

An Inconvenient Truth: A Comprehensive Examination of the Added Value (or Lack Thereof) of Leadership Measures

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ABSTRACT The leadership literature encompasses a bewildering array of leadership styles, with most studies focussing on the nature and consequences of a single leadership style in isolation. This isolationist approach has led researchers to mostly ignore the similarities between supposedly different leadership styles, and few studies have examined these overlaps empirically. To understand the extent of this problem, we use bifactor exploratory structural equation modelling to examine whether 12 dominant leadership measures capture shared variance and whether any variance unique to a particular style is related to theoretically and empirically established covariates. Moreover, we explore what the shared variance of these leadership measures may represent. Across seven samples, five countries, multiple organizational contexts, and 4000 respondents, the 12 leadership measures shared significant amounts of variance and did not systematically capture unique leadership-related variance. Further analyses indicated this shared variance mainly represented the affective quality of the leader–follower relationship. The results reveal an inconvenient truth for leadership researchers who wish to differentiate styles, as the styles have much more in common than differences. Contrasting with previous recommendations to refine styles, we argue that a taxonomic leadership behaviour categories approach to leadership research is the most parsimonious way forward.

Keywords: bifactor exploratory structural equation modelling (B-ESEM), construct redundancy, leadership, proliferation

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INTRODUCTION

Leadership has captured the attention of researchers, practitioners, educators, and the popular press at a level unparalleled by most other management theories. Research articles on new leadership styles, leadership development courses, and media attention to the conquests and failures of notable leaders appear daily. This research, drawn from a wide range of disciplines encompassing management, psychology, biology, sociology, and economics, has resulted in an influx of information showing that leadership matters to individuals, teams, and organizations (Meuser et al., 2016). In the name of progress, many have turned a blind eye to possible nomological overlap each time a new leadership style is introduced or when very similar predictive models are tested with slightly different leadership measures. This permissive approach to validity has resulted in the emergence of a myriad of leadership styles in the last two decades alone (Dinh et al., 2014), raising concerns about redundancy among these leadership styles. This continuous incrementalism is not exclusive to leadership science but seems more typical in leadership research than in other areas of management research (Banks et al., 2018).

Importantly, despite the apparent conceptual and empirical overlap between these leadership styles, comprehensive investigations of the unique added value offered by each style and measure are conspicuously absent. This failure to assess proliferation is consequential given that our goal as a field is to advance leadership science and solve practical problems, not to reinvent the wheel by creating new leadership styles and measures with little to no reference to existing ones. This proliferation has resulted in an inefficient, disjointed, and confusing literature (Anderson and Sun, 2024; Fischer and Sitkin, 2023). Moreover, this increasingly narrow research focus on micro-theories of leadership and debating their relative merits has diverted attention from the critical issue of determining how best to influence employees' behaviours in a way that is maximally beneficial for employees, organizations, and facing the challenges posed by the increasingly complex world of work.

Confounding this issue is the measurement of the leadership styles themselves. Questionnaires, where study participants are asked to rate their leaders' leadership behaviours, are the most common way to study leadership styles. Questionnaire studies generally examine leadership as an independent variable impacting a range of dependent variables through various mediators and moderators (Banks, 2023; Gardner et al., 2020). So ubiquitous are questionnaires in leadership research that they are 'very seldom called into question' (Fischer et al., 2020, p. 1) based on the expectation that they have been rigorously validated (Lambert and Newman, 2022) and, therefore, accurately capture their intended leadership style. However, a criticism laid at leadership measurement is that rather than measuring the leadership style as intended, questionnaire ratings are convoluted, capturing a range of unmodelled variables, including demand effects, performance-cue effect, social desirability, hindsight bias, implicit biases, and mood, alongside a mixture of follower perceptions and (potentially) leader behaviours (Banks, 2023; Banks et al., 2023; Fischer et al., 2017, 2020). Further, using questionnaires to capture leadership styles as an independent variable attracts endogeneity problems within the model being specified (Bastardo et al., 2023; Wulff et al., 2023). This has led

some to question whether these leadership measures truly capture anything more than an undifferentiated measure of ‘good’ leadership (Fischer and Sitkin, 2023), resulting in an inability to examine, via questionnaires, if leadership styles are truly distinct.

Jointly considering these two issues fuelling proliferation (i.e., conceptualization of styles and questionnaire measurement), the discipline lacks consensus on how leadership research should advance. On the one hand, many leadership scholars acknowledge that overlap between styles is an issue in the field and use a mixture of conceptual and meta-analytical work to justify the distinctive nature of those leadership styles. We see this argument in a variety of high-impact journals (Anderson and Sun, 2024; Hoch et al., 2018; Lin et al., 2018) and repeatedly taught in major leadership textbooks (Antonakis and Day, 2017; Northouse, 2021). This perpetuates the assumption that these styles are unique ‘enough’ and that their uniqueness can be captured through existing measures. On the other hand, there has been a significant push to scrutinize leadership research, including questioning the theoretical distinctness of leadership styles (Alvesson, 2020), evaluating whether our measures accurately capture these styles (Fischer et al., 2020), considering whether we should focus on actual leader behaviours rather than subordinates perceptions of leadership styles (Banks et al., 2023), and acknowledging that many of our research designs are flawed due to a host of methodological concerns, not limited to but including, common method variance, endogeneity, and omitted variable biases (Antonakis et al., 2010; Bastardo et al., 2023; Sajons, 2020; Wulff et al., 2023).

The purpose of this investigation was to make a concerted effort at creating consensus among these camps and leadership style researchers more broadly by examining the extent to which leadership styles, as measured through follower-report measures, can capture unique information while further considering the nature of the commonality captured across measures. To do so, we examine (a) the extent of the overlap (modelled by a general factor) between 12 commonly used leadership measures^[1]; (b) whether any leadership measure is uniquely related to covariates when modelled alongside other leadership variables and the general factor; and (c) whether there is overlap between leadership measures, whether this overlap is capturing taxonomic leadership behaviour categories, follower relationship perceptions, or follower affect. If the leadership styles captured by questionnaires are a useful tool for capturing, measuring, and distinguishing leadership styles, they should each be able to capture unique variance above and beyond the general factor. To contrast the added value of each specific leadership measure in relation to their shared variance captured by this general factor, we rely on bifactor exploratory structural equation modelling (B-ESEM; Howard et al., 2018; Morin et al., 2016), across seven samples, including over 4000 participants from five countries (USA, India, Germany, Brazil, and China) and multiple industries (banking, government and not-for-profit, and hospitality), while measuring 12 leadership styles and 49 leader-related covariates.

In comparing dominant leadership styles with a general factor, we offer three contributions to the problem of proliferation and redundancy in leadership research. First, we test whether the redundancy and proliferation problem is solely a conceptual or a measurement issue, or a combination of both. More precisely, we assess the extent to which our measures capture what they intend to measure. Second, we examine the role that

leader affect plays in the leadership process and the extent to which it needs to be modelled in leadership research. Doing so becomes increasingly more important as research moves forward to measure more objective leader behaviours (Banks et al., 2023), rather than perceptions, which have thus far been the hallmark of leadership research (Fischer and Sitkin, 2023). Measuring affect allows researchers to model factors that are likely to influence how the leader's behaviours are perceived, evaluated, and acted upon by followers (Banks et al., 2023). Third, to achieve consensus in the literature, we explore taxonomic leadership behaviour categories with a general model for mapping the leadership process. Taxonomic leadership behaviour categories capture common leader behaviours (akin to personality), which can be configured in different combinations to reflect what leaders actually do. This approach acknowledges, respects, and makes space for leadership styles research and theoretical development (Anderson and Sun, 2024; Lemoine et al., 2019), is able to integrate recent advances in leadership methodologies (Wulff et al., 2023), distinguishes between perceptions and behaviours (Banks et al., 2023), integrates existing research on taxonomies (Yukl, 2012), and can be easily understood and implemented.

LEADERSHIP THEORY

Current Theoretical Understanding of Leadership

The field of leadership science is currently dominated by charismatic and transformational styles of leadership (Dinh et al., 2014; Gardner et al., 2020), anchored in the theoretical perspective originally espoused by House (1977), Burns (1978), and Bass (1985). However, these leadership styles have been criticized for their conceptualization, operationalization (Antonakis et al., 2016; Van Knippenberg and Sitkin, 2013), and their perceived lack of moral frameworks (Graham, 1991; Lin et al., 2018). In response to the latter, a stream of value-based, morally laden representations of leadership has emerged, each associated with its own measure, such as ethical (Brown et al., 2005), authentic (Avolio and Gardner, 2005), and servant (Liden et al., 2008) leadership. Given its historical centrality, transformational leadership has seemingly become the benchmark against which the added value of new leadership styles is assessed (e.g., Liden et al., 2008). However, there is a flaw in this approach that extends beyond the shortcomings of leadership measurement (Fischer and Sitkin, 2023; Van Knippenberg and Sitkin, 2013). As new leadership styles and measures are developed and compared against transformational leadership, the conceptual space surrounding transformational leadership has become cluttered with numerous styles. Although each of these styles, on its own, claims to be conceptually and empirically different from transformational leadership, they may not be sufficiently distinct from one another (Antonakis, 2017). As each new leadership style is introduced, the field has not redefined existing constructs in the light of the new style (Banks, 2023), rather adding on a host of new styles to an ever-expanding literature (Dinh et al., 2014). As a result, the field currently contains many highly overlapping, and often overly positive, constructs describing leadership (Alvesson, 2020; Alvesson

and Einola, 2019). Instances of conceptual overlap have started to draw criticism (Banks et al., 2018; Hoch et al., 2018), spurred debates on theoretical similarities and differences (Anderson and Sun, 2017; Lemoine et al., 2019), and have caused scholars to question which theories are the most appropriate for different outcomes.

Meta-Analytical Evidence of Construct Redundancy

One of the first meta-analytic attempts to test the relative validity of leadership styles was conducted by DeRue et al. (2011), who empirically compared multiple leadership styles and demonstrated that task- and change-oriented leadership explained more variance in group performance. In contrast, relation-oriented and passive leadership explained more variance in follower satisfaction with the leader. Their results warranted the conclusion that when analysed together, ‘certain leader traits and behaviours lose much of their predictive validity’ (p. 38).

Several more recent meta-analyses have extended this line of enquiry. For example, a meta-analysis by Banks et al. (2016) indicates that authentic leadership explains more variance in organizational citizenship behaviours (OCB), group performance, and organizational performance than transformational leadership. Moreover, Banks et al.’s (2016) results showed very little empirical difference between these two styles based on a true-score correlation of 0.72 ($k=23$, $N=5414$). Whereas this meta-analysis helped us to understand the unique impact of authentic leadership, its sole focus on two leadership styles severely limits the generalizability of its conclusions. Subsequently, Banks et al. (2018) compiled 57 meta-analytic studies to examine possible construct redundancies between measures of transformational, authentic, ethical, and servant leadership, and whether these measures shared unique associations with follower outcomes above each other and six additional task-oriented leadership behaviours. They found that task-oriented leadership behaviours were not more strongly correlated with follower outcomes than measures of the four leadership styles. Transformational leadership was more strongly correlated with job performance, whereas authentic, servant, and ethical leadership performed better in relation to OCB, unit performance, and turnover intentions, respectively. However, transformational was highly correlated with authentic ($r=0.72$) and ethical (0.70) leadership, and moderately correlated with servant leadership (0.52). Lastly, measures of the morally laden leadership styles were all highly correlated (0.60 to 0.81), leading Banks et al. (2018) to ultimately question their distinctness.

Using a similar meta-analytic approach, Hoch et al. (2018) investigated the incremental variance attributed to measures of authentic, ethical, and servant leadership relative to measures of transformational leadership. The correlations between measures of these three styles of leadership and transformational leadership were again high ($r=0.75$, 0.70, 0.52). Thus, rather than examining the four styles together, Hoch et al. (2018) only compared each style against transformational leadership, which they argued was connected to the ‘dominant theory’ of leadership. Their findings indicated that, individually, each style demonstrated incremental variance over transformational leadership. These findings were subsequently confirmed by Lee et al. (2020). Hoch and colleagues stressed that servant leadership explained on average 12 per cent more variance than transformational leadership,

compared to 5.2 per cent and 6 per cent for authentic and ethical leadership, respectively. However, without comparing these styles with one another, Hoch et al. (2018) were unable to make conclusive statements about the discriminant validity of servant, authentic, or ethical leadership. Rather, they reinforced the same logic as previous studies, indicating that if these styles differed from transformational leadership, they were unique and valid, thus failing to adequately address the issue of construct proliferation.

These previous meta-analyses have focussed exclusively on incremental variance to distinguish leadership styles (e.g., comparing them against each other) in relation to their associations with specific outcomes. For the field to move forward meaningfully, we suggest a different approach that emphasizes commonality between styles, assessing what the styles empirically share and modelling these commonalities alongside what is unique to each style. While both approaches can identify proliferation and redundancy, we argue that focussing on what leadership measures have in common is essential to solving these issues through further integrative efforts. If such a focus on identifying communalities between leadership approaches is not pursued, the field could continue the never-ending circle of searching for the incremental variance of leadership style x over leadership styles y and z , in relation to a specific outcome, in a specific context, and using a specific measure or research design.

The Bifactor Exploratory Structural Equation Modelling (B-ESEM) Approach

Our approach differs from past attempts to understand construct redundancy in two ways. First, we do not compare leadership styles against one another in isolation but rather compare 12 measures concurrently, requiring each measure to demonstrate something unique beyond what they share with one another. Second, by adopting the B-ESEM approach, we offer a more robust way of identifying which leadership measures capture unique variance. We explain this advantage below.

Whereas confirmatory factor analyses (CFA) describe the variance shared among a set of items through the estimation of distinct correlated latent factors, bifactor modelling incorporates an additional general factor defined by all items. In a bifactor model, each item is simultaneously used to define the general factor (a technical label used in bifactor modelling simply reflecting the variance shared among all items), as well as one subscale specific factor (representing the variance shared uniquely among items reflecting this specific leadership style beyond that already explained by the general factor). Both types of models are depicted in Figure 1. In a bifactor model, all factors are specified to be orthogonal, resulting in a partitioning of the variance between one general factor and non-redundant, independent estimates of the variance uniquely associated with each specific factor (Morin et al., 2020). While higher order models are sometimes used for similar purposes, bifactor modelling relies on less rigid and more realistic assumptions (Gignac, 2008, 2016) and tends to better capture the general versus specific nature of the constructs (Jennrich and Bentler, 2011).

The combination of bifactor and ESEM has made it possible to model psychometric multidimensionality more accurately than previous methods (Marsh et al., 2014; Morin et al., 2016). The ESEM component allows for the free estimation of all cross-loadings between items and non-target factors, which has been repeatedly shown in statistical

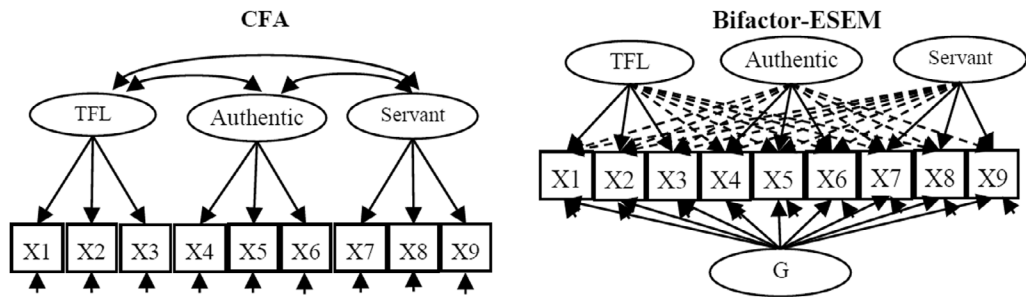


Figure 1. Graphical representation of traditional CFA and currently applied bifactor models

Note: Similar or identical items in CFA are noticed through high inter-factor correlations. Similar or identical items in the B-ESEM model are captured by the general factor. CFA, Confirmatory factor analyses; ESEM, Exploratory Structural Equation Modelling; G, General factor in a bifactor model; X1-X9, Items. Dashed arrows represent non-target cross loadings, full unidirectional arrows represent main (target) factor loading.

research to result in a more accurate picture of the underlying factor structure via a more accurate variable inter-correlations (for a review, see Asparouhov et al., 2015) and estimates of relations between factors and outcomes (Mai et al., 2018). When used in combination with target rotation procedures, ESEM and B-ESEM models can be estimated in a fully confirmatory manner where all cross-loadings are targeted to be as close to zero as possible (Morin et al., 2020).

The B-ESEM approach thus has critical advantages over previous tests of discriminant validity. Indeed, B-ESEM can consider and contrast a wide range of leadership measures simultaneously while mitigating multicollinearity concerns by estimating general and specific factors that are fully independent (i.e., uncorrelated) from one another (Morin et al., 2020). Therefore, this method is more robust and goes beyond a simplistic comparison of pairs of leadership measures. Similarly, B-ESEM helps reduce more subtle researcher biases, such as limiting the reporting of findings to those that support the conceptual and empirical distinctness of their chosen leadership measure (Antonakis, 2017). This likely results in selective decision-making concerning the covariates (i.e., predictors, mediators, and outcomes) reported in a study, in addition to generating further analytical issues when the resulting leadership measures are found to be highly correlated with one another (e.g., multicollinearity, which is often overlooked). The B-ESEM approach removes these assumptions and potential biases, giving all leadership measures an equal opportunity to display their incremental validity.

The General Factor of Shared Variance in Leadership Measures

In this study, we rely on B-ESEM to test the discriminant and criterion-related validity of 12 leadership measures designed to assess conceptually distinct leadership styles. This approach allows us to identify and model the variance shared across all items included in these measures as part of a general factor, as well as to verify whether any specificity remains associated with each measure (specific factors) once their commonality is considered. By using both components, the B-ESEM approach makes it possible to directly test whether the specific factors are uniquely associated with theoretically and empirically

relevant covariates. Based on reports of considerable overlap between measures (Banks et al., 2018; Rowold et al., 2015), we expect to find a well-defined general factor capturing a substantial degree of shared variance.

Research Question 1 (RQ1): To what extent do leadership measures share variance?

Second, although past meta-analytical studies have argued that there is an empirical distinction between leadership styles, as measured by questionnaires, when compared in a pairwise manner relative to a specific standard (Banks et al., 2018; Hoch et al., 2018), we leave as an open research question whether the specific factors capture something unique and share unique associations with the covariates, once the general factor is taken into account, in the context of our broadband consideration of 12 leadership styles. Evidence of discriminant validity would come from the observation of reasonably well-defined specific factors (i.e., moderate-to-high factor loadings). Evidence of criterion-related validity would come from the observation that the specific factors share significant associations with the covariates beyond the general factor. For example, servant leadership could share unique variance with OCB beyond the general factor in a way that is consistent with its theoretical nature (Eva et al., 2019).

Research Question 2 (RQ2): If leadership measures capture unique variance, is this variance associated with theoretically and empirically established covariates?

The identification of a strong general factor underlying all 12 leadership measures, despite its interest from the perspective of providing a direct operationalization of construct overlap, has limited practical and theoretical utility without ascribing meaning to this general factor. In the broadest sense, the general factor represents leadership-relevant variance shared among all styles, being defined by a wide array of positive leadership qualities and behaviours (Alvesson and Einola, 2019). This could describe measurement-related artefacts such as common method variance, or it could be emblematic of a deeper conceptual confound among leadership styles. Specifically, based on previous taxonomies of leadership behaviours (Fleishman, 1953; Yukl et al., 2002), this factor should involve behaviours focussed on task completion (common across instrumental and transactional leadership), behaviours seeking to foster positive relationships with followers (e.g., servant and paternalistic), and behaviours seeking to communicate a strong vision of the future (e.g., entrepreneurial and charismatic). Some leadership styles emphasize these elements more strongly than others. However, an examination of the items included in these measures reveals that many of them, as well as the theories used to guide their creation, implicitly or explicitly encompass many of these three overlapping components (Alvesson, 2020; Alvesson and Einola, 2019; Yukl et al., 2002).

A second perspective, drawn from the implicit leadership literature (Lord et al., 2020), suggests that this general factor may rather reflect followers' general impressions of their leaders. This classification can be underpinned by their perceptions of how likable or prototypical their leader is (Shondrick et al., 2010). To verify the relevance of this second perspective, we test whether the observed commonality of leadership measures could represent the quality of the leader–follower relationship (Study 3; i.e., Scandura and

Graen, 1984), and more specifically the affective quality of this relationship (Study 4; i.e., leader affect; Martinko et al., 2018), as affect is one of the most theoretically and empirically important elements of the leader-follower relationship (Liden and Maslyn, 1998; Liden et al., 1993).

Research Question 3 (RQ3): What does the general factor represent?

The Present Investigation

The present investigation relies on a series of four studies, encompassing seven samples, to comprehensively address our research questions while gaining insights that generalize across cultures and contexts and in relation to a variety of different covariates. In Study 1, we rely on a sample of US employees to examine our Research Questions 1 and 2. In Study 2, we seek to replicate the conclusions from Study 1 across three other cultural contexts (India, Germany, and Brazil) while examining whether the leadership general factor could represent taxonomic leadership behaviour categories (task-, relations-, and change-oriented; Yukl et al., 2002). In Study 3, we replicate the findings from Studies 1 and 2 across different US industries (banking, government/not-for-profit, and hospitality) while examining whether the general factor could represent the quality of the leader-follower relationship using a measure of leader-member exchange (LMX; Scandura and Graen, 1984). In Study 4, we use a multi-level, multi-source Chinese data set to replicate the findings from Studies 1 to 3, while examining whether the general factor could represent followers' affect towards their leaders (Martinko et al., 2018).

METHODS

Research Design

First, we used a follower-respondent design to measure the various leadership styles. Gardner et al.'s (2020) review of leadership studies from the past decade revealed that over 40 per cent of those relied on a follower-respondent design (versus 13 per cent using multi-source data). Likewise, Banks et al. (2023) lamented that the reliance on this type of design appears to be growing, despite its limitations. This is reflected in the systematic literature reviews of common leadership styles, which all report that this type of design remains the most commonly used to study leadership (e.g., Banks et al., 2021; Eva et al., 2019; Fischer et al., 2021). This design generally captures followers' assessment of their leaders' style, followed by followers' (or leaders') assessment of their own attitudes and behaviours (Banks, 2023). Perceptions are important in leadership research and can provide useful information on how participants view their leader and how these perceptions influence their subsequent attitudes and behaviours (Banks et al., 2023; Cooper et al., 2020). However, these perceptions represent a mixture of the leaders' behaviours, contextual information (e.g., gender), traits and cues (e.g., appearance and personality), as well as biases (Banks, 2023; Fischer et al., 2020). In doing so, rather than

focussing on specific leader behaviours, these designs and types of measures capture a 'whole of leader' perspective, encompassing past and present behaviours, feelings about a leader, and predicted future behaviours (i.e., I would expect my leader to act in this way; Day, 2014; Fischer et al., 2017).

Second, we relied on a combination of cross-sectional and time-lagged designs. We first use cross-sectional data to reflect the fact that most leadership studies are cross-sectional (67 per cent versus 19 per cent time-lagged Gardner et al., 2020) and because cross-sectional data (as opposed to time-lagged data) make it easier to achieve sample sizes that are large enough to rely on B-ESEM to jointly analyse a broad set of leadership measures. As we are not seeking to establish causality in our analyses, cross-sectional designs provide a simpler way to assess overlap (Research Question 1), incremental criterion-related validity (Research Question 2), and to investigate the meaning of the general factor (Research Question 3). We are mindful that many leadership studies rely on cross-sectional designs for prediction or to infer causal mechanisms (Fischer et al., 2017), and we trust our study will not be interpreted in that way. However, to provide a more stringent test of covariate associations (criterion-related validity), we also rely on a time-lag design in two studies (Fischer et al., 2017): Study 1 Sample A includes a one-month time interval and Study 4 relies on a two-week time interval. Yet, we still reiterate the non-causal nature of our analyses and interpretation, reinforcing the importance of addressing endogeneity and omitted variable biases in research seeking to establish causality (Antonakis et al., 2010; Bastardo et al., 2023; Sajons, 2020; Wulff et al., 2023).

Participants and Procedures

All participants (i.e., Study 1 to 4) had to be at least 18 years of age and work full-time. They also needed to have worked for their current manager for over one year, have regular contact (i.e., more than twice a week) with their manager, and work within a team. For Study 2, participants also had to be country nationals of either India, Brazil, or Germany and work in that country. For Study 3, participants had to work in the banking, government and not-for-profit, or hospitality industries. For Study 4, participants worked in a large multinational automotive organization in China. Demographic information is presented in Tables S1 and S2 of the supporting information. By testing our research questions in multiple countries, contexts, and with different covariates, we want to establish the generalizability of our results and conclusions, as well as ensure that the all-to-familiar argument that 'leadership style x has not been examined in context y ' (Banks, 2023) cannot be used as a justification to ignore our findings.

To achieve adequate power to test our research questions, the data for Studies 1 to 3 were collected via Qualtrics, an online survey software and market research organization that provides targeted participant panels. Despite some criticism, data provided by Qualtrics have been shown to be accurate and reliable (e.g., Kier and McMullen, 2018; Shin and Grant, 2019). All participants were informed that the questionnaires would take between 20 and 30 minutes to complete. Additionally, we used Qualtrics' quality control checks (completion rate and speed) and attention check items.^[2] For Study 4,

which was a field study conducted in China, we selected a large organization and ensured internal support for the study to maximize the sample size.

Measures

It was impractical to have participants rate every leadership measure created in one survey, so we strategically chose which leadership styles to examine using a three-step process. First, we consulted the review by Gardner et al. (2020) to identify the most commonly studied leadership styles. This identified transformational, participative, charismatic, ethical, authentic, servant, transactional, and destructive styles of leadership (i.e., abusive). We confirmed the importance of these styles by ensuring they all regularly appeared in meta-analyses supporting their role in relation to key covariates (e.g., Banks et al., 2018; Hoch et al., 2018). Second, we examined the leadership literature across the leading journals in management and psychology to identify current trends and emerging styles that might not have been captured in earlier comprehensive reviews (Dinh et al., 2014) or meta-analyses (Hoch et al., 2018). For example, entrepreneurial leadership is a newly established leadership style that may hold promise for innovative behaviours (Renko et al., 2015), instrumental leadership has been able to demonstrate incremental variance above traditional leadership styles (e.g., contingent rewards, management by exception, laissez-faire; Antonakis and House, 2014), and with the rise of leadership research in China, paternalistic and authoritarian leadership also seemed important to consider (Pellegrini and Scandura, 2008). Finally, we contacted a panel of five university professors with recognized leadership expertise to confirm that the chosen leadership styles were important (i.e., established or emerging) for the field. These styles, their definition, and key publications appear in Table I.

