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The study of followers in leadership research: A systematic and critical review

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Abstract: Despite the significant amount of existing research examining the relationship of follower-related factors with leadership outcomes, there is no systematic, critical review that integrates and helps leadership scholars make sense of this rapidly growing body of research. To address this gap in the literature, we first briefly discuss the leading perspectives explaining the role of followers in leadership. Next, we identify and discuss the most frequently studied theoretical narratives explaining the relationship between follower-related predictors and leadership outcomes. Because theoretical arguments generally make causal claims, we identify and examine how methodological concerns including power analysis, multicollinearity, and endogeneity might prevent researchers from supporting those claims. We further explore how these concerns, when relevant and unaddressed, might affect the reported effect sizes. We provide recommendations to help meaningfully structure the field and seed conversations for theoretical and methodological advancements in research on the role of followers in leadership.

Keywords: Followers, Review, Validity Threats, Endogeneity

Introduction

Leadership can be defined as "a goal-influence process that occurs between a leader and a follower, groups of followers, or institutions" to achieve a common, shared objective (Antonakis & Day, 2018, p. 5). Nonetheless, the vast majority of leadership research focuses on only half of this equation, treating leaders as the sole driver of their organization's success or failure and relegating followers to the role of passive recipients of leaders' influence (Kelley, 1988; Meindl, 1990, 1995; Oc & Bashshur, 2013; Uhl-Bien, Riggio, Lowe, & Carsten, 2014). More recently, however, appreciation has grown for the role of followers in organizations. Consensus is emerging that followers are a particularly critical actor in influencing leaders and shaping leadership outcomes (Bastardoz & Van Vugt, 2019; Oc & Bashshur, 2013). Not only that, but leadership behaviors (i.e., goal-directed influence) are not the sole province of those in higher positions; instead, they can be enacted by anyone at any organizational level.

This new emphasis on followers, adopted in this paper, has generated a stream of leadership research dedicated to examining the relationship of follower-related factors with leadership outcomes (Dinh et al., 2014). Despite the nascent nature of the area, there is already a rapidly growing body of empirical work (see Fig. 1). As a result, there have already been a number of attempts to organize this literature. There are currently four review articles on followership (Baker, 2007; Bastardoz & Van Vugt, 2019; Leung et al., 2018; Uhl-Bien et al., 2014), one review article and one special issue focusing on implicit followership theories (Foti, Hansbrough, Epitropaki, & Coyle, 2014; Junker & Van Dick, 2014), a review chapter on follower-centered perspectives of leadership in an edited book (Shamir, 2007), another review article on leader and follower identities (Epitropaki, Kark, Mainemelis, & Lord, 2017) and several papers on followership typologies (e.g., Carsten, Uhl-Bien, West, Patera, & McGregor, 2010; Collinson, 2006; Kellerman, 2008; Kelley, 1988). This body of work has proven crucial in shaping the field; however, to date the focus of each of these reviews has been relatively narrow

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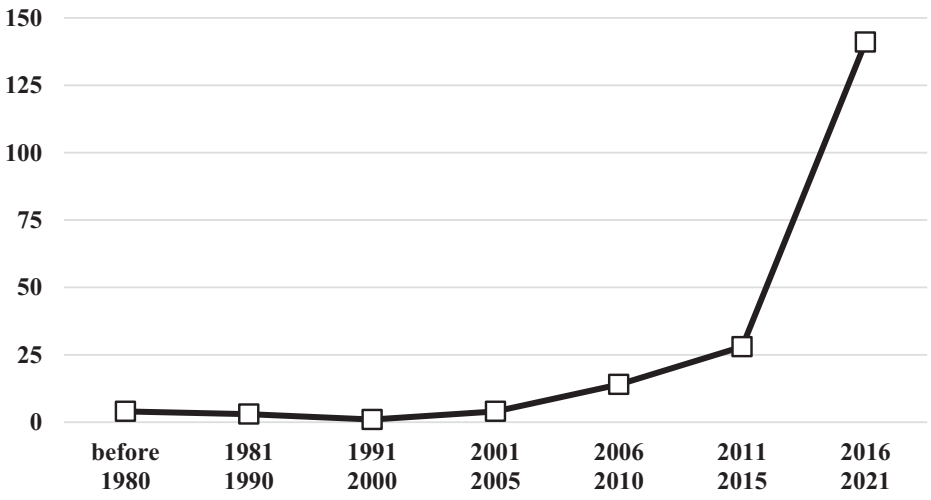


Fig. 1. The number of empirical articles examining the relationship between follower-related predictors and leadership outcomes. *Note*. Tabulated articles include only those that fit to the inclusion criteria and do not include book reviews, announcements, corrections, corrigenda, errata, and articles subsequently retracted. Journals included: Academy of Management Journal, Academy of Management Perspectives, Administrative Science Quarterly, British Journal of Management, Dissertations, European Journal of Work and Organizational Psychology, Frontiers in Psychology, Group & Organization Management, Human Performance, Human Relations, Human Resource Management, Human Resource Management Journal, The International Journal of Human Resource Management, Journal of Applied Psychology, Journal of Applied Social Psychology, Journal of Business Ethics, Journal of Business Psychology, Journal of Career Development, Journal of International Business Studies, Journal of Leadership and Organizational Studies, Journal of Managerial Psychology, Journal of Management Studies, Journal of Organizational Behavior, Journal of Occupational Health Psychology, Journal of Management, Journal of Personality and Social Psychology, Journal of Social Issues, Journal of Vocational Behavior, Leadership & Organization Development Journal, The Leadership Quarterly, Organizational Behavior and Human Decision Processes, Organizational Behavior and Human Performance, Organization Science, Organization Studies, Personnel Psychology, Personality and Social Psychology Bulletin, and Zeitschrift fur Psychologie.

in scope. No extant review has cast a sufficiently wide net to: (a) comprehensively review the list of follower-related factors (defined more completely below) that have been used to predict leadership outcomes[2], (b) outline the theoretical perspectives that underpin the choice of those follower-related factors, and (c) examine the methodological and validity concerns around how those follower-related factors are studied in the extant leadership literature. We aim to address these oversights and, in doing so, highlight two serious concerns that become clear when taking this wider perspective.

