to promote servant leadership behavior, we introduce sense of coherence. Sense of coherence stems from the salutogenic research field (Antonovsky, 1979, 1987) and is defined as "a global orientation that expresses the extent to which one has a pervasive, enduring though dynamic feeling of confidence (p. 19)." It is further specified through the three components comprehensibility, manageability, and meaningfulness (Antonovsky, 1987). Comprehensibility refers to the perceived controllability of one's environment, i.e., the feeling that life is structured, predictable and explicable. Manageability is about the extent people consider themselves as able to meet the demands arising from the environment. Finally, meaningfulness refers to the motivation of people to invest their energy in a certain situation as they consider it as relevant and meaningful. Sense of coherence has mainly been examined in the context of life stress, depression, anxiety and wellbeing (see Antonovsky, 1993; Carmel & Bernstein, 1990; M. Cohen & Kanter, 2004; Eriksson & Lindström, 2005; Pallant & Lae, 2002). In what follows, we delineate how the features of sense of coherence may promote servant leadership.

Comprehensibility may help leaders to keep a clear view of complex situations in organizational processes, thus enabling them to have the necessary conceptual skills to provide direction for followers and think ahead which is important for leaders who want to help their followers grow. Moreover, from this perspective, leaders might be more willing to relinquish control and to empower followers because they understand and have confidence in them.

As mentioned earlier in this paper, servant leaders have been described as "courageous stewards (van Dierendonck & Nuijten, 2011, p. 251)" who are prepared to "take risks and trying out new approaches to old problems (p.252)." Thus, a sense of manageability appears as a crucial resource when it comes to dealing with obstacles and setbacks that may go along with trying out new approaches.

Finally, we assume that a sense of meaningfulness can foster the motivation of leaders to develop their followers because it strengthens the confidence in employees' abilities. Moreover, the idea of meaningfulness contains a spiritual side (Braun-Lewensohn & Sagy, 2010; Delgado, 2007). Beck (2014) mentions a strong sense of purpose as a common characteristic among servant leaders in his mixed methods study. With the feeling that life makes sense and the self-determined consciousness of being a servant leader, leaders may want to invest more effort in healthy relationships with their followers. Taken together, we specified the following prediction:

Hypothesis 2: Leaders' sense of coherence is positively related to servant leadership.

Servant Leadership and Leader Stress

In this section, we discuss whether and to what degree the engagement in servant leadership may be associated with perceived stress among leaders. Based on the transactional model of stress and coping (Lazarus & Folkman, 1984), we define leader stress as the perceived stress of leaders evoked by stressors leaders are exposed to in and outside their immediate work environment. Perceived stress is the result of individual appraisal and coping efforts (S. Cohen, Kamarck, & Mermelstein, 1983; Soderstrom, Dolbier, Leiferman, & Steinhardt, 2000).

Overall, the potential sources of stress for leaders are manifold, including role ambiguity and conflicts, relationships in- and outside the organization as well as personal career development and job security (Cooper & Marshall, 1978). Yet, this may be particularly true for servant leadership. As Panaccio et al. (2015) pointed out, servant leaders are likely to experience role conflicts because they strive to meet the needs of multiple stakeholders (i.e., followers, customers in addition to friends and family) with potentially conflicting interests. Furthermore, role conflicts go usually hand in hand with the experience of role overload. In fact, several scholars have argued that the desire to shape high quality relationships at work can be rather demanding (Arnold, Connelly, Walsh, & Martin Ginis, 2015; Connelly & Arnold, 2011). Leaders, who strive to serve others (inside and outside the organization, including the private sphere) are particularly at risk to struggle with limited time and resources (Panaccio et al., 2015). In addition, conflicts with others, e.g., the servant leader's peers or superiors, could arise because of the servant leader's fundamental and unique focus on followers. Ultimately, these dissonances could have a negative impact on the servant leader's own career advancement opportunities and job security, thereby inducing stress. Taken together, we developed the following hypothesis:

Hypothesis 3: Servant leadership is positively related to the perceived stress level of leaders.

