

**Serving While Being Energized (Strained)? A Dual-Path Model Linking Servant Leadership to
Leader Psychological Strain and Job Performance**

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Abstract

Drawing on demands–resources theory, we develop and test a dual-path model to unpack the energizing and draining mechanisms, captured by leader need satisfaction and role conflict, through which servant leadership affects leader psychological strain and job performance. We further identify leader–leader exchange (LLX) as a critical resource moderator that can strengthen the energizing benefit and buffer against the draining cost of servant leadership behaviors. Using five-wave, multisource field data from 474 team leaders, 3,712 followers, and 97 superior leaders, we find support for the energizing benefit, in that servant leadership satisfied leader psychological needs, which subsequently reduced leader psychological strain. This energizing benefit was stronger when LLX was higher. In parallel, servant leaders experienced role conflict, which subsequently increased their psychological strain and deteriorated their job performance when LLX was lower. Overall, our research contributes to a fine-grained understanding of the double-edged effects of servant leadership on leaders and sheds light on how and when leaders can benefit from practicing servant leadership.

Keywords: servant leadership, role conflict, need satisfaction, psychological strain, leader–leader exchange (LLX)

Serving While Being Energized (Strained)? A Dual-Path Model Linking Servant Leadership to Leader Psychological Strain and Job Performance

Servant leadership, which prioritizes serving all followers and other stakeholders in one's community (Greenleaf, 1977; Liden et al., 2008), is advocated because it contributes to a wide range of organizational, group, and employee outcomes (e.g., Hoch et al., 2018; Lee et al., 2020). Critiques of the servant leadership model, nevertheless, argue that leaders may lean too far into putting others' needs first to the detriment of oneself (Eva et al., 2019; Liao et al., 2021; Liden et al., 2014; Panaccio et al., 2015). Leaders may suffer strain and performance problems, making engaging in servant leadership not sustainable (Byrne et al., 2014; Inceoglu et al., 2021). However, seeing servant leadership as practicing in a way of simply draining oneself in favor of others may be incomplete and neglect its unique prosocial feature (Hoch et al., 2018). Both theoretical and empirical work hints at servant leadership's effects of energizing leaders and benefiting their well-being (Bolino & Grant, 2016; Hui et al., 2020; Kaluza et al., 2020; Liao et al., 2021). The extant literature offers disparate theoretical and empirical inferences regarding the double-edged effects of servant leadership on leaders, but it lacks clarity about how and when. A fine-grained understanding of the specific underlying mechanisms and, importantly, of when servant leaders can maximize the personal benefit/cost trade-off offers important implications of how to sustainably serve and benefit others.

To address this critical issue, we integrate the servant leadership model and the demands–resources model (Demerouti et al., 2001), with the primary objective to propose a dual-path model delineating the psychological processes underlying the energizing and draining effects of this constructive yet demanding leadership approach on leaders. Servant leaders' proclivity for engaging in voluntary prosocial behaviors are aligned with their innate values (Eva et al., 2019), which satisfies leaders' psychological needs (Hui et al., 2020; Weinstein & Ryan, 2010). However, servant leadership has a broader stakeholder focus (Greenleaf, 1970; Liden et al., 2014). Handling conflicting expectations, interests, and priorities associated with being a servant leader (Panaccio et al., 2015) results in role

conflict (Liden et al., 2014). We contend that need satisfaction and role conflict epitomize the benefits and costs of servant leaders, as they are the key energizing and draining pathways through which servant leadership affects leaders' psychological strain and job performance.

Considering its double-edged effects, our second objective is to explore critical boundary conditions that amplify the energizing pathway and buffer against the draining pathway. The demands–resources model suggests the interplay between demands and resources, such that resources are critical in strengthening the desirable impact of demands experienced at work and buffering against their undesirable impact (Bakker & Demerouti, 2017). Following this logic, we cast leader–leader exchange (LLX) as a critical resource moderator. A high level of LLX allows servant leaders to obtain more resources from their superior leaders (Sluss et al., 2008), which help them serve multiple stakeholders more effectively, thus experiencing higher levels of need satisfaction and lower levels of role conflict.

We make three major contributions to the literature. First, we offer a balanced view of personal benefits and costs of practicing servant leadership by developing a dual-path model that unpacks the energizing and draining mechanisms underlying the double-edged effects of servant leadership on leaders' psychological strain and job performance. Second, we identify the moderating effects of LLX to shed light on when the benefits of servant leadership do not come at a cost to leaders. Third, we contribute to the emerging conversation on leader strain and mental health that are important for fulfilling and effective organizational functioning (Barling & Cloutier, 2017; Inceoglu et al., 2021). These contributions all address the sustainability of servant leadership: leaders who are stressed from the demands placed on them are not able to sustain the serving behaviors (Byrne et al., 2014), no matter how these behaviors benefit others (Lee et al., 2020). We conducted a field study using a longitudinal and multisource design, with a cross-lagged approach to test the mediation and moderated mediation hypotheses rigorously.

Hypotheses Development

A Dual-Path Model of Servant Leadership

As an other-oriented leadership approach, servant leadership emphasizes putting followers first, helping followers grow and succeed, creating value for the community, empowering, displaying ethical behavior, providing emotional healing, and possessing conceptual skills (Liden et al., 2008). Servant leaders serve all team members collectively and through dyadic interactions with each member, and they extend their serving behaviors to multiple stakeholders internal and external to the organization (e.g., Ehrhart, 2004; Hu & Liden, 2011; Lemoine et al., 2019; Liden et al., 2014). According to the demands–resources model, servant leaders place personal demands on themselves based on self-set behavioral expectations (Bakker & Demerouti, 2017). These personal demands capture servant leaders’ self-initiated, prosocial endeavors to benefit all followers and other multiple stakeholders (Greenleaf, 1970; Panaccio et al., 2015), which may exert both energizing and draining effects on leaders (Bakker & Demerouti, 2017; Bolino & Grant, 2016).

An Energizing Pathway

Leaders’ serving behaviors are driven by “a sense of higher calling or inner conviction to serve and make a positive difference for others” (Eva et al., 2019, p. 113). The “doing good, feeling good” effect of discretionary prosocial behaviors (Bolino & Grant, 2016; Hui et al., 2020) suggests that servant leadership energizes leaders. Helping all followers to grow and prosper can satisfy leaders’ psychological needs for autonomy (i.e., feeling that their behavior is volitional), competence (i.e., feeling capable of achieving valuable outcomes), and relatedness (i.e., feeling connected with others; Ryan & Deci, 2000).

Servant leaders exercise discretion in serving others, and their serving behaviors reflect “the natural feeling that one wants to serve” (Greenleaf, 1970, p. 13), thereby satisfying their need for autonomy (Gagné, 2003; Weinstein & Ryan, 2010). Servant leaders care about followers’ career development; provide individualized support and mentorship; encourage followers to identify and solve work problems; and apply their knowledge of the organization and tasks to support and assist followers and other stakeholders (Liden et al., 2014). These behaviors help leaders develop skills to make a difference for their followers (Eva et al., 2019). Seeing how their help benefits followers makes servant

leaders feel capable and effective, satisfying their need for competence (Panaccio et al., 2015). Servant leaders put followers' needs first; interact with others openly, fairly, and honestly; and show sensitivity to followers' personal concerns (Liden et al., 2014), enabling these leaders to earn respect from others (Bolino & Grant, 2016). Developing strong connections with others by knowing, understanding, and supporting others satisfies servant leaders' need for relatedness (Panaccio et al., 2015).