The first concern is the emergence of silos and an early fragmentation of the field. For example, there seems to be narrow focus on which follower-related factors,[3] as predictors, are examined. Almost 60% of the relationships reported in our review use follower individual differences and follower cognition to predict leadership outcomes (see Fig. 2). Widening the scope to include follower motivation and performance in the list captures an additional 15% of all examined relationships. As a result of this emphasis on four dominant factors, theoretically important factors related to leadership outcomes remain relatively ignored. Constructs such as follower emotional state and well-being, follower power and influence, followership behaviors, and group-level concepts are all underrepresented in the literature.

In terms of the leadership outcomes studied there is a similarly narrow focus on a small set of constructs. Specifically, our review of the literature reveals that follower cognition, follower motivation and performance along with leader behavioral styles represent 67% of all the outcomes predicted (see Table 1). This increases to 80% if we add leader-member relations to the mix. Other relevant outcomes, including leader emotional state and well-being, leader cognition, leader power and influence, and leader effectiveness (7% of the examined relationships) or follower power and influence, follower withdrawal and turnover, followership behaviors, and group-level outcomes (another 6% of the examined relationships) are underrepresented. This emphasis on a small set of predictors and outcomes suggests the potential for deepening divisions in the literature on how follower-related factors are studied as predictors of leadership outcomes and complicates the development of a unifying framework for the field.

The second serious issue is the existence of a host of potential methodological issues (e.g., problems of endogeneity, the lack of power analysis, multicollinearity) in the literature. Simply put, a large percentage of studies use non-experimental, cross-sectional, single-study designs that do not adequately address potential threats to validity (see Antonakis, Bendahan, Jacquart, & Lalive, 2010). This fact makes it difficult to establish causality among constructs and impossible to cleanly interpret the relationships of follower-related factors with leadership outcomes.

To address these issues, we systematically and critically examine the existing literature on how follower-related variables are studied in leadership research. In doing so, we will: (a) briefly review the history of the field and highlight the most popular theoretical perspectives, (b) provide insight into which areas dominate the literature and which areas are potentially ripe for integration, (c) help determine which areas need further attention, (d) illustrate the hazards of techniques risking improper estimates, (e) demonstrate how the strength of association between follower-related predictors and leadership outcomes differs when validity threats or endogeneity concerns are relevant but not addressed (Antonakis et al., 2010), and (f) help set an agenda for future research grounded in the latest theoretical arguments, empirical findings, and methodological advancements. Consistent with the perspective that assigns followers an active role in leadership process, we include outcomes of both followers and leaders who are part of the same leadership process and can influence each

[2] Leadership outcomes refer to individual and relational consequences of leaders and followers that occur as a result of leadership processes. These outcomes can include affective and cognitive states, motivation and performance, power and influence, leadership and followership behaviors, leader-member relations, group-level concepts, and leader(ship) effectiveness.

[3] Our working definition of follower-related factors are those characteristics and behaviors of individuals working in a follower (i.e., non-leadership) role. These follower-related factors include individual differences, affective and cognitive states, motivation and performance, power and influence, followership behaviors, and group-level concepts.

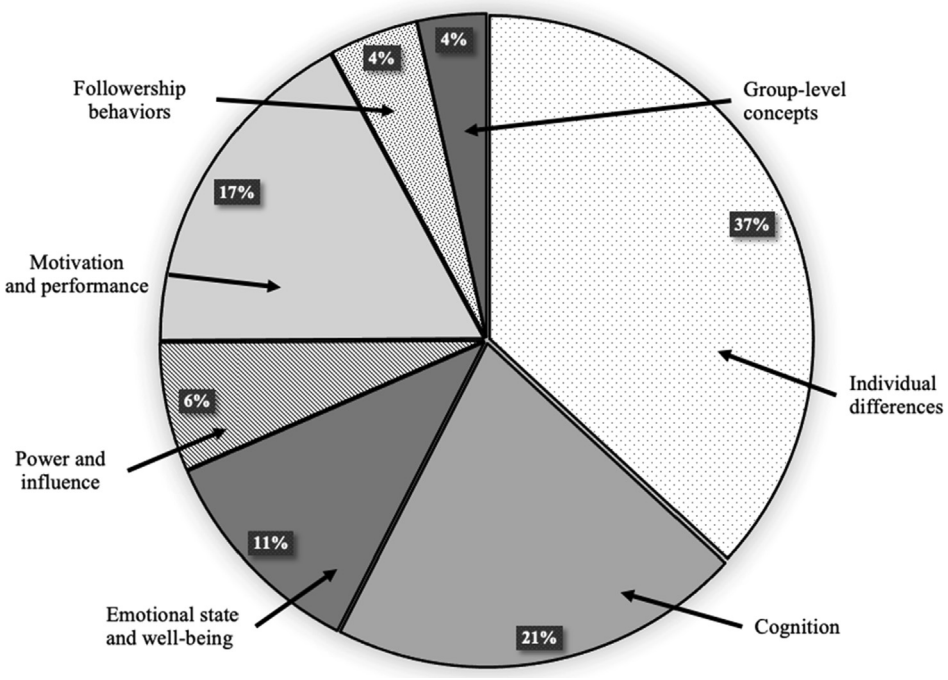


Fig. 2. The distribution of relationships examining the follower-related predictors.

Table 1
How follower-related predictors are typically studied across follower and leader outcomes?

		Follower-related predictors							
	Outcomes	Individual differences	Emotional state Well-being	Cognition	Motivation Performance	Power Influence	Followership behaviors	Group-level concepts	*n* (%)
F	Emotional state &	#	#	*	*				59 (5.3)
O	Well-being								
L	Cognition	#		#					239
L									(21.6)
O	Motivation &	#		#	#				266
W	Performance								(24.1)
E	Power & Influence	#				#	*		15 (1.4)
R	Followership	*		#	#				14 (1.3)
	behaviors								
	Group-level concepts	#							22 (2.0)
	Withdrawal &	#	*	#	*				16 (1.4)
	Turnover								
	Job/Task			#	#	#			15 (1.4)
	characteristics								
L	Emotional state &		*		#		#		14 (1.3)
E	Well-being								
A	Cognition				#	#			42 (3.8)
D	Leader behavioral	#	#		*				236
E	styles								(21.4)
R	Power & Influence						#		3 (.3)
	Effectiveness	#	#		#		*		16 (1.4)
R	Leader-member	#	*	#					138
F	relations								(12.5)
	Fit	*			#				9 (.8)

Note. # represents more than 20% of the relationships and * represents more than 10% of the relationships used the relevant follower-related factors to study leadership outcomes. 17 relationships did not fall under any of the outcome categories. R = relationship. F = fit. Percentages do not sum up to 100% due to rounding. *n* = total number of relationships in each row. % = the distribution of relationships across different outcomes variables.

other (Bastardoz & Van Vugt, 2019; Kelley, 1988; Meindl, 1990, 1995; Oc & Bashshur, 2013; Uhl-Bien et al., 2014). Considering the large scope of relevant literature (and due to space concerns), we choose to include only studies that treat follower-related factors as explanatory variables predicting leadership outcomes. Hence, we excluded articles and studies that treated follower-related factors as a moderating or mediating variable.