To answer Research Question 2, we considered a broad range of leadership-related covariates often used by leadership scholars to claim their proposed leadership style is unique. For example, a covariate such as job satisfaction is of interest because Hoch et al. (2018) meta-analysis found that ethical leadership explains more variance in job satisfaction than transformational leadership. Similar to previous meta-analyses (Banks et al., 2018; Hoch et al., 2018), we do not seek to demonstrate causality in answering our research questions. Yet, covariates were still required in these analyses to determine whether the unique variance remaining in each leadership style (once the general factor was partialled out) demonstrated any criterion-related validity (i.e., shared meaningful associations with the covariates). Indeed, without demonstrating that specific leadership measures retained some specific associations with covariates, it would be unrealistic to investigate their causal role (as the presence of an association remains a key condition of causality). If we were to examine causality and avoid omitted variable bias (Bastardo et al., 2023), the design would require ‘exogenous sources of variance (i.e., instruments) to identify consistent effects’ (Antonakis et al., 2010, p. 1113). However, with our research design, it is highly unlikely that we could identify instruments (measured or manipulated) that are theoretically relevant to one leadership style but not the 11 others (Antonakis et al., 2010; Sajons, 2020), considering the theoretical (Lemoine et al., 2019) and empirical (Banks et al., 2018; Hoch et al., 2018) overlap between these measures. Thus, although issues of causality remain critical in leadership research (see Antonakis et al., 2010), they remain beyond the scope of our investigation.

Table I. Leadership styles utilized in the present studies

<i>Theory</i>	<i>Selection of key papers</i>	<i>Definition</i>
Abusive Supervision	Tepper (2000, 2007)	'the extent to which supervisors engage in the sustained display of verbal and non-verbal behaviours, excluding physical contact' (Tepper, 2000, p. 178)
Authentic	Avolio and Gardner (2005); Banks et al. (2016); Walumbwa et al. (2008)	'draws upon and promotes both positive psychological capacities and a positive ethical climate, to foster greater self-awareness, an internalized moral perspective, balanced processing of information, and relational transparency on the part of leaders working with followers, fostering positive self-development'. (Walumbwa et al., 2008, p. 94)
Authoritarian	Cheng et al. (2004)	'asserts absolute authority and control over subordinates and demands unquestionable obedience from subordinates' (Cheng et al., 2004, p. 91).
Charismatic	Antonakis et al. (2016); Awamleh and Gardner (1999); Conger and Kanungo (1994)	'followers' perception of the manager's greater desire to change the status quo and by a heightened sensitivity to environmental opportunities, constraints, and followers' needs' (Conger and Kanungo, 1994, p. 442)
Ethical	Brown et al. (2005); Brown and Treviño (2006); Mayer et al. (2012)	'demonstration of normatively appropriate conduct through personal actions and interpersonal relationships, and the promotion of such conduct to followers through two-way communication, reinforcement, and decision-making'. (Brown et al., 2005, p. 120)
Entrepreneurial	Renko et al. (2015)	'entails influencing and directing the performance of group members toward the achievement of organizational goals that involve recognizing and exploiting opportunities'. (Renko et al., 2015, p. 55)
Instrumental	Antonakis and House (2014)	'the application of leader expert knowledge on monitoring of the environment and of performance, and the implementation of strategic and tactical solutions'. (Antonakis and House, 2014, p. 249)
Participative	Chen and Tjosvold (2006); Lam et al. (2015)	'shared influence and joint decision making between a leader and their followers' (Lam et al., 2015, p. 836)
Paternalistic	Chen et al. (2014); Pellegrini and Scandura (2006, 2008)	'a style that combines strong discipline and authority with fatherly benevolence' (Farh and Cheng, 2000, p. 9)
Servant	Eva et al. (2019); Liden et al. (2008, 2015)	'place the needs of their subordinates before their own needs and center their efforts on helping subordinates grow to reach their maximum potential and achieve optimal organizational and career success' (Liden et al., 2008, p. 163)

(Continues)

Table I. (Continued)

<i>Theory</i>	<i>Selection of key papers</i>	<i>Definition</i>
Transactional	Bass (1990); Bass et al. (2003); Bass and Avolio (1995)	‘followers agreed with, accepted, or complied with the leader in exchange for praise, rewards, and resources or the avoidance of disciplinary action’. (Bass et al., 2003, p. 208)
Transformational	Bass (1985, 1990); Bass et al. (2003); Bass and Avolio (1995); Lin et al. (2018)	‘broaden and elevate the interests of their employees, when they generate awareness and acceptance of the purposes and mission of the group, and when they stir their employees to look beyond their own self-interest for the good of the group’. (Bass, 1990, p. 22)

The covariates were adapted to the samples used in each study. In Study 1, we chose traditionally researched covariates within the leadership literature as indicated in existing leadership meta-analyses. This included positive and negative attitudes (e.g., job satisfaction and turnover intentions), positive and negative behaviours (e.g., OCB and workplace deviance), performance (e.g., team and individual performance), perceptions of the leaders (e.g., trust), and perceptions of physiological states (e.g., burnout). In Study 2, we examined six of the most measured covariates in past meta-analyses across three cultures. In Study 3, we measured four common covariates across three different industries. In Study 4, we measured three leader-rated covariates, three team-level covariates, and three individual self-reported covariates. In total, we measured 20 different covariates across the seven samples (Table II), allowing us to test the role of leadership for 49 covariates (i.e., some were included in more than one sample).

Analytic Approach

A standardized analytic procedure was applied across all samples. First, the factor structure of our measures was examined through CFA, bifactor-CFA, ESEM, and B-ESEM to compare their suitability and choose the optimal model (Morin et al., 2016, 2020). Given that this study was not designed to establish or validate a new scale but rather to explore as fairly as possible the relative contributions of leadership measures, bifactor models were favoured when fit statistics did not sufficiently distinguish between competing models.

With bifactor models, the meaning of the general factor also needs to be interpreted. This is done first through an examination of factor loadings. For example, if, as expected, factor loadings are all moderate-to-strong positive for all items relating to desirable forms of leadership (e.g., transformational and servant) and negative for items relating to undesirable forms of leadership (e.g., abusive and authoritarian), this would indicate the overall positive aspect of the general factor. Alternately, if all items were found to load equally on this general factor irrespective of their desirable or undesirable nature, this factor might be interpreted as reflecting common method variance (CMV). In all samples, the B-ESEM solutions yielded excellent model fit (Table III), and factor loadings on the general factor were as expected across samples, strongly indicating that the general factor represented positively valenced

Table II. Alphas of the measures utilized in the studies

Construct	Measure	Items	Study 1 (Establish general factor)		Study 2 (Country)			Study 3 (Industries)	Study 4 (Multi- source)
			Sample A	Sample B	India	Brazil	Germany	United States	China
			N= 309	N= 525	N= 522	N= 530	N= 534	N= 1583	N= 332 & 55 Leaders
Leadership									
Abusive supervision	Tepper (2000)	15	0.97	0.96	0.98	0.96	0.96	0.97	0.79 (5-items)
Authentic	Walumbwa et al. (2008)	16	0.94	0.94	0.92	0.91	0.93	0.94	0.87 (8-items)
Authoritarian	Cheng et al. (2004)	9	0.84	0.95	0.85	0.81	0.85	0.84	0.86
Charismatic	Conger and Kanungo (1994)	20	0.95	0.95	0.95	0.94	0.96	0.94	0.89 (10-items)
Ethical	Brown et al. (2005)	10	0.94	0.94	0.92	0.94	0.92	0.92	0.90
Entrepreneurial	Renko et al. (2015)	8	0.91	0.91	0.92	0.92	0.92	0.94	0.87
Instrumental	Antonakis and House (2014)	8	0.92	0.93	0.93	0.90	0.92	0.92	0.87
Participative	Ismail et al. (2010)	6	0.91	0.90	0.90	0.91	0.91	0.90	0.85
Paternalistic	Pellegrini and Scandura (2006)	13	0.91	0.90	0.93	0.91	0.90	0.89	0.91
Servant	Liden et al. (2015)	7	0.91	0.90	0.88	0.90	0.88	0.90	0.86
Transactional	Bass and Avolio (1995)	6	0.65	0.61	0.79	0.71	0.65	0.57	(−0.89)
Transformational	Bass and Avolio (1995)	10	0.94	0.94	0.93	0.94	0.93	0.94	0.89
Alternate explanations									
LMX	Scandura and Graen (1984)	7	0.90	0.88	0.86	0.88	0.89	0.91	
Leader affect	Martinko et al. (2018)								0.85
Covariates									
Job satisfaction	Spector (1985)	3	0.77		0.32	0.67	0.77	0.81	0.70
Job performance	Heilman et al. (1992)	3	0.86		0.76	0.86	0.85	0.82	
Leader effectiveness	Awamleh and Gardner (1999)	3	0.88		0.84	0.88	0.85	0.90	0.76
Well-being	Topp et al. (2015)	5		0.90				0.90	0.75
Thriving	Porath et al. (2012)	10	0.92						
Burnout	Kristensen et al. (2005)	7		0.90					
Job stress	Keller (1984)	4							
Turnover intention	Colarelli (1984)	3	0.84		0.88	0.92	0.92		

(Continues)

Table II. (Continued)

Construct	Measure	Items	Study 1 (Establish general factor)		Study 2 (Country)			Study 3 (Industries)	Study 4 (Multi- source)
			Sample A	Sample B	India	Brazil	Germany	United States	China
			N=309	N=525	N=522	N=530	N=534	N=1583	N=332 & 55 Leaders
Affective commitment	Allen and Meyer (1990)	6		0.89					
Normative commitment	Allen and Meyer (1990)	8		0.71					
Continuance commitment	Allen and Meyer (1990)	8		0.70					
Affective trust	McAllister (1995)	5	0.93		0.85	0.92	92		
Work engagement	Seppälä et al. (2008)	9	0.93						
Innovative behaviours	Scott and Bruce (1994)	6	0.89						
Organizational citizenship behaviours—individual	Lee and Allen (2002)	8	0.91						
Organizational citizenship behaviours—organizational	Lee and Allen (2002)	8	0.88						
Organizational workplace deviance	Bennett and Robinson (2000)	12	0.97						
Team intra-group trust	Simons and Peterson (2000)	5							0.69
Team viability	Barrick et al. (1998)	9							0.85
Team performance	Liden et al. (1993)	4							0.74
Leader rated									
Job performance	Heilman et al. (1992)	3							0.99
OCB—individual	Lee and Allen (2002)	8							0.89
Innovative behaviours	Scott and Bruce (1994)	6							0.97

Note: See supporting information for a full list of items.

leadership-related variance (Tables S10–S16). Therefore, B-ESEM solutions were retained for further analyses.

Once the optimal measurement model was selected, covariates were integrated into the analysis via regression analyses. We use regression analyses solely to identify the

Table III. Measurement model fit statistics

Sample		#/p	df	χ^2	RMSEA	90% CI	CFI	TLI
Sample A	CFA	450	7934	16126.946	0.041	0.040; 0.042	0.849	0.846
	B-CFA	512	7872	15126.277	0.039	0.038; 0.039	0.867	0.862
	ESEM	1726	6658	10550.779	0.031	0.030; 0.032	0.928	0.913
	B-ESEM	1842	6542	10138.676	0.030	0.029; 0.031	0.934	0.918
Sample B	CFA	450	7934	16304.208	0.045	0.044; 0.046	0.822	0.818
	B-CFA	512	7872	15174.562	0.042	0.041; 0.043	0.845	0.840
	ESEM	—	—	—	—	—	—	—
	B-ESEM	1842	6542	10811.920	0.035	0.034; 0.036	0.909	0.887
India	CFA	450	7934	13845.649	0.038	0.037; 0.039	0.864	0.860
	B-CFA	512	7872	14088.872	0.039	0.038; 0.040	0.857	0.852
	ESEM	1726	6658	12824.128	0.042	0.041; 0.043	0.858	0.826
	B-ESEM	1842	6542	12353.015	0.041	0.040; 0.042	0.866	0.833
Brazil	CFA	450	7934	15078.874	0.041	0.040; 0.042	0.845	0.841
	B-CFA	512	7872	14483.294	0.040	0.039; 0.041	0.857	0.852
	ESEM	1726	6658	11209.763	0.036	0.035; 0.037	0.901	0.880
	B-ESEM	1842	6542	11344.959	0.037	0.036; 0.038	0.896	0.871
Germany	CFA	450	7934	15459.742	0.042	0.041; 0.043	0.839	0.836
	B-CFA	512	7872	14854.878	0.041	0.040; 0.042	0.851	0.846
	ESEM	1726	6658	11424.529	0.037	0.035; 0.038	0.898	0.876
	B-ESEM	1842	6542	9855.638	0.031	0.030; 0.032	0.929	0.912
Study 3	CFA	450	7934	25647.809	0.038	0.037; 0.038	0.855	0.851
	B-CFA	512	7872	22863.977	0.035	0.034; 0.035	0.877	0.873
	ESEM	1726	6658	11156.036	0.021	0.020; 0.021	0.963	0.955
	B-ESEM	1842	6542	10878.680	0.021	0.020; 0.021	0.964	0.956
Study 4	CFA	4222	337	6600.245	0.041	0.039; 0.043	0.857	0.852
	B-CFA	4183	376	6144.425	0.038	0.036; 0.040	0.882	0.877
	ESEM	3392	1167	5337.972	0.042	0.039; 0.044	0.883	0.850
	B-ESEM	3309	1250	5192.758	0.041	0.039; 0.044	0.887	0.851

Note: Changes in the CFI, TLI, or RMSEA greater than 0.01 should be considered significant differences in model comparison contexts.

