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Paradoxical leadership: a meta-analytical review

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The past few decades have brought a rapid emergence of research related to paradoxical leadership behavior (PLB), yet extant research remains scattered, inconsistent and somewhat contradictory. This meta-analysis examines the association between PLB and follower/team outcomes, specifically exploring PLBs incremental validity over other established leadership styles, namely transactional, transformational and servant leadership, as well three competing mechanisms through which PLB elicits positive effects. Our findings demonstrate that PLB is consistently positively associated with follower in-role performance, organizational citizenship behavior, creativity, voice and innovation. However, while PLB showed consistent incremental effects over transactional leadership, its incremental validity in relation to transformational and servant leadership is less clear, with the exception of predicting innovation. Finally, we found evidence that PLB is related to follower behaviors via socio-cognitive (psychological safety), role-based (role clarity), and relational (LMX) mechanisms, with these effects varying as a function of the outcome. Based on our findings, we derive several important implications for PLB theory and key implications for future research.

KEYWORDS

leadership, paradoxical, meta-analysis, performance, psychological safety, role clarity, leader member exchange (LMX)

Introduction

While most established leadership styles focus on presumed positive (e.g., ethical) or negative (e.g., abusive) themes, such approaches are arguably overly simplistic (Fischer and Sitkin, 2023) and fail to capture the complex and competing demands of contemporary organizational leadership (Lewis and Smith, 2022). Conversely, paradoxical leader behavior (PLB) integrates behaviors that are seemingly contradictory, but interdependent, to satisfy organizational demands while concurrently meeting subordinates' needs (Zhang et al., 2015). Despite surging interest in PLB, several issues plague this literature. First, there is notable heterogeneity in the size and direction of correlations between PLB and follower outcomes. PLB research is also published across many disciplines, leaving overall understanding fragmented. Second, while PLB appears to be conceptually distinct, it positively correlates with other leadership constructs (e.g., Zhang et al., 2015), potentially exacerbating issues of construct proliferation (Hoch et al., 2018). Third, it remains unclear how PLB elicits follower outcomes, with multiple mediators and associated theoretical frameworks being used to explain its effects. This makes it difficult to establish which, if any, can best explain the impact of PLB.

We aim to address these issues by conducting the first meta-analysis of PLB, allowing for the correction of erroneous statistical artifacts and enabling a more accurate understanding of the associations between PLB and its correlates (Hunter and Schmidt, 2015). This not only affords a better understanding of the unique function and underlying mechanisms of PLB, but helps address pertinent issues of construct proliferation and conceptual redundancy in the leadership literature (Hoch et al., 2018).

Background

Building on paradox theory and Taoist yin-yang philosophy, Zhang et al. (2015) defined PLB as a dynamic leadership style involving a concurrent, purposeful, and functional mixture of behaviors which reflect both agentic and communal aspects of leadership, including (1) treating subordinates uniformly while allowing individualization; (2) combining self-centeredness with other-centeredness; (3) maintaining decision control while allowing autonomy; (4) enforcing work requirements while allowing flexibility; and (5) maintaining both distance and closeness.

Main effects

The basic premise of PLB is that leaders will confront ongoing, competing demands to meet both organizations' structural needs and followers' individual needs (Zhang et al., 2015). Most PLB studies employing survey designs measuring follower perceptions of PLB have found positive associations with outcomes including follower job attitudes (e.g., Zhang et al., 2015; Backhaus et al., 2022) and behaviors (e.g., Ren and Yang, 2021). However, there are also inconsistent (Ishaq et al., 2021; Qu et al., 2022) and conflicting findings, such as positive associations with follower job stress (Bashir, 2021) and mixed associations with follower creativity (e.g., Shao et al., 2019), suggesting that PLB may not always be desirable. Accordingly, our first objective is to estimate the true score correlations between PLB and its most commonly studied associations, namely follower attitudinal and behavioral outcomes. Specifically, in our analysis we focus on outcomes of PLB that have been explored multiple (i.e., 3 or more) times.

Incremental validity

While Zhang et al. (2015) provided some initial evidence for PLBs empirical distinctiveness in relation to transformational (Avolio and Bass, 1995) and paternalistic (Cheng et al., 2004) leadership, several studies since have typically reported large correlations between PLB and other leadership styles, as well as mixed evidence regarding PLBs incremental validity (e.g., Huertas-Valdivia et al., 2019; Liu and Pak, 2022). Thus, our second objective is to provide a robust assessment of PLBs incremental validity in relation to servant, transformational and transactional leadership.