To provide historical context, we start by discussing the evolution of interest in follower-related factors in leadership research and identifying the dominant theoretical perspectives in the field. We then focus on the most frequently studied bivariate relationships of follower-related predictors with leadership outcomes to review the theoretical frameworks that are most commonly applied to those relationships. This allows us to provide an understanding of how followers

have been treated in leadership research and the roles that followers are theoretically expected to play in leadership processes. In doing so, we create categories of follower-related predictors. Specifically, informed by our historical examination of follower-related factors in leadership research and drawing on the broader organizational behavior literature we classify follower-related predictors into seven categories: (a) individual differences, (b) cognition, (c) emotional state and well-being, (d) power and influence, (e) motivation and performance, (f) followership behaviors, and (g) group-level concepts (see Tables 1 and 2 and Fig. 2).

After reviewing how these relationships are *explained* theoretically, we review how they are *studied* empirically. We show how widespread endogeneity concerns are within leadership studies using follower-related factors to predict leadership outcomes and then identify and examine how other methodological concerns including power analysis, multicollinearity, and endogeneity might undermine the theoretically derived causal claims. Because *meta*-analytic tools do not allow us to make any strong causal claims if the original studies fail to address these types of validity threats (Antonakis et al., 2010), we choose not to use *meta*-analytic tools to report the estimates of effect sizes. Instead, inspired by other recent leadership reviews (e.g., Hughes, Lee, Tian, Newman, & Legood, 2018; Martin, Hughes, Epitropaki, & Thomas, 2021), we adopt a narrative-based and a more conservative approach to summarize the findings. Specifically, we focus on a smaller subset of follower-related predictors that are most likely to be endogenous (i.e., cognition, emotional state and well-being, power and influence, motivation and performance, followership behaviors) and use multi-level analysis to quantitatively demonstrate how the average associations in studies where validity threats are present but not addressed, differ from the average associations in studies where either validity threats are relevant and addressed or validity threats are irrelevant. We then offer our recommendations on how researchers might establish causality among study variables in their theorized models. Finally, we move to discuss the overall effects and propose an agenda for future research that is grounded in the latest theoretical arguments and empirical findings.

Table 2
Summary of the follower-related predictor and leadership outcome categories and descriptions.

	Category name	Description of constructs that capture	Exemplary variables
FOLLOWER	Individual differences [a]	relatively stable follower characteristics	demographics, personality traits, integrity, beliefs and values
	Emotional state & Well-being [a,b]	the emotional state of followers and their psychological well-being	positive and negative affect, mood, affective well-being, emotional exhaustion, sleep
	Cognition [a,b]	how followers perceive themselves, leader- and leadership-related factors	job attitudes, trust, CSE, identity, perceptions and preferences for a specific leader/leadership style
	Motivation & Performance [a,b]	what motivates and shapes follower in-role and extra-role performance behaviors	needs, motivation, justice, performance behaviors, performance feedback, voice, OCBs, CWBs
	Power & Influence [a,b]	the amount of power followers experience or have over leaders and how followers influence the leaders	dependence, sense of power, influence tactics, resistance
	Followership behaviors [a,b]	the types of behaviors followers engage in when following	followership typologies, communication with leaders
	Group-level concepts [a,b]	how followers relate and interact with each other at the level of the group	climate perceptions, shared leadership, social network characteristics
	Withdrawal & Turnover [b]	follower behaviors and behavioral intentions to disengage from or quit work	turnover intentions, withdrawal behavior
	Job/Task characteristics [b]	the job and task characteristics of followers	task processes, flexible work arrangements, role conflict
LEADER	Emotional state & Well-being [b]	the emotional state of leaders and their psychological well-being	positive and negative affect, emotional exhaustion, experienced stress
	Cognition [b]	how leaders perceive themselves, leader- and leadership-related factors	ego threat, identity threat, leader trust in follower
	Leader behavioral styles [b]	the individual differences and behavioral (leadership) styles of leaders	transformational leadership, abusive supervision, charismatic leadership, ethical leadership
	Power & Influence [b]	the amount of power leaders experience or have over followers and how leaders influence the followers	leader's use of influence tactics
	Effectiveness [b]	perceptions of overall leader effectiveness	leader effectiveness evaluations, leadership ratings
JOINT	Leader-member relations [b]	the nature of the relationship between leaders and followers	LMX, follower-leader mutual liking
	Fit [b]	person-job or person-supervisor fit	follower person-supervisor fit