Abbreviations: #/p, number of free parameters in estimated model; 90 per cent CI, 90 per cent confidence interval associated with RMSEA; CFA, confirmatory factor analyses; CFI, comparative fit index; *df*, degrees of freedom; ESEM, exploratory structural equation modelling; RMSEA, root mean square error of approximation; TLI, Tucker-Lewis index; χ^2 , robust chi-square test of exact fit.

specific factors, not to establish causality. Once a leadership style is broken into the common general factor and the unique specific factor, the exact contents of these factors need to be re-established. The item loadings indicate what each factor is capturing, but to determine whether this is leadership-relevant variance, we need to estimate the associations between these specific factors and the covariates. For example, based on

theory and previous empirical work, servant leadership can be expected to capture unique leadership-relevant variance that in some way increases OCB (Eva et al., 2019). Then, the specific factor representing the uniqueness of servant leadership should be positively associated with this covariate. Otherwise, we can be confident that it is not capturing leadership-relevant variance. In this sense, our analyses are not seeking to establish causality and should not be interpreted as such. We are simply using these analyses to check whether the measurement model captures something theoretically relevant.

The smaller sample sizes in Study 1 Sample A and Study 4 required saving factor scores from the measurement model (Skrondal and Laake, 2001) before conducting regression analyses. For all remaining samples, regression analyses were conducted within a fully latent model (Table S17), simultaneously estimating a B-ESEM representation of leadership styles, latent variables derived from CFA solutions representing covariates, and the relations between these latent leadership and covariates factors.

Post-Data Collection Sensitivity Tests

As discussed throughout the manuscript, part of the concern surrounding leadership measures is based on the limitation of the questionnaires themselves. This includes, but is not limited to, CMV, endogeneity, and omitted variable bias (Antonakis et al., 2010; Bastardo et al., 2023; Sajons, 2020; Wulff et al., 2023). Below, we address design decisions, sensitivity tests, and potential methodological influences on our findings. It is important to acknowledge that each of the tests that we outline below needs to be interpreted with care as they cannot completely rule out bias, and they are not substitutes for specific research designs that directly address these concerns (Wulff et al., 2023).

Common Method Variance. To limit the possible impact of CMV, we adopted a variety of methodological procedures: (a) relying on diverse response formats, (b) counterbalancing (and randomizing) questions, (c) psychologically separating the questions, (d) ensuring confidentiality, (e) using regular attention checks, (f) using temporal separation in Study 1 Sample A and Study 4, (g) telling participants that some of the questions may seem similar but that it was important for them to read every question carefully to ensure they not missing subtle differences, and (h) collecting data from multiple sources in Study 4 (Podsakoff et al., 2012; Spector, 2019). We also included an orthogonal CMV factor defined using all leadership and covariate items, as recommended by Podsakoff et al. (2003), to control for the variance shared among all measures collected via the same method (i.e., follower's report). As such, any variance shared by all survey items was captured and removed from the models using this factor, whereas the leadership general factor only captures the commonality among the leadership measures once this CMV factor is controlled. In addition, most of our analyses rely on fully latent SEM models, which provide estimates of relations that are corrected for measurement errors. The only exceptions are Study 1 Sample A and Study 4, where we relied on factor scores saved from preliminary measurement models. These factor scores preserve the nature of the measurement models from which they are taken and provide a partial correction for measurement errors (Skrondal and Laake, 2001).

However, it is important to note that all predictive models used in this investigation are inherently multivariate. As highlighted in a mathematical demonstration conducted by Siemsen et al. (2010), multivariate analyses are naturally protected against the possible biasing influence of CMV. Indeed, multivariate analyses estimate the unique role played by each variable beyond that played by the others. Thus, even though one could argue that this methodological artefact could somehow inflate the variance absorbed in the leadership general factor (had we not already included a method factor specifically designed to prevent this): (1) Estimates of relations between this general factor and the covariates remain unbiased, and (2) the specific factors, whose added value form the core of this investigation, remain uninfluenced by this artefact (For more information on why the multivariate analysis [i.e., our general factor] is not biased by CMV, please see Siemsen et al., 2010).

Endogeneity and Omitted Variable Bias. We investigate the impact of omitted variable bias on our design with the Impact Threshold of a Confounding Variable (ITCV) analysis (Busenbark et al., 2022) using the KonFound-it! Package (Rosenberg et al., 2018). These analyses calculate the effect size of a confounding variable, the size of the correlation required between the confounding variable and the leadership and covariate variables, and the degree of bias required to invalidate our inferences due to omitted variables (Busenbark et al., 2022). We do note that a limitation of this test is that it only considers one confounding variable, whereas multiple confounding variables are likely at play in leadership research (Bastardo et al., 2023). In this way, the ‘ITCV is not a definitive solution against omitted variable bias’, and we do not use the ITCV as a definitive ‘test for omitted variable bias’ to rule out omitted variables (Wulff et al., 2023, p. 16). Rather, we employ it as a useful indication of the potential biases in our analyses of Research Question 2, which examines the leadership measures and the covariates.

The results from these analyses are reported in Table S20 of the supporting information. They reveal that for approximately half of the analyses in which the general factor was significantly related to the covariates (i.e., 22 out of 42 relations), over 80 per cent of the estimated effect of the general factor on the covariates would have to be due to the omitted variable bias to invalidate the relations. For 16 other relations, the percentage of bias necessary to invalidate the inference would have to be between 50 per cent and 79 per cent. The remaining four relations may potentially raise some concern, albeit they are limited to Study 1 Samples A (performance 48 per cent; OCB-I 33 per cent) and B (well-being 48 per cent; affective commitment 42 per cent). However, most of these relations were replicated in other samples (only affective commitment was measured in a single sample) and associated with a much lower risk of bias (Frank et al., 2013).

ITCV analyses also estimate the minimum correlation needed between the omitted variable, the general factor, and the covariate for the singular omitted variable to influence the results (Frank, 2000). For a singular omitted variable to bias 30 of the 42 significant relations (71 per cent), it would need a zero-order correlation with both the general factor and the covariates ranging between $r=0.50$ and 0.88 . As zero-order correlations between the general factor and covariates cannot be estimated in this study due to the

B-ESEM factor structure, we considered the correlations between the demographic variables and the covariates. Thus, this is an extremely conservative analysis. Our results revealed that the highest correlation between a demographic variable and the covariates was systematically lower than the minimum correlation required for bias to occur (Busenbark et al., 2022; Frank, 2000; Frank et al., 2013).

STUDY 1

In Study 1, we sought to establish (Sample A) and confirm (Sample B) the general factor (RQ1) and identify which leadership measures are associated with covariates beyond the general factor (RQ2). Sample A included 298 full-time US employees who rated the 12 leadership measures alongside 11 covariates: engagement, thriving, turnover intention, job satisfaction, OCB (individual and organizational-focussed), innovative behaviours, job performance, trust in the leader, leader effectiveness, and organizational workplace deviance. Sample B included 525 full-time US workers who rated the 12 leadership measures and five covariates: burnout, well-being, and affective, normative, and continuance commitment.

Sample A—United States

The B-ESEM model was found to best fit the data (Table III), indicating the suitability of this approach. The nature of the general factor was positively valenced with items from all positive types of leadership loading positively and strongly on this general factor. For instance, Table IV highlights specific items from different measures and their associated factor loadings (for all factor loadings, see Table S10). In contrast, and also consistent with our interpretation of this general factor as providing a generally positive assessment of leadership, items from the abusive supervision measure loaded negatively (e.g., *‘Doesn’t give me credit for jobs requiring a lot of effort’*; factor loading: -0.499) on this general factor, while authoritarian leadership items displayed weak factor loadings (alternating between positive and negative). This last observation is consistent with the descriptive (rather than clearly desirable or undesirable) nature of authoritarian leadership. This general factor thus seems to represent the positive shared leadership variance across all leadership styles, whereas the specific factors (i.e., each specific leadership measure) represent the unique characteristics of each leadership style.

As shown in Table V, the general factor was most strongly associated with nine of the 11 covariates ($\beta = -0.20$ to 0.56). The specific factors representing transformational, transactional, instrumental, ethical, and authentic leadership were not related to any of the 11 covariates once their variance shared with the other leadership measures was accounted for. Abusive supervision was associated with seven covariates, including turnover intention ($\beta = 0.21$), organizational workplace deviance ($\beta = -0.34$), innovative behaviours ($\beta = 0.21$), engagement ($\beta = 0.15$), and OCB-O and I ($\beta = 0.14$ and 0.11). These relations were similar to those between authoritarian leadership and five covariates, including innovative behaviours ($\beta = 0.18$), engagement ($\beta = 0.13$), and OCB-O and I ($\beta = 0.13$ and 0.17). Charismatic leadership associated with turnover intention ($\beta = 0.15$), innovative behaviours ($\beta = 0.15$), thriving ($\beta = 0.10$), and

Table IV. Example general factor loadings for items in Study 1

Leadership measure	General factor loading		Item
	Sample 1	Sample 2	
Servant	0.848	0.808	My leader makes my career development a priority
Ethical	0.839	0.859	My leader has the best interests of employees in mind
Charismatic	0.833	0.827	Inspirational; able to motivate by articulating effectively the importance of what organizational members are doing
Entrepreneurial	0.832	0.804	My leader has creative solutions to problems
Transformational	0.831	0.854	Acts in ways that builds my respect
Instrumental	0.824	0.627	Ensures that I have sufficient resources to reach my goals
Participative	0.822	0.849	When there are differences in role expectations, my supervisor works with employees to resolve the differences
Transactional	0.762	0.790	Makes clear what one can expect to receive when performance goals are achieved

engagement ($\beta = 0.10$). Paternalistic leadership associated with innovative behaviours ($\beta = 0.14$), trust in the leader, and leader effectiveness (both $\beta = 0.13$). Servant leadership was negatively related to trust ($\beta = -0.16$) and leader effectiveness ($\beta = -0.16$). Participative ($\beta = 0.10$) and entrepreneurial leadership ($\beta = 0.12$) were positively related to turnover intention. Although some of these relations seem counter-intuitive,^[3] they only reflect the variance unique to these measures beyond what they share with all other measures. These relations were also relatively weak and are consistent with the idea that what is left once the general factor is removed may not reflect what the measures were initially created to assess.

In sum, the expectation that most leadership measures would associate with employee covariates beyond the leadership general factor was only partially supported. Seven leadership measures were associated with at least one covariate, but only abusive supervision and authoritarian leadership consistently related to multiple covariates.

Sample B—United States

Measurement models confirmed the previously established B-ESEM solution (Table III), with factor loadings that replicated the solution obtained in Sample A (Table S11), further supporting an interpretation of the general factor as reflecting positive shared leadership variance. As shown in Table VI, the general factor was most strongly associated with four of the five covariates (burnout: $\beta = -0.48$; well-being: $\beta = 0.51$; affective commitment: $\beta = 0.56$; and normative commitment: $\beta = 0.29$). Among specific factors, only the unique variance attributed to servant leadership and

Table V. Regression coefficients for Study 1, Sample A – United States

<i>Leadership</i>	<i>Engagement</i>	<i>Thriving</i>	<i>Turnover intention</i>	<i>Job satisfaction</i>	<i>Org citizenship behaviour (Org)</i>	<i>Org citizenship behaviour (Ind.)</i>
General factor	0.40*	0.39*	−0.20*	0.44*	0.36*	0.28*
Abusive	0.15*	0.12*	0.21*	0.07	0.14*	0.11*
Authentic	−0.09	−0.09	0.02	−0.07	−0.06	−0.06
Authoritarian	0.13*	0.14*	0.10	0.07	0.13*	0.17*
Charismatic	0.10*	0.10*	0.15*	0.05	0.09	0.04
Entrepreneurial	0.03	0.04	0.12*	−0.04	0.07	0.07
Ethical	−0.06	−0.09	0.04	−0.05	−0.03	−0.04
Servant	−0.04	−0.03	0.07	−0.08	0.01	0.03
Instrumental	−0.05	−0.07	−0.08	0.00	−0.05	−0.07
Participative	0.06	0.01	0.10*	0.03	0.05	−0.04
Paternalistic	0.11	0.08	0.02	0.09	0.15	0.14
Transactional	0.05	0.04	0.01	0.03	0.04	0.05
Transformational	−0.07	−0.13	−0.01	−0.05	−0.03	−0.10
R ²	0.267	0.253	0.158	0.234	0.240	0.180

<i>Leadership</i>	<i>Innovative behaviours</i>	<i>Performance</i>	<i>Trust</i>	<i>Leader effectiveness</i>	<i>Organizational workplace deviance</i>
General factor	0.35*	0.17	0.56*	0.56*	−0.01
Abusive	0.21*	−0.04	0.04	0.02	−0.34*
Authentic	−0.08	−0.02	0.01	0.02	−0.06
Authoritarian	0.18*	0.01	0.02	0.01	−0.08
Charismatic	0.15*	−0.06	0.01	0.00	−0.06
Entrepreneurial	0.10	−0.04	0.02	0.00	−0.03
Ethical	−0.04	0.00	0.01	0.01	−0.06
Servant	0.01	0.05	−0.16*	−0.16*	0.00
Instrumental	−0.09	−0.01	−0.08	−0.07	0.00
Participative	0.09	−0.11	0.00	0.01	−0.09
Paternalistic	0.14*	0.11	0.17*	0.17*	−0.04
Transactional	0.04	0.08	−0.03	−0.03	0.01
Transformational	−0.02	−0.11	−0.09	−0.09	−0.01
R ²	0.307	0.093	0.381	0.378	0.149

Note. * < 0.05. All regression coefficients are standardized. Model included factor controlling for common method variance.

abusive supervision were associated with covariates. Servant leadership was related to burnout ($\beta = 0.25$) and continuance commitment ($\beta = 0.27$), whereas abusive supervision was related to burnout ($\beta = 0.21$).