Intervening Mechanisms in the Stress Process

Although the direct link between servant leadership and leader stress appears as theoretically viable, we believe that this link is not entirely static but influenced by the dynamic processes of appraisal and coping. Thus, in what follows, we argue that psychological capital and sense of coherence do not only represent psychological resources that facilitate servant leadership but, at the same time, also buffer against servant leaders' strain.

The psychological capital components imply together a shared sense of control and intentionality, as well as proactive goal pursuit (Luthans & Youssef-Morgan, 2017). This may play a central role in the individual appraising and coping processes. Support for this assumption comes from a meta-analysis of Avey, Reichard, Luthans, and Mhatre (2011) who found a negative relationship between psychological capital and job stress. Leaders who score high on psychological capital may appraise potential stressors as less impactful relative to leaders with a low level of psychological capital because they feel capable of solving a problematic and challenging situation. Hence, it is plausible that the relationship between servant leadership and perceived stress is moderated in the way that the positive relationship we assumed in Hypothesis 3 is mitigated. Recently, Courtright, Colbert, and Choi (2014) have found a similar moderating effect for efficacy. The other psychological capital dimensions – hope, optimism and resilience – seem to be primarily coping resources (Avey, Luthans, & Jensen, 2009; Lazarus, 1999, 2003) which can effectively attenuate the stress perception as well. Hope is vital for the belief of a positive outcome (Lazarus, 1999, pp. 674-675). Optimism has been positively associated with approach coping (Solberg Nes & Segerstrom, 2006) which was negatively related to perceived stress (Soderstrom et al., 2000). Based on this evidence, it seems plausible that servant leaders high in psychological capital can better buffer against stressful situations. Thus, we specified the following prediction:

Hypothesis 4: Leaders' psychological capital mitigates the positive relationship between servant leadership and the perceived stress level of leaders.

The relevance of sense of coherence in the transactional stress process has already been emphasized by Lazarus and Folkman (1984). According to Lazarus and Folkman (1984), sense of coherence is "a general belief about control (p. 67)," which is supposed to influence appraisal and coping in highly ambiguous situations. Recently, Sherman et al. (2012) have addressed leaders' perceived stress in combination with sense of control in an empirical study and conclude from their findings that sense of control plays an important role in leaders' perceived stress level. Thus, the belief that the situation is manageable, comprehensible, and overall meaningful, may serve as a buffer, helping leaders appraise high ambiguity in the work environment as less stressful. In this way, sense of coherence would operate as a moderator of the relationship between servant leadership and perceived stress, mitigating the positive relationship we supposed in Hypothesis 3. A negative effect of sense of coherence on individual stress perception has been revealed by various scholars

(e.g., Antonovsky, 1993; Delgado, 2007; Frenz, Carey, & Jorgensen, 1993; Ryland & Greenfeld, 1990; Wolff & Ratner, 1999). Albertsen, Nielsen, and Borg (2001) could also confirm moderating effects of sense of coherence on the relationship between work environment and stress symptoms. These findings support our assumption, as specified below:

Hypothesis 5: Leaders' sense of coherence mitigates the positive relationship between servant leadership and perceived leader stress.

METHODS

Sample and Procedures

To empirically test our hypotheses, we conducted an online survey available in German and English. For the recruitment of participants, snowball sampling was used through the professional network of the authors. The invitation message included an URL link which directly led to the web-based survey, making it convenient for recipients of the message to invite other leaders. Instructions on the survey's front page assured participants of absolute anonymity and broadly informed about the survey's topic. The target sample for this study consisted of currently employed persons with personnel responsibility.