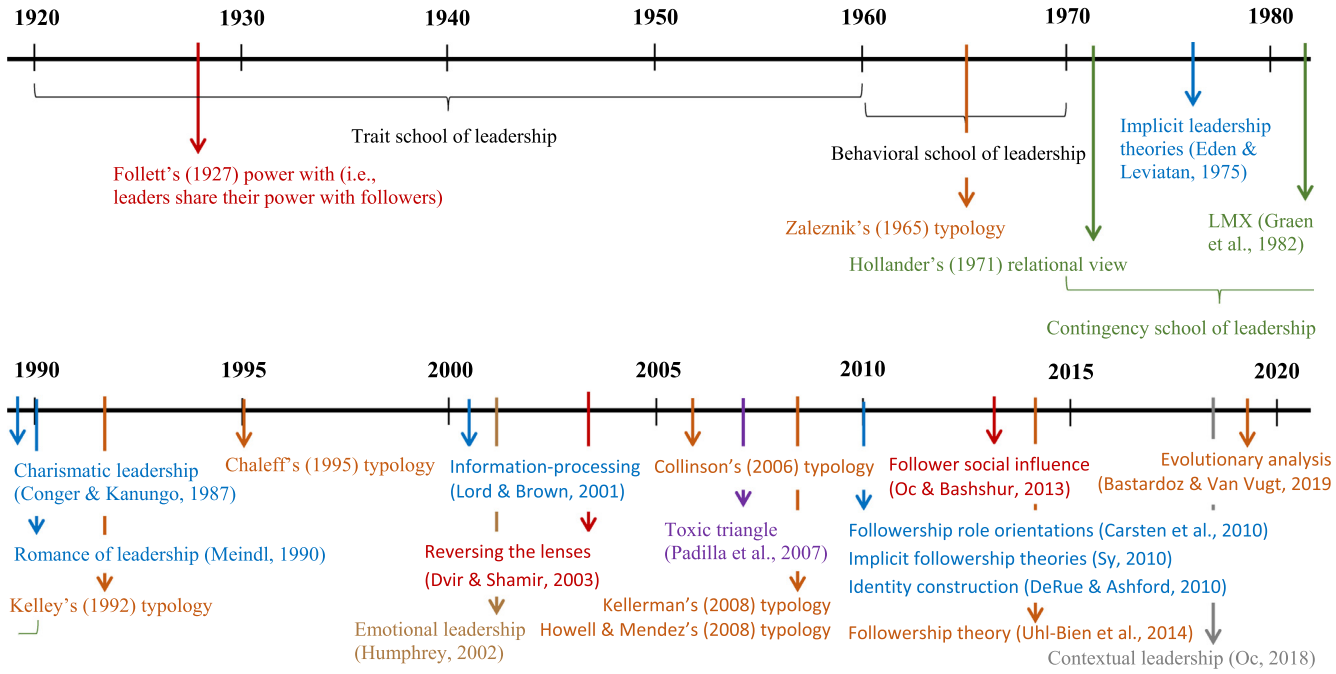
Note. [a] = variables included as explanatory variables in this review. [b] = variables included as outcome variables in this review.

Followers in leadership research

Although followers are implicit (if not explicit) in almost every leadership theory, only fairly recently have theoretical perspectives exploring the potential effects of follower-related factors on leadership processes and outcomes emerged as a distinct field of interest (Dinh et al., 2014). Perhaps because of this late emergence, this literature grew in a less systematic manner as compared to leader-centric approaches in which one school of thought tends to dominate a given era (e.g., trait approaches precede behavioral approaches, which precede contingency approaches). For instance, research exploring follower cognition and followership typologies emerged concurrently beginning in the 1960s (see Fig. 3) while work on follower emotional state, follower power and influence, and group-level concepts (e.g., climate) seemed to sporadically appear and disappear over time, dropping in and out of fashion (see Fig. 3). As such, it is tricky to attempt to organize the development of the literature in traditional ways, with each new approach building on and extending those that came before. Instead, it makes better sense to couch the emergence (and disappearance and reemergence) of the roles given to follower-related factors in leadership research within the growth of the broader area of leadership, including leader-centric approaches.

The examination of follower-related factors in leadership

It is difficult to discuss the treatment of follower-related factors in leadership research without a discussion of leader-centric approaches to leadership. Given that leadership can be defined as "an influencing process—and its resultant outcomes—that occurs between a leader and followers and how this influencing process is explained by the leader's dispositional characteristics and behaviors, follower perceptions and attributions of the leader, and the context in which the influencing process occurs" (Day & Antonakis, 2012, p. 5), it is not surprising that the two areas of research are interrelated. What is surprising, however, is the short shrift given to followers in the leadership literature despite their central role in leadership processes.



Note. ↓ **Follower individual differences**, ↓ **Follower cognition**, ↓ **Follower power and influence**, ↓ **Followership behaviors**, ↓ **Leader-member relations**, ↓ **Follower emotional state**, ↓ **Group-level concepts**

Fig. 3. Important theoretical milestones in the evolution of the role of followers in leadership research.

The first 60 years of scientific leadership research (1910–1970s) concentrated heavily on leader characteristics and behaviors to explore factors that differentiate leaders from non-leaders and determine which factors make some leaders more effective than others. This is perhaps to be expected, as remarkable leaders shaped history during that era. Nonetheless, as a consequence of this limited focus, followers were generally assumed to have no influence over the leadership process and considered mainly as passive recipients of leader influence and other behaviors. But there are some notable exceptions. For instance, in some of the earliest work exploring the potential role of followers in leadership processes, Follett (1927) suggested that followers might influence leader decision making. Zaleznik (1965) proposed a followership typology, categorizing followers using two behavioral dimensions, (a) wanting control versus wanting to be controlled, and (b) actively engaging versus avoiding. From this, Zaleznik suggested that followers can act in one of four ways; impulsive, compulsive, masochistic, or withdrawn. Unfortunately, neither of these early efforts ignited much enthusiasm from leadership researchers and followers remained relatively ignored in the leadership question.

From the 1970–1980s, contingency theories of leadership emerged and explored the role of leaders in leadership, but they did so by taking situational and contextual factors into consideration. The contingency schools of leadership treated followers as part of the leader's context and suggested that follower traits, follower cognition, and leader-member relations (along with other situational factors) moderate the relationship among leader traits and behaviors and leader effectiveness and leader emergence (e.g., Fiedler, 1967; Hersey & Blanchard, 1969; House & Mitchell, 1974). During this period followers were also given a role in other influential leadership theories, including Hollander (1971) work on the interdependence between leaders and followers in the leadership process as well as leader-member exchange (LMX) theories (Graen, Novak, & Sommerkamp, 1982) that treated leadership as an interpersonal, relational process to which both leader and followers contribute. Furthermore, implicit leadership theories (e.g., Eden & Leviatan, 1975), early theories of charismatic leadership (e.g., Conger & Kanungo, 1987), and Meindl's (1990, 1995) work on the "romance of leadership" all argued that follower cognition or follower perceptions of leadership matter for whether leaders are perceived as more effective.