Taken together, Study 1 indicated that the 12 leadership measures share a significant amount of common variance (RQ1), which seems attributable to a general leadership

Table VI. Regression coefficients for Study 1, Sample B – United States

<i>Leadership</i>	<i>Burnout</i>	<i>Well-being</i>	<i>Affective commitment</i>	<i>Normative commitment</i>	<i>Continuance commitment</i>
General factor	−0.48*	0.51*	0.56*	0.29*	−0.08
Abusive	0.21*	−0.05	−0.11	−0.06	0.01
Authentic	−0.04	0.02	−0.01	−0.05	0.01
Authoritarian	−0.02	0.02	−0.11	0.05	0.05
Charismatic	0.12	−0.10	−0.12	−0.08	0.02
Entrepreneurial	0.02	0.10	0.12	0.28	0.02
Ethical	−0.01	0.10	−0.07	−0.12	0.04
Servant	0.25*	−0.16	−0.04	−0.08	0.27*
Instrumental	−0.12	0.21	0.16	0.18	−0.21
Participative	−0.03	0.12	−0.07	0.02	0.15
Paternalistic	0.05	−0.06	0.08	0.11	0.14
Transactional	−0.07	0.04	−0.10	−0.03	−0.01
Transformational	0.08	−0.02	0.16	0.07	0.01
R ²	0.389	0.381	0.454	0.236	0.186

Note: * < 0.05. All regression coefficients are standardized. Model included factor controlling for common method variance.

factor. In response to Research Question 2, very few leadership measures showed associations with covariates beyond this general factor.

STUDY 2

In Study 2, we replicated the findings of Study 1 in different cultural settings (RQ1 and RQ2), to account for the possibility that leadership preferences might differ across cultures (Lonati, 2020). In this study, we drew upon GLOBE to select countries from three different clusters, Southern Asia (India, N = 522), Latin America (Brazil, N = 530), and Germanic Europe (Germany, N = 534), to compare against the USA, where a significant portion of leadership research has been conducted (Gardner et al., 2020). In each sample, the 12 leadership measures were tested alongside six covariates: job satisfaction, job performance, turnover intention, affective trust, leader effectiveness, and well-being. The measurement models for each sample supported the appropriateness of the B-ESEM solution (Table III) and the definition of the general factor as an indicator of positive shared leadership variance (Tables S12–S14).

In addition, Study 2 sought to investigate the meaning of the general factor, reflecting the variance shared across all leadership measures (RQ3). Although an examination of the factor loadings associated with this general factor suggests that it might reflect a general positive leadership variance, this conclusion remains uninformative regarding the source of this shared variance. Thus, Study 2 considered the possibility that this shared variance could represent a set of taxonomic leadership

behaviour categories that are common to each of the leadership styles (i.e., task-, relations-, and change-oriented; Fleishman, 1953; Yukl et al., 2002). To test this possibility, we categorized each of the items into its most relevant category, either task-, relation-, or change-oriented behaviours (our coding is reported in Table S19 of the supporting information). These taxonomic leadership behaviour categories replaced the leadership styles in subsequent B-ESEM analyses. Thus, for these analyses, we examined a 4-factor model, which included the general factor, task-, relation-, and change-oriented behaviours. If the shared variance among all 12 leadership measures can truly be associated with these behaviour categories, then the resulting general factor and its association with the covariates should be markedly weaker than in analyses relying on 12 leadership specific factors.

Sample C—India

As shown in Table VII, the general factor was most strongly associated with job performance ($\beta=0.69$), affective trust ($\beta=0.88$), leader effectiveness ($\beta=0.89$), and well-being ($\beta=0.87$). In contrast, abusive supervision showed negative relations with these variables ($\beta=-0.16$ to -0.05), and the strongest positive relation with turnover intention ($\beta=0.65$). Authoritarian leadership was positively related to turnover intention ($\beta=0.27$) and was negatively related to affective trust ($\beta=-0.12$). Transformational leadership was associated with performance ($\beta=0.32$) and leader effectiveness ($\beta=0.17$). Paternalistic leadership related to affective trust ($\beta=0.15$). In contrast, charismatic leadership had a positive relation with turnover intention ($\beta=0.17$). Only these five of the 12 leadership measures related to covariates when accounting for the general factor, and most of those relations involved turnover intention. As the measure of job satisfaction had an alpha of 0.32 in this sample, it was removed from this analysis.

Second, we reanalysed the data to examine taxonomic leadership behaviour categories alongside the general factor. The fit statistics demonstrated a similar level of fit to the fully latent model as the model with the 12 leadership styles (Table S17), indicating the leadership style data modelled as taxonomic leadership behaviour categories are more parsimonious. Still, we found that the specific factors associated with the taxonomic leadership behaviour categories were only defined by moderate factor loadings and were unable to significantly detract from the general factor. Furthermore, the general factor remained dominant, associating most strongly with performance ($\beta=0.71$), affective trust ($\beta=0.88$), leader effectiveness ($\beta=0.90$), and well-being ($\beta=0.88$). The task-oriented behaviour category was negatively associated with affective trust ($\beta=-0.22$), whereas the change-orientated behaviour category was positively related to performance ($\beta=0.35$). These results suggest that the taxonomic leadership behaviour categories, as measured in this study, do not fully account for the commonality modelled by the general factor (Table VII).

Sample D—Brazil

As reported in Table VIII, the results also supported the centrality of the general factor, which is associated with five of the six covariates more strongly than any specific leadership measure. Charismatic leadership was related to three covariates: job satisfaction ($\beta=-0.23$), performance ($\beta=-0.21$), and turnover intention ($\beta=0.16$). Authoritarian

Table VII. Regression coefficients for Study 2, Sample C – India

<i>Leadership</i>	<i>Performance</i>	<i>Turnover intention</i>	<i>Affective trust</i>	<i>Leader effectiveness</i>	<i>Well-being</i>
Leadership modelled as styles					
General factor	0.69*	0.21*	0.88*	0.89*	0.87*
Abusive	−0.16*	0.65*	−0.05	−0.16*	−0.15*
Authentic	−0.07	−0.12	−0.02	−0.07	−0.02
Authoritarian	0.06	0.28*	−0.12*	−0.06	−0.07
Charismatic	−0.07	0.17*	−0.04	−0.08	−0.02
Entrepreneurial	−0.13	−0.03	0.03	−0.15	0.05
Ethical	−0.03	−0.08	0.02	−0.02	−0.01
Servant	−0.06	−0.09	0.08	−0.03	0.04
Instrumental	0.15	−0.04	0.06	0.02	−0.03
Participative	0.04	0.08	−0.001	0.01	−0.06
Paternalistic	−0.17	0.14	0.15*	0.01	0.04
Transactional	−0.17	0.08	0.03	−0.001	−0.01
Transformational	0.32*	0.08	0.08	0.17*	0.13
<i>R</i> ²	0.741	0.641	0.833	0.883	0.810
Leadership modelled as behaviours					
General factor	0.71*	0.09	0.88*	0.90*	0.88*
Task-oriented	−0.02	0.16	−0.22*	−0.17	−0.12
Relations-oriented	−0.03	0.03	−0.05	−0.07	−0.06
Change-oriented	0.35*	0.04	−0.03	0.14	0.03
<i>R</i> ²	0.631	0.037	0.829	0.861	0.790

Note: * <0.05 . All regression coefficients are standardized. Models included a factor controlling for common method variance.

and paternalistic leadership were associated with affective trust ($\beta = -0.20$ and 0.22), whereas transformational leadership was associated with leader effectiveness ($\beta = 0.16$). Abusive supervision was related to turnover intention ($\beta = 0.30$). Once again, these results indicate several small relations associated with individual leadership measures but largely reinforce the centrality of the general factor.

When examining the taxonomic leadership behaviour categories, our results again supported the parsimony of this model and the centrality of the general factor, with the general factor demonstrating the strongest relation with all six covariates. The change-oriented behaviour category was the only specific factor associated with a covariate (performance; $\beta = 0.21$). Again, these results indicate that the taxonomic leadership behaviour categories alone cannot explain the variance shared between the leadership measures (Table VIII).

Sample E—Germany

The results reported in Table IX again support the dominant role of the general factor with respect to all six covariates. Interestingly, abusive supervision is also related to three

Table VIII. Regression coefficients for Study 2, Sample D—Brazil

<i>Leadership</i>	<i>Job satisfaction</i>	<i>Performance</i>	<i>Turnover intention</i>	<i>Affective trust</i>	<i>Leader effectiveness</i>	<i>Well-being</i>
Leadership modelled as styles						
General factor	0.54*	0.26	−0.51*	0.76*	−0.79*	0.48*
Abusive	−0.34	−0.02	0.30*	−0.03	−0.04	−0.04
Authentic	0.07	−0.06	−0.08	0.11	−0.04	0.09
Authoritarian	−0.03	0.24	0.13	−0.20*	−0.01	0.02
Charismatic	−0.23*	−0.21*	0.16*	−0.03	−0.10	−0.01
Entrepreneurial	0.02	−0.06	−0.03	−0.06	−0.08	−0.03
Ethical	−0.05	0.06	0.10	−0.01	−0.01	−0.01
Servant	−0.15	−0.26	0.07	0.05	−0.15	0.07
Instrumental	−0.05	−0.08	0.10	−0.05	−0.11	−0.28
Participative	−0.02	0.16	0.10	−0.05	−0.06	0.22
Paternalistic	−0.21	−0.01	0.12	0.22*	−0.09	−0.20
Transactional	−0.17	0.03	0.19	−0.06	−0.10	0.17
Transformational	0.07	0.09	0.03	0.16	0.16*	0.03
<i>R</i> ²	0.576	0.285	0.479	0.720	0.719	0.456
Leadership modelled as behaviours						
General factor	0.76*	0.32*	−0.65*	0.93*	0.85*	0.65*
Task-oriented	−0.08	0.14	0.14	−0.17	−0.06	−0.02
Relations-oriented	−0.09	0.06	0.12	−0.10	0.03	0.03
Change-oriented	0.13	0.21*	−0.01	−0.07	0.19	0.08
<i>R</i> ²	0.613	0.167	0.449	0.737	0.767	0.419

Note: *<0.05. All regression coefficients are standardized. Models included a factor controlling for common method variance.

covariates, with coefficients pointing in the (expected) opposite direction to the general factor. The general factor was positively related to job satisfaction, job performance, affective trust, leader effectiveness, and well-being ($\beta=0.17$ to 0.90) and negatively related to turnover intention ($\beta=-0.37$). In contrast, abusive supervision was related positively to turnover intention ($\beta=0.19$) and negatively to affective trust and well-being ($\beta=-0.07$ to -0.10). Authoritarian and paternalistic leadership measures both related to affective trust ($\beta=-0.11$ and 0.18). Charismatic leadership was associated with well-being ($\beta=-0.13$), instrumental leadership with leader effectiveness ($\beta=0.18$), and transactional leadership with turnover intention ($\beta=0.24$).

When examining the taxonomic leadership behaviour categories, the general factor was most strongly related to all covariates. However, the task-oriented behaviour category was again negatively associated with affective trust ($\beta=-0.11$), while the change-oriented behaviour category was again positively associated with performance ($\beta=0.14$) and negatively related to affective trust ($\beta=-0.09$). The relation-oriented

Table IX. Regression coefficients for Study 2, Sample E—Germany

<i>Leadership</i>	<i>Job satisfaction</i>	<i>Performance</i>	<i>Turnover intention</i>	<i>Affective trust</i>	<i>Leader effectiveness</i>	<i>Well-being</i>
Leadership modelled as styles						
General factor	0.66*	0.17*	−0.37*	0.89*	0.90*	0.60*
Abusive	−0.11	−0.08	0.19*	−0.07*	−0.03	−0.10*
Authentic	−0.03	0.02	0.02	−0.04	−0.01	−0.02
Authoritarian	−0.05	0.08	0.10	−0.11*	0.03	0.01
Charismatic	−0.04	0.07	0.02	−0.06	−0.02	−0.13*
Entrepreneurial	0.06	0.19	−0.01	−0.04	0.02	0.04
Ethical	−0.08	0.02	0.11	0.01	−0.01	−0.11
Servant	0.02	0.01	0.04	0.10	0.03	0.07
Instrumental	−0.03	0.02	−0.05	−0.04	0.18*	0.01
Participative	0.01	0.12	−0.01	0.02	−0.11	0.01
Paternalistic	0.11	0.06	0.01	0.18*	0.03	−0.07
Transactional	−0.09	0.24	0.24*	−0.01	0.02	0.00
Transformational	0.12	−0.06	−0.07	0.08	0.08	0.11
R^2	0.490	0.158	0.263	0.867	0.863	0.420
Leadership modelled as behaviours						
General factor	0.68*	0.12*	−0.43*	0.91*	0.90*	0.61*
Task-oriented	−0.08	0.09	0.11	−0.11*	0.05	0.01
Relations-oriented	−0.15*	−0.13*	0.15*	−0.13*	−0.07	−0.10*
Change-oriented	0.02	0.14*	−0.03	−0.09*	0.02	−0.01
R^2	0.490	0.085	0.223	0.861	0.821	0.380

Note: * <0.05 . All regression coefficients are standardized. Models included a factor controlling for common method variance.

behaviour category was negatively valenced in this sample (i.e., abusive supervision items loaded significantly and positively, while authentic and other positively valenced item loaded significantly and negatively). The valence of this factor is arbitrary, but in this case, the relation-oriented behaviour category is expected to have inversed results. This factor was negatively related to job satisfaction, performance, affective trust, and well-being ($\beta = -0.10$ to -0.15) and positively associated with turnover intention ($\beta = 0.15$).

When comparing results across the three samples from Study 2, the general factor remained the most notable, relating most strongly with 16 of the 17 investigated covariates (RQ2). This conclusion held when leadership was examined through a taxonomic leadership behaviour category lens in which task-, relation-, and change-orientated behaviours were used rather than the 12 specific leadership style measures. In relation to Research Question 3, these results thus indicate that while taxonomic leadership

behaviour categories can be discerned in the data, appear more parsimonious, and have some unique associations with covariates, a large amount of shared variance remains.

STUDY 3

Beyond replicating results from Studies 1 and 2 across industries (RQ1 and RQ2), Study 3 examined whether the variance shared across leadership measures might reflect the general quality of the leader–follower relationship (LMX; RQ3). We assessed the 12 leadership styles and four covariates (i.e., job satisfaction, performance, leader effectiveness, and well-being) among a sample of US employees from the banking ($N = 548$), government and not-for-profit ($N = 512$), and hospitality ($N = 523$) industries. Once again, the measurement models supported the appropriateness of the B-ESEM solution (Table III) and of the general factor as an indicator of positive leadership variance (Table S15).

The results reported in Table X indicate that the general factor was most strongly related to all four covariates ($\beta = 0.27$ to 0.90). Only three of the 12 leadership factors related to the covariates, and these associations were small. Instrumental leadership was positively related to performance ($\beta = 0.25$), while both entrepreneurial and ethical leadership were related to well-being ($\beta = 0.14$ and -0.11). The remaining 45 regression coefficients were not significant.

When examining the taxonomic leadership behaviour categories, our results showed that task-oriented was related to performance ($\beta = 0.13$) and leader effectiveness ($\beta = 0.11$). Relation-oriented was related to well-being ($\beta = 0.08$) and leader effectiveness ($\beta = -0.03$). Change-oriented was significantly related to job satisfaction ($\beta = -0.07$) and well-being ($\beta = 0.11$). These effects were once again far smaller in magnitude when compared to the general factor ($\beta = 0.27$ to 0.89), thus replicating results from Study 2 and indicating that the shared variance is unlikely to be represented by taxonomic leadership behaviour categories alone (RQ3).

We then examined the degree to which the general factor may reflect the followers' exchange relationship with their leader. The analyses of LMX (Scandura and Graen, 1984) were conducted from the model, including 12 specific factors and one general factor. First, our results, reported in Table XI, revealed a strong correlation ($r = 0.85$) between the general factor and a latent LMX factor, indicating a very strong degree of similarity between the two factors. Second, several SEM regression models were tested in which constraints were progressively removed to examine whether the general factor and LMX were associated differently with covariates.

The first model allowed LMX to freely associate with covariates while constraining the relations between leadership variables (general factor and the leadership specific factors) to zero. The second model freely estimated the relations between the covariates and both the LMX and general factor, while constraining the relations of the leadership-specific factors to zero. The final model allowed the LMX factor, the general factor, and the leadership-specific factors to freely associate with covariates. The change in R^2 between Models 1 and 2 was the most indicative of whether the general factor captured leadership-relevant information beyond LMX. These results (summarized in Table X and

Table X. Regression coefficients for Study 3—United States

<i>Leadership</i>	<i>Job satisfaction</i>	<i>Performance</i>	<i>Well-being</i>	<i>Leader effectiveness</i>
Leadership modelled as styles				
General factor	0.67*	0.27*	0.51*	0.90*
Abusive	0.04	0.01	−0.07	−0.02
Authentic	0.02	0.03	−0.03	−0.02
Authoritarian	0.04	0.26	0.06	0.06
Charismatic	0.02	−0.01	−0.03	−0.05
Entrepreneurial	0.06	0.01	0.14*	−0.07
Ethical	0.01	−0.07	−0.11*	0.01
Servant	0.01	0.04	0.03	−0.03
Instrumental	0.06	0.25*	0.03	0.13
Participative	0.13	0.05	0.06	−0.05
Paternalistic	−0.02	0.01	−0.01	−0.04
Transactional	−0.01	−0.11	0.07	0.09
Transformational	−0.06	0.12	0.01	−0.08
R^2	0.484	0.195	0.317	0.853
Leadership modelled as behaviours				
General factor	0.65*	0.27*	0.48*	0.89*
Task-oriented	−0.01	0.13*	0.04	0.11*
Relations-oriented	−0.04	0.05	0.08*	−0.03*
Change-oriented	−0.07*	−0.03	0.11*	−0.05
R^2	0.432	0.092	0.248	0.807
LMX – general factor relationship				
LMX only model	0.446	0.078	0.274	0.748
LMX + General factor model	0.460	0.080	0.279	0.824
LMX + General factor + 12 specific factors	0.504	0.216	0.333	0.855

Note: * $p < 0.05$. All regression coefficients are standardized. Models included a factor controlling for common method variance.

detailed in Table S18 of the supporting information) demonstrated that LMX and the general factor related to covariates in a functionally identical manner, further supporting the similarity between these constructs ($\Delta R^2_{\text{Job satisfaction}} = 0.014$, $\Delta R^2_{\text{Performance}} = 0.002$, $\Delta R^2_{\text{Well-being}} = 0.005$, $\Delta R^2_{\text{Leader Effectiveness}} = 0.076$; $\Delta_{\text{mean}} = 0.024$). These findings strongly indicated that the general factor reflected the same information as the LMX scale (i.e., Scandura and Graen, 1984) and supported the idea that the general factor may represent an overall positive assessment of the leader anchored in the quality of the leader–follower exchange relationship (RQ3). The addition of the leadership-specific factors increased average R^2 by 0.066 across covariates, indicating once again only a modest unique association with these factors.

Table XI. Correlation between LMX, leadership factors, and covariates in Study 3

	1	2	3	4	5	6	7	8
1. LMX								
2. General factor	0.85*							
3. Task-oriented behaviours	−0.08	−						
4. Change-oriented behaviours	<0.01	−	−					
5. Relations-oriented behaviours	0.04	−	−	−				
6. Job satisfaction	0.61*	0.65*	−0.01	0.08*	−0.02			
7. Performance	0.25*	0.27*	0.13*	−0.02	0.05	0.43*		
8. Leader effectiveness	0.89*	0.78*	0.12*	−0.04	−0.03	0.71*	0.32*	
9. Well-being	0.49*	0.48*	0.05	0.10*	0.08*	0.61*	0.33*	0.52*

Note: * < 0.05; Correlations between leadership factors are constrained to 0.

STUDY 4

In Study 4, we first sought to replicate the results from Studies 1 and 2 in an organizational sample while relying on multi-level, multi-informant data (RQ1-RQ2), including team and leader-rated covariates. Moreover, although Study 3 provided strong evidence to indicate that followers rely on their general impression of their leaders when completing leadership measures (i.e., LMX), further questions may be asked about the specific nature of this positive assessment. Liden and Maslyn (1998) argued that the leader–follower relationship (LMX) encompasses affect, loyalty, contribution, and professional respect. Drawing on the past literature on the positive assessment of the leader by followers (i.e., Liden et al., 1993; Martinko et al., 2018; Yammarino et al., 2020), follower’s affect towards the leader is the most theoretically and empirically important element of the leader–follower relationship. Thus, in Study 4, we consider whether the effects attributed to LMX in Study 3 could be attributed to a simpler measure of followers’ affect towards their leader (i.e., to the purely affective component of their exchange relationship; Martinko et al., 2018). The sample included 332 employees from 55 teams working at a large multinational automotive organization in China. In addition to the leadership measures, nine covariates were included. Employees self-reported their job satisfaction, well-being, and assessment of leader effectiveness, while leaders rated each employee’s performance, OCB, and innovative behaviour. Finally, employees reported team-level covariates: intra-group trust, team performance, and team viability.

For this last study, we had to reduce the survey length to accommodate the organization’s requirements. Thus, we reduced the authentic leadership measure from 16-items to 9-items, and the charismatic leadership measure from 20-items to 10-items. Additionally, we used a 5-item version of Tepper’s (2000) abusive supervision measure, which was previously validated by Mitchell and Ambrose (2007). To shorten the scales, we followed recommendations by Heggstad et al. (2019) on scale adaption. The complete process used to develop these shorter versions and ensure their comparable validity is reported in the supporting

information (including Tables S22–S28). Furthermore, the transactional leadership measure did not perform well in this last study (i.e., there was a negative average covariance among the items $a = -0.89$) and had to be removed from the analyses.

In Study 4, the measurement models again supported the appropriateness of the B-ESEM solution (Table III) and the general factor as an indicator of positive shared leadership variance (Table S16). Due to the analytic complexity of the multi-level analyses used in Study 4, it was not possible to rely on a latent operationalization of leadership as part of multi-level B-ESEM analyses as they are still not possible in a multi-level framework. Instead, we relied on the same procedure used in Study 1 to obtain the factor scores for our main analyses (Skrondal and Laake, 2001). Multi-level structural equation modelling (MSEM) was used to partition variance into latent within-group (employee level, L1) and between-group (group level, L2) components while relying on latent aggregation procedures to achieve group-level estimates corrected for inter-rater unreliability (Morin et al., 2022), rather than problematic manifest aggregation procedures in which employees' or supervisors' assessments are simply averaged at the work unit level (Preacher et al., 2010). Within one model, the six individual employee covariates, rated by the leader and the employees, were tested at L1. The three team-level variables rated by the employees were examined by decomposing their variance into a L1 and L2 component. The intraclass correlations (ICC1 and ICC2) values are listed in Table S29.

The results from these analyses are reported in Table XII. For the six individual covariates, the general factor was associated with the three leader-rated covariates and three self-rated covariates and was more strongly related to the covariates than any of the 11 leadership measures ($\beta = 0.32$ to 0.80). All specific factors shared some association with self-rated covariates ($\beta = -0.12$ to 0.22), and seven shared a relation with a leader-rated covariates ($\beta = -0.12$ to 0.15). However, the magnitude of these significant associations were remarkably small ($M = 0.08$). The general factor was related to L1 variance in intra-group trust, team performance, and team viability ($\beta = 0.76$ to 0.77), but not to L2 variance in any of the covariates. This result was mirrored with the specific factors, with eight of the leadership measures demonstrating significant L1 relations ($\beta = -0.08$ – 0.15) but no L2 associations. These results indicate that the relations between the general factor and the covariates seem to operate at the individual rather than team level, which is consistent with the idea that these ratings of shared leadership variance reflect something occurring at the level of the employee (L1) far more than at the level of the team (L2). An alternate explanation for the non-significant findings at the team level is that the sample size is relatively small ($N = 55$) and therefore may be underpowered.

In answering RQ3, our results showed that the factors representing the taxonomic leadership behaviour categories were all poorly defined, with most specific factor loadings not reaching statistical significance. Thus, these taxonomic leadership behaviour categories were unable to capture the shared variance included in the general factor. Due to poor factor structure in this sample, further analyses utilized the 11 specific factors representing leadership styles rather than taxonomic leadership behaviour categories.

Leader affect (Martinko et al., 2018) was then incorporated into our analyses in the same manner as LMX in Study 3. Our results, reported in Table XIII, first revealed that leader affect was correlated with the general factor at 0.81 , indicating a

Table XII. Regression coefficients for Study 4

Leadership	Employee self-rated			Leader rating of employees		
	Job satisfaction	Leader effectiveness	Well-being	Performance	OCB	Innovative behaviours
General factor	0.78*	0.80*	0.80*	0.45*	0.39*	0.32*
Abusive	−0.15*	−0.08*	−0.12*	−0.12	−0.12*	<−0.01
Authentic	0.01	0.10*	0.09*	−0.02	−0.01	<0.01
Authoritarian	−0.05	−0.07	−0.07*	−0.08	−0.09	−0.09
Charismatic	0.08*	0.05*	0.09*	0.09	0.15*	0.09
Entrepreneurial	0.08*	0.06	0.15*	0.10	0.09*	0.05
Ethical	0.04	−0.06*	−0.05*	−0.02	−0.05	−0.01
Servant	0.15*	0.04	0.22*	0.13*	0.11*	0.04
Instrumental	0.03	0.11*	0.08*	0.08	0.14*	0.04
Participative	0.07*	0.06*	0.03	0.02	0.07	0.01
Paternalistic	0.12*	0.14*	0.07*	0.07	0.11*	0.08
Transactional	—	—	—	—	—	—
Transformational	0.24*	0.15*	0.12*	0.12*	0.09	0.07
R ²	0.875	0.815	0.913	0.331	0.306	0.146

Leadership	Team covariates – Level 1 (within)			Team Covariates – Level 2 (between)		
	Intra-Group Trust	Team Viability	Team Performance	Intra-Group Trust	Team Viability	Team Performance
General factor	0.77*	0.76*	0.76*	0.13	−0.11	−0.57
Abusive	−0.08*	−0.04	−0.07	0.03	−0.13	−0.64
Authentic	0.05	0.04	0.06	1.25	0.89	0.15
Authoritarian	−0.05	−0.07	−0.04	0.27	0.44	0.75
Charismatic	0.10*	0.10*	0.08*	0.37	0.20	−0.13
Entrepreneurial	0.10*	0.08*	0.09*	0.51	0.16	−0.60
Ethical	<−0.01	−0.02	0.02	−0.39	−0.29	−0.08
Servant	0.14*	0.12*	0.14*	−0.64	−0.94	−1.54
Instrumental	0.07*	0.09*	0.04	0.91	0.95	0.88
Participative	0.10*	0.11*	0.09*	−0.07	0.11	0.58
Paternalistic	0.14*	0.15*	0.11*	0.44	0.62	1.11
Transactional	—	—	—	—	—	—
Transformational	0.14*	0.12*	0.13*	−1.15	−0.77	0.22
R ²	0.783	0.725	0.728	0.990	0.992	0.987

Note: *<0.05. All regression coefficients are standardized. Models included a factor controlling for common method variance.

Table XIII. Correlation between affect, leadership factors, and covariates in Study 4

	1	2	3	4	5	6	7	8	9	10	11	12
1. General factor												
2. Abusive	—											
3. Authentic	—	—										
4. Authoritarian	—	—	—									
5. Charismatic	—	—	—	—								
6. Entrepreneurial	—	—	—	—	—							
7. Ethical	—	—	—	—	—	—						
8. Servant	—	—	—	—	—	—	—					
9. Instrumental	—	—	—	—	—	—	—	—				
10. Participative	—	—	—	—	—	—	—	—	—			
11. Paternalistic	—	—	—	—	—	—	—	—	—	—		
12. Transformational	—	—	—	—	—	—	—	—	—	—	—	
Leader affect	0.81*	−0.10	0.01	−0.04	0.05	0.02	0.50*	0.11	0.04	−0.02	0.06*	0.06*
Job satisfaction	0.14*	−0.14*	0.01	−0.01	0.01	0.01	0.82*	0.14*	−0.01	−0.03	0.04	0.15*
Leader effectiveness	0.17*	−0.08	0.11	−0.03	−0.02	−0.02	−0.24*	−0.72*	0.08	−0.03	0.07	0.08
Well-being	0.45*	−0.13*	0.10*	−0.04	0.04	0.10*	−0.47*	0.59*	0.05	−0.05	−0.01	0.05
Leader-rated job performance	−0.05	−0.06	−0.07	0.08	−0.15	0.01	0.01	0.01	−0.06	−0.08	−0.16*	−0.02
Leader rated OCB-I	0.11*	−0.25	−0.03	−0.14	0.22	0.08	0.03	−0.07	0.16	0.12	0.12	0.07
Leader rated innovative behaviours	0.02	0.25*	0.03	−0.01	0.01	−0.05	−0.03*	−0.02	−0.11	−0.03	0.04	−0.06
Team intra-group trust (level 1 [within])	−0.78*	−0.02	0.01	−0.01	0.03	0.01	−0.15*	0.13	0.02	0.01	0.01	0.01
Team viability (level 1 [within])	0.20*	0.32	0.02	−0.03	0.02	−0.01	0.05	0.01	0.10	0.17	0.15	0.04
Team performance (level 1 [within])	0.19*	−0.05	−0.10	0.09	−0.06	−0.02	−0.01	−0.11*	−0.12	−0.04	−0.13	−0.13

Note: * <0.05.

Table XIV. Comparison of variance accounted for by affect (Study 4)

<i>Affect—general factor comparisons</i>	<i>Employee self-rated</i>			<i>Leader rating of employees</i>		
	<i>Job satisfaction</i>	<i>Leader effectiveness</i>	<i>Well-being</i>	<i>Job performance</i>	<i>OCB-I</i>	<i>Innovative behaviours</i>
Affect only	0.835	0.780	0.848	0.256	0.220	0.115
Affect + general factor	0.850	0.799	0.873	0.292	0.239	0.145
Affect + general factor + specific factors	0.913	0.855	0.947	0.342	0.315	0.168
Δ when adding general factor to Affect	0.015	0.019	0.025	0.036	0.019	0.030

<i>Affect—general factor comparisons</i>	<i>Within team (Level 1) covariates</i>		
	<i>Intra-group trust</i>	<i>Team viability</i>	<i>Team performance</i>
Affect only	0.735	0.653	0.682
Affect + general factor	0.748	0.672	0.698
Affect + general factor + specific factors	0.805	0.730	0.740
Δ when adding general factor to Affect	0.013	0.019	0.016

Note: All values in table represent R^2 . Mean Δ when adding affect to full B-ESEM model is 0.038. Models including affect would not converge when level 2 covariates were specified, preventing comparison across team-level covariates.

substantial degree of overlap between these factors that matched the extent to which this factor overlapped with LMX in Study 3 ($r = 0.85$). Regression analyses, matching those conducted in Study 3, were then realized to assess the relative standing of the general factor, of the affect factor, and of the leadership-specific factors in relation to covariate variance. These results, reported in Table XIV, indicate that for individual-level covariates, affect alone was strongly related to the covariates ($R^2_{\text{mean}} = 0.569$). Adding the general factor raised the average R^2 to 0.590, an increase of 0.021. These results indicate that the affect factor and the general factor function almost identically. When the remaining leadership-specific factors were added to the analysis, the average R^2 increased by 0.055 ($R^2_{\text{mean}} = 0.646$), indicating a very little incremental contribution of these specific factors, even when considered in combination. Models including affect would not converge with covariates specified at L2, preventing comparisons for team-level covariates.

Based on these results and previous work on implicit leadership theories and affect (i.e., Lord et al., 2020; Martinko et al., 2018), we can thus be reasonably confident that the general factor represents at least in part, a general impression reflecting the degree to which followers like their leader. This conclusion does not mean that the general factor (or leader affect) is not thematically important, as we indeed found it to share strong associations with a series of individual-level covariates, including leader’s ratings of employees’ performance, OCB, and innovative behaviour. Moreover, these associations were all observed while controlling for the possibility of common method bias in the relations between the leadership measures and the covariates. As such, the general factor is not simply a methodological issue but rather a substantially important aspect of the leadership process.

DISCUSSION

Overview of the Findings

RQ1: To what extent do leadership measures share variance?

Our data reveal an inconvenient truth for leadership researchers: The 12 most popular leadership measures considered in our investigation share significant variance and retain very little unique specificity. This finding in and of itself is important as it questions ongoing efforts to establish a distinction between leadership styles as they are currently conceptualized and measured. Whereas others have approached this issue through methodological means, we suggest the problem may be more complex and is likely due to both the measures that are used to capture them (Banks et al., 2023) and a lack of conceptual clarity between the styles themselves (Anderson and Sun, 2024).

The field's myopic focus to find a distinction to justify one leadership style over another has led researchers to point to theoretical papers that espouse conceptual differences (e.g., Lemoine et al., 2019), comparison studies that argue for the incremental contribution of one style over another (e.g., Walumbwa et al., 2008), and meta-analytical work that contends that some distinctions exist between a set of two to three styles for specific sets of outcomes (e.g., Hoch et al., 2018; Lee et al., 2020). However, by focussing on distinction, researchers fail to acknowledge that leadership styles have far more in common than their collective differences. Our research is distinct as we have examined these leadership measures together and focus on their common aspects rather than pitting them against one another, as done in previous meta-analytic work (e.g., Banks et al., 2018; Hoch et al., 2018). Our method is ideally suited to providing empirical evidence supporting the suggestions that, when taken together, the leadership style measures capture positive or negative leadership, which are uniformly valenced and may conflate leader intentions and outcomes (Banks, 2023; Day, 2014; Fischer et al., 2020).

Thus, our findings from Research Question 1 make distinction arguments between leadership styles untenable when analysed using questionnaires as they share significant amounts of variance. Further, it questions whether establishing empirical differences between similar leadership styles is the best way to advance our understanding of leadership.

RQ2: If leadership measures capture unique variance, is this variance associated with theoretically and empirically established covariates?

The analyses for Research Question 2 demonstrated that the general factor was significantly related to 42 of the 49 covariates; however, only 18.75 per cent of the relations involving the specific factors (i.e., 108/576) were statistically significant, showing that they did not capture much unique leadership-related variance.

We tentatively suggest that three specific leadership styles seem to capture some unique construct-relevant information, as they were related in a statistically significant manner to our covariates in over 25 per cent of the relations analysed. While some

might seek to use this evidence to suggest that research on these styles can continue unchanged, we remind them that these styles provided minute incremental variance that was not consistent across covariates or context. First, *abusive supervision* (21/49) was generally associated with many less desirable covariates in line with its theoretical conceptualization (Tepper, 2000). The value of studying a leadership style that is only positively associated with undesirable outcomes is questionable and there are already significant theoretical concerns about this construct in the literature (Fischer et al., 2021). Second, *charismatic leadership* (16/49) alternated between being positively and negatively related to different covariates, suggesting that when the general leadership aspects are extracted from charismatic leadership what remains reflects an undesirable style of leadership. This is consistent with the dark side or cult view of charismatic leadership (Howell and Avolio, 1992; Tourish and Vatcha, 2005). Third, *paternalistic leadership* (13/49) was positively associated with affective trust across four samples, demonstrating very minor but consistent findings, and thus might be worth considering as part of future theoretical developments on trust.

Servant (11/49), *authoritarian* (10/49), and *transformational* leadership (10/49) were each associated with a subset of covariates. For servant and transformational leadership, these associations predominately emerged in Study 4 (7 covariates), whereas for authoritarian leadership, they mainly appeared in Study 1 Sample A (5 covariates), indicating less robust findings. Finally, the remaining six measures only demonstrated a total of 27 significant relations with the covariates, most (20) of which were in Study 4. Several of the more commonly studied leadership theories fall under this category, including transactional (1/37), authentic (2/49), and ethical (3/49) leadership, which may indicate that the variance captured by these measures are prototypical of leaders and therefore covered by other measures. Importantly, our results indicate that this conclusion holds across various countries and industrial sectors, suggesting that attempts to demonstrate that specific leadership styles carry unique benefits in specific cultures or sectors are unlikely to be fruitful.

RQ3: What does the general factor represent?

Research Question 3 examined the extent to which a set of taxonomic leadership behaviours categories (Yukl et al., 2002), the quality of the exchange relationship taking place between the leader and follower (Scandura and Graen, 1984), and the positive affect followers feel towards their leader (Martinko et al., 2018) could explain the shared variance captured by the general factor of leadership. Specifically, our investigation of LMX and affect, test whether the observed shared variance is a function of methodological issues of affective biases in employee responses and how these should be modelled. On the other hand, the examination of taxonomic leadership behaviour categories examines the conceptual confounds inherent in leadership styles.

In Studies 2 and 3, although we did not directly measure behaviours, our results demonstrated that it was possible to allocate all perceptual leadership items to one of the task-, relation-, or change-oriented taxonomic leadership behaviour categories (Yukl et al., 2002). These perceptual items also demonstrated significant, though

moderate, factor loadings on these categories, and in many cases higher than those associated with the specific leadership style factors. This finding is interesting given that CMV was extracted from the model, that the general factor (likely representing follower affect) absorbed additional common variance, and the items used came from a variety of leadership measures not specifically calibrated to capture these categories. However, these leadership taxonomic behaviour categories did not account for most of the shared leadership variance, which still belonged to the general factor. As such, while these seem to be conceptual benefits to a taxonomy of leadership behaviour categories, the perceptual items still shared significant variance, indicating confounded measurement.

In Study 3, we found evidence that the general factor might reflect the broad quality of the leader–follower exchange relationship (LMX). In Study 4, results revealed that the general factor was functionally identical to the affective component of this relationship (affect being a subscale within LMX; Liden and Maslyn, 1998), thus reflecting the extent to which followers like their leader (Martinko et al., 2018).

These findings from Research Question 3 significantly contribute to the leadership literature in two ways. First, they suggest that a taxonomic view of leadership, in which leadership is not modelled as a series of specific styles but rather as a reduced set of taxonomic leadership behaviour categories, seems to offer a more conceptually clear, parsimonious, and practical approach forward for leadership research. Second, regardless of conceptualization, follower-reports of leadership will be substantially influenced by their affect towards their leader. However, it is argued that this is not a methodological artefact, a form of pooled error variance, a confounder, or some form of statistical noise, but rather an important part of the theoretical leadership process and worthy of examination in and of itself (Lord et al., 2020; Martinko et al., 2018).

Solving Proliferation and Construct Redundancy in Leadership Research

We now turn our attention to the meaning of these results for the leadership field. We make three primary contributions, highlighting the following: (1) the need to strengthen our conceptualizations and measures, (2) the importance of separating the measurement of affect from actual leader behaviours, and (3) how adopting behavioural leadership taxonomic leadership behaviour categories can be a unifying way forward for leadership research.

Strengthening our Conceptualizations and Measurement

Fuelling the problem of construct proliferation is a combination of problematic conceptualizations and weak measurement. When measures are developed for leadership styles, the underlying premise is they should match the concept that they are theoretically intended to measure (i.e., a measure of ethical leadership should accurately—and only—capture ethical leadership; Banks et al., 2021). However, due to the conceptual overlap between styles, multiple measures end up asking very similar questions, observing very similar behaviours (e.g., shared vision, empowerment, and ethical behaviour),

or simply capturing the same variance (e.g., Bass and Avolio, 1995; Brown et al., 2005; Liden et al., 2015).

This overlap is then exacerbated by using questionnaires. Using questionnaires to measure leadership is problematic as they seem to be capturing the general behavioural tendency of the leader (Day, 2014; Fischer et al., 2017) and perhaps respondents' future expectations of the leader (Day, 2014), rather than unique leadership behaviours (Banks et al., 2023). As shown in our study, asking followers to rate their leader on various leadership styles will not capture much variance unique to those styles, but will rather predominately capture follower affect towards the leader (Martinko et al., 2018). This results in an apparent dichotomization of leadership in which most leadership data show leaders as being 'good' or 'bad' (Alvesson, 2020; Fischer and Sitkin, 2023). Thus, we have shown empirically what some in the field have expected, which is that our measures are not capturing what they should be capturing (Banks et al., 2023; Day, 2014; Fischer et al., 2017), and that style researchers have 'mostly ignore(d) these "inconvenient truths"' (Fischer et al., 2020, p. 1). This is not to say that questionnaires themselves are inherently problematic, as questionnaires remain useful for capturing many non-observable psychological variables (Fischer et al., 2020). To move the field forward, questionnaires in leadership research need to be used more carefully and honestly.

It is essential to note, however, that simply moving from questionnaires to another type of measure will not fix the construct redundancy problem or prevent further proliferation of leadership styles. If leadership styles encompass the same common underlying behaviours, then there will always remain a significant overlap between these leadership styles, irrespective of the type of measures used to capture them. Thus, rather than only trying to improve measurement, we must re-evaluate whether this isolationist focus on leadership styles is useful for the field or whether we need to switch to an approach that better captures commonalities and differences.

Modelling Follower Affect as an Important Part of the Leadership Process

The finding that our general factor significantly overlapped with affect, together with results from previous research on follower affect (Martinko et al., 2018) and LMX (Liden and Maslyn, 1998; Liden et al., 1993), highlights the need to explicitly model affect in leadership research. Affect appears to be a crucial component of the leadership process, not merely a methodological issue to be removed, but a meaningful and likely very influential factor that determines how leadership functions and how successful it is likely to be. This observation is critical given that only approximately 4 per cent of existing leadership studies consider followers' affect towards their leaders (Bernerth et al., 2018). As there is a concerted effort to encourage leadership researchers to measure objective behaviours (Banks et al., 2023), rather than perceptions (Fischer and Sitkin, 2023), affect still needs to be modelled, where appropriate, to understand its unique role. Given that the field is built on the notion that leaders influence followers (Bass, 1985; Burns, 1978), the psychological experience of followers, especially their attitudes and perceptions of these leaders, will always remain a critical component of the leadership process (Lord et al., 2020) and cannot be solely measured by objective means or observational methods (Cooper et al., 2020).

Interestingly, Martinko et al. (2018) proposed that the LAQ can be used as a substitute for good leadership styles. In one sense, we can understand why Martinko et al. recommended this as scales measuring follower affect towards their leader measure functionally the same thing as follower-reported scales for many leadership styles. However, this does not mean that leadership is only a function of affect, but simply that follower-reports of leadership typically capture primarily their affective responses. Accordingly, we diverge from this recommendation, arguing that follower affect is crucial in the leadership process and needs to be explicitly and causally modelled, but that it needs to be modelled alongside leadership, rather than as a substitute for it, a variable to be controlled, or a methodological artefact.

Followers' affect undoubtedly plays a complex role in leadership, including reciprocal relationships with other facets of the leadership process. For example, if leaders put their followers' interests above their own (Liden et al., 2015), this type of behaviour should foster a more positive affect towards the leader (Martinko et al., 2018) and enhance the quality of the leader–follower relationship (Liden et al., 2015). Alternatively, if the follower already holds positive affect towards the leader before engaging in a specific leader behaviour, for example, because the leader fits a prototypical leader stereotype (Lord et al., 2020), the follower may be more likely to perceive and report higher ratings on the leadership measures (Yammarino et al., 2020). It is most likely that both of these arguments are correct, especially considering that, in the current investigation, all of the participants had worked for their leader for at least a year. Affect is most likely to represent an important outcome of leader behaviours, and a factor that moderates how employees perceive leadership behaviours. Disentangling the multifaceted relation between affect and leader behaviours (Gottfredson et al., 2020) is a complex task that is well beyond the scope of this manuscript. However, this task seems vital to the future of leadership research, and we encourage future research to examine this topic in greater depth.

Examining Leadership as a Taxonomy Rather than Styles

Perhaps our most critical contribution to the leadership literature is that leadership styles, conceptualized as competitors fighting to explain incremental variance, may not be the most efficient way forward. Our findings challenge the assumption that leadership styles are categorically distinct from one another by revealing that their measures capture very little unique variance. Rather, our findings indicate that a more parsimonious way to examine leadership could be through a common set of underlying taxonomic leadership behaviour categories (as previously argued by Fleishman, 1953; Yukl et al., 2002). Through this demonstration, we provide initial empirical evidence highlighting the need to adopt a different perspective of leadership that does not rely on categorically distinct styles but rather focusses on the commonality among a reduced set of common leader behaviours. We are not arguing that the categories used in our analysis are the optimal or definitive categories going forward. Rather, we used these categories as a starting point in line with existing taxonomies (Yukl et al., 2002). Indeed, taxonomic leadership behaviour categories have received limited attention, and a well-validated and recently updated taxonomy is still lacking (Anderson and Sun, 2024).

These taxonomic leadership behaviour categories can then be used as building blocks to create multiple configurations capable of providing an overall picture of any leader. Researchers could specify different leadership style configurations theoretically by combining taxonomic building blocks and further examine these combinations via latent profile analysis (Morin et al., 2018). We strongly encourage the leadership field to restrict itself to a limited number of categories as most leader behaviours seem to fit nicely under these larger umbrellas (e.g., task, relational). ‘New’ behaviours should first look to be incorporated within existing categories rather than adding additional categories that contribute to the very proliferation problem that this model seeks to solve. Otherwise, the hunt for ‘new’ categories will have replaced the hunt for ‘new’ styles. This view aligns with Fischer and Sitkin’s (2023) configurational approach and answers the urgent call by Anderson and Sun (2024) to examine whether a general factor of leadership emerges from leadership styles, what this general factor could represent, and how a model of taxonomic leadership behaviour categories could work.

Finally, it is important to note that with any taxonomic leadership behaviour categories, accurate measurement is key, as the version we test in our studies conflates the behaviours with evaluations (Fischer et al., 2020). What is required is non-conflated taxonomic categories of actual leader behaviours, and only in that way will we be able to separate the actual leader behaviours from the follower’s perceptions (Banks, 2023; Fischer and Sitkin, 2023). We hope that leadership scholars will move away from predominately studying specific styles and instead come together to better utilize the knowledge gained over the past several decades to inform the development of comprehensive taxonomic leadership behaviour categories.

Limitations

Although we were able to replicate the initial findings from our first three studies using a multi-level, multi-source, time-lagged data set, the central limitation of our work is the reliance on follower-reports and partially cross-sectional data. This limitation prevents us from definitively demonstrating complete redundancy, as alternate data collection methods may better capture the nuances of specific leadership styles. Regardless, our results demonstrate either that these measures are unable to capture the true nature of the constructs they are attempting to measure in a nuanced and useful manner or that the theory and conceptualization underlying them lack validity. Additionally, we acknowledge the possible biases arising from using single-source data despite capturing and removing CMV and the inherent benefits of multivariate analyses (Siemsen et al., 2010) and ESEM procedures (Asparouhov et al., 2015).

Second, we cannot speak directly to any leadership measure beyond the 12 investigated. However, the high level of conceptual overlap strongly suggests that construct redundancy is equally problematic for other styles. Similarly, we cannot speak directly to examining leadership styles as modelled by their dimensions as we did not utilize the long version of some measures due to the number of items in the survey. Further, the range of covariates and contexts from which the data were obtained were not exhaustive, nor were they all tested at multiple levels.

Third, multiple variables were omitted that could alter the relations between our leadership measures and the covariates and further contribute to the noted shared variance. For example, the length of tenure with the leader can influence the level of affect felt by the followers, with those who are newer potentially not feeling the strong levels of affect reported in our study, as affect should evolve over time (Sin et al., 2009). Wang et al. (2019) demonstrated that follower characteristics, such as extraversion and agreeableness, are related to followers' perceptions of the leader and influence how the leader treats followers. Walter and Bruch (2010) showed that organizational structure, formalization, and centralization influence how transformational leadership influences followers' productive organizational energy. ITCV tests revealed that a singular omitted variable was unlikely to alter the relations observed between our general factor and covariates, with omitted variables more likely to reduce or cancel the small unique variance associated with the 12 leadership measures in this study (Frank et al., 2013).

PRACTICAL IMPLICATIONS

Finally, we turn our attention to the meaning of these results for leadership practice. For organizations, the findings indicate that 'good' leadership comes in a variety of styles, each leading to similar positive outcomes, and that these styles have more in common than what many leadership consultants would have them believe. Thus, rather than adopting the latest trend-driven leadership style that often adds complexity without adding benefits, organizations will benefit from strengthening their leader's existing behaviours that are in line with the organization's values and mission. By investing in the development of these foundational behaviours, organizations can cultivate leadership that is both impactful and consistent with their strategic goals.

For leaders, these findings offer a refreshing perspective: being perceived as an effective leader may be simpler than the vast body of leadership studies suggests. Since followers' perceptions of a leader's effectiveness are heavily influenced by the strength of their affect towards the leader, prioritizing relationship-building with followers can be a powerful lever to foster better organizational, team, and individual outcomes.

For leadership consultants, our findings suggest that leadership development programs could be simplified down to a small set of core competencies (i.e., taxonomic leadership behaviour categories) coupled with innovative andragogical techniques to ensure that leaders are making significant improvements on these core competencies. This approach encourages a break from the endless pursuit of the next 'new' competency, instead fostering deeper mastery of the essentials that drive effective leadership.

CONCLUSION

Across seven samples, including over 4000 participants from multiple countries and industries, our results demonstrated that (a) 12 different leadership measures share significant variance that can be identified through a general factor of leadership, and therefore, these scales capture essentially the same information; (b) none of the specific leadership measures substantially explained more variance in the covariates than the general

factor; and (c) the commonalities between these measures are likely due to conceptual and methodological issues.

Our study makes several contributions, some expected, some surprising, and some novel. First, the redundancy problem is substantial. Style measures do not function as they should, whether because of conceptualization or measurement and that questionnaires alone should not be used to measure leadership styles. Second, affect is very important in followers' experience of leadership. It is not a methodological issue specific to follower-reports but a theoretically important factor that should be modelled. Finally, to solve the issue of proliferation and bring leadership back to a practical and tangible foundation, it may be more beneficial to consolidate what is currently known about leadership commonality into a coherent narrative, such as by using taxonomic leadership behaviour categories, as the redundancy and proliferation problems cannot be resolved while styles are the primary focus of attention.

ACKNOWLEDGMENTS

None.

CONFLICT OF INTEREST STATEMENT

We have no known conflict of interest to disclose.

NOTES

- [1] Inconsistent terminology (e.g., theory, style, approach, behaviours) is used throughout the leadership literature. For purposes of this manuscript, we use *style* to refer to the practice of a specific form of leadership (i.e., the supervisor is a servant-leader). We use *measure* to indicate the scale that is used to assess the extent to which a leader engages in a specific leadership style (i.e., Liden et al. (2008) measure of servant leadership). We finally use *theory* when talking about leadership as a theoretical field, rather than about specific styles or measures of leadership.
- [2] These quality controls led to the removal of: Sample A 25 cases; Sample B 97 cases; India 12 cases; banking 87 cases; hospitality 11 cases.
- [3] Although some of the relations seem counter-intuitive, it is important to note that these relations only reflect the variance that is unique to these each leadership measure beyond what they share with the other leadership measures (i.e., beyond the variance absorbed by the general leadership factor) and beyond the common variance across all items (i.e., the leadership and covariate items, as extracted by the common method factor; Podsakoff et al., 2003). Importantly, our reliance on a bifactor model means that the leadership factors are fully independent (i.e., uncorrelated), which indicates that the unexpected findings are not artefacts of multicollinearity or suppression. Rather, this result has to be interpreted in the context of this bifactor solution, within which the variance present in each of the leadership measures was separated into one general and one specific factor. For example, while we theoretically would expect a positive relation between abusive supervision and workplace deviance, this relation was not found in Study 1, Sample A. To understand this relation, we need to keep in mind that the general factor reflects positively valenced shared leadership variance and is associated with negative factor loadings from the abusive supervision items, suggesting that most of the 'undesirable' component of these ratings might have been absorbed by these negative general factor loadings. It thus stands to reason that the specificity remaining in the abusive supervision specific factor might have come to reflect the least undesirable component of abusive supervision, such as the reliance on harsher forms of discipline which, in and of themselves, may detract employees from engaging in workplace deviance. Additionally, servant leadership was found to be negatively related to trust and leader effectiveness (Study 1, Sample A) and burnout (Study 1, Sample 2). While these links are counter-intuitive based on existing theory highlighting the benefits

of servant leadership, past research has hypothesized that the marked personal-relationship nature of a servant-leader can make some followers uncomfortable (e.g., high power distance; Giolito et al., 2021), that the follower-focussed nature of these leaders is not seen as 'real' leadership by some followers (e.g., Liu, 2019), and that the extra efforts employees engage in for their nurturing and inspirational leaders may lead to increased levels of burnout (Eva et al., 2019). Thus, considering that the positively valenced shared leadership variance has been removed from the servant leadership measure, it is plausible that only these potentially 'undesirable' attributes remain. Importantly, none of these counter-intuitive findings generalized across samples, and all of these relations were fairly weak. Therefore, it is most likely that what is left once the general factor is taken out may simply no longer reflect what the measures were initially created to assess because most of this was absorbed by the general factor.

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