In total, 85 persons activated the link to the survey. After an initial dropout of 14 persons (i.e., person-level missingness 16%; Newman, 2014), another two dropped out when questions were asked about perceived stress, and finally three more dropouts were counted for sociodemographic questions (final response rate 78%). Of the 71 leaders who had filled out almost the entire questionnaire, 82% chose the German survey while 18% chose the English version. Among the 66 managers who completed the whole survey, 39% were female (56% male, 5% not specified). One third of the participants were in their forties, followed by the age ranges of thirty to thirty-nine (26%) and fifty to fifty-nine (24%). Seven respondents were above and four respondents were below the mentioned age ranges. The majority (64%) had earned a graduate or post-graduate degree, 14% had an undergraduate degree, 15% had completed vocational training, and 6% had a high school diploma as highest level of education completed. The rest did not specify their educational background. The average of years in a leadership role was 11.42 years (SD = 8.29) and the leader-subordinate relationship (i.e., the average period a leader worked together with his or her employees) was on average 6.97 years (SD = 8.36). Participants mainly worked in big companies with more than 500 employees (58%). Regarding covered business sectors, we obtained a well-diversified sample. The five most frequently mentioned sectors were education and research (21%), manufacturing (20%), other services (20%), information and communication (17%) and financial and insurance services (14%).

Measures

Servant Leadership. The focus of the present study is on intra-individual processes both in relation to psychological resources and stress as perceived by leaders. Thus, we measured leaders' self-rated behavioral orientations toward servant leadership. Overall, behavioral orientations represent a readiness to act in a certain way (Weber, Unterrainer, & Schmid, 2009). Specifically, we used the German version (Lacroix & Pircher Verdorfer, 2017) of the 7-item measure of global servant leadership developed by Liden et al. (2015). Since self-ratings of leaders were assessed, the items were worded in the first person. Sample items were "I make the career development of my employees a priority" and "I put my employees' best interest ahead of my own." Responses were made on a 7-point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree).

Psychological Capital. Psychological capital was measured with the 12-item version of the Psychological Capital Questionnaire (Luthans, Avolio, et al., 2007; Luthans, Youssef, et al., 2007). This version consists of three items for efficacy and resilience, respectively, two items for optimism and four items for hope. Sample items were "I feel confident presenting information to a group of colleagues" (efficacy), "I can think of many ways to reach my current work goals" (hope), "I usually take stressful things at work in stride" (resilience) and "I'm optimistic about what will happen to me in the future as it pertains to work" (optimism). The items were rated on a 6-point Likert scale from 1 (strongly disagree) to 6 (strongly agree) as in Norman, Avey, Nimnicht, and Graber Pigeon (2010) and Norman, Avolio, and Luthans (2010).

Sense of Coherence. Sense of coherence was measured with the nine items of the SOC-Leipzig Short Scale (Schumacher, Wilz, Gunzelmann, & Brähler, 2000). A sample item for comprehensibility was "How often do you have the feeling that you are in an unfamiliar situation and don't know what to do?" Participants could choose on a 7-point scale between 1 (never) and 7 (very often). A sample item for manageability was "When you do something that gives you a good feeling:" in combination with the two options provided "It's certain that something will happen to spoil the feeling" and "It's certain that you'll go on feeling good" at each end of the 7-point scale. A sample item for meaningfulness was "When you think about your life, you very often:" with the two poles "ask yourself why you exist at all" and "feel how good it is to be alive".

Perceived Leader Stress. To measure perceived stress of leaders, we used the Screening Scale of the Trier Inventory for the assessment of Chronic Stress (TICS-SSCS) of Schulz, Schlotz, and Becker (2004). The German version was adapted from Schachtner (2010). It is based on an interactional stress concept such as the transactional model of stress and coping (Lazarus & Folkman, 1984), focusing on self-perceived stress in the last three months (Ditzen & Nater, 2006). The SSCS consists of twelve items capturing five domains of stress: chronic worrying, work-related overload, social overload, excessive demands and lack of social recognition (Ditzen & Nater, 2006). Leaders had to rate the frequency of perceived stress on a 5-point scale from 1 (never) to 5 (very often). Sample items were "I

worry a lot and cannot stop" (chronic worrying), "My work overwhelms me" (work-related overload), "My responsibility for others becomes a burden to me" (social overload), "I worry that I will not be able to fulfill my tasks" (excessive demands) and "I try in vain to gain recognition for my good work" (lack of social recognition).