The 1990–2000s witnessed work by Kelley (1992) and Chaleff (1995) that rekindled interest in followership typologies. Whereas Kelley proposed that an effective follower is one who contributes to the functioning of the group and helps achieve common goals, Chaleff argued that effective followers are somewhat more active, challenging or supporting their leaders when necessary. These newer typologies, along with criticism from Meindl and colleagues that leadership research had been overly leader-centric (Meindl, 1990, 1995; Meindl, Ehrlich, & Dukerich, 1985), drew much needed attention to earlier follower-centric approaches and helped build momentum for considering followers in the coming millennium.

An emphasis on the contextual nature of leadership re-emerged in the early 2000s when Lord and colleagues re-iterated some of the arguments posed by Hollander (1971) and Meindl (1990, 1995) on the role of followers in leadership processes. But rather than treating followers simply as part of the leader's context, Lord and colleagues argued that both leaders and followers influence each other's self-concepts (Lord & Brown, 2001; Lord, Brown, Harvey, & Hall, 2001). Other researchers soon followed suit. Seven articles published in a special issue on emotions and leadership (Humphrey, 2002) unpacked the relationships among the leader behavior, followers' feelings and emotional states, and follower perceptions of leader effectiveness.

Arguments presented by Meindl (1990, 1995) and later by Dvir and Shamir (2003) for "reversing the lens" (Shamir, 2007, p. 9) to shine the spotlight on how followers shape leader and leadership outcomes played a critical role in increasing interest in follower-centric approaches to leadership research over the last decade. For instance, Padilla, Hogan, and Kaiser (2007) built on earlier work regarding follower traits (e.g., Conger & Kanungo, 1987) to explore how susceptible followers – along with specific situational conditions – set the scene for destructive leadership. Three distinct followership typologies (Collinson, 2006; Howell & Mendez, 2008; Kellerman, 2008) and social influence theories of followership (Oc & Bashshur, 2013) also

emerged as a result of this change in focus. Work examining followers' and leaders' view of followership in terms of role orientations (Carsten et al., 2010) and characteristics of effective (or ineffective) followers (Sy, 2010) rapidly developed around this same time. More complex theories integrating time into the literature emerged as well. For example, DeRue and Ashford (2010) theorized a dynamic process in which leaders and followers reciprocally influence one another and change their identities and processes by claiming and granting leadership roles over time. Bastardoz and Van Vugt (2019) adopted a game theory perspective to argue that the act of following can be an adaptive, strategic choice for individuals, describing the types of followership behaviors that can emerge and what underlying mechanisms explain these behaviors.

Unsurprisingly, attempts to begin organizing and structuring this diverse body of work emerged as the literature grew. For instance, Uhl-Bien et al. (2014) proposed a theoretical framework to structure the study of followership research by classifying studies as either (a) role-based approaches or (b) constructionist approaches. Whereas role-based approaches assign followers a positional or structural role mostly in a hierarchical relationship (e.g., employee vs manager) and explore whether leader and leadership outcomes are subject to the influence of follower characteristics and behaviors, constructionist approaches focus on the act of following and assume that leaders and followers jointly construct the process of leadership.

Taken together, these efforts suggest an area of study undergoing rapid growth. Each perspective treats follower-related factors differently yet all have contributed to our understanding of followers in leadership processes. Given the plethora of constructs and perspectives, however, no one approach can be used to categorize the literature systematically. Instead we used the different perspectives to identify the most common follower-related predictors studied in the field and classified them into seven primary categories: (a) individual differences (i.e., demographics, traits, integrity, values and beliefs), (b) cognition (i.e., attitudes and attributes, core self-evaluations, identity, perceptions), (c) emotional state and well-being (i.e., affect, well-being, sleep), (d) power and influence (i.e., power, dependence, influence tactics), (e) motivation and performance (i.e., needs and motivation, in-role and extra-role performance behaviors, performance feedback, career outcomes), (f) followership behaviors (including communication style), and (g) group-level concepts (i.e., climate, shared leadership, social network approaches). Please see Table 2 for the descriptions and examples of these seven categories.

Our rationale for choosing these seven categories was twofold. First, all have been identified as factors related to leaders and leadership outcomes in the history of followers in leadership research, with the possible exception of follower motivation and performance (see Fig. 3). Nevertheless, follower motivation and performance, although not explicitly identified as a predictor, is frequently used to operationalize leader and leadership effectiveness or plays an implicit role in followership typologies. Its inclusion as a category seemed reasonable. Second, we aim to use a taxonomy that is consistent with the broader organizational behavior and management literature to produce a more comprehensive and cohesive body of work (Robbins & Judge, 2012). Once we settled on these seven categories of predictors we then set out to review the major theoretical perspectives arguing for how those predictors affect leadership or follower- and leader-related outcomes. To do so we first outline the systematic search criteria we used to identify all articles that used follower-related factors to predict leadership outcomes.

Literature search and inclusion criteria

We performed an extensive literature search to identify work exploring the relationships between follower-related predictors and leadership outcomes. Specifically, we used the keywords "follower", "subordinate" and "employee" along with "leader" and "leadership" in our initial, broad title and abstract search in the respective article databases (e.g., Business Source Complete, PsycINFO), Google Scholar, reference sections of the relevant review articles, and dissertation databases (e.g., Dissertation Abstracts International). Our search included journal articles, dissertations, and book chapters (see Fig. 1). This search resulted in 525 articles from areas including but not limited to OB/HR, psychology, sociology, international business, organization theory as well as judgment and decision making as of December 2021. As an initial step, the first two authors independently reviewed the content of these articles more thoroughly and considered each for inclusion depending on whether the relationships in these articles were examined as part of a leadership process. Consistent with previous work (see Table 1 in Uhl-Bien et al., 2014) and the focus of this research, the first two authors then coded these articles based on (a) whether they examined the effect of follower-related predictors on leadership outcomes and (b) whether they contained measures for followers as well as measures for leadership outcomes. After resolving the initial disagreements (n = 25), 328 articles that failed to fit the inclusion criteria (e.g., studies modelling leader-related variables as independent variables and follower-related variables as mediators/-moderators) were excluded and thus the final sample included 197 articles, 266 studies (1.4 studies per article), and 1,121 relationships (4.2 relationships examined per study).