Need satisfaction, in turn, provides psychological nutrients for well-being (De Gieter et al., 2018; Ryan & Deci, 2000) and can energize, direct, and sustain behaviors for achieving high performance (Gagné & Deci, 2005). Feeling autonomous, competent, and related when interacting with team members provides leaders with psychological sustenance that reduces psychological strain at work (i.e., experiencing low job-related anxiety and depression; Sprigg et al., 2007). When their needs are satisfied, leaders tend to internalize their helping and empowering leadership behaviors. This, coupled with the provision of task-related knowledge, assists followers in effectively conducting team tasks and meeting team goals, thus enabling leaders to guide their teams to achieve high performance. Empirical evidence supports the beneficial effects of need satisfaction on improving well-being, reducing strain, and enhancing performance (De Gieter et al., 2018; Van den Broeck et al., 2016; Weinstein & Ryan, 2010).

Hypothesis 1: (a) Servant leadership is positively related to leader need satisfaction; leader need satisfaction mediates (b) servant leadership's negative relationship to leader psychological strain and (c) its positive relationship to leader job performance.

A Draining Pathway

Servant leadership may take a toll on leaders because it entails going far beyond basic responsibilities (Liden et al., 2014). Serving multiple stakeholders taxes leaders' "finite time, energy, and financial resources, and there simply may not be enough to go around" (Liden et al., 2014, p. 362). Importantly, prioritizing all relevant others means that servant leaders strive to handle different, even conflicting needs, interests, personal agendas, and priorities of multiple stakeholders. Serving one may come at the cost of serving others (Liden et al., 2014). For example, a servant leader who prioritizes the

development of multiple followers strives to handle their conflicting expectations when promotion or formal training opportunities are limited. In addition, servant leaders prioritize followers' personal goals over organizational goals (Greenleaf, 1977), so they may experience conflicting expectations when serving the different needs of followers and organizations (Sun, 2013). For example, an auditor with a chronic illness may prefer staying safe by working from home. However, management and clients may expect face-to-face communication and availability at the office. A servant leader, who is devoted to satisfying the needs of all stakeholders, may experience role conflict, which occurs when facing incompatible or conflicting expectations and demands (Kahn et al., 1964; Rizzo et al., 1970).

Role conflict, in turn, results in psychological strain (e.g., Beehr et al., 1990; Fisher & Gitelson, 1983; LePine et al., 2005) and decreases work performance (Fried et al., 1998; Kahn & Byosiere, 1992). Role conflict is a key role stressor at work and leads to job-related tension and anxiety (Caplan & Jones, 1975; Jackson & Schuler, 1985). Role conflict is also detrimental to work performance (Jackson & Schuler, 1985; Tubre & Collins, 2000). When people devote their cognitive resources (e.g., attention, working memory capacity) to handle role conflict, they are left with fewer resources for monitoring their working environment and tasks and performing job duties and responsibilities effectively and consistently (Fried et al., 1998). Applying this logic to leadership, role conflict may distract leaders from guiding their teams to deal with work demands and environmental constraints, thus thwarting their progress toward meeting goals (Lanaj & Jennings, 2020). Role conflict may also lead to ineffective and inconsistent decision making because conflicting demands or expectations from multiple stakeholders may drag leaders in incompatible directions, thus reducing the quality of their decision making (Nambisan & Baron, 2021). As a result, leaders' capability to effectively lead their teams suffers.

Hypothesis 2: (a) Servant leadership is positively related to leader role conflict; leader role conflict mediates (b) servant leadership's positive relationship to leader psychological strain and (c) its negative relationship to leader job performance.

Moderating Effects of LLX

In view of the double-edged effects of servant leadership on leaders, we further explore critical boundary conditions that enable servant leaders to experience higher need satisfaction and lower role conflict, thus benefiting from practicing these serving behaviors. The demands–resources model suggests that despite the independent main effects of demands and resources, resources serve as key boundary conditions for the energizing and draining effects of demanding work experiences (e.g., Bakker & Demerouti, 2007, 2017; Halbesleben & Bowler, 2007). We identify LLX as a critical resource moderator because leaders with high LLX are “positioned to seek and receive psychological resources (e.g., emotional support, enhanced status at work, and recognition) and material resources (e.g., increased budgetary support and decision-making authority) from their supervisors” (Tangirala et al., 2007, p. 311). The higher leaders’ LLX, the more unique information they obtain, as well as developmental and mentoring opportunities, from their direct superiors (Wilson et al., 2010). High LLX manifests a more favorable situation in which leaders have access to important resources from upper management (Herdman et al., 2017; Liu et al., 2013; Tangirala et al., 2007; Venkataramani et al., 2010) that can be redistributed to followers (Sluss et al., 2008) and other stakeholders.

Regarding the energizing pathway, servant leaders with higher LLX may experience greater need satisfaction. Access to economic/material and informational resources through higher LLX helps servant leaders effectively meet their personal demands of serving all followers and other stakeholders, thus better satisfying their three psychological needs. With more resources and support provided by superior leaders, such as increased budgetary support, decision-making authority, and removal of work interference, servant leaders may feel they have more discretion to serve, strengthening their satisfaction with need for autonomy. Servant leaders with higher LLX can receive informational resources from their superiors, so that they can better support and assist followers, thereby strengthening their satisfaction with need for competence. These followers can experience greater benefits, be more grateful, and feel more cared for by the servant leaders (Weinstein & Ryan, 2010). Thus, servant leaders with higher LLX can develop closer relationships with the followers, strengthening

their satisfaction of need for relatedness.

Hypothesis 3a: LLX strengthens the positive relationship between servant leadership and leader need satisfaction.

Regarding the draining pathway, servant leaders with higher LLX may experience lower role conflict. With high LLX, direct superiors provide servant leaders with economic/material and socioemotional resources, such as increased budgetary support, decision-making authority, and reduction of work interference, which serve as critical resources to deal with conflicting demands of multiple stakeholders simultaneously. In addition, servant leaders with higher LLX have greater opportunity to further develop their managerial and leadership skills, such as time management, prioritization, empowering, and listening skills. Access to these resources helps the leaders effectively cope with demands from followers and other stakeholders (Demerouti et al., 2001; Hobfoll et al., 2018). Socioemotional support from superior leaders may also help servant leaders replenish emotional resources spent in attending to each follower's one-on-one personal concerns (Liden et al., 2008). Accordingly, servant leaders with higher LLX may learn to leverage their resources to manage conflicting demands, thus experiencing lower role conflict.

Hypothesis 3b: LLX weakens the positive relationship between servant leadership and leader role conflict.

Furthermore, we hypothesize that LLX moderates the mediation effects of servant leadership on leader psychological strain and job performance through the energizing and draining pathways. We contend that the energizing indirect relationships through leader need satisfaction are stronger when LLX is higher (vs. lower). Access to superiors' resources through higher LLX helps leaders who engage in servant leadership to better serve their followers and other stakeholders. Therefore, these servant leaders experience higher need satisfaction, which in turn reduces their psychological strain and enables them to effectively lead their teams to fulfill team tasks and achieve higher leader job performance.

Hypothesis 4a: LLX strengthens the negative indirect relationship between servant leadership

and leader psychological strain through leader need satisfaction.

Hypothesis 4b: LLX strengthens the positive indirect relationship between servant leadership and leader job performance through leader need satisfaction.

In a similar vein, we contend that the draining indirect relationships through leader role conflict are weaker when LLX is higher (vs. lower). Servant leaders who have access to more critical resources from their superior leaders experience less role conflict by leveraging these resources to better handle conflicting demands of multiple stakeholders. As a result, these leaders experience less psychological strain, and their job performance is less likely to suffer.

Hypothesis 5a: LLX weakens the positive indirect relationship between servant leadership and leader psychological strain through leader role conflict.

Hypothesis 5b: LLX weakens the negative indirect relationship between servant leadership and leader job performance through leader role conflict.

Method

Transparency and Openness

We provide details about our sampling procedures, all data exclusions (if any), and all measures in the study, and we adhered to the *Journal of Applied Psychology* methodological checklist. All measures, analysis codes, and output files are available at <https://osf.io/qkg3u/>. Data were analyzed using Mplus 8.4 (Muthén & Muthén, 2017). This study's design and its analysis were not preregistered. Data for this study are not available because the surveyed company required that all the data we collected must be handled by our research team only. This study received approval from the research ethics committee of Lingnan University, Hong Kong (Title of Study: "Servant leadership during leadership transition: Unveiling servant leadership development and its effects on exchange relationships and leader outcomes," Protocol Number: EC026/1819).

Sample and Procedure

We collected longitudinal (five assessments) of multisource data from a large manufacturing

company in mainland China. With the assistance of the human resource (HR) department, we invited 564 team leaders, 3,946 of their followers, and 176 of their superior leaders working in a variety of manufacturing functions, such as equipment management, quality control, operations management, logistics, processing, supply, and inspection management to participate in our study. Respondents were informed that their participation was voluntary and that their responses would be kept confidential, used only for research purposes, and accessed only by the research team. We provided the HR department with consultancy reports and the respondents with souvenirs as a token of appreciation.

We administered the five assessments using a mobile survey platform (www.huajuetech.com) that aids researchers in collecting survey data with complex designs (e.g., longitudinal and round-robin). In each assessment, followers reported the servant leadership of their team leaders; team leaders reported their need satisfaction, role conflict, psychological strain, and LLX; and superior leaders rated team leaders' job performance. Following the company's practice of monthly performance reviews, we used a one-month interval for the five assessments. Of the 564 team leaders, 474 responded to our survey, for an 84.04% response rate. The average number of followers per team leader was 7.91 ($SD = 5.33$). The average age of team leaders was 35.83 years ($SD = 5.32$), and the average organizational tenure was 11.33 years ($SD = 4.73$); 81.43% were men; and 30.16% had a bachelor's degree or higher. Of the 3,946 followers, 3,712 responded to our survey, for a 94.07% response rate. The average age of followers was 33.79 years ($SD = 6.67$), and the average organizational tenure was 5.97 years ($SD = 5.39$); 66.54% were men; and 15.52% had a bachelor's degree or higher. Of the 176 superior leaders, 97 responded to our survey and provided ratings for 229 team leaders, for a 55.11% response rate. The average age of superior leaders was 38.33 years ($SD = 3.90$), and the average organizational tenure was 14.56 years ($SD = 3.35$); 79.38% were men; and 80.41% had a bachelor's degree or higher. Our participants had the same ethnic background.

Measures

All materials were presented in Chinese and followed the standard back-translation procedure

to translate the original English items (Brislin, 1986).¹ Unless otherwise indicated, all items were rated on a five-point Likert scale (1 = *strongly disagree*, 5 = *strongly agree*). In line with the one-month interval used, respondents answered all questions according to their experiences over the past month.

Servant leadership was rated on the 28-item scale of Liden et al. (2008), which includes seven dimensions.² We found acceptable statistical support for aggregating follower ratings of servant leadership to the team level at each period, with an average median $r_{wg(j)}$ of .99 (Min = .98; Max = .99), an average ICC₁ of .11 (Min = .10; Max = .11), and an average ICC₂ of .45 (Min = .44; Max = .46) (Bliese, 2000). Leader need satisfaction was rated using La Guardia et al.'s (2000) nine-item scale, tapping the three dimensions of need satisfaction (autonomy, competence, and relatedness). Leader role conflict was rated on Rizzo et al.'s (1970) three-item scale. Leader psychological strain was rated on Sprigg et al.'s (2007) six-item scale, tapping the two dimensions of job-related strain (anxiety and depression), with response options from *never* (1) to *all of the time* (5). LLX was rated on Bauer and Green's (1996) eight-item scale. Superior leaders assessed team leaders' job performance based on criteria such as on-time task completion, meeting the standards of safety and quality, work productivity, and problem-solving of the teams using Kirkman and Rosen's (1999) six-item scale. Cronbach's alphas for all the studied variables across the five waves were satisfactory (see Table 1).

Analytical Strategy

We adopted a cross-lagged approach, which controls for the stability (as described by the lagged [T – 1] effects) of each variable, thereby partialling out the effects of spurious variables when estimating hypothesized linkages (Maxwell & Cole, 2007) and reducing the chance of concluding a mediation effect that does not exist (Law et al., 2016). We created two path models³ to test our hypotheses. First, to test the hypothesized main and indirect effects (Hypotheses 1 and 2), we created a cross-lagged indirect effect model (Model 1), which includes parameter estimates of (1) the stabilities of focal variables over time; (2) the cross-lagged effects between servant leadership (T-1) and leader need satisfaction (T), between servant leadership (T-1) and leader role conflict (T), between leader need satisfaction (T-1) and

leader psychological strain (T), between leader need satisfaction (T-1) and leader job performance (T), between leader role conflict (T-1) and leader psychological strain (T), and between leader role conflict (T-1) and leader job performance (T) (with equality constraints applied to each cross-lagged effects across the time series); (3) the direct cross-lagged effects of servant leadership (T-2) on leader psychological strain (T) and leader job performance (T) (again, with equality constraints applied); (4) correlations among exogenous variables; and (5) disturbance term correlations across T2 to T5.

Second, to test the hypothesized moderation and conditional indirect effects (Hypotheses 3–5), we created Model 2, which incorporates the cross-lagged effects of LLX (T-1) on leader need satisfaction (T) and leader role conflict (T) and the cross-lagged effects of LLX (T-1) \times servant leadership (T-1) on leader need satisfaction (T) and leader role conflict (T) (with equality constraints applied to each cross-lagged effect across the time series) into the Model 1 (see Figure 1). We evaluated model fit using the three indices that are appropriate for longitudinal organization research (e.g., Lang et al., 2011; Meier & Spector, 2013): comparative fit index (CFI), Tucker–Lewis index (TLI), and root mean square error of approximation (RMSEA). We modeled missing values with full information maximum likelihood to reduce bias and retain statistical power (Graham, 2009; Wang et al., 2017). We applied bootstrap analyses based on bootstrapping 2,000 repetitions with 95% bias-corrected confidence intervals (95% BC CI) to assess the (conditional) indirect effects (Preacher & Hayes, 2008; Preacher et al., 2007).

Results

Table 1 presents the descriptive statistics, reliabilities, and correlations among the studied variables. We conducted confirmatory factor analyses to examine the distinctiveness of the studied variables at each of the five measurement occasions. We constructed one parcel for each of the seven dimensions of servant leadership, for each of the three dimensions of leader need satisfaction and for each of the two dimensions of leader psychological strain. We found that six-factor models (servant leadership, LLX, leader need satisfaction, leader role conflict, leader psychological strain, and leader job performance) yielded adequate fit to the data across the periods (Table 2). Furthermore, chi-square

difference tests revealed that each of these six-factor models exhibited significantly better fit to the data than their corresponding one-factor models.

Given that we measured each studied variable across the five periods (and LLX across the first four periods), we tested both configural (i.e., items are assigned to factors as theoretically suggested) and metric (i.e., the relationship between the latent variable and the items is constant over time) equivalence of each measure. We allowed measurement errors for the same items to be correlated over time (Finkel, 1995; Lang et al., 2011; Meier & Spector, 2013). As Table 2 shows, the models specifying the same factor structure across periods fit the data well and supported configural invariance. In addition, for all measures, the difference between a model setting item loadings equal and a model with free item loadings from T1 to T5 was less than the cutoff values recommended by Cheung and Rensvold (2002; $\Delta CFI \leq .010$) and Chen (2007; $\Delta CFI \leq .010$ and $\Delta RMSEA \leq .015$, for sample sizes larger than 300). Together, the results show compelling evidence of both configural and metric invariance for all measures across time.

Main and Indirect Effects

Hypothesis 1 predicted that (a) servant leadership is positively related to leader need satisfaction; leader need satisfaction mediates (b) servant leadership's negative relationship to leader psychological strain and (c) its positive relationship to leader job performance. Figure 2, which presents the results for Model 1 (Hypotheses 1 and 2), shows that servant leadership was positively related to leader need satisfaction ($\gamma = .041$, $SE = .019$, $p = .036$), in support of Hypothesis 1a. Furthermore, leader need satisfaction was negatively related to leader psychological strain ($\gamma = -.079$, $SE = .038$, $p = .040$) but not leader job performance ($\gamma = -.020$, $SE = .024$, $p = .403$). Table 3 shows a negative indirect relationship between servant leadership and leader psychological strain through leader need satisfaction (indirect effect = $-.003$; 95% BC CI of $[-.010, -.001]$) but no indirect relationship to leader job performance (indirect effect = $-.002$, 95% BC CI of $[-.005, .000]$). These results support Hypothesis 1b but not Hypothesis 1c.

Hypothesis 2 predicted that (a) servant leadership is positively related to leader role conflict; leader role conflict mediates (b) servant leadership's positive relationship to leader psychological strain and (c) its negative relationship to leader job performance. Counter to Hypothesis 2a, as shown in Figure 2, our results reveal that servant leadership was not related to leader role conflict ($\gamma = -.047$, $SE = .035$, $p = .182$). Thus, although leader role conflict was positively related to leader psychological strain ($\gamma = .047$, $SE = .024$, $p = .045$) and negatively related to leader job performance ($\gamma = -.042$, $SE = .016$, $p = .008$), the indirect effects of servant leadership (through leader role conflict) on leader psychological strain (indirect effect = $-.002$; 95% BC CI of $[-.008, .001]$) and leader job performance (indirect effect = $.002$, 95% BC CI of $-.000, .007$) were nonsignificant, failing to support Hypotheses 2b and 2c.

Moderation and Conditional Indirect Effects

Figure 3 presents the results for Model 2 (Hypotheses 3–5). Hypothesis 3a predicted that LLX strengthens the positive relationship between servant leadership and leader need satisfaction. As expected, we found that LLX strengthened the positive relationship between servant leadership and leader need satisfaction ($\gamma = .119$, $SE = .038$, $p = .002$). We then applied the Johnson–Neyman (J-N) technique, which identifies regions of moderator values from upper and lower limits of the confidence bands at which predictor–outcome relationships are significantly different from zero (Gardner et al., 2017; Preacher et al., 2007), to examine our moderation effects. The key advantage of using the J-N technique over the conventional pick-a-point approach (i.e., choosing arbitrary values of the moderator) is to identify the regions of significance—the points at which simple slope changes from nonsignificant to significant. We assessed the regions of significance across the full observed centered range of LLX $[-3.20, .80]$ (corresponding to the original range $[1, 5]$). Using the J-N technique, we found that when the level of LLX (centered) was lower than $-.92$ (raw score = 3.28), the relationship between servant leadership and leader need satisfaction was negative (simple slope = $-.07$). This negative relationship turned positive (simple slope = $.04$) when LLX (centered) was higher than $.00$ (raw score = 4.20). Although we did not expect to find a negative relationship between servant leadership and leader need

satisfaction at lower levels of LLX, the positive relationship found at higher levels of LLX supports Hypothesis 3a.

Hypothesis 3b predicted that LLX weakens the positive relationship between servant leadership and leader role conflict. As shown in Figure 2, we found that LLX significantly moderated the relationship between servant leadership and leader role conflict ($\gamma = -.164$, $SE = .067$, $p = .014$). Using the J-N technique, we found that the relationship between servant leadership and leader role conflict was positive (simple slope = .10) when LLX was lower than $-.72$ (raw score = 3.48) but turned negative (simple slope = $-.10$) when LLX was higher than $.51$ (raw score = 4.71). Again, although a negative relationship between servant leadership and leader role conflict at higher levels of LLX was not expected, the positive relationship found at lower levels of LLX supports Hypothesis 3b. Panel A in Figures 4 and 5 illustrate the J-N technique–derived confidence bands, and Panel B in Figures 4 and 5 depict the general pattern of the interaction.

Moreover, the indirect relationship between servant leadership and leader psychological strain through leader need satisfaction as moderated by LLX (Hypothesis 4a) was significant (index of moderated mediation = $-.012$, 95% BC CI of $[-.029, -.004]$). As Table 4 shows, using the J-N technique, we found that when centered LLX was higher than $-.05$ (raw score = 4.15), this indirect relationship was negative (indirect effect = $-.003$), but when centered LLX was lower than $-.81$ (raw score = 3.39), this indirect relationship was positive (indirect effect = $.006$). The results provide support for Hypothesis 4a. However, the results show no support for the indirect relationship between servant leadership and leader job performance through leader need satisfaction as moderated by LLX (Hypothesis 4b) because of the nonsignificant relationship between leader need satisfaction and leader job performance.

Furthermore, the indirect relationships between servant leadership (through leader role conflict) and leader psychological strain (Hypothesis 5a; index of moderated mediation = $-.007$, 95% BC CI of $[-.020, -.001]$) and leader job performance (Hypothesis 5b; index of moderated mediation = $.007$, 95% BC CI of $[.002, .017]$) as moderated by LLX were both significant. Using the J-N technique, we found

that when centered LLX was higher than .36 (raw score = 4.56), the indirect relationship between servant leadership and leader psychological strain was negative (indirect effect = $-.004$), but when centered LLX was lower than $-.64$ (raw score = 3.56), this indirect relationship was positive (indirect effect = $.004$). In addition, when centered LLX was higher than .30 (raw score = 4.50), the indirect relationship between servant leadership and leader job performance was positive (indirect effect = $.003$), but when centered LLX was lower than $-.58$ (raw score = 3.62), this indirect relationship was negative (indirect effect = $-.003$). These results provide support for Hypotheses 5a and 5b. Given that each superior leader rated one or more team leaders' job performance, we performed a robustness test considering the non-interdependence of the data (adjusting the parameter estimates and standard errors using TYPE = COMPLEX in Mplus); the statistical conclusions regarding effects on leaders' job performance remained unchanged.

Discussion

This research examines how and when servant leadership exerted double-edged effects on leaders. Our results reveal that leaders who engaged in servant leadership satisfied their psychological needs—an energizing mechanism, which in turn reduced leader psychological strain but did not affect leader job performance. We also found that when LLX was higher, the positive relationship between servant leadership and leader need satisfaction was stronger, and consequently less leader psychological strain. However, when LLX was lower, the higher the servant leadership level, the less leader need satisfaction and subsequently greater leader psychological strain. Of note, we did not find an association between servant leadership and leader role conflict—a draining mechanism, but our results revealed that this association was moderated by LLX. When LLX was lower, servant leadership entailed greater leader role conflict, and consequently greater leader psychological strain and lower job performance. However, when LLX was higher, the positive association between servant leadership and leader role conflict turned negative, leading to less leader psychological strain and enhanced job performance. Our findings provide important implications for servant leadership theory and practice.

Theoretical Contributions and Practical Implications

Our dual-path model elucidates the psychological mechanisms underlying how and when servant leadership can be beneficial or costly for leaders, thus answering research calls to address the complex effects of servant leadership on leaders (Eva et al., 2019; Panaccio et al., 2015). Building on prior research on the dark side of constructive leadership behaviors, Liao et al. (2021) theorized depleting effects of servant leadership but revealed countervailing results. We extend Liao et al.'s (2021) work by unpacking leader need satisfaction and role conflict as the energizing and draining mechanisms, respectively, and developing an integrated model for a more nuanced understanding of their incremental effects on leader psychological strain and job performance. Furthermore, we identified LLX as a critical moderator that amplifies the energizing pathway and buffers against the draining pathway.

Regarding the energizing pathway, our finding offers critical insights that practicing servant leadership does not necessarily mean prioritizing others' needs at a cost of subverting leaders' needs. Rather, the prosocial nature of servant leadership explains why engaging in such behaviors can meet the needs of both leaders themselves and service recipients (Hui et al., 2020; Lam et al., 2016; Weinstein & Ryan, 2010). This result also echoes the findings of prosocial research demonstrating that need satisfaction plays an important mediating role in the relationship between discretionary prosocial behaviors and help givers' well-being (Weinstein & Ryan, 2010). Unexpectedly, the relationship between leader need satisfaction and leader job performance may be distal, and we encourage future research to explore the underlying processes through which such psychological nutrients can help leaders guide teams effectively and perform well.

The moderating role of LLX sheds light on boundary conditions for the effects of voluntary prosocial behaviors on actors' psychological well-being (Weinstein & Ryan, 2010). Intriguingly, we found that engaging in servant behavior is negatively related to leader need satisfaction when experiencing low LLX. A plausible explanation is that leaders with low LLX have deficient resources and hold inferior status (Herdman et al., 2017; Wilson et al., 2010), therefore feeling that their efforts to help and guide

followers are thwarted by resource constraints (Grant & Parker, 2009) and negatively received by followers (Chen et al., 2021; Van Dierendonck, 2011).

Regarding the draining pathway, the absence of an association between servant leadership and leader role conflict may be because servant leadership reduced and increased leader role conflict when LLX was higher and lower, respectively. A negative association that occurred at higher levels of LLX is unexpected, and we speculate it is because servant leaders with higher LLX generally have more opportunities to develop their managerial and leadership skills and accumulate experiences in handling role conflict (Bolino & Grant, 2016). Over time, servant leaders may learn how to adapt to the demands of meeting the needs of multiple stakeholders, and they are more capable of handling this “new normal” in their everyday work (Matthews et al., 2014). This result illustrates how to help servant leaders effectively address conflicting demands from multiple stakeholders (Lemoine et al., 2019).

Importantly, our findings reveal that the net indirect effect of the relationship between servant leadership and leader psychological strain through the energizing and draining pathways was negative when LLX was higher (net indirect effect = $-.005$) but positive when LLX was lower (net indirect effect = $.007$). However, we found no significant net indirect relationship between servant leadership and leader job performance through the energizing and draining pathways at either higher or lower LLX, likely due to the nonsignificant relationship between leader need satisfaction and leader job performance. According to the demands–resources model (Bakker & Demerouti, 2007, 2017), with higher LLX, servant leaders with access to critical resources provided by their superior leaders can be more energized and less drained, culminating in lower levels of psychological strain. Our findings lend support to the proposition that the interaction between high demands and high resources may lead to low, rather than high, strain (Bakker & Demerouti, 2007). By contrast, with low LLX, servant leaders experience low need satisfaction and high role conflict, leading to high psychological strain. Engaging in servant leadership under conditions of low LLX may represent accumulated demands for leaders (Van Woerkom et al., 2016), harming their psychological well-being. These findings offer insight into how organizations can

help servant leaders manage psychological strain and ensure that their endeavor to benefit others does not come at the cost of their mental health (Inceoglu et al., 2021).

Investigating the moderating effects of LLX complements prior leader-centric research that has been limited to the characteristics of leaders, followers, and their interaction (Lanaj et al., 2016; Liao et al., 2021; Lin et al., 2019; Weiss et al., 2018). Our study shows that the effects of leadership behaviors on leaders are contingent on upper-level factors beyond the immediate leader–member interface. Such external resources are critical for dealing with the demands of serving all stakeholders because they shed light not only on the different reactions of leaders who engage in the same behaviors but also on how organizational support makes engaging in servant leadership truly beneficial to all and sustainable.

In terms of practice, organizations need to not only design training programs for leaders to practice serving behaviors but also encourage leaders' superiors to develop high-quality LLX. Leaders' superiors should provide them with psychological and material resources, such as emotional support, recognition, budgetary support, and task-relevant information and knowledge. Superior leaders should also be attentive to the need satisfaction and role conflict of their followers who engage in servant leadership behaviors. Recognizing that LLX is dependent on the efforts of both parties (Maslyn & Uhl-Bien, 2001), we also suggest that servant leaders should be proactive in cultivating high-quality relationships with their superiors.

Limitations and Future Research Directions

Complementing prior leader-centric research on servant leadership that mainly uses a within-person approach (e.g., Liao et al., 2021), we theorized and tested a between-subjects model. Our research design with five-wave, multisource data and a cross-lagged analytical approach provided strong evidence for directional associations and indirect effects (Maxwell & Cole, 2007). Nevertheless, it has a number of limitations to be addressed.

First, our study design does not enable us to make causal inferences about the hypothesized relationships. Future studies could use alternative methods, such as experimental designs, to further

examine the casualty issue. Second, we measured servant leadership by aggregating followers' perceptions, and we encourage future research to "triangulate this rating by adapting the measure to be self-reported for the leader, and other reported for the leader's direct supervisor" (Eva et al., 2019, p. 127). Third, we tested only two mediators drawing on the unique features of servant leadership. Investigating the learning and adaptation processes regarding how and when servant leaders meet the divergent needs or goals of multiple stakeholders would be fruitful. Fourth, the relatively high mean and small standard deviation of superior leader ratings of leader performance suggest a potential issue of range restriction, which may attenuate the hypothesized relationships. Future research could correct for range restriction by collecting alternative data (e.g., follower ratings of leader performance) to triangulate our findings. Finally, our cross-lagged design controlled for the lagged effect of each variable, thereby ruling out the possibility that time-invariant variables such as personality traits (e.g., trait affectivity and extraversion/neuroticism) associated with servant leaders influence the cross-lagged effects estimated (Cole & Maxwell, 2003). The design, however, does not rule out the possibility that cross-lagged effects result from a time-varying variable in our research context (Finkel, 1995; Link & Shrout, 1992), such as the changes of workload across seasons. Considering these time-varying factors in future studies would be useful.

Despite these limitations, we contribute to the servant leadership literature by unpacking its energizing and draining mechanisms. We also highlight the moderating role of LLX, shedding light on when this demanding leadership is beneficial to leaders' well-being and performance.

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Endnote

¹ We followed three steps to ensure translation accuracy. First, a bilingual translated the English items into Chinese, and a second bilingual reviewed the translations and made minor edits. Second, a third bilingual back-translated the English version into Chinese, and these three bilinguals worked together to resolve the minor discrepancies identified based on consensus. Third, an HR Manager of the surveyed company reviewed the items and confirmed that the items were suitable for the work context of the company.

² We conducted a second-order multilevel confirmatory factor analysis to determine whether we could use these seven dimensions to capture a more global assessment of servant leadership (Liden et al., 2015). For each wave of servant leadership, the analysis generated good fit indices for the second-order factor model (Min CFI = .95, Min TLI = .94, Max RMSEA = .07), which represents a more parsimonious model.

³ Although a Structural Equation Modeling (SEM) approach can account for measurement errors and is preferable to path analysis, we opted to use the path model approach in our analyses, taking into account the use of the SEM approach would be difficult because: (1) our longitudinal data are overly complex (with almost 60 items measured in each of the five assessments), requiring the estimation of substantial numbers of parameters; (2) the servant leadership variable reported by followers is multi-level in nature, requiring a multi-level measurement model; and (3) the SEM with the interactions of latent variables further complicates the estimation of moderation testing.

Table 1

Means, Standard Deviations, Reliabilities, and Correlations

Variable	<i>M</i>	<i>SD</i>	<i>α</i>	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. Leader sex (1 = women, 0 = men)	0.19	0.39	-														
2. Leader age	35.83	5.32	-	.14**													
3. Leader tenure (year)	11.33	4.73	-	-.02	.62**												
4. Servant leadership T1	3.93	0.35	.97	-.01	-.05	-.02											
5. Servant leadership T2	3.96	0.37	.98	.01	-.11*	-.06	.68**										
6. Servant leadership T3	4.03	0.39	.98	.01	-.03	.05	.61**	.54**									
7. Servant leadership T4	4.02	0.39	.98	-.02	-.04	.03	.62**	.60**	.72**								
8. Servant leadership T5	4.02	0.42	.99	-.04	-.05	.01	.59**	.63**	.68**	.79**							
9. LLX T1	4.14	0.55	.89	.05	-.07	-.02	.18**	.17**	.08	.11*	.11*						
10. LLX T2	4.24	0.56	.91	-.01	-.10*	-.01	.14**	.16**	.12*	.11*	.10*	.62**					
11. LLX T3	4.22	0.59	.93	.03	.02	.07	.16**	.15**	.12*	.13**	.14**	.55**	.67**				
12. LLX T4	4.21	0.56	.92	.02	-.02	-.02	.14**	.18**	.14**	.12*	.13**	.58**	.63**	.71**			
13. Leader need satisfaction T1	4.01	0.50	.78	.03	-.07	-.01	.15**	.17**	.20**	.15**	.16**	.63**	.57**	.54**	.52**		
14. Leader need satisfaction T2	4.11	0.49	.79	-.04	-.08	-.01	.17**	.18**	.17**	.17**	.15**	.47**	.61**	.58**	.54**	.60**	
15. Leader need satisfaction T3	4.09	0.51	.78	-.01	-.01	.03	.14**	.16**	.16**	.15**	.17**	.46**	.53**	.63**	.55**	.60**	.63**
16. Leader need satisfaction T4	4.10	0.52	.81	-.03	-.07	-.03	.15**	.14**	.20**	.15**	.13**	.50**	.55**	.59**	.66**	.60**	.66**
17. Leader need satisfaction T5	4.10	0.55	.82	.02	-.06	-.03	.14**	.14**	.19**	.13**	.13**	.53**	.54**	.53**	.54**	.62**	.58**
18. Leader role conflict T1	2.45	0.83	.76	-.09	.02	-.01	-.02	-.04	-.01	-.05	-.10*	-.27**	-.24**	-.28**	-.30**	-.34**	-.27**
19. Leader role conflict T2	2.41	0.81	.72	-.08	.01	.05	-.06	-.04	-.07	-.08	-.05	-.24**	-.23**	-.28**	-.28**	-.26**	-.36**

22. Leader role conflict T5	-.36**	-.44**	-.40**	.42**	.48**	.49**	.54**											
23. Leader psychological strain T1	-.36**	-.37**	-.31**	.35**	.39**	.36**	.39**	.32**										
24. Leader psychological strain T2	-.42**	-.42**	-.35**	.30**	.43**	.42**	.37**	.37**	.62**									
25. Leader psychological strain T3	-.46**	-.36**	-.37**	.29**	.39**	.43**	.38**	.34**	.56**	.66**								
26. Leader psychological strain T4	-.42**	-.46**	-.40**	.28**	.38**	.43**	.49**	.35**	.58**	.64**	.66**							
27. Leader psychological strain T5	-.43**	-.42**	-.40**	.30**	.41**	.39**	.38**	.49**	.55**	.66**	.65**	.68**						
28. Leader job performance T1	.07	.15*	.15*	-.08	-.21**	-.09	-.13	-.03	-.16*	-.15*	-.11	-.11	-.10					
29. Leader job performance T2	-.15*	-.10	-.01	.00	.03	.09	.05	-.06	-.08	-.18*	.03	.02	.01	.41**				
30. Leader job performance T3	.01	.10	.14	-.10	-.17*	-.18*	-.17*	-.07	-.07	-.21**	-.09	-.12	-.02	.48**	.47**			
31. Leader job performance T4	-.06	.00	.05	-.07	-.05	-.13	-.08	-.03	-.14*	-.10	-.02	-.06	.02	.49**	.44**	.58**		
32. Leader job performance T5	-.04	.00	.12	-.05	-.06	-.12	-.15*	-.02	-.08	-.08	-.04	-.07	.00	.44**	.40**	.59**	.72**	

Note: N = 474, 474, 474, 484, 482, 455, 466, 466, 471, 451, 452, 435, 471, 451, 452, 435, 438, 471, 451, 452, 435, 438, 471, 451, 452, 435, 438, 224, 191, 196, 204, and 197 for the 32 variables, respectively.

T = time.

** $p < .01$; * $p < .05$.

Table 2*Model Fit Statistics for Testing Discriminant Validities and Measurement Invariance*

Model Description	χ^2	<i>df</i>	RMSEA	CFI	TLI
Measurement model					
Time 1	1536.917**	383	.029	.954	.948
Time 2	1760.651**	383	.031	.949	.943
Time 3	1679.731**	383	.031	.946	.940
Time 4	1212.951**	383	.025	.967	.963
Time 5 (without LLX)	1208.019**	200	.038	.960	.953
Longitudinal measurement invariance across T1 to T5					
Servant Leadership					
Free loading	8020.445**	1085	.042	.946	.940
Loadings invariant	8019.159**	1133	.041	.946	.943
LLX (without Time 5)					
Free loading	962.578**	410	.053	.950	.939
Loadings invariant	1000.356**	431	.053	.948	.940
Leader Need Satisfaction					
Free loading	51.350	50	.008	1.000	.999
Loadings invariant	59.779	58	.008	1.000	.999
Leader Role Conflict					
Free loading	61.634	50	.022	.995	.990
Loadings invariant	65.517	58	.017	.997	.995
Leader Psychological Strain					
Free loading	11.780	15	.000	1.000	1.000
Loadings invariant	33.786*	19	.041	.995	.988
Leader Job Performance					
Free loading	399.196**	335	.029	.978	.971
Loadings invariant	408.871*	355	.026	.982	.977

Note. For measurement model, $N = 484$ (with 3,700 followers) at Time 1, $N = 484$ (with 3,641 followers) at Time 2; $N = 468$ (with 3,522 followers) at Time 3; $N = 469$ (with 3,530 followers) at Time 4; and $N = 470$ (with 3,523 followers) at Time 5.

For measurement invariance model, $N = 484$ (with 3,602 followers) for servant leadership; $N = 474$ for LLX, leader need satisfaction, leader role conflict, and leader psychological strain, respectively; and $N = 229$ for leader job performance.

** $p < .01$; * $p < .05$.

Table 3*Estimated Path Coefficients for Model 1*

	Estimate	SE	95% BC CI	
			Low	High
Direct Effects				
Servant leadership (T) → leader psychological strain (T + 2)	-.008	.031	-.067	.062
Servant leadership (T) → leader job performance (T + 2)	-.015	.037	-.087	.061
Indirect Effects				
Servant leadership (T) → leader need satisfaction (T + 1) → leader psychological strain (T + 2)	-.003	.002	-.010	-.001
Servant leadership (T) → leader role conflict (T + 1) → leader psychological strain (T + 2)	-.002	.002	-.008	.001
Servant leadership (T) → leader need satisfaction (T + 1) → leader job performance (T + 2)	-.002	.001	-.005	.000
Servant leadership (T) → leader role conflict (T + 1) → leader job performance (T + 2)	.002	.002	.000	.007
Net indirect Effects (Indirect Effect via Need Satisfaction + Indirect Effect via Role Conflict)				
Servant leadership (T) → leader psychological strain (T + 2)	-.005	.003	-.015	-.001
Servant leadership (T) → leader job performance (T + 2)	.001	.002	-.002	.006
Total Effects (Net Indirect Effects + Direct Effects)				
Servant leadership (T) → leader psychological strain (T + 2)	-.014	.032	-.075	.056
Servant leadership (T) → leader job performance (T + 2)	-.013	.037	-.088	.061

Note. T = time.

Table 4

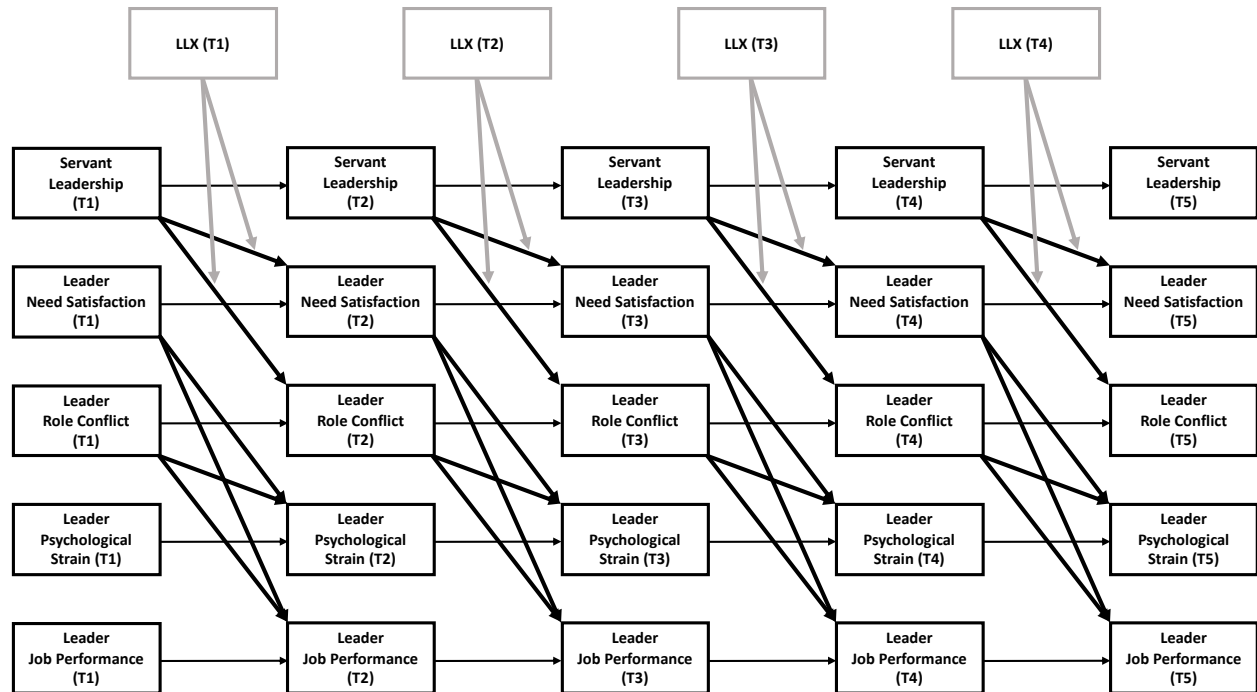
Estimated Path Coefficients for Model 2

	Estimate	SE	95% BC CI	
			Low	High
Direct Effects				
Servant leadership (T) → leader psychological strain (T + 2)	-.005	.031	-.064	.064
Servant leadership (T) → leader job performance (T + 2)	-.016	.037	-.088	.058
	Regions of Significance across the Observed Range of the LLX		Corresponding Effect Estimates	
Indirect Effects				
Servant leadership (T) → leader need satisfaction (T + 1) → leader psychological strain (T + 2)		LLX < 3.39 or LLX > 4.15	Effect > .006 or Effect < -.003	
Servant leadership (T) → leader role conflict (T + 1) → leader psychological strain (T + 2)		LLX < 3.56 or LLX > 4.56	Effect > .004 or Effect < -.004	
Servant leadership (T) → leader need satisfaction (T + 1) → leader job performance (T + 2) ^a		LLX < 4.23 or LLX > 4.91	Effect < -.001 or Effect > .003	
Servant leadership (T) → leader role conflict (T + 1) → leader job performance (T + 2)		LLX < 3.62 or LLX > 4.50	Effect < -.003 or Effect > .003	
Net Indirect Effects				
Servant leadership (T) → leader psychological strain (T + 2)		LLX < 3.61 or LLX > 4.23	Effect > .007 or Effect < -.005	
Servant leadership (T) → leader job performance (T + 2)		No region of significance exists		
Total Effects (Net indirect effects + Direct effects)				
Servant leadership (T) → leader psychological strain (T + 2)		No region of significance exists		
Servant leadership (T) → leader job performance (T + 2)		No region of significance exists		

^a Despite the nonsignificant relationship between leader need satisfaction and leader job performance, a significant indirect effect may exist because of a strong effect of servant leadership on leader need satisfaction at certain ranges of LLX. T = time.

Figure 1

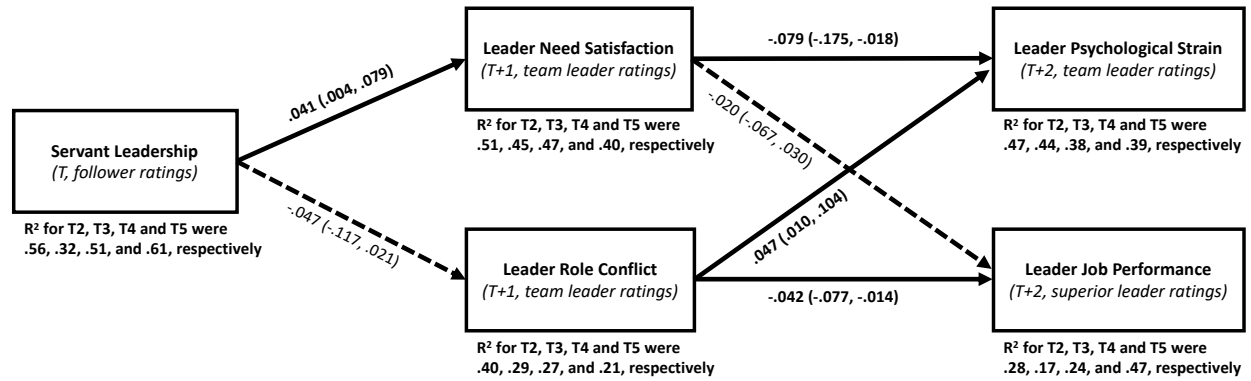
Diagram for the Cross-lagged Specifications of Our Hypothesized Model(s)



Note. Black-line boxes and arrows represent variables and regression paths in Model 1. Grey-line boxes and arrows represent variables and regression paths added in Model 2. For parsimonious purposes, covariances and direct paths from LLX to leader need satisfaction and leader role conflict are not shown. T = time.

Figure 2

Unstandardized Parameter Estimates in the Cross-lagged Indirect Effect Model (Model 1)

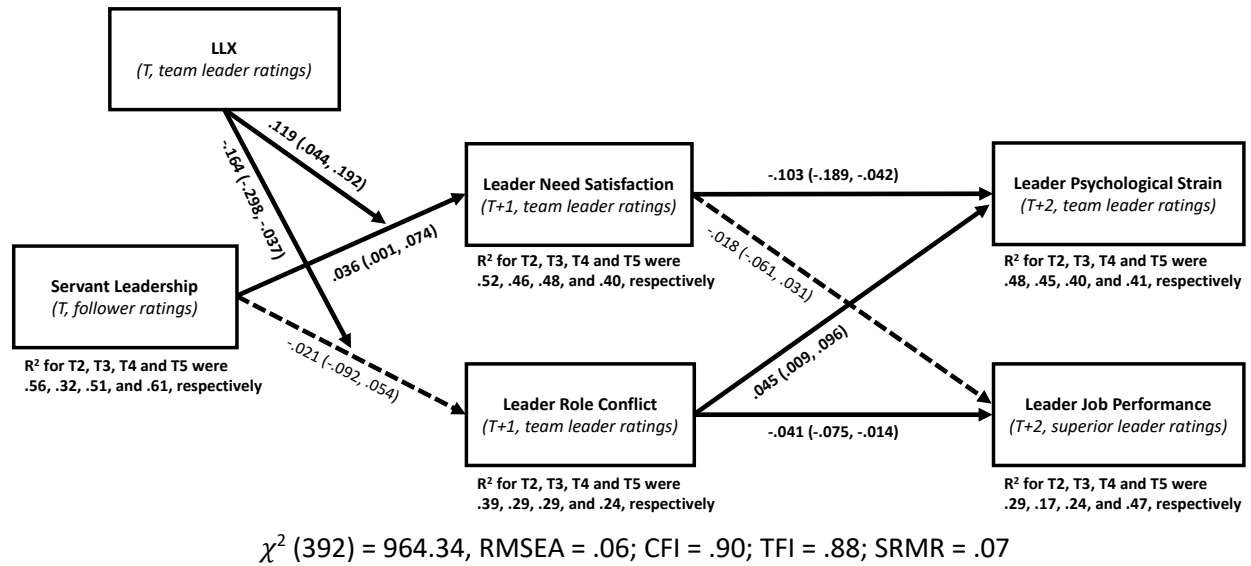


$$\chi^2 (232) = 621.81, RMSEA = .06; CFI = .93; TFI = .91; SRMR = .09$$

Note. Numbers in parentheses denote 95% BC CIs. For parsimonious purposes, the direct paths from servant leadership to leader psychological strain and leader job performance are not shown. The path coefficient of servant leadership on leader psychological strain is $-.008$ ($-.067, .062$) and on leader job performance is $-.015$ ($-.087, .061$). The stability effects for servant leadership, leader need satisfaction, leader role conflict, leader psychological strain, and leader job performance are $.897$ ($.839, .941$), $.837$ ($.784, .879$), $.710$ ($.619, .776$), $.741$ ($.512, .821$), and $.517$ ($.113, .656$), respectively. T = time.

Figure 3

Unstandardized Parameter Estimates in the Cross-lagged Conditional Indirect Effect Model (Model 2)

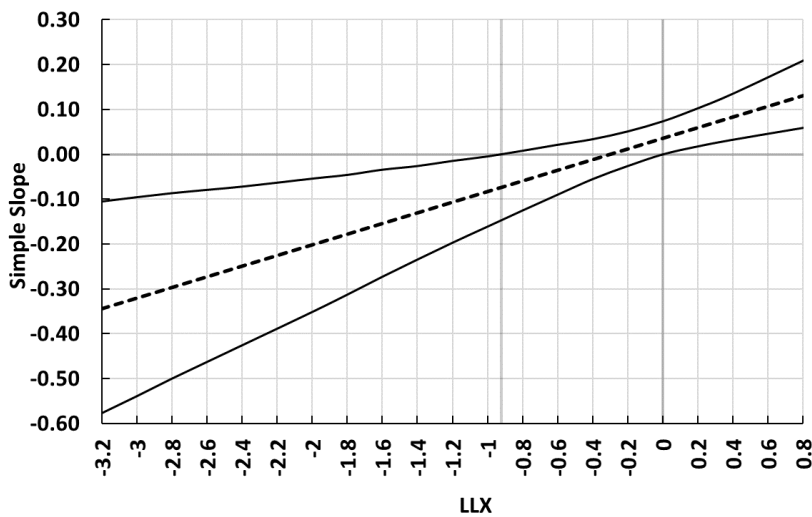


Note. Numbers in parentheses denote 95% BC CIs. For parsimony, the direct paths from servant leadership to leader psychological strain and leader job performance, and from LLX to leader need satisfaction and leader role conflict are not shown. The path coefficient of servant leadership on leader psychological strain is $-.005 (-.064, .064)$ and on leader job performance is $-.016 (-.088, .058)$. The path coefficient of LLX on leader need satisfaction is $.101 (.065, .139)$ and on leader role conflict is $-.141 (-.208, -.087)$. The stability effects for servant leadership, leader need satisfaction, leader role conflict, leader psychological strain, and leader job performance are $.898 (.839, .940)$, $.763 (.699, .817)$, $.656 (.545, .736)$, $.740 (.548, .818)$, and $.523 (.099, .660)$, respectively. T = time.

Figure 4

The Moderating Effect of LLX on the Relationship between Servant Leadership and Leader Need Satisfaction

A. J-N Technique–Derived Confidence Bands



Note. The figure presents the confidence bands around the conditional effect (the dash line) of servant leadership on leader need satisfaction across the distribution of LLX (on the horizontal axis). The vertical axis represents the coefficient of the relationship between servant leadership and leader need satisfaction. The two solid lines across the horizontal axis represent the upper and lower bounds of a 95% confidence interval around the conditional effect.

B. General Pattern of the Interaction

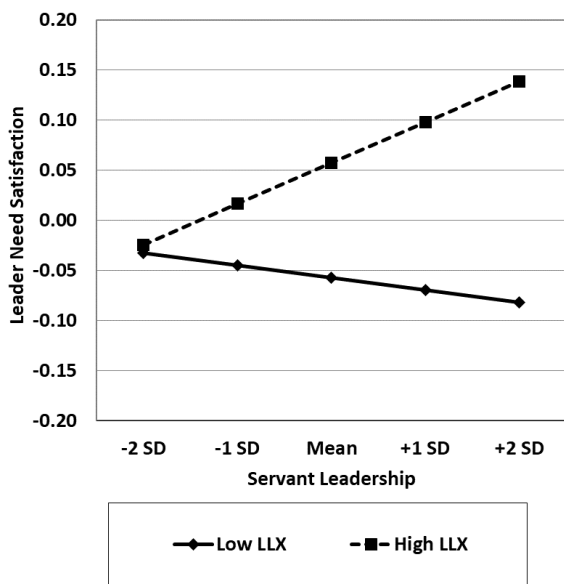
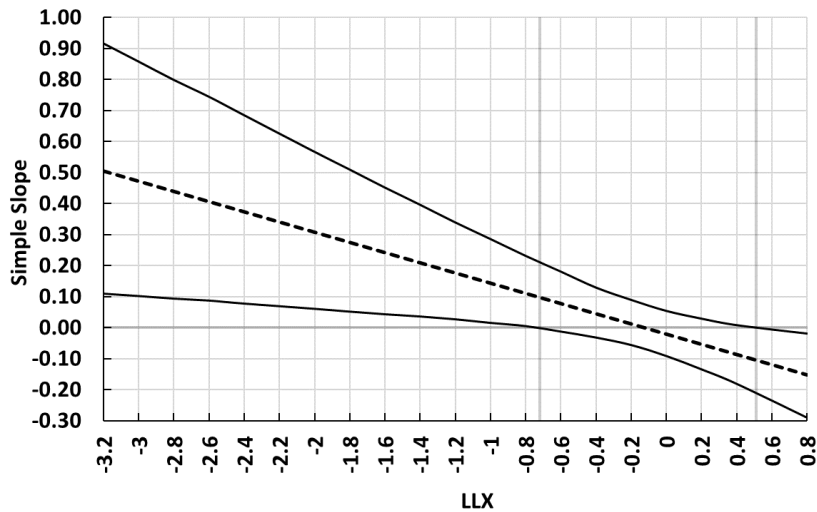


Figure 5

The Moderating Effect of LLX on the Relationship between Servant Leadership and Leader Role Conflict

A. J-N Technique–Derived Confidence Bands



Note. The figure presents the confidence bands around the conditional effect (the dash line) of servant leadership on leader role conflict across the distribution of LLX (on the horizontal axis). The vertical axis represents the coefficient of the relationship between servant leadership and leader role conflict. The two solid lines across the horizontal axis represent the upper and lower bounds of a 95% confidence interval around the conditional effect.

B. General Pattern of the Interaction