RESULTS

Validity of Measures

Prior to testing our hypotheses, we conducted confirmatory factor analyses (CFA) using the lavaan package in R (Rosseel, 2012) to examine the construct validity and empirical distinctiveness of the study variables. Due to the proportion of parameters to sample size, we used item parcels as indicators for the latent constructs following recommendations of Matsunaga (2008) and Williams and O'Boyle (2008). For servant leadership, we applied a factorial parceling algorithm (Rogers & Schmitt, 2004) and created three parcels. The parcels for the other latent constructs were based on preexisting dimensions. For psychological capital, four parcels were created (i.e., efficacy, hope, resilience, and optimism). Likewise, three parcels were formed for sense of coherence (i.e., comprehensibility, manageability and meaningfulness). For perceived leader stress, five parcels were created according to the five dimensions of the TICS (i.e., chronic worrying, work-related overload, social overload, excessive demands and lack of social recognition). To establish discriminant validity of our latent constructs, we compared three alternative models (see Table 1). First, we tested the fit of a single-factor solution with all indicators loading onto a single factor (model 1), yielding a poor fit ($\chi^2 = 185.63$, $df = 90$, $p < .001$, $\chi^2/df = 2.06$, CFI = .70, TLI = .65, RMSEA = .12). Second, we tested a model where all psychological capital and sense of coherence indicators loaded onto a common factor (model 2). The fit of this model ($\chi^2 = 119.32$, $df = 87$, $p = .01$, $\chi^2/df = 1.37$, CFI = .90, TLI = .88, RMSEA = .07) was significantly better than the fit of the previous model ($\Delta\chi^2_{(DF)} = 66.31$, $p < .001$). Third, we tested our final measurement model (model 3) with four factors, i.e., all indicators loaded on their respective factor. This model indicated the best fit ($\chi^2 = 110.73$, $df = 84$, $p = .03$, $\chi^2/df = 1.32$, CFI = .92, TLI = .90, RMSEA = .07). In addition, the chi-square difference test showed that this model fit the data significantly better than the three-factor model ($\Delta\chi^2_{(DF)} = 8.59$, $p < .05$). In summary, the revealed pattern supports the construct and discriminant validity of the four latent constructs.

Table 1. Results of confirmatory factor analyses for three different factor models.

Model	χ^2 (p)	df	χ^2/df	TLI	CFI	RMSEA	$\Delta\chi^2$
Model 1	185.63(<.001)	90	2.06	0.65	0.70	0.12	
Model 2[a]	119.32(.01)	87	1.37	0.88	0.90	0.07	66.31***
Model 3[b]	110.73 (.03)	84	1.32	0.90	0.92	0.07	8.59*

Note. $N = 69$; χ^2 = chi-square; p = p-value; *p < .05, **p < .01, ***p < .001 (two-tailed).; df = degrees of freedom; TLI = Tucker-Lewis Index; CFI = comparative fit index; RMSEA = root mean square error of approximation.

a: $\Delta\chi^2$ = difference in χ^2 values between model 1 and model 2.

b: $\Delta\chi^2$ = difference in χ^2 values between model 2 and model 3.

Test of Hypotheses

Next, we calculated the descriptive statistics, internal consistency reliabilities, and correlations among the study variables as presented in Table 2. The Cronbach's alpha values were above .70 for all latent constructs except for servant leadership ($\alpha_{SL} = .66$). However, we accepted this result since Lacroix and Pircher Verdorfer (2017) obtained excellent psychometric properties for this scale in a larger sample. In order to test our hypotheses in detail, we conducted several regression analyses with SPSS and the macro PROCESS (Hayes, 2013). The results are presented in Table 3 for the test of psychological capital and sense of coherence as predictor variables. Table 4 shows the results of the moderation analysis. In a pretest, all regressions were conducted with the inclusion of gender, age, education, leadership experience and leader-subordinate relationship as control variables. These variables were included based on results of previous studies on servant leadership where either these variables represented control variables or yielded significant results (e.g., Beck, 2014; Washington et al., 2006). Since we obtained no major differences in the outcome, we present our results without control variables.

Table 2. Descriptive statistics and correlations.

		N	*M*	*SD*	1	2	3	4	5	6	7	8
1	Servant Leadership	71	5.60	.63	(.66)							
2	Psychological Capital	71	5.00	.46	.50**	(.79)						
3	Sense of Coherence	71	5.67	.62	.35**	.52**	(.73)					
4	Perceived Stress	69	2.12	.56	-.16	-.47**	-.56**	(.88)				
5	Age[a]	66	4.08	1.21	.02	-.03	.20	-.09				
6	Gender[b]	63	1.59	.496	-.17	-.09	-.27*	.03	.12			
7	Education[c]	66	5.76	1.08	.07	.08	.00	-.09	-.09	-.14		
8	Leader-Subordinate Relationship[d]	65	7.08	8.38	.13	-.01	.18	-.08	.58**	.14	-.39**	
9	Leadership experience[d]	66	12.89	12.04	.02	.01	.27*	-.09	.32**	.01	-.15	.39**

Note. M = mean; *SD* = standard deviation; Cronbach's alpha values are shown in parentheses along the diagonal; *p* < .05, **p* < .01, ***p* < .001 (two-tailed).
a: measured in seven age ranges.
b: 0 = not specified, 1 = female, 2 = male.
c: measured in six ranges.
d: measured in years.

Table 3. Psychological capital and sense of coherence as antecedents of servant leadership.

	Servant Leadership				
Coefficient	*b(SE)*	*β*	*LBCI*	*UBCI*	*relative weight*
Psychological Capital	.60(.16)	.44**	.27	.93	74.5
Sense of Coherence	.12(.12)	.12	-.13	.36	25.5
R²			.26		
F-statistic			12.14***		

Note. N = 70; *b* = non-standardized coefficient; *SE* = standard error; *β* = standardized coefficient; *LBCI* = lower bound confidence interval; *UBCI* = upper bound confidence interval; *p* < .05, ** *p* < .01, *** *p* < .001 (two-tailed); Johnson's relative weight = relative contribution to R^2 (Lorenzo-Seva, Ferrando, & Chico, 2010).

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Table 4. Moderating effects of psychological capital and sense of coherence on the relationship between servant leadership and perceived stress.

				Perceived Stress				
		Step 1				**Step 2**		
Coefficient	*b*	*SE*	*LBCI*	*UBCI*	*b*	*SE*	*LBCI*	*UBCI*
Servant Leadership	.13	.10	-.07	.34	.09	.10	-.12	.29
Psychological Capital	-.37*	.15	-.68	-.07	-.35*	.15	-.65	-.05
Sense of Coherence	-.40***	.10	-.60	-.19	-.37***	.10	-.57	-.17
Interaction Term 1					.24	.22	-.20	.67
Interaction Term 2					-.32*	.14	-.60	-.04
R² (ΔR²)		.37				.42(.05)		
F-statistic		12.77***				9.08***		

Note. $N = 69$; b = non-standardized coefficient; SE = standard error; $LBCI$ = lower bound confidence interval; $UBCI$ = upper bound confidence interval; ΔR^2 is the difference in R^2 values between model 1 and model 2; $*p < .05$, $** p < .01$, $*** p < .001$ (two-tailed).
Interaction Term 1: Servant leadership x Psychological Capital.
Interaction Term 2: Servant leadership x Sense of Coherence.

As can be seen in Table 3, psychological capital was positively related to servant leadership ($\beta = .44$, $p < .01$, 95% CI [.27, .93]), contributing with a relative weight of .75 to a total explained variance of .26. Thus, Hypothesis 1 was supported. In contrast, we could not find support for Hypothesis 2 because the relationship between sense of coherence and servant leadership was insignificant ($\beta = .12$, $p > .05$, 95% CI [-.13, .36]).