Structure of the literature review

Before reviewing the theoretical arguments for relationships between the seven follower-related predictors and leadership outcomes, we also had to categorize leadership outcomes to further reduce the complexity of the review. We first organized outcomes by whether they are a follower outcome, a leader outcome or a leader-member relations (i.e., relational) outcome. Then, within each of these three broader categories of leadership outcomes, we grouped outcomes that we deemed to be most closely related for a total of eight follower outcomes, five leader outcomes and two leader-member relations outcomes (15 outcomes altogether, see Tables 1 and 2). Where possible, we used the same categories as those we created for the predictors; however, we also added categories as needed (e.g., follower withdrawal and turnover). Categorizing outcomes in the manner helped in several different ways. First, it helped identify the most commonly studied relationships in this literature. Second, once those relationships were identified it was possible to examine dominant theoretical perspectives used to study those relationships and make judgments about theoretical unity and specificity. Third, we were able to observe whether and when constructs were used both as predictors and outcomes interchangeably. If identified this would suggest a strong possibility for simultaneity or reverse causality and raise concerns about endogeneity (Güntner, Klonek, Lehmann-Willenbrock, & Kauffeld, 2020).

To help identify the most studied relationships in this literature we created two tables (i.e., Table 1 and Table 3) giving an overview of the number of relationships relating the follower-related predictors to follower, leader and leader-member relations outcomes. This represents crossing seven follower-related predictors with 15 outcomes (21 outcomes if you include the subheadings under some categories of outcomes) for a total of 105 possible categories of relationships (147 if you include subheadings under some categories of outcomes). This is obviously a huge number of relationships even after our attempts at categorizing predictors and outcomes into discreet categories. Nevertheless, having identified these relationships we then explored the major theoretical frameworks used to explain them and noticed some clear trends emerging.

Table 3
Range and average correlations between follower-related predictors and leadership outcomes.

		Follower-related predictors																													
		Individual differences				Emotional state Well-being				Cognition				Motivation Performance				Power Influence				Followership behaviors				Group-level concepts				*k*	*n*
	Outcome variables	*k*	*n*	Range	Av.	*k*	*n*	Range	Av.	*k*	*n*	Range	Av.	*k*	*n*	Range	Av.	*k*	*n*	Range	Av.	*k*	*n*	Range	Av.	*k*	*n*	Range	Av.		
F	**Emotional state & Well-being**	**13**	**17**	[-.37; .58]	+	**5**	**16**	**[-.66; .33]**	+ +	**3**	**7**	**[-.39; .64]**	+ +	**4**	**11**	**[-.16; .76]**	+					**1**	**3**	**[-.38; .55]**	+ +	**3**	**5**	**[-.21; .60]**	+ +	**29**	**59**
O L	**Cognition**	**34**	**97**	**[-.61; .60]**	+	**9**	**15**	**[-.42; .70]**	+ +	**17**	**79**	**[-.45; .76]**	+ +	**8**	**19**	**[-.28; .74]**	+ +					**6**	**19**	**[-.22; .53]**	+	**5**	**10**	**[-.17; .42]**	+	**79**	**239**
L O	Attitudes	25	56	[-.44; .60]	+	7	13	[-.42; .70]	+	12	25	[-.45; .76]	+	7	18	[-.28; .62]	+ +					4	15	[-.22; .53]	+	4	8	[-.17; .42]	+		
W E R	Core self-evaluations and identity	2	3	.01 - .17	~	1	1	.5	+ + +	1	7	.11; .58	+ +	1	1	.74	+ + +					2	4	[.08; .52]	+	1	2	[.35; .41]	+ +		
	Preference for leader/leadership	7	38	[-.61; .47]	+	1	1	.05	~	4	47	[-.19; .40]	+																		
	Motivation & Performance	**46**	**89**	**[-.54; .71]**	+	**7**	**10**	[-.18; .34]	+	**26**	**71**	**[-.42; .76]**	+ +	**16**	**51**	**[-.25; 95]**	+ +	**6**	**15**	**[-.34; .50]**	+	**6**	**12**	**[-.29; .87]**	+ +	**12**	**18**	[-.02; .53]	+	**119**	**266**
	Needs, motivations, justice	3	3	[-.02; .36]	+					1	2	[.57; .62]	+ + +	1	8	[-.15; .16]	~														
	Performance, performance feedback	24	38	[-.29; .37]	+	5	7	[-.15; .26]	+	15	37	[-.39; .76]	+	10	25	[-.25; .95]	+ +	5	14	[-.34; .50]	+	6	12	[-.29; .87]	+ +	10	16	[-.02; .53]	+		
	Extra-role behaviors & CWBs	19	48	[-.30; .71]	+	2	3	[-.18; .34]	+	10	32	[-.42; .61]	+ +	5	18	[-.13; .77]	+ +	1	1	.28	+					2	2	[.22; .23]	+		
	Power & Influence	**3**	**6**	**[-.08; .20]**	~									**1**	**1**	**.85**	+ + +	**3**	**6**	**[-.03; .40]**	+	**1**	**2**	**[.70; .79]**	+ + +					**8**	**15**
	Followership behaviors	**1**	**2**	**[-.02; .03]**	~					**3**	**8**	**[-.35; .33]**	+	**2**	**3**	**[-.04; .29]**	+					**1**	**1**	**.65**	+ + +					**7**	**14**
	Group-level concepts	**5**	**8**	**[-.54; 49]**	+ +					**2**	**3**	**[.18; .32]**	+	**1**	**4**	**[.13; .33]**	+					**1**	**2**	**[-.37; -.20]**	+	**3**	**5**	**[-.63; .67]**	+ +	**12**	**22**
	Social network, Shared leadership	3	5	[-.19; .31]	+					2	3	[.18; .32]	+																		
	Climate, Team processes	2	3	[-.54; 49]	+ +									1	4	[.13; .33]	+					1	2	[-.37; -.20]	+	3	5	[-.63; .67]	+ +		
	Withdrawal & Turnover	**4**	**4**	**[-.13; .10]**	~	**2**	**3**	**[-.01; .26]**	+	**4**	**7**	**[-.31; .18]**	+	**2**	**2**	**[-.14; -.02]**	~													**12**	**16**
	Job/Task characteristics	**1**	**1**	**−.11**	+					**2**	**3**	**[-.17; .20]**	+	**2**	**4**	**[-.12; .29]**	+	**1**	**7**	**[-.18; .05]**	~									**6**	**15**
L	**Emotional state, Well-being**	**1**	**1**	**.08**	~	**1**	**2**	**[.00; .06]**	~					**4**	**8**	**[-.83; .31]**	+					**2**	**3**	**[-.04; .65]**	+					**8**	**14**
E A	**Cognition**	**3**	**6**	**[-.27; .17]**	+	**1**	**2**	**[-.03; -.01]**	~	**1**	**2**	**[.22; .38]**	+ +	**4**	**20**	**[-.89; .96]**	+ +	**2**	**12**	**[-.28; .24]**	+									**11**	**42**
D E	**Leader behavioral styles**	**20**	**102**	**[-.39; .55]**	+	**8**	**48**	**[-.27; .39]**	+	**7**	**18**	**[-.21; 61]**	+	**14**	**42**	**[-.90; .90]**	+ +	**5**	**24**	**[-.27; .29]**	+	**2**	**2**	**[-.01; .54]**	+ +					**56**	**236**
R	Traits & Integrity	4	26	[-.28; .43]	+	1	2	[-.55; -.01]	+					1	5	[.06; .67]	+	1	8	[-.21; 00]	~										
	Behavioral and leadership style	16	76	[-.39; .55]	+	7	46	[-.27; .39]	+	7	18	[-.21; 61]	+	13	37	[-.90; .90]	+ +	4	16	[-.27; .29]	+	2	2	[-.01; .54]	+ +						
	Power & Influence																					**1**	**3**	**[.30; .43]**	+ +					**1**	**3**

(*continued on next page*)

Table 3 (*continued*)

		Follower-related predictors																													
		Individual differences				Emotional state Well-being				Cognition				Motivation Performance				Power Influence				Followership behaviors				Group-level concepts					
	Outcome variables	*k*	*n*	Range	Av.	*k*	*n*	Range	Av.	*k*	*n*	Range	Av.	*k*	*n*	Range	Av.	*k*	*n*	Range	Av.	*k*	*n*	Range	Av.	*k*	*n*	Range	Av.	*k*	*n*
	Effectivenesss	3	4	[.03; .35]	+	2	4	[-.33; .53]	+ +	1	1	.23	+	2	4	[.15; .72]	+ + +	1	1	−.02	~	1	2	[.26; .27]	+					10	16
J	**Leader-Member Relations**	15	69	[-.25; .49]	+	6	21	[-.47; .52]	+	9	29	[-43; 62]	+	5	13	[.04; .60]	+	5	6	[-.27; .52]	+									40	138
	Fit	1	1	.11	+									1	8	[.11; .27]	+													2	9

Note. The column 'Av.' refers to the magnitude of the average correlation based on Cohen's (1992) rule of thumb; ~ = average correlation is ≤.10; + = average correlation is "small" (>.10, ≤.30); + + = average correlation is "medium" (>.30, ≤.50); + + + = average correlation is "large" (>.50). 17 relationships did not fall under any of the outcome categories. *J* refers to joint outcomes of followers and leaders. *k* refers to the total number of studies and *n* refers to the total number of relationships within each category.

Theoretical narrative in examining follower-related factors in leadership research

A closer look at Table 3 reveals that, within the more than 100 pairing of predictors and outcomes in the literature, just 10 relationships capture about 80% of that literature: (a) the relationship of follower individual differences with follower attitudes and follower perceptions (n = 94), (b) the relationship of follower cognition with follower attitudes and follower perceptions (n = 72), (c) the relationship of follower individual differences with follower in-role and extra-role performance (n = 86), (d) the relationship of follower cognition with follower in-role and extra-role performance (n = 69), (e) the relationship of follower motivation and performance with follower performance behaviors (n = 43), (f) the relationship of follower individual differences with leader behavioral styles (n = 102), (g) the relationship of follower emotional state and well-being with leader behavioral styles (n = 46), (h) the relationship of follower motivation and performance with leader behavioral styles (n = 37), (i) the relationship of follower individual differences with leader-member relations (n = 69), and (j) the relationship of follower cognition with leader-member relations (n = 29). Thus, to best summarize the dominant theoretical narratives, we dedicated most of our focus to these 10 relationships.

Theoretical frameworks employed in most studied relationships

Across this set of 10 most popular relationships, three dominant theoretical themes emerge: (a) theories that explain the main effect of followers from an intrapersonal perspective (i.e., social cognitive theory, conservation of resources theory), (b) theories that describe the main effect of followers from an interpersonal perspective on leadership (i.e., LMX theory, co-production of leadership), and (c) theories that examine how leader characteristics shape the main effect of followers on leadership outcomes (i.e., social identity perspectives, trait activation theory). Please see Appendix A in the online supplement for an extensive summary of the main theoretical perspectives.

From an intrapersonal perspective the two most common theoretical frameworks are social cognitive theory and conservation of resources theory. Of the 10 relationships discussed above these two frameworks are most commonly used to explain the relationships of (a) follower cognition with follower attitudes and follower perceptions, (b) follower individual differences with leader behavioral styles, and (c) follower emotional state and well-being with leader behavioral styles. On one hand, social cognitive theory (Bandura, 2001) asserts that self-efficacy shapes individual behavior such that people will work harder towards a goal when they believe they can actually reach that goal. Thus, when pursuing performance goals, self-efficacy predicts the extent to which followers perform at work (a common outcome of leadership, e.g., Han & Bai, 2020; Kauppila & Tempelaar, 2016; Zheng, Hall, & Schyns, 2019). On the other hand, according to conservation of resources theory (Hobfoll, 1989), people are motivated to preserve and enhance their material (e.g., time, energy), physical, psychological (e.g., control over one's life), and social resources (e.g., relationships). Thus, from this theoretical perspective, leaders are more likely to invest their scarce resources (such as time) in relationships with followers who can help them gain more resources. Thus, followers who possess resources that their leaders need are more likely to have influence over that leader and shape leader behavior compared to followers who do not possess such resources (e.g., Pastor, Mayo, & Shamir, 2007; Warren, 2015). Follower integrity, follower energy levels (or exhaustion) as well as physical and psychological well-being are theorized to shape the degree to which leaders engage in different types of behaviors (e.g., authentic, abusive, transformational) or show their competencies (e.g., Perko, Kinnunen,

Tolvanen, & Feldt, 2016; van Dierendonck, Haynes, Borrill, & Stride, 2004).

From an interpersonal perspective the focus is more on dynamic, interactive perspectives of leadership. The interaction among leaders and followers plays an important role in leadership processes. This perspective is most common in explaining the relationships of (a) follower individual differences with follower attitudes and follower perceptions, (b) follower individual differences with leader-member relations, and (c) follower cognition with leader-member relations. For instance, research rooted in LMX theory tends to argue that the relationship between leaders and followers goes through different stages and what happens, especially in the early stages, can be critical to determine the quality of their shared relationship (Graen & Scandura, 1987; Graen & Uhl-Bien, 1995). In that regard, follower individual differences (e.g., personality traits) can shape follower actions and reactions to leaders and thus influence how a leader–follower relationship develops over time (e.g., Bernerth, Armenakis, Feild, Giles, & Walker, 2008; Gonzalez, 2021; Nahrgang, Morgeson, & Ilies, 2009; Phillips & Bedeian, 1994), and consequently follower attitudes towards leaders (e.g., Lau, Cheung, & Cooper-Thomas, 2021; Zhang, Wang, & Shi, 2012).

More cognitive-based follower explanatory variables tend to examine how followers' beliefs about leaders and the leadership process shape the quality of leader-member relations. For example, according to the co-production of leadership approach, followers do not merely grant leadership to leaders, they are active participants at every stage of the leadership process and influence the emergence of different leadership styles. They work together with leaders to define the vision for the group, set goals, and strive to meet those goals (Shamir, 2007). The degree to which followers believe in the co-production of leadership can both positively and negatively relate to the development of high-quality leader-member relationships. The key seems to be whether their leaders share their views on co-production of leadership. When followers believe they should partner with leaders, they may be more likely to voice their concerns and resist their leaders' decisions and actions (Carsten & Uhl-Bien, 2013). Leaders who do not share their followers' beliefs on coproduction might perceive this resistance as destructive. This in turn may relate to lower levels of leader-member relationships (e.g., Bashshur & Oc, 2015; Young, 2016). In contrast, when leaders and followers share beliefs around the leadership process, then follower voice and resistance may be interpreted more constructively and help cultivate a high-quality relationship.

From the perspective of leader characteristics, leaders are treated as a boundary condition on the effects of followers on leaders and leadership. Two theoretical frameworks dominate this approach, namely social identity theory and trait activation theory. Compared with the previous perspectives in which a given theory was used to explain only one or two relationships, within the leader characteristics perspective these two theories have been used to explain the same leadership outcomes using different predictors interchangeably. Therefore, of 10 relationships discussed above these two frameworks are most commonly used to examine the relationships of (a) follower individual differences with follower in-role and extra-role performance, (b) follower cognition with follower in-role and extra-role performance, and (c) follower motivation and performance with leader behavioral styles.

According to social identity theory (Haslam et al., 2001), which also encompasses implicit leadership theories (ILTs; e.g., Eden & Leviatan, 1975; Lord, Brown, & Freiberg, 1999; Lord & Brown, 2003), followers hold a priori schemas for what an ideal leader looks like and use these leadership schemas to make initial attributions about how effective a focal person is as a leader. These schemas help followers identify with their leaders either to enhance their positive self-image (Tajfel, Turner, Austin, & Worchel, 1979) or to reduce uncertainty they perceive in the social context including in their relationship with their leaders (Reid & Hogg, 2005). Follower traits, beliefs and values, and constructs related to the self-concept (e.g., trait self-esteem, self-construal) are said to play a role in shaping these ILTs, thus affecting followers' leader schemas (Keller, 1999; Shen, 2019) as well as leadership style preferences (Ehrhart, 2012). These schemas and preferences are assumed to shape follower identification and the quality of relationship with their leader and their work attitudes depending on the characteristics of the leader (e.g., Coyle & Foti, 2015; Felfe & Schyns, 2010; Peng, Chen, Nie, & Wang, 2020; Schyns, Kroon, & Moors, 2008; Vecchio & Brazil, 2007; Young, 2016; Zhang, 2008).

In contrast, trait activation theory (Tett & Burnett, 2003; Tett & Guterman, 2000) shifts the focus to follower job performance as the outcome and suggests that leaders can activate follower traits and core self-evaluations (CSE) and thereby strengthen the positive relation between these factors and job performance. Leaders, as an important part of the social environment of followers, influence how followers assess themselves, their abilities, and their control and the extent to which followers can express their traits. As such leader characteristics moderate the relationship of follower traits and CSE with subsequent follower performance-related behaviors (e.g., Han & Bai, 2020; Kim, Liden, Kim, & Lee, 2015; Soane, Booth, Alfes, Shantz, & Bailey, 2018).

Where does this leave us? Based on this general review of 80% of the literature we can make a few conclusions. First, the literature is voluminous, but still silos around specific relationships. Second, the same follower-related predictors are frequently theorized to predict very different outcomes, and the theoretical explanations for those relationships can vary widely. Whereas social identity theory has been used to theorize relationships among follower individual differences and follower job attitudes in the organizational behavior literature (e.g., Felfe & Schyns, 2010; Peng et al., 2020; Vecchio & Brazil, 2007; Zhang, 2008), social psychologists use theories such as precarious manhood theory (Vandello, Bosson, Cohen, Burnaford, & Weaver, 2008) or social dominance theory (e.g., Sidanius & Pratto, 1999) to relate follower individual differences to social attitudes or attitudes toward social policies.

Third, researchers tend to apply the same theory as an overarching, umbrella framework when they use different follower-related predictors to predict the same outcome. For example, the use of trait activation theory to explain the relationship of a wide variety of follower individual differences (e.g., personality traits, values) and follower cognitions (e.g., CSE, identity) with leadership outcomes. This practice comes at the expense of theoretical specificity, the idea that the more specific or proximate the theoretical arguments are, the stronger the effect sizes should be (e.g., Grossman, Nolan, Rosch, Mazer, & Salas, 2021; Li, Cropanzano, Butler, Shao, & Westman, 2021). In other words, when researchers choose general, overarching theoretