



Performing for Status: A Hierometer Approach to Follower Narcissism and the Impact of Leader-Member Exchange on Follower Performance

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Abstract

Drawing on hierometer theory with social comparison theory as an orienting framework, two field studies test the importance of follower grandiose narcissism in enabling the performance-enhancing potential of Leader-Member Exchange (LMX). Latent change regression analysis of follower performance appraisal scores over one year in Study 1 (international logistics organization) revealed improvements in performance only for followers who perceived higher LMX quality than others and also either (a) perceived their leader to hold high status in their organization ($N = 198$) or (b) themselves exhibited high grandiose narcissism ($N = 147$). Followers' perception of leader status did not moderate the impact of follower grandiose narcissism on the LMX-performance improvement relationship. Latent change regression analysis of performance appraisal scores over one year in Study 2 ($N = 282$, large public university) replicated the performance improvement associated with perceived LMX quality only among followers expressing higher grandiose narcissism but found it contingent upon feelings of being already envied by others in the follower's work environment. The results support the interpretation of LMX as a form of self-enhancing status fulfillment for followers, which motivates performance reciprocity. We discuss the fitness of hierometer theory in understanding the LMX-performance relationship as compared to the more commonly applied sociometer theory, as well as the broader implications of these findings for LMX theory.

Keywords Grandiose narcissism · Leader-member exchange · Job performance · Feelings of being envied

The quality of a follower's working relationship with their leader is predictive of their performance on the job. As articulated within Leader-Member Exchange (LMX) theory (Graen & Uhl-Bien, 1995), high-quality LMX relationships are characterized by the exchange of respect, trust, and felt obligation between leader and follower (Dansereau et al.,

1975; Graen & Uhl-Bien, 1995). Through the LMX relationship, leaders empower followers (Martin et al., 2016) with access to resources and opportunities that may advance their success at work (Kraimer et al., 2015), and followers reciprocate with commensurate effort in their tasks (Dulebohn et al., 2012). The motivational underpinning of the LMX-performance relationship from the standpoint of the follower is often understood through the lens of sociometer theory (Leary, 2005). Reciprocal support and investment from one's leader bolster a follower's self-esteem (Dansereau et al., 1995; Ferris et al., 2009; Liao & Hui, 2021), and followers are believed to use that self-esteem to gauge their relational value to their leader. If self-esteem falters, they exert performance effort to sustain their LMX relationship in the ultimate pursuit of fulfilling their fundamental need to belong (Afshan et al., 2022; Cheng et al., 2021; Sui & Wang, 2014). Perhaps surprisingly, however, that motivational basis has yet to be substantiated empirically.

As we later detail, research reveals that followers with personalities characterized by stronger belongingness needs are actually *less* likely to perform well in correspondence

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with their perceived LMX quality (Bauer et al., 2006; Kamdar & Van Dyne, 2007). Moreover, follower performance is correlated *positively* with their perceived LMX quality (Dulebohn et al., 2012; Martin et al., 2016), rather than negatively, which challenges the sociometer notion of followers boosting their performance efforts only after LMX quality declines (as indicated by their likewise declining self-esteem). It seems that performance reciprocation by followers in response to LMX may be more likely among those looking for something besides belongingness. Compared to other exchange relationships in the workplace, LMX is unique in that it offers followers self-esteem not only through belongingness but also through the social status they believe their leader is afforded by their organization. Though absent from sociometer theory, hierometer theory (Mahadevan et al., 2019) does indeed find that people draw self-esteem from their sense of status as well as belongingness and behave differently to sustain each one. Presently, we explore hierometer theory as an explanatory lens for the LMX-performance relationship.

Contemporary advances in LMX theory have found followers are more motivated to reciprocate to their leader when the differences in their relational standings compared to other followers were more pronounced (i.e., greater within-group LMX dispersion), and they were lower in those standings (i.e., lower individual LMX) (Liden et al., 2006). Building off those insights, we contend that followers feel status not only from the relative quality of their LMX relationship compared to others but from the general quality of their relationship with their leader. Hierometer theory identifies grandiose narcissism as a personal trait sensitive only to status and not belongingness (Mahadevan et al., 2016), and we begin to incorporate hierometer theory into the broader framework of social comparison theory as it applies to LMX by positioning follower grandiose narcissism as boundary condition of the LMX-performance relationship. We conduct a constructive replication across two organizations on followers' change in annual performance appraisal scores across one year relative to their LMX quality. Further moderating variables are included to detect status comparison effects, including followers' perceptions of their supervisor's status in the eyes of their organization, grandiose narcissism, and perceptions of being envied by others in their work environment.

Literature Review

Leader-Member Exchange

LMX is a relationship-based view of leadership rooted in social exchange and role negotiation (Graen & Uhl-Bien, 1995). According to Social Exchange Theory (SET)

(Emerson, 1976), when interactions between two people are frequent and useful, an exchange relationship can form as each feels obligated to reciprocate. If reciprocity is upheld, the relationship shifts from contractual to meaningful, generating trust and loyalty (Cropanzano & Mitchell, 2005). LMX theory describes the nature, emergence, and ramifications of meaningful exchange relationships between leaders and followers, as indicated by the quality of the leader-follower exchange relationship. Leaders and followers test one another's commitment to the relationship over time and stabilize it by each establishing an understanding of their unique role in it (Graen & Scandura, 1987; Graen & Uhl-Bien, 1995). As a result, high-quality LMX becomes a generalized exchange of non-equivalent actions over time in a flexible manner, rather than a rigid one-for-one exchange. In a generalized exchange, the leader and follower are motivated by an underlying concern for one another's well-being (Sparrowe & Liden, 1997). Much of the power of LMX in predicting follower performance, however, lays in the self-esteem of the follower.

Performing for Belongingness: The Sociometer Approach

Follower self-esteem is associated with both follower-rated LMX quality (Liao & Hui, 2021) and follower performance (Dansereau et al., 1995). Various forms of follower self-worth and self-esteem (e.g., organization-based, supervisor-based, and general) have been found to mediate the relationship between LMX and follower outcomes (Dose et al., 2019; Ferris et al., 2009), including performance (Afshan et al., 2022; Sekiguchi et al., 2008; Sui & Wang, 2014). This mechanism is often explained through sociometer theory.

Sociometer theory positions one's self-esteem, being their affective appraisal of overall self-worth, as an indicator of their relational value to others in terms of the quality of their relationships and the benefits they offer others (Leary, 2005). If one's self-esteem falls too low, sociometer theory predicts they will improve it by acting to boost their relational value. At its core, however, sociometer theory proposes self-esteem is merely an indicator of a person's deeper need for inclusion and belongingness (Leary, 2005). Viewing LMX from a sociometer lens, followers are believed to gauge their relational value to their leader through their self-esteem and boost it to fulfill their need for inclusion by acting in ways to support LMX (Afshan et al., 2022; Ferris et al., 2009; Sui & Wang, 2014; Yang et al., 2020). While research does indeed link LMX with follower need fulfillment (i.e., psychological empowerment: Martin et al., 2016) and intrinsic motivation (Graves & Luciano, 2013), studies on follower personality and the LMX-performance relationship call into question the role of belongingness in that link.

Bauer et al. (2006) found the performance of extraverted followers to be unaffected by their perceived LMX quality, as did Kamdar and Van Dyne (2007) among agreeable and conscientious followers. In contrast, introverted, disagreeable, and heedless followers exhibited lower performance in poor LMX, yet roughly the same performance as their counterparts in high-quality LMX. Together, the researchers suggested that introverted, disagreeable, and heedless followers relied on the role and social exchange dynamics of their LMX relationship to maintain the motivation needed to perform well in their work, rather than on their own intrinsic motivation and aptitudes. Though reasonable, the null effect for extraverted, agreeable, and conscientious followers challenges the sociometer explanation for the performance effects of LMX.

Personality traits can be conceptualized as stable patterns of behavior that have manifested from the recurring pursuit of goals that fulfill an individual's fundamental needs (Dweck, 2017). If the need to belong is a trigger for performance effort in response to LMX, as posited through sociometer theory, we would expect followers with personality traits associated with stronger belongingness needs, such as agreeableness or extraversion (Leary et al., 2013), to be *more* responsive to LMX and to outperform their personality counterparts in order to sustain those needs. Instead, the findings outlined above suggest the relationship between perceived LMX quality and follower performance may be initiated by needs other than belongingness. To identify a personality trait and corresponding need that better explain the LMX-performance relationship, we draw from recent applications of social comparison theory to the study of LMX.

LMX as Status

Beyond belongingness, followers understand their worth through the status afforded to them by their position compared to others at work. Contemporary social comparison theory (for review see: Wood, 1996) suggests people collect, screen, and construct social information about others, and interpret it not only for the sake of accurately understanding their social standing, but to fulfill deeper self-serving motives for self-evaluation, self-improvement, or self-enhancement (Wood, 1989). Accordingly, recent research into group-level dispersion of LMX quality finds followers who report higher quality LMX than do others in their group perform better in part because they are aware of their superiority (Vidyardhi et al., 2010) and evaluate themselves more positively because of it (Afshan et al., 2022; Hu & Liden, 2013). Building off those findings, we propose that the need for status plays a more important role in determining which

followers will respond to LMX at the individual-level than does the need for belongingness.

People exhibit a fundamental need for status, which is the “respect, admiration, and voluntary deference individuals are afforded by others” (Anderson et al., 2015, p. 574). The need for status is distinct from that for belongingness and is a strong driver of behavior (Anderson et al., 2015). LMX may be a conduit through which followers fulfill status needs. LMX forms within hierarchical social relations in a formalized authority structure. Leaders generally hold supervisory positions of higher status than followers and offer status-related resources to followers (e.g., authority, visibility) in exchange for status validation (e.g., respect, deference) or other resources (Wilson et al., 2010). Followers infer the status of their leader in their supervisory capacity by the extent to which they believe their organization supports that leader's success, influence, and overall well-being (Eisenberger et al., 2002). Though a follower has not earned supervisory status *per se*, they “bask in the reflected glory” of their leader's status and feel it through their relationship and the status-derived resources they exchange (Balkundi & Kilduff, 2006). Indeed, being associated with socially central others boosts one's reputation at work (Kilduff & Krackhardt, 1994), particularly if they are well-liked leaders (Bono & Anderson, 2005). Per social comparison theory, perceived LMX quality may serve as social information from which followers can judge their social standing and then draw self-worth (c.f., Wood, 1996). We integrate hierometer theory (Mahadevan et al., 2016) to clarify the connection between status and self-esteem relative to the LMX-performance relationship.

Performing for Status: The Hierometer Approach

Hierometer theory (Mahadevan et al., 2016) positions self-worth as not only a gauge of one's sense of inclusion but also a gauge of one's status. Social hierarchies are inherent to most forms of social relation, and Mahadevan and colleagues (Mahadevan et al., 2019; Mahadevan et al., 2016) argue that humans developed feelings of self-worth to track their status for the sake of surviving in societies, much like they use it to track their inclusion and belongingness (i.e., sociometer theory). They argue that past operationalizations of self-worth in studies of sociometer theory often confounded self-worth drawn from inclusion and with that drawn from status, and that self-worth actually gauges the two independently. Thus, to the degree that LMX relationships have inherent or inferred status within them, we propose hierometer theory to be a more accurate lens than sociometer theory through which to understand which types of followers are responsive to LMX in terms of their reciprocal performance. We outline two reasons below.

First, as observed by Mahadevan et al. (2016), self-worth is often dictated by agentic concerns rather than communal ones (Wojciszke et al., 2011). Supportively, Mahadevan et al. (2016) found self-esteem to correlate more strongly to one's sense of status than inclusion. Since self-esteem is a central mechanism driving follower reciprocity in LMX, feelings of status reflected from a follower's appraisal of LMX quality may be more influential than feelings of inclusion. This effect is strengthened by the greater emphasis placed on status than on inclusion in the workplace. As discussed above, LMX inheres within a hierarchical social context that is found in most organizations and is often instrumental in their success (Halevy et al., 2011). Though followers seeking belongingness may find it in their LMX, that relationship is likely not the first place they look. Belongingness depends on contingent factors, such as leader personality, whereas status is guaranteed to a degree by organizational structure.

Second, hierometer theory aligns more strongly with research into the LMX-performance relationship than does sociometer theory. In hierometer theory, status-holders engage in assertive behavioral tactics to maintain that status and withdraw if their status falls (Mahadevan et al., 2016). This is due in part to the competitive and dynamic nature of status; if one is not actively pursuing it, one loses their place to others. In contrast, sociometer theory suggests people will boost their efforts to gain inclusion only when they feel it is lost or waning (Leary, 2005). Research reveals LMX to be correlated *positively* with follower performance (e.g., Martin et al., 2016), meaning those with high LMX exhibit higher performance, as per hierometer theory. Job performance encompasses many actions, from proficiency to proactivity (Griffin et al., 2007), and improving it takes assertive behavior requiring significant effort and risk (one's effort may not pay off). Moreover, while Mahadevan et al. (2016, 2020) found status to predict assertive behavior, they found inclusion to predict affiliative behavior. Affiliative behavior is not associated as strongly with improved performance as is task behavior (Whiting et al., 2008).

In sum, through the lens of hierometer theory, the higher quality one believes one's LMX relationship to be with their leader, the more their need for status is fulfilled (as indicated by self-esteem) by association with that leader and their supervisory role via LMX, and thus the more strongly they will perform as a means of reciprocating and maintaining access to status. If true, we would expect followers to reciprocate with performance only for leaders whom they believe are held in high regard by their organization through their supervisory position.

Hypothesis 1: Supervisor's perceived organizational status moderates the relationship between LMX and follower performance such that the relationship is positive for followers who perceive their supervisor to hold

high status in their organization, yet not statistically significant for followers who perceive their supervisor to hold low status.

In extending hierometer theory, Mahadevan et al. (2019) later found strong evidence that the form of self-worth experienced by grandiose narcissists is sensitive *only* to feelings of status and not belongingness. This suggests that grandiose narcissism may differentiate those followers who benefit uniquely from high-quality LMX from those who do not.

Grandiose Narcissism as a Boundary Condition of the LMX-Performance Relationship

In establishing hierometer theory, Mahadevan et al. (2016) found that feelings of status predicted assertive behavior not only through self-esteem, but also through grandiose narcissism. Over four studies, Mahadevan et al. (2019) revealed that unlike one's general self-esteem, feelings of grandiose narcissism only gauged one's sense of status, not inclusion. If status is indeed the reason followers respond with performance to LMX, then their degree of grandiose narcissism may be the key characteristic determining their responsiveness.

Scholars recognize "entitlement, arrogance, and self-centeredness are shared attributes of various narcissistic personalities" (Krizan & Herlache, 2017, p. 9) and identify two variants: an anxiety-driven "vulnerable" type, and a reward-driven "grandiose" type. Grandiose narcissism involves the approach-oriented pursuit of self-enhancing experiences as a means of validating inflated self-views (Krizan & Herlache, 2017). Those views are reinforced by tendencies to perceive themselves and others in self-enhancing ways (Morf & Rhodewalt, 2001) and prioritize their own interests (Krizan & Herlache, 2017), which reduces their likelihood of reciprocating to others. Indeed, Benson et al. (2016) found that narcissists placed at random in follower roles engaged in more self-interested and less prosocial behavior than less narcissistic followers. From the lens of sociometer theory, narcissists appear to care little for their relational value in the eyes of others and thus should not be likely to bolster their performance in response to high-quality LMX. From the lens of hierometer theory, however, the effectiveness of LMX in eliciting performance may actually *depend* on an individual's degree of grandiose narcissism.

The self-esteem of grandiose narcissists is linked far more strongly to their sense of status than belongingness (Grapsas et al., 2020). Though narcissists may not feel indebted to their leader for feelings of belongingness, they manifest a chronic need for social superiority that may make the status bestowed by strong LMX very appealing. From the standpoint of hierometer theory, narcissistic self-worth garnered from status triggers assertive strategies to preserve

that status. By providing status indirectly, high LMX quality should motivate narcissistic followers to engage in bold, action-oriented behavior such as job performance to sustain LMX. The better they perform, the stronger their LMX, the more evident their status in their own eyes and the eyes of others. In contrast, if ignored by their leader, narcissistic followers may become spiteful and withhold their effort. Supportively, Wallace and Baumeister (2002) found narcissists perform well if they believe it will be self-enhancing. This leads us to:

Hypothesis 2: Follower grandiose narcissism moderates the relationship between LMX and follower performance such that the relationship is positive for followers who exhibit a high degree of grandiose narcissism, yet not statistically significant for followers who exhibit a low degree of grandiose narcissism.

To the extent that perceived leader status heightens the appeal of LMX in fulfilling one's need for status, as per Hypothesis 1, we expect it to likewise enhance the likelihood of grandiose narcissists boosting their performance effort in response to LMX quality. Leaders who are believed to hold less status may not be seen as worthwhile investments to fulfill the deep status needs of grandiose narcissistic followers, thus not deserving as much effort.

Hypothesis 3: The moderating effect of follower narcissism on the relationship between LMX and job performance is itself moderated by follower's perception of their supervisor's organizational status, such that the relationship is only positive and statistically significant for followers who exhibit a high degree of grandiose narcissism if they also perceive their supervisor to hold high status in the organization.

Study 1

Method

Sample and Measures

Sample The sample was drawn from the division of an international parcel organization serving Mexico. Research materials were translated into Spanish and then translated back into English by speakers fluent in both languages. Discrepancies were resolved to ensure as similar meaning as possible. Procedures and materials were approved by an institutional review board.

A total of 667 surveys were mailed to parcel couriers across 20 regions in Mexico. Participants returned 264

surveys (39.6% response rate) within three weeks. Performance scores from the organization for the year before and after the survey were available for 202 couriers. Twenty-four of the 202 left all narcissism items blank, while 53 left at least one blank. In contrast, only ten left any LMX items blank (one left all blank and was removed), and only eight left any perceived leader status items blank (three left all blank). To preserve statistical power for latent interaction analysis, those who missed all narcissism items were retained when testing H1, and those who missed all leader status items were retained when testing H2. In testing H2, we reduced contamination from participants biased against the narcissism items by retaining only those who responded to at least 12 of the 16 items (75%). That eliminated 30 participants, who did not vary in a statistically significant manner in their scores on either performance score ($t_{11} = 0.29$, $df = 200$, $p = 0.77$; $t_{13} = 0.65$, $df = 200$, $p = 0.52$) leader status ($t = 0.88$, $df = 196$, $p = 0.38$), or LMX ($t = 1.77$, $df = 199$, $p = 0.08$). The final usable sample size for testing H1 was 198, for testing H2 was 147, and for testing H3 was 144. The maximum usable sample ($N = 198$) was 100% male, with an average tenure of 3.75 years and a mean age of 33.84 years.

Leader-Member Exchange LMX ($\alpha = 0.85$, $\alpha_{H2} = 0.86$, $\alpha_{H3} = 0.85$) was measured by a translated version of Graen and Uhl-Bien's (1995) LMX 7 scale. Meta-analytic evidence from Martin et al. (2016) suggests LMX 7 functions as well as other LMX scales in detecting a relationship with follower performance. A sample item is "How would you characterize your working relationships with your leader?" (rated on a five-point effectiveness scale).

Supervisor's Perceived Organizational Status Leader status ($\alpha_{H2} = 0.80$, $\alpha_{H3} = 0.82$) was measured by a translated version of Eisenberger and colleagues' (2002) 12-item Supervisor's Perceived Organizational Status (SPOS) scale evaluating an employee's perception of the status granted to their supervisor by their organization, rated on a five-point agreement scale. A sample item is "The organization holds my supervisor in high regard."

Grandiose Narcissism Grandiose narcissism ($\alpha_{H1} = 0.85$, $\alpha_{H3} = 0.85$) was measured by a translation of Ames et al.'s (2006) 16-item version of the NPI (Raskin & Hall, 1981). Respondents chose either a narcissistic (e.g., "I am going to be a great person") or a non-narcissistic view (e.g., "I hope I am going to be successful") for each item. The NPI aligns more strongly with expert ratings of grandiose narcissism than do other measures (Miller et al., 2014), and the Ames version was used to develop hierometer theory (Mahadevan et al., 2019).

Table 1 Means, standard deviations, and correlations for Studies 1 and 2

Study 1		Mean	SD	1	2	3	4	
1. Performance (t1)		2.85	0.56	-				
2. LMX (t2)		3.17	0.82	-0.04	-			
3. Supervisor's Perceived Organizational Status (t2)		3.22	0.61	-0.06	0.25**	-		
4. Grandiose narcissism ^a (t2)		1.49	0.29	-0.31**	0.01	-0.02	-	
5. Performance (t3)		2.76	0.57	0.32**	0.06	0.08	-0.13	
Study 2		Mean	SD	1	2	3	4	5
1. Employee sex (t1)		0.43	0.50	-				
2. Performance (t1)		4.63	0.60	-0.15**	-			
3. LMX (t2)		3.75	0.90	-0.04	0.27**	-		
4. Grandiose narcissism (t2)		1.25	0.17	0.10 [†]	-0.02	-0.06	-	
5. Feelings of being envied (t2)		2.29	0.90	-0.04	0.03	-0.05	0.10	-
6. Performance (t3)		4.61	0.68	-0.16**	0.64**	0.26**	-0.06	0.12 [†]

Study 1: $N = 198$, ^a $N = 147$ for correlations with grandiose narcissism and $N = 144$ for correlation between grandiose narcissism and Supervisor's Perceived Organizational Status (see Study 1 methods for explanation); Study 2: $N = 282$; the time point at which each measure was collected is included in parentheses; [†] $p < 0.10$, * $p < 0.05$, ** $p < 0.01$.

Performance Performance was computed in a latent difference score between each participants' pre- and post-study annual performance appraisal scores, which spanned one year. The performance scale ranged between 1 ("does not meet") and 5 ("far [greatly] exceeds") for each year. No participants were assigned a 1 or a 5. The mean pre-study appraisal score was 2.88, and the mean post-study score was 2.78. Narcissism and LMX were measured 3 months before the post-study appraisal. Thirty-eight participants improved their scores over the year, 83 exhibited no change, and 26 participants received lower scores in the post-study review.

Multi-Level Statistical Control Evidence suggests group context elicits bias in individual performance scores (Ellington & Wilson, 2017). To isolate variance in follower performance stemming from their individual-level perceptions, we remove location-level variance in performance scores for all analyses through multi-level modeling.

Analysis

A latent measurement model was constructed in MPlus (Muthén & Muthén, 1998-2017). Narcissism items were dichotomous and required weighted least-squares estimation via diagonal weight matrix (WLSMV). Beyond χ^2 , only RMSEA and SRMR are effective in detecting model misspecification with WLSMV (Nye & Drasgow, 2011). Performance was captured by latent change-regression (McArdle, 2009) of the difference in pre- and post-study appraisal scores free of measurement error and the effect of one's pre-study score. Since each structural model for hypothesis testing included a latent interaction term, it contained four dimensions of integration (two employee-level, two location-level) and exceeded the functional limit of WLSMV and ML estimation (Asparouhov

& Muthén, 2021). As recommended, a Bayesian estimator with two Markov Monte Carlo chains was used for hypothesis testing (Asparouhov & Muthén, 2021). Testing H3 required calculation of a three-way latent interaction term, for which the authors were not able to find a feasible statistical program. As such, discrete item means were computed for each variable and discrete multiplicative interaction terms were calculated.

Results

See Table 1 for descriptive statistics and variable correlations. In Study 1, the last item of the SPOS measure was reverse-worded and did not load significantly ($\lambda = 0.19$, $p = 0.14$) on its latent factor. Scholars caution against using reverse-worded items, citing concerns for reliability and validity (e.g., Sonderen et al., 2013). To address those limitations, that item was dropped.

Fit of a four-factor model was acceptable ($\chi^2 = 753.67$, $df = 589$, RMSEA = 0.04 [90% CI, 0.03, 0.05], SRMR = 0.10) and better than any three-factor model with shared factors (narcissism and LMX: $\chi_{diff}^2 = 210.88$, $df_{diff} = 3$, $p < 0.001$; narcissism and status: $\chi_{diff}^2 = 346.50$, $df_{diff} = 3$, $p < 0.01$; LMX and status: $\chi_{diff}^2 = 85.27$, $df_{diff} = 3$, $p < 0.001$). Harman single factor test revealed only 14.08% of the variance among factors is shared when constrained to a single factor, indicating little risk of parameter inflation from method bias (Podsakoff et al., 2003). Statistically significant variance in location-level post-study performance scores (unstandardized $\sigma = 0.14$; 95% CI, 0.01, 0.25) was found in the performance change model at the largest sample size ($N = 198$), supporting the retention of multi-level modeling. The fit of the latent change-regression score in that model

Table 2 Conditional direct effects analysis for Studies 1 and 2

Focal direct effect: LMX → change in performance over one year

Study 1				Study 2			
	Condition level ^a	Effect (95 CI: LL,UL)	p		Effect (95 CI: LL,UL)	p	
Model 1	High SPOS (S)	0.37 (0.10, 0.58)	< 0.001	High grandiose narcissism (N)	0.29 (0.02, 0.55)	0.03	
	Low SPOS	0.04 (-0.17, 0.26)	0.73	Low grandiose narcissism	-0.08 (-0.41, 0.20)	0.55	
Model 2	High grandiose narcissism (N)	0.35 (0.02, 0.72)	0.04	Strong feelings of being envied (E)	0.08 (-0.10, 0.27)	0.40	
	Low grandiose narcissism	-0.12 (-0.52, 0.24)	0.48	Weak feelings of being envied	0.13 (-0.05, 0.33)	0.17	
Model 3	High N, high S ^c	0.35 (-0.42, 1.19)	0.83	High N, strong E ^c	0.33 (0.11, 0.56)	0.02	
	High N, low S	0.08 (-0.78, 0.81)	0.31	High N, weak E	0.15 (-0.11, 0.38)	0.16	
	Low N, high S	0.18 (-0.66, 1.07)	0.85	Low N, strong E	-0.16 (-0.40, 0.09)	0.22	
	Low N, low S	0.08 (-1.09, 1.02)	0.61	Low N, weak E	0.37 [†] (-0.03, 0.63)	0.08	

Study 1: $N_{Model1} = 198$, $N_{Model2} = 147$, $N_{Model3} = 144$; Study 2: $N = 282$; SPOS = Supervisor's Perceived Organizational Status; Performance computed as latent change in annual appraisal scores over one year; All parameters are standardized; ^aCondition levels are computed as +1/-1 standard deviation of the condition variable; ^cPredictors in Model 1 and Model 2 are composed as latent variables, predictors in the three-way interaction model (Model 3) are composed as discrete mean variables

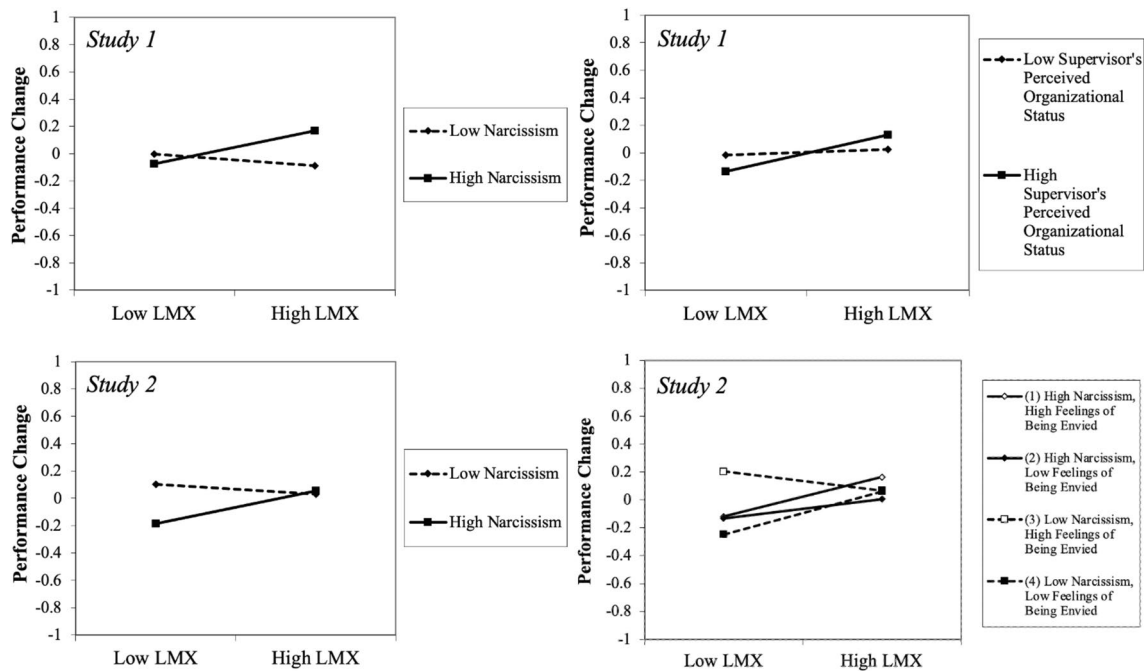


Fig. 1 Interaction slopes graphs for Study 1 and Study 2. Note: Variable interactions at +1/-1 standard deviations of moderator variables

when constrained to zero (i.e., no change in performance) was worse ($\chi^2 = 49.43$, $df = 2$, $p < 0.001$) than the fit for the unconstrained model ($\chi^2 = 4.55$, $df = 1$, $p = 0.03$) ($\chi^2_{diff} = 44.88$, $df_{diff} = 1$, $p < 0.001$), indicating meaningful variance in performance change.

In the test of H1 ($N = 198$), follower-level latent change in performance over one year regressed with significance on latent LMX ($\beta = 0.13$, Posterior S.D. = 0.04, $p = 0.02$) and the latent interaction of LMX and SPOS ($\beta = 0.10$, Posterior S.D. = 0.05, $p = 0.05$), yet not latent SPOS (β

= -0.01, Posterior S.D. = 0.05, $p = 0.95$). The interaction accounted for 1% additional variance in performance change (Interaction Model $R^2 = 0.489$; $\Delta R^2 = 0.012$). Conditional direct effect analysis at +1/-1 standard deviation of SPOS revealed the latent LMX-performance change relationship to be significant only when status was high (Table 2, Fig. 1), supporting H1.

Latent change in performance did not regress with significance on latent LMX ($\beta = 0.06$, Posterior S.D. = 0.07, $p = 0.35$) or latent narcissism ($\beta = 0.07$, Posterior S.D. = 0.08,

$p = 0.39$) in the test of H2 ($N = 147$) but regressed with marginal significance on the latent interaction of the two ($\beta = 0.13$, Posterior S.D. = 0.07, $p = 0.07$). The interaction accounted for a little over 1% additional variance in performance change (Interaction Model $R^2 = 0.556$; $\Delta R^2 = 0.013$). Conditional direct effect analysis found the latent LMX-performance change relationship to be significant only when latent narcissism was high (Table 2, Fig. 1), supporting H2.

In the test of H3 ($N = 144$), latent change in performance did not regress with significance on discrete LMX ($\beta = 0.09$, Posterior S.D. = 0.07, $p = 0.19$); narcissism ($\beta = 0.04$, Posterior S.D. = 0.08, $p = 0.66$); SPOS ($\beta = -0.01$, Posterior S.D. = 0.06, $p = 0.13$); or any multiplicative interaction, including the three-way interaction ($\beta = -0.01$, Posterior S.D. = 0.08, $p = 0.79$), offering no support for H3. Additional variance in performance change accounted for by the interaction was less than 1% (Interaction Model $R^2 = 0.530$; $\Delta R^2 = 0.006$).

Overall, only narcissistic followers were responsive to LMX quality in Study 1, offering stronger support for hierometer theory than was hypothesized. This stands in contrast to tests of traits associated with belongingness needs (e.g., extraversion, agreeableness), in which performance did not vary as a function of LMX quality for those expressing such traits strongly (Bauer et al., 2006; Kamdar & Van Dyne, 2007), and thus did not support a sociometer interpretation. In Study 2, we replicate and extend our test of hierometer theory by considering a critical boundary condition.

Feeling Envied as a Motivator of Performance in Grandiose Narcissistic Followers

In Study 1, SPOS may have failed to moderate the LMX-performance link for two reasons. First, grandiose narcissists' behavior is motivated not only by their appraisal of their social context but also by how that appraisal makes them feel about themselves (Morf & Rhodewalt, 2001). SPOS does not capture affect and may have been too distal of a measure. Second, per hierometer theory (Mahadevan et al., 2016), people will not adopt bold, "hawkish" strategies to sustain their status and self-esteem unless they have already obtained status in their environment. In Study 1, we reasoned LMX would be a signal of past success, however, we did not consider the broader social context or "audience" in which a follower is seeking status validation. In Study 2, we return to social comparison theory and test a new hypothesis incorporating the affective signals followers receive from their social context regarding their status in it.

Social Comparison and Envy in the Context of LMX

A perceiver's self-worth is shaped by their emotional response to social comparisons, which means such responses play an important role in the "temperature" of one's hierometer (i.e., one's evaluation of their status relative to others). Though both upward and downward comparisons can elicit positive (e.g., pride, inspiration) and negative (e.g., jealousy, pity) emotions, envy is among the most prototypical (Smith, 2000). Defined as an "unpleasant and often painful blend of feelings characterized by inferiority, hostility, and resentment caused by a comparison person or group of persons who possess something we desire" (Smith & Kim, 2007, p. 49), envy is particularly likely to arise when one desires the status of a person similar to themselves (Smith & Kim, 2007). Envy is positioned almost exclusively as the result of upward social comparisons against others (e.g., Smith, 2000), and elicits motives to improve one's own status and lower that of others (van de Ven, 2017).

Matta and Van Dyne (2020) propose that followers become envious when they believe their LMX is weaker than others and cannot be improved. Pan et al. (2021) confirmed that active social comparison of LMX quality does predict envy yet found envy was heightened if followers detected pride in comparable followers. Pan et al.'s (2021) work is unique in that it integrates social comparison with Van Kleef's (2009) Emotions as Social Information (EASI) theory, which proposes perceivers use others' emotions as social information when making decisions. In Study 2, we integrate EASI into our application of hierometer theory to LMX dynamics.

Feeling Envied as Social Information in the Context of LMX

As observed by Grapsas et al. (2020), grandiose narcissists are hypervigilant to signals of their status in a social environment and their likelihood of improving it. If a narcissist does not already feel desired by those around them, they may not see their audience as a viable source of self-enhancement (Mahadevan et al., 2016). Per the EASI model (Van Kleef, 2009), people who closely attend to the emotional expressions of others are likely to draw inferences about others' internal states and use them to take action, rather than manifest defensiveness. Perhaps surprisingly, grandiose narcissists can excel at inferring others' intentions (Vonk et al., 2015), and their hypervigilance to social cues in status-relevant contexts may leave them receptive to the emotions of others. Since envy can trigger a desire to surpass the envied, people interested in preserving their status are keen to detect envy from others (Lange et al., 2020). Though grandiose narcissists' self-enhancing perceptual biases often deter their own envy (Krizan & Johar, 2012), their vigilance to others'

response to the narcissists' status make feelings of being envied a salient signal of the utility of their environment to support status pursuit.

If a grandiose narcissist does not infer envy from others, they may not believe others will validate their attempts to secure status. Without the potential for validation, social comparison against peers will be less likely to provide the self-enhancement desired by narcissistic followers. Moreover, feeling envied elicits a positive affect, which can counteract the anxiety also associated with feeling envied (Lee et al., 2018). Due to their strong bias towards self-enhancement rather than other-enhancement, narcissists should feel more empowered to maintain their status by reciprocating to their LMX via performance effort when feeling envied, rather than guilty, anxious, or otherwise inhibited because of their "success" as indicated by envy from others.

Prior research has found the relationship between followers perceived LMX and feelings of being envied to achieve significance only for followers who value status, such as grandiose narcissists (Treadway et al., 2019) or Machiavellians (Vecchio, 2005). Measurement of that relationship, however, was cross-sectional. Whereas LMX may indeed result in feelings of being envied in grandiose narcissists over time, cross-sectional measurement of them better captures the impact of feeling envied as a boundary condition for the motivation of performance effort rather than a mechanism of it, as we outline above. Moreover, past research (Treadway et al., 2019; Vecchio, 2005) has not measured feelings of being envied due to LMX specifically, only envied feelings in general, further undercutting their specific causal arguments.

Hypothesis 4: The moderating effect of follower narcissism on the relationship between LMX and job performance is itself moderated by follower's feelings of being envied by co-workers, such that the relationship is only positive and statistically significant for followers who exhibit a high degree of grandiose narcissism if they also have strong feelings of being envied by co-workers.

Study 2

Method

Sample and Measures

Sample The sample was drawn from non-academic departments in a large US university. All procedures and measures were approved by an institutional review board. Surveys were given to 1147 full-time non-instructor employees, and

470 (41% initial response rate) were completed. Archival performance scores for the year before and after survey administration were available for 314 participants. Sixteen participants left all LMX items blank and were dropped. Consistent with Study 1, only participants who responded to at least 12 of the narcissism items were retained, bringing the final sample size to 282. The final sample spanned 91 departmental groups including accounting, human resources, and athletics. Participants held a variety of jobs, with roughly 60% being coordinators, specialists, or analysts, 28% managers, directors, or administrators, and the remainder in technical roles (e.g., psychologist, counsel). The sample was 57.44% female, with a mean organizational tenure of 10.36 years and a mean age of 36.88 years.

Grandiose Narcissism Grandiose narcissism ($\alpha = 0.65$) was measured again by the Ames et al. (2006) scale. Due to a survey administration error, the first item was excluded; the remaining 15 items still sufficiently represent the construct domain of narcissism.¹

Leader-Member Exchange LMX ($\alpha = 0.92$) was measured by the LMX 7 (Graen & Uhl-Bien, 1995), as in Study 1.

Feelings of Being Envied Feeling envied by co-workers ($\alpha = 0.84$) was measured by the 3-item scale from Vecchio (2005) rated on a five-point agreement response scale. A sample item is "Because of the closeness of the working relationship I have with my supervisor, I am sometimes resented by my co-workers."

Performance Performance was again captured by a latent difference score between pre-study and post-study performance appraisal scores from the organization's annual review. Survey items were administered 6 months after the pre-study review period. Appraisal scores ranged from 1 to 5, with a 1 indicating poor performance that year and a 5 indicating excellent performance. No participants in the usable sample received a 1 or 2 either year. The mean pre-study score was 4.63 and the mean post-study score was 4.62. Twenty-eight participants improved their scores over the year, 223 were unchanged, and 31 received lower scores.

Controls Department-based differences in performance were partialled out of employee-level performance scores used to compute performance change through the use of multi-level modeling, as in Study 1. Next, follower sex was controlled

¹ Mean composite of all narcissism items in the Study 1 sample correlated with the mean composite excluding the first item at $r = 0.99$, $p < .001$; the model for testing Hypothesis 1 excluding the first narcissism item yielded no differences in significance from the full item test.

Table 3 Hypothesis test results for Study 2

Predictors	Criterion: Change in performance over one year ^{ab}			
	Model 1		Model 2 ^c	
	b (posterior S.D.)	<i>p</i>	b (posterior S.D.)	<i>p</i>
Employee sex (t1)	−0.08 (0.07)	0.29	−0.08 (0.06)	0.16
Performance (t1)	−0.40 (0.06)	< 0.001	−0.30** (0.07)	< 0.001
LMX (L, t2)	0.08 (0.07)	0.27	0.13 (0.06)	0.02
Grandiose narcissism (N, t2)	−0.12 (0.08)	0.11	−0.04 (0.05)	0.38
Feelings of being envied (E, t2)			0.14 (0.05)	< 0.001
Interaction: L × N	0.14 (0.08)	0.08	0.07 (0.06)	0.26
Interaction: L × E			−0.07 (0.06)	0.22
Interaction: N × E			−0.07 (0.06)	0.24
Interaction: L × N × E			0.16 (0.06)	0.02
<i>R</i> ² _{employee}	0.23	< 0.001	0.20	< 0.001

N = 282; All parameters are standardized; ^aPerformance computed as latent change in annual appraisal scores over one year; ^bDepartment-level variance in latent performance change is removed; ^cPredictors in Model 1 are composed as latent variables, predictors in the three-way interaction (Model 2) are composed as discrete mean variables; the time point at which each measure was collected is included in parentheses

for in hypothesis testing to remove same-sex rating bias (Varma & Stroh, 2001) and ensure results are comparable to Study 1.

Results

Fit of a four-factor model was acceptable ($\chi^2 = 495.30$, $df = 319$, RMSEA = 0.04 [90% CI, 0.04, 0.05]; SRMR = 0.12) and better than any three-factor model with shared factors (narcissism and LMX: $\chi^2_{diff} = 779.07$, $df_{diff} = 3$, $p < 0.001$; narcissism and envied: $\chi^2_{diff} = 72.80$, $df_{diff} = 3$, $p < 0.001$; LMX and envied: $\chi^2_{diff} = 63.49$, $df_{diff} = 3$, $p < 0.001$). Harman single factor test revealed only 18.21% of the variance among factors is shared when constrained to a single factor, indicating little risk of parameter inflation from method bias (Podsakoff et al., 2003). Hypothesis test models revealed significant variance in location-level pre-study (unstandardized $\sigma = 0.03$; 95% CI, 0.01, 0.05) and post-study (unstandardized $\sigma = 0.02$; 95% CI, 0.002, 0.05) performance scores, supporting multi-level modeling. Fit of the latent change-regression model when constrained to zero (i.e., no change in performance) was worse ($\chi^2 = 18.13$, $df = 2$, $p < 0.001$) than fit for the unconstrained model ($\chi^2 = 2.68$, $df = 1$, $p = 0.10$) ($\chi^2_{diff} = 15.45$, $df_{diff} = 1$, $p < 0.001$), indicating meaningful variance in follower-level performance change.

Follower performance latent change regressed with marginal significance on the latent interaction of LMX and narcissism (Table 3). Conditional direct effect analysis revealed the link between latent LMX and performance change to be positive and significant only for narcissists (Table 2, Fig. 1), again supporting Hypothesis 1. Additional variance in performance change accounted for by the interaction was nearly

10% ($\Delta R^2 = 0.097$), much larger than in Study 1. Latent performance change regressed significantly on the discrete three-way interaction of LMX, narcissism, and feelings of being envied (Table 3). Conditional direct effect analysis revealed the link between LMX and performance change to be significant only for narcissists with strong feelings of being envied (Table 2), supporting Hypothesis 4. Additional variance in performance change accounted for by the interaction was nearly 6% ($\Delta R^2 = 0.056$), larger than in Study 1.

General Discussion and Implications

Across two studies, followers who perceived high-quality LMX only improved their performance if they believed their supervisor was held in high status by their organization or if they themselves exhibited strong grandiose narcissism. Owing to the high need for status associated with grandiose narcissism (Grapsas et al., 2020), our results support an interpretation of the LMX-performance relationship based on hierometer theory (Mahadevan et al., 2019). This interpretation implies followers reciprocate to their leaders' LMX contributions with improved performance as a means of maintaining or growing status. Our findings support the suitability of hierometer theory to the study of follower behavior in response to LMX rather than a sole reliance on sociometer theory (e.g., Cheng et al., 2021; Sui & Wang, 2014). Though followers may indeed fulfill their need to belong through LMX (Graves & Luciano, 2013) and reciprocate accordingly, as predicted by sociometer theory, that reciprocation may not necessarily take the form of assertive, task-oriented behavior, such as job performance.

Perhaps the most important implication of our findings, and the inferred fitness of hierometer theory to explain LMX dynamics, is that status and power may be the true currencies of LMX. LMX models generally propose leader and follower evaluate one another on their capability to generate work-related accomplishments for mutual benefit in the exchange (Graen & Uhl-Bien, 1995); this would make LMX quality diagnostic of follower performance. The results, however, are inconsistent. Supervisor ratings of follower performance predict LMX quality in some studies (Nahrgang et al., 2009) yet not others (Bauer & Green, 1996), and objective follower performance often fails to predict LMX quality (e.g., Duarte et al., 1993; Vecchio, 1998). As with our findings, status needs could also explain the performance-LMX link. Only follower performance affecting the status of the leader (and vice-versa) may impact LMX quality. For instance, leader and follower behavior in Nahrgang et al. (2009) had direct implications for competitive success against other teams, whereas performance in Vecchio (1998) (i.e., everyday errors) and Duarte et al. (1993) (i.e., call completion time) was largely relative to just the follower. Performance behavior may be a by-product of the exchange of status and power resources between leader and follower, rather than a direct cause or consequence of it. Future research should test the mechanistic role of status fulfillment for both leader and follower in the performance-LMX-performance sequence to thoroughly confirm this implication.

More broadly, a hierometer approach implies social comparison is a central process governing follower responsiveness to LMX. In contrast to performance, affective factors, such as liking, are consistently predictive of LMX quality (Bauer & Green, 1996; Liden et al., 1993). Per social comparison theory (Wood, 1996), status resources may allow leaders and followers to engage in downward and upward comparisons with others of weaker status or LMX quality (as indicative of status) to support their self-esteem, thereby eliciting positive affect. Leaders and followers may come to like the attributes of those who bring them status (c.f., Wood, 1989). One step further, if leaders build stronger LMX with followers who are responsive to it (c.f., Sparrowe & Liden, 1997), which our results reveal to be narcissistic followers, and high-quality LMX fosters a follower's acquisition of influence (Sparrowe & Liden, 2005), then social comparison processes may drive the "narcissification" of organizations via its leadership. Indeed, Oh et al. (2018) found organizations to select for high 'ambition' more than other personality factors. Future research should consider the role of social comparison through status resources in LMX in shaping the nature of management in organizations.

Ultimately, our findings may imply LMX is not just political on occasion but may be *primarily* political in nature, revolving specifically around hierarchical power. Recall that narcissism in our study only facilitated performance in

response to LMX if followers felt others already held them in higher social regard (i.e., they felt envied), suggesting they were embedded in a hierarchical social context. Indeed, recent work by Park et al. (2022) find LMX to more powerfully predict follower performance in political climates, and Epitropaki et al. (2016) find politically skilled followers to be more effective when their LMX was stronger than that of others. Later evolutions of SET embraced the role of power as an inextricable determinant of social exchange (e.g., Emerson, 1976). Harkening back to the origins of LMX, it may be time to bring the "vertical" back in as a core element to our understanding of the dyad linkage (i.e., Dansereau et al., 1975) and to now consider the social context in which power and status are obtained. Our findings imply the in-group (i.e., those with high LMX quality) are not necessarily the high performers, but rather the social climbers, of which out-group members are keenly aware (Davis & Gardner, 2004). LMX relationships may be less the lateral "hallways" of collaboration in organization and more the vertical "elevators" up the hierarchy.

This brings us to the final implication of our research, which is the multiplexity of the LMX relationship. Our findings suggest that the different needs fulfilled by LMX may not lead to the same behavioral outcomes. While some followers may perform for status, others may collaborate for belongingness, or innovate for autonomy, and so on. To the extent that multiple needs are present in multiple followers, a leader's capacity to meet those needs simultaneously across followers (i.e., cultivate a multiplex relationship) may be an important determinant of their success. Clarke et al. (2022), for instance, found improved performance for groups whose leader was more central in overlapping tie networks (friendship and advice). Followers' chronic need tendencies may act as global boundary constraints for the effectiveness of leadership behavior in motivating followers, as will the ability of leaders to manage those competing needs.

In terms of practice, our results suggest followers may reciprocate for the sake of maintaining status in their social environment. In particular, leaders will benefit from creating supportive relationships with their narcissistic followers and will be most effective when offering public displays of support or status for the narcissist that may help them feel envied by others. Whereas the toxic interpersonal tendencies of narcissists make developing these relationships challenging for the leader, the performance benefits make it worthwhile. Even if managers are not seeking greater performance, a positive relationship may prevent deterioration of present performance. Organizations can facilitate positive exchanges by creating human resource systems that emphasize leader awareness of followers' needs, encourage developmental interactions, and reward the cultivation of high-quality leader-follower relationships.

Limitations and Alleviations

The results of this study should be considered in light of its limitations. First and foremost, this study tests hierometer theory as an explanation for differences in follower performance in response to perceived LMX quality, it does not test the applicability of sociometer theory. In line with our above discussion of the potential multiplexity of the LMX relationship, the authors strongly encourage parallel tests of hierometer and sociometer theory to tease apart behavioral responses from the fulfillment of status needs as compared to belongingness needs. Such tests may even open avenues for the application of new gauges of self-worth, such as those tracking the fulfillment of control needs or trust needs (i.e., Dweck, 2017), to our understanding of follower reciprocity to LMX. In such tests, however, we recommend the adoption of more robust criterion measures. Annual review scores are a generalizable and meaningful reflection of follower performance, but not a perfect one. Managers may manipulate appraisals for the sake of politics or relationship-building (Spence & Keeping, 2011). Despite the potential for bias, review scores are associated with the motivation to improve performance (Selvarajan & Cloninger, 2012), making them an important metric. We also improve upon past research in this area by measuring *change* in follower performance over time, rather than a time-lagged measure of it. (e.g., Bauer et al., 2006; Kamdar & Van Dyne, 2007). This more directly tests the causal assertions underlying LMX theory, though room for improvement most certainly exists.

Second, the Study 2 narcissism measure suffered from lower reliability than in Study 1. It was, however, still above 0.60 (Hair et al., 2006). Further, RMSEA fit in Study 2 measure was strong, and SRMR was near the 0.11 combinational recommendation with RMSEA (Hu & Bentler, 1999). We do, however, echo scholars who caution against overreliance on “rules of thumb” fit index cutoffs (e.g., West et al., 2012). Third, though only marginally significant, participants in Study 1 who completed less than 75% of the narcissism items reported lower LMX than those who did not. LMX quality may have been inflated in our Study 1 sample. Study 2, however, replicates Hypothesis 1 without this sampling issue, alleviating our concerns. Fourth, our tests of the three-way interaction in H3 and H4 were not latent and may have suffered more measurement error than tests of H1 and H2. Fifth, due to our all-male sample in Study 1, the impact of leader status on the LMX-performance link is generalizable only to the population of working males. Future research should re-test those constructs in a more representative sample.

Concluding Remarks

By integrating hierometer theory into the study of LMX, we reveal status fulfillment as an alternative, and potentially primary, trigger through which follower-perceived LMX drives follower performance. Success in an LMX relationship may be a function of how well the leader and follower facilitate one another’s vertical ascension rather than their inclusion or functional effectiveness, highlighting the instrumental and political core of LMX dynamics. There is still much to learn though about social comparison and status in LMX processes, and we hope our research offers scholars a compelling starting point.

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Declarations

Competing Interests The authors declare no competing interests.

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