For the calculation of the moderating effects, we first specified a model with servant leadership, psychological capital and sense of coherence as independent variables. In the second step, we added the interaction term of psychological capital and servant leadership (interaction term 1) and sense of coherence and servant leadership (interaction term 2). Both psychological capital ($b = -.37$, $p < .05$, 95% CI [-.68, -.07]) and sense of coherence ($b = -.40$, $p < .001$, 95% CI [-.60, -.19]) were negatively related to the perceived stress level of leaders. However, servant leadership was not positively related to perceived leader stress. Therefore, Hypothesis 3 could not be confirmed in this study. Hypothesis 4 was also not supported because the interaction term of psychological capital and servant leadership was not significant. However, the interaction term of sense of coherence

and servant leadership was negative and significant ($b = -.32$, $p < .05$, 95% CI [-.60, -.04]). The direction of this moderation effect was in the expected direction. Therefore, Hypothesis 5 was supported. To visualize the nature of this effect, we followed the procedures recommended by Dawson (2014). The revealed pattern of the plotted interaction in Figure 1 indicates that sense of coherence changes the relationship between servant leadership and perceived stress from a positive relationship (for low sense of coherence) to a negative one (for high sense of coherence). This pattern of a moderator has been described by Podsakoff, MacKenzie, Ahearne, and Bommer (1995). It appears because the regression coefficient is insignificant for servant leadership but significant for sense of coherence and the interaction term.
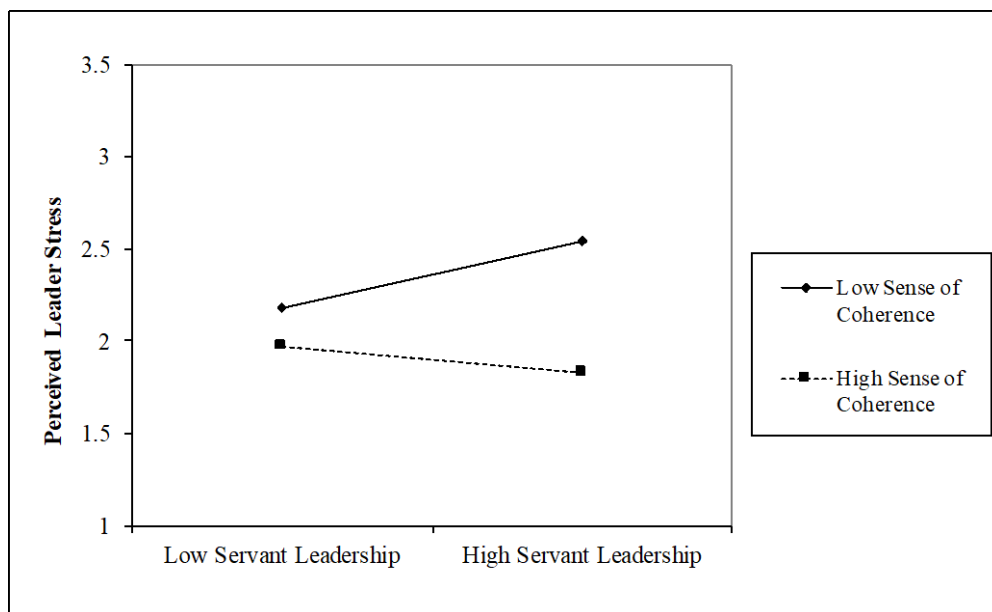

Figure 1. The relationship between servant leadership and perceived stress of leaders for low and high sense of coherence.

DISCUSSION

The aim of this study was to explore psychological capital and sense of coherence as two psychological resources of servant leadership and their effects on leaders' strain. With regard to psychological capital, we found a strong and positive effect. This implies that managers who are well equipped with psychological capital are more likely to perceive themselves as servant leaders. This result is in line with prior research on similar leadership styles. For instance, Luthans and Avolio (2003) identified confidence, optimism, hope and resilience as antecedents of the authentic leader in their model. In another study, Peterson et al. (2009) found positive psychological traits (hope, optimism and resilience) to be related to transformational leadership. With regard to sense of coherence, we could not fully confirm our hypothesis. Although the correlation coefficient with servant leadership

was significant and positive, sense of coherence turned out to be no longer a significant predictor of servant leadership when entered in the regression model together with psychological capital. Yet, this does not mean that sense of coherence is not relevant at all. A potential explanation for the observed effect could be that psychological capital and sense of coherence are similar in their meaning (cf. Pallant & Lae, 2002; Posadzki & Glass, 2009) and have similar effects on states such as wellbeing (Forgeard & Seligman, 2012; Pallant & Lae, 2002) which may also explain the positive and significant correlation. However, when testing for discriminant validity, we obtained the best fit results for the model where psychological capital and sense of coherence were treated as two distinct latent constructs. This and the different moderating effects indicate that they represent distinct constructs.

In addition, we proposed a positive relationship between servant leadership and perceived stress of leaders as well as moderating effects on this relationship. Contrary to our assumption, servant leadership was not significantly related to the perceived stress level of leaders. This result is also in opposition to what current servant leadership literature suggests (e.g., Liden et al., 2014; Panaccio et al., 2015). Apparently, the supposed exposure to an increased number of stressors in comparison to other leadership forms does not simply translate into an increased stress perception. In order to shed light on this pattern, we additionally examined the intervening mechanisms in the dynamic stress process. With regard to psychological capital no moderating effect could be identified. In contrast, we found a significant moderating effect of sense of coherence on the relationship between servant leadership and perceived leader stress. While the interaction term and the coefficient for sense of coherence were significant, the coefficient for servant leadership was not significant. This type of moderation has been assessed as very important by Podsakoff et al. (1995) because "a leader's behavior is positively related to the criterion variable at some levels of the moderator, but negatively related to the criterion at other levels of the moderator (p.431)." Related to our study, this means that the leader's self-perception of servant leadership was positively related to perceived stress at low levels of sense of coherence, but negatively related to perceived stress at high levels of sense of coherence. Thus, sense of coherence appears to explain the difference in the stress perception of servant leaders. Sense of coherence is likely to influence both appraisal and coping in the way that it helps servant leaders better buffer against stress. In particular, the external control component of sense of coherence, as already emphasized by Lazarus and Folkman (1984), seems to be very important in the context of servant leadership and stress. This may also explain the difference to psychological capital which had no moderating role in our study. Psychological capital resources are more about an internal sense of control (Luthans & Youssef-Morgan, 2017), whereas sense of coherence in particular refers to external ambiguity (Lazarus & Folkman, 1984). This reasoning is in line with results from an empirical study of Sherman et al. (2012) where leaders' sense of control (Anderson, John, & Keltner, 2012) was related to lower levels of stress. The revealed moderating effect of sense of coherence highlights – like the significant and negative direct influences of psychological capital and sense of coherence – how individual characteristics can change

the stress perception because of their influence on appraisal and coping. Thus, concluding a high perception of stress from an increased exposure to stressors can be a fallacy.

In summary, our findings contribute to research on servant leadership in several ways. First, we proposed and found support for psychological capital as an antecedent of servant leadership. We are not aware of any theoretical or empirical work that proposed or unveiled the importance of psychological capital as a resource for servant leaders. Apart from influential theoretical work that proposed a number of individual and contextual factors as antecedents of servant leadership (Liden et al., 2014; van Dierendonck, 2011), there is only a limited number of published empirical studies that explicitly addressed antecedents of servant leadership. In particular, our aim was to shed light on the psychological resources that enable leaders to act as servant leaders. Thus, we provide an important theoretical contribution to the servant leadership literature which could be supported by preliminary empirical results. A second major contribution of this article lies in the examination of stress as an outcome of servant leadership for servant leaders themselves. To the best of our knowledge, the examination of leader stress in the context of servant leadership has only been on a theoretical basis until now (e.g., Liden et al., 2014; Panaccio et al., 2015). Hence, the obtained results represent a first empirical contribution to the servant leadership literature in this regard. In addition, we thereby took a closer look at the intervening mechanisms in the stress process and revealed that leaders' individual sense of coherence played a decisive role by altering the relationship between servant leadership and the individual stress perception.

Beyond the theoretical contributions outlined above, our study also entails some practical implications. With regard to psychological capital, organizations seeking servant leaders could include psychological assessment tools in their selection process to identify servant leadership potential. As psychological capital is trainable (Luthans, Avey, Avolio, Norman, & Combs, 2006), our results are promising for servant leadership development as well. Furthermore, contagion effects of psychological capital from leaders to followers (e.g., Walumbwa, Peterson, Avolio, & Hartnell, 2010) could ultimately unfold and multiply positive consequences for humans and organizations in many ways. With regard to sense of coherence, organizations may be advised to provide leaders with sufficient control to exert their tasks since reasoning about its stress-reducing effect is mainly based on the control component of sense of coherence (e.g., Lazarus & Folkman, 1984). Furthermore, results imply that servant leadership must be considered in relation to personal resources of leaders. In our study, sense of coherence was decisive whether leading as a servant was positively or negatively related to the perceived stress level of leaders. Hence, servant leaders are likely to perceive increased stress without the required personal resources. Long-term consequences thereof could be multilayered and grave. Apart from detrimental health effects on leaders, leader stress can also have negative consequences for subordinates (e.g., Burton, Hoobler, & Scheuer, 2012). Consequently, not every leader seems to be apt to act as servant leader, which should be recognized by organizations.

LIMITATIONS AND FUTURE RESEARCH

Of course, this study is subject to a number of limitations that should be addressed. First of all and most notably, no causal inferences can be drawn from our results due to the cross-sectional study design. Thus, we cannot rule out the possibility of reverse relationships between the examined variables. Alternative explanations deduced from leadership and stress theory could be possible for these findings. For example, it is plausible that stress and leadership behavior reciprocally influence each other and that stressed leaders react in a different way to their employees' demands compared to relaxed managers. Future research should therefore try to conduct longitudinal studies to allow for causal conclusions.

Second, our sample size was not very big and snowball sampling was used which involves some restrictions as well. Thus, no clear generalizations can be drawn from this sample. Nevertheless, leaders from different industries, various organizations of different sizes and with varying experience in leadership roles were included. We strongly encourage future research to replicate this preliminary study, whose results seem very promising, with larger samples and from diverse settings.

Third, same source bias is a concern of this study because all data were exclusively obtained from leaders and at one point in time. In particular, since they had to rate their servant leadership behavior and perceived stress level, social desirability may have affected their answers. To confront this problem, participating managers were assured of respondent anonymity and encouraged to give honest answers (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). Whereas self-ratings are common for psychological capital (cf. Avey et al., 2010), sense of coherence (cf. Antonovsky, 1987), and stress perception (Lazarus & Folkman, 1984), there is an ongoing debate about the validity and accuracy of leaders' self-rated leadership behavior as proxy for their actual behavior (Fleenor, Smither, Atwater, Braddy, & Sturm, 2010). Therefore, we would like to emphasize that the subject of our article was servant leadership behavioral orientation: the perceived or intended servant leadership behavior which may or may not translate into actual behavior dependent on various influencing factors. In our case, however, servant leadership behavioral orientation may be as relevant as actual servant leadership behavior since we discussed servant leadership in the context of intra-individual processes.

CONCLUSION

Aside from its limitations, the findings of this preliminary study provide new theoretical and empirical insights into the fields of servant leadership and leader stress. All in all, both psychological capital and sense of coherence have been identified as important resources in the context of servant leadership and leader stress. Servant leadership is a powerful leadership style but it entails high demands for the leaders. If these are not compensated by the managers through their personal resources, negative consequences can

arise for themselves and their followers. Thus, organizations must carefully select future (servant) leaders and assist and train them during their whole professional career. Taking such a prudent approach, servant leadership is likely to unfold its positive and beneficial potential.

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