Mediating pathways

Previous PLB studies have examined 50 unique mediators across 41 studies, leaving no clear consensus regarding which, if any, best explain the indirect effects of PLB. Therefore, our third objective is to build a more accurate understanding of PLBs indirect effects by testing competing mediators in the same model (Antonakis et al., 2010). Two major mediators were identified based on those studied most frequently, namely follower psychological safety and role clarity. Firstly, previous research has suggested that follower perceptions of PLB is positively associated with psychological safety (e.g., Yang et al., 2021), defined as a cognitive state reflecting the belief that the workplace affords a safe place to engage in interpersonal risk-taking (Edmondson, 1999). Scholars argue that many aspects of PLB will enhance the psychological safety of followers (e.g., Yang et al., 2021). For example, paradoxical leaders, while keeping a professional distance, simultaneously aim to develop high-quality and trustful relationships (Zhang et al., 2015). Further it is argued that a paradoxical leader treats their followers equally and make equitable and reasonable decisions (Zhang et al., 2015), thereby, enhancing psychological safety. Secondly, PLB has been associated with role clarity—the extent to which an individual is clear about the authority they have and others' expectations and requirements associated with his or her work role (Kahn et al., 1964). PLBs require the modeling of sense-giving and sense-making about organizational goals (e.g., Zhang et al., 2015), helping followers to translate multiple and potentially conflicting goals into their role and come to accept the inevitable paradoxes inherent in their work, thus, enhancing perceptions of role clarity (Backhaus et al., 2022). Finally, leader-member exchange (LMX) was incorporated as a third mediator. While not yet examined in primary studies, LMX is a key relational mediator in leadership meta-analyses (e.g., Lee et al., 2020), and is underpinned by social-exchange theory—a theory frequently used to explain PLB effects (e.g., He and Yun, 2022). Thus, we posit that the positive follower-centric behaviors that form PLB (e.g., maintaining both distance and closeness; treating subordinates uniformly, while allowing individualization) should manifest in positive LMX relationships, characterized by high-quality social exchanges between leaders and followers (Franken et al., 2020).

Overall, our model tests three competing socio-cognitive (psychological safety), role-based (role clarity), and relational (LMX) explanations for the indirect effects of PLB on important follower outcomes, bringing much needed clarity to PLBs major underlying mechanisms.

Methods

Search, inclusion and coding

The literature search, study inclusion criteria and coding process are detailed in Appendix S1. In total, 55 articles and 65 independent studies were identified for inclusion. Any correlate that was measured in three or more studies was

selected for meta-analysis.¹ A full list of the articles included in the meta-analysis can be found in [Appendix S2](#), along with a PRISMA flowchart to show our meta-analytic process ([Appendix S3](#)).

Procedure

The approach by [Hunter and Schmidt \(2015\)](#) was employed, which involved generating of a random effects model that accounted for sampling bias and measurement error. We report the 95% confidence intervals (95% CI) of the sample-weighted mean correlation and the 80% credibility intervals (80% CV) of the corrected population correlation. To complete incremental and mediational analysis, we used correlations from our own and other relevant meta-analyses, allowing us to obtain correlations between other leadership styles and outcomes, as well as meta-analytic correlations between our three mediators and follower outcomes (see [Appendix S4](#)). To examine incremental validity, we conducted a series of hierarchical regressions using structural equation modeling to determine the variance explained in the criterion variable by transformational, transactional, and servant leadership, and then assess the incremental variance explained by PLB. We conducted mediation analysis using [Viswesvaran and Ones' \(1995\)](#) meta-analytic structural equation modeling (MASEM) procedure. All path models were estimated using robust maximum likelihood estimation within Mplus (version 7). Because sample sizes varied across the various cells of the correlation matrices, we used the harmonic mean ([Viswesvaran and Ones, 1995](#)). For our test of incremental and indirect effects we focused on behavioral outcomes (e.g., job performance) to reduce the impact of common-method bias.

Results

Main effects

[Table 1](#) displays uncorrected and corrected correlations for the relationships of PLB with each correlate. Significant, positive associations were found between PLB and follower behaviors, including in-role performance ($\rho = 0.23$), OCB ($\rho = 0.26$), creativity ($\rho = 0.23$), innovation ($\rho = 0.44$), proactive behavior ($\rho = 0.25$), and voice ($\rho = 0.29$).² At the team-level a significant positive association was found between PLB and team innovation ($\rho = 0.34$). Significant and positive associations were also found between PLB and follower's job-related attitudes and perceptions, including work engagement ($\rho = 0.32$), and organizational commitment ($\rho = 0.37$).

1 We excluded demographic variables such as age and gender which were often included as control variables. Insufficient studies were found exploring theoretical antecedents of PLB.

2 We conducted separate analysis depending on whether the variable was self- or leader-rated and depending on whether a time-lag was included between the measurement of PLB and the correlate. There was no evidence of a significant difference in the magnitude of the relationship based on either of these factors (as indicated by overlapping 95% CIs).

We also explored the association between PLB and followers' perceptions of their leader, including LMX ($\rho = 0.68$), perceived leader effectiveness ($\rho = 0.55$), transformational ($\rho = 0.74$), transactional ($\rho = 0.58$), and servant leadership ($\rho = 0.73$).

Incremental validity

[Table 2](#) reports findings on incremental predictive validity. PLB exhibited strong incremental predictive validity over transactional leadership on all outcomes—with a percentage change in R^2 ranging from 33% (in-role performance) to 75% (innovation). However, relative to transformational leadership, PLB explained no additional variance in follower creativity and OCB and relatively little variance in in-role performance (14% change in R^2) and voice (10% change in R^2). However, PLB did account for innovation to a much greater extent (60% change in R^2). A similar pattern was observed in relation to servant leadership—PLB explained no additional variance in OCB or creativity and only small incremental effects for in-role performance (14% change in R^2). Again, however, larger incremental effects were found for innovation (26% change in R^2) and also voice (33% change in R^2).

Mediating pathways

Significant indirect effects were found via all three mediators as a function of the outcome variable (see [Figure 1](#)).

Significant positive indirect effects were found between PLB and in-role performance and OCB via both psychological safety and LMX. Both LMX and role clarity demonstrated significant positive indirect effects on creativity. For voice there was a significant positive indirect effect via role clarity, but this was only partial mediation due to the significant direct effect between PLB and voice. Finally, both psychological safety and role clarity demonstrated significant positive indirect effects on innovation.

Discussion

This study provides, to our knowledge, the first meta-analytic review of PLB. We sought to bring clarity to the literature by evaluating the true score correlations between PLB and its correlates, examining the incremental variance explained by PLB after controlling for other leadership styles, and investigating competing mediators of PLB. Below, we discuss the theoretical implications and future research avenues.

Firstly, results revealed largely consistent positive associations between PLB and a range of desirable follower outcomes bringing much-needed clarity on PLBs nomological network. Notably, effect sizes remained, regardless source of rater (i.e., leader or follower). Nevertheless, except for innovation, the strength of these effect sizes was modest, suggesting that claims regarding the direct utility of PLB should not be over-stated. The large correlations between PLB and transformational and servant leadership also point to lack of empirical distinctiveness, construct redundancy ([Banks et al., 2018](#)) and endogeneity bias ([Antonakis et al., 2010](#)). While it is possible that correlations are likely inflated due to the use of cross-sectional

TABLE 1 Meta-analytic results for the relationship between paradoxical leadership behavior and outcomes at the individual and team level.

Variable	k	N	r	95% CI		ρ	SD ρ	80% CV	
				Lower	Upper			Lower	Upper
Follower job-related behavior									
In-role performance	12	6,188	0.20	0.12	0.29	0.23	0.16	0.02	0.44
Leader-rated	8	3,831	0.23	0.11	0.36	0.26	0.20	0.01	0.51
Self-rated	4	2,357	0.16	0.12	0.20	0.18	0.00	0.18	0.18
Time-lagged	10	4,289	0.15	0.11	0.19	0.17	0.05	0.10	0.24
Cross-sectional	2	1,899	0.32	0.03	0.62	0.37	0.22	0.09	0.66
OCB	10	3,792	0.22	0.16	0.28	0.26	0.09	0.14	0.38
Leader-rated	4	1,888	0.20	0.17	0.23	0.24	0.00	0.24	0.24
Self-rated	6	1,904	0.25	0.14	0.35	0.28	0.12	0.12	0.44
Time-lagged	9	3,481	0.21	0.15	0.26	0.24	0.07	0.14	0.33
Creativity	9	2,559	0.21	0.13	0.90	0.23	0.14	0.06	0.41
Leader-rated	6	2,028	0.18	0.08	0.27	0.20	0.12	0.04	0.35
Self-rated	3	531	0.35	0.25	0.45	0.39	0.08	0.28	0.50
Time-lagged	6	1,887	0.19	0.09	0.28	0.21	0.12	0.05	0.36
Cross-sectional	3	672	0.28	0.13	0.44	0.32	0.14	0.13	0.50
Innovation	7	2,384	0.40	0.22	0.57	0.44	0.26	0.11	0.77
Leader-rated	2	1,123	0.41	0.03	0.79	0.46	0.31	0.06	0.86
Self-rated	5	1,261	0.38	0.21	0.56	0.42	0.20	0.17	0.68
Time-lagged	3	904	0.35	0.30	0.40	0.38	0.00	0.38	0.38
Cross-sectional	4	1,480	0.42	0.13	0.71	0.47	0.32	0.06	0.89
Proactive behavior	9	3,527	0.23	0.16	0.30	0.25	0.12	0.10	0.40
Leader-rated	6	2,460	0.24	0.14	0.33	0.26	0.14	0.09	0.44
Self-rated	3	1,067	0.20	0.15	0.26	0.22	0.02	0.20	0.25
Time-lagged	7	2,613	0.21	0.15	0.27	0.23	0.08	0.13	0.34
Cross-sectional	2	914	0.27	0.07	0.48	0.29	0.17	0.08	0.51
Voice*	5	1,586	0.26	0.12	0.40	0.29	0.16	0.09	0.50
Leader-rated	2	423	0.19	0.16	0.23	0.21	0.00	0.21	0.21
Self-rated	3	1,163	0.29	0.08	0.49	0.32	0.18	0.09	0.56
Team-level behavior									
Team-level innovation**	4	412	0.30	0.27	0.33	0.34	0.00	0.34	0.34
Follower job-related attitudes and perceptions									
Work engagement	6	2,824	0.30	0.24	0.35	0.32	0.06	0.25	0.40
Time-lagged	3	1,912	0.26	0.23	0.29	0.28	0.00	0.29	0.29
Cross-sectional	3	912	0.38	0.31	0.45	0.40	0.04	0.35	0.46
Organizational commitment	5	1,750	0.34	0.21	0.46	0.37	0.14	0.18	0.55
Time-lagged	4	1,483	0.32	0.18	0.46	0.35	0.15	0.16	0.53
Turnover intentions	6	2,035	-0.28	-0.35	-0.21	-0.31	0.06	-0.38	-0.23
Time-lagged	4	1,483	-0.25	-0.33	-0.18	-0.28	0.05	-0.35	-0.21
Cross-sectional	2	552	-0.35	-0.42	-0.28	-0.37	0.00	-0.37	-0.37
Psychological safety*	5	1,046	0.33	0.15	0.52	0.37	0.26	0.04	0.71
Creative self-efficacy	3	837	0.27	0.10	0.45	0.31	0.15	0.12	0.50

(Continued)

TABLE 1 (Continued)

Variable	k	N	r	95% CI		ρ	SD ρ	80% CV	
				Lower	Upper			Lower	Upper
Cross-sectional	2	520	0.18	0.01	0.35	0.21	0.11	0.06	0.35
Role clarity**	4	2,441	0.24	0.01	0.47	0.27	0.27	-0.08	0.61
Follower leader-related perceptions									
Perceived leader effectiveness	7	1,997	0.47	0.31	0.63	0.55	0.21	0.29	0.82
Time-lagged	3	1,237	0.34	0.22	0.47	0.42	0.09	0.30	0.54
Cross-sectional	4	760	0.68	0.50	0.85	0.75	0.17	0.53	0.96
LMX*	6	2,795	0.59	0.49	0.68	0.68	0.11	0.54	0.82
Transformational leadership*	9	3,852	0.67	0.61	0.73	0.74	0.09	0.62	0.85
Transactional leadership*	5	2,322	0.49	0.48	0.50	0.58	0.00	0.58	0.58
Servant leadership*	3	829	0.66	0.61	0.71	0.73	0.05	0.67	0.79

Results are corrected for criterion and predictor unreliability.

K, number of correlations; N, number of respondents; r, sample weighted mean correlation; ρ , corrected population correlation; SD ρ , standard deviation of the corrected population correlation; 90% CI = 95% confidence interval around the sample weighted mean correlation; 80% CV = 80% credibility interval around the corrected population correlation. OCB, organizational citizenship behavior; LMX, leader member exchange.

*Voice, psychological safety, LMX, transformational, transactional and servant leadership were measured at the same time as PLB in all studies.

**Team innovation and Role Clarity were measured at a later time than PLB in all studies.

TABLE 2 Incremental predictive validity.

	In-role performance	OCB	Creativity	Innovation	Voice
Step 1: TFL	0.25 (0.02)* R ² = 0.06	0.34 (0.02)* R ² = 0.12	0.31 (0.02)* R ² = 0.10	0.29 (0.02)* R ² = 0.08	0.30 (0.02)* R ² = 0.09
Step 2: TFL	0.18 (0.03)*	0.33 (0.03)*	0.31 (0.03)*	-0.08 (0.03)*	0.19 (0.03)*
PLB	0.10 (0.03)* R ² = 0.07; ^R ² = 14%	0.02 (0.03) R ² = 0.12; ^R ² = 0%	0.00 (0.03) R ² = 0.10; ^R ² = 0%	0.50 (0.03)* R ² = 0.20; ^R ² = 60%	0.15 (0.03)* R ² = 0.10; ^R ² = 10%
Step 1: TSL	0.19 (0.02)* R ² = 0.04	0.20 (0.02) R ² = 0.04	0.14 (0.02)* R ² = 0.02	0.23 (0.02)* R ² = 0.05	N/A
Step 2: TSL	0.09 (0.03)*	0.07 (0.03)*	0.01 (0.03)	-0.04 (0.03)	N/A
PLB	0.18 (0.03)* R ² = 0.06; ^R ² = 33%	0.22 (0.03)* R ² = 0.07; ^R ² = 43%	0.22 (0.03)* R ² = 0.05; ^R ² = 60%	0.46 (0.03)* R ² = 0.20; ^R ² = 75%	N/A
Step 1: SL	0.25 (0.02)* R ² = 0.06	0.39 (0.02)* R ² = 0.15	0.38 (0.02)* R ² = 0.14	0.34 (0.02)* R ² = 0.14	0.25 (0.02)* R ² = 0.06
Step 2: SL	0.18 (0.03)*	0.43 (0.03)*	0.45 (0.03)*	0.04 (0.03)	0.08 (0.03)*
PLB	0.10 (0.03) R ² = 0.07; ^R ² = 14%	-0.05 (0.03) R ² = 0.15; ^R ² = 0%	-0.10 (0.03)* R ² = 0.15; ^R ² = 7%	0.41 (0.03)* R ² = 0.19; ^R ² = 26%	0.23 (0.03)* R ² = 0.09; ^R ² = 33%

TFL, transformational leadership; TSL, transactional leadership; SL, servant leadership; PLB, paradoxical leadership; OCB, organizational citizenship behavior.

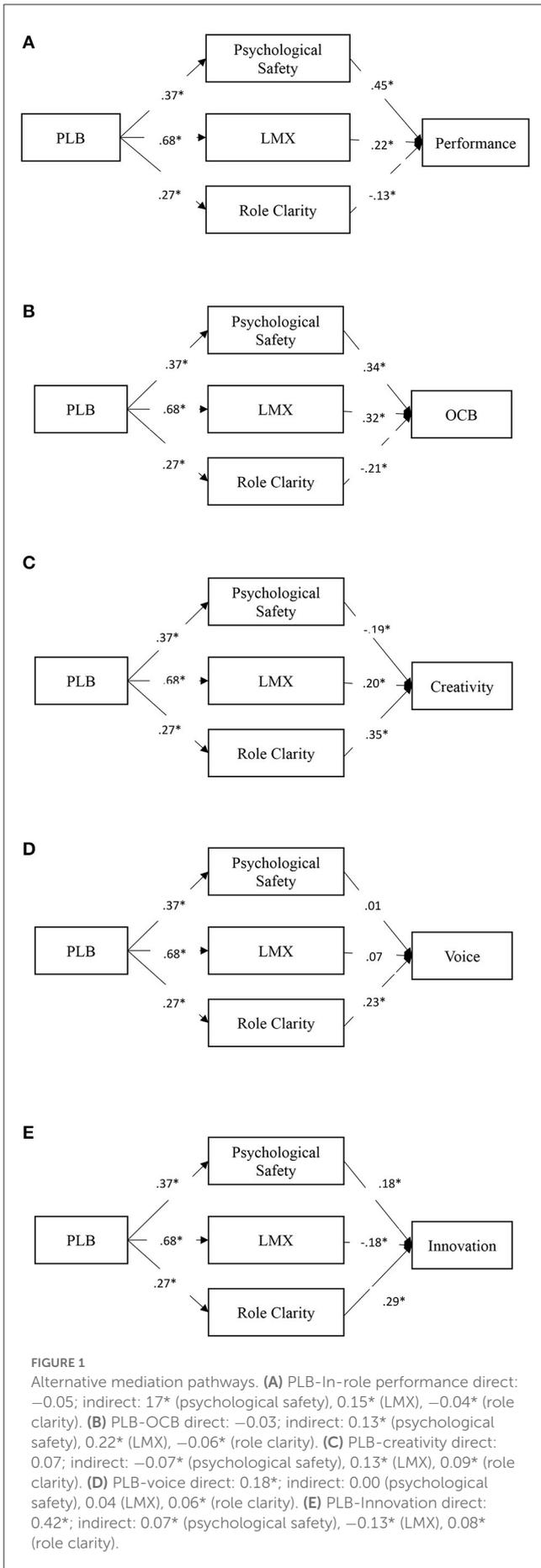
*p < 0.05.

study designs and follower ratings of PLB, there appears a need to refine both the conceptualization and measurement of PLB.

Specifically, while its unique focus on seemingly contradictory simultaneous leader behaviors arguably sets PLB apart from other presumed “good” (e.g., servant) and “bad” (e.g., destructive) leadership styles, the PLB construct prompts concerns regarding valence-based conflation (Fischer and Sitkin, 2023), whereby the descriptive content of PLBs is potentially conflated with the evaluation of underlying intentions, quality of execution, and/or realized effects. For instance, the extent to which followers infer leader displays of “combining self-centeredness with other-centeredness” is somewhat contingent on the leader’s competency in doing so effectively (behavior-execution conflation), as well as follower attributions of their leader’s underlying intentions to

perform such behaviors (behavior-intention conflation). Future PLB research should consider employing experimental methods to help reduce endogeneity bias (e.g., Lonati et al., 2018) and threats to causal inference (Bastardo et al., 2023). For instance, PLBs could be manipulated using recall or vignette-type designs, or in experimental settings in which confederates are trained to display PLBs in realistic ecologically valid settings. We found no such experimental studies in the current review.

While PLB demonstrated consistent incremental validity over transactional leadership, we found mixed support for its incremental validity over transformational and servant leadership with evidence largely suggesting that PLB is more effective for promoting follower innovation and (in the case of servant leadership) voice, rather than in-role performance, OCB and



creativity. Interesting, when Zhang et al. (2015) first introduced PLB, they explored its incremental validity over transformational, paternalistic, humble, and transactional leadership, and concluded that “PLB explained relatively small, additional variance over the alternate leadership constructs” (p. 561). Our results build on this concern of a lack of incremental validity of PLB. This is something that needs to be explored further, alongside our findings that PLB may be particularly adept for influencing innovation and voice. Finally, in seeking clarification on the major underlying mechanisms through which PLB transmits its effects, we tested multiple mediators concurrently, thus, enhancing understanding of the relative effects of different pathways. We found that all three pathways—cognitive (psychological safety), motivational (role clarity), and relational (LMX)—demonstrated significant effects but varied according to the outcome, with no pathway providing a dominant explanation. While role clarity and psychological safety both accounted for indirect effects on voice an innovation, LMX, appears to be a key mediator for explaining performance, OCB and creativity—despite not being directly examined in primary studies.

With regards to limitations, our analysis was constrained by the availability of primary studies. For example, we could not examine PLBs relative predictive validity in relation to other leadership styles such as ethical or authentic leadership. Our search also highlighted the notably few studies that have examined the antecedents of PLB, suggesting that future research is needed on why and when PLBs emerge. Examining sub-dimension effects of specific PLBs could also add more nuance to current understanding (Kim, 2021). Given that recent research has found PLB to be associated with employee subjective ambivalence (Zhang et al., 2022), combined with our initial evidence on the utility of LMX quality as a key mediating mechanism, examining PLBs association with LMX ambivalence (e.g., Lee et al., 2019) could also be a fruitful line of enquiry. Finally, given that leader behavioral inconsistency has been shown to be detrimental to follower behaviors (Bharanitharan et al., 2021), combined with the systematically contradictory nature of PLBs, examining PLB consistency, longitudinally, would enhance understanding of how paradoxical leadership is perceived and attributed by followers.

Author contributions

AL analyzed the data for the meta-analysis. All authors contributed to the search, coding, and writing up of the review. All authors contributed to the article and approved the submitted version.

Conflict of interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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Supplementary material

The Supplementary Material for this article can be found online at: <https://www.frontiersin.org/articles/10.3389/forgp.2023.1229543/full#supplementary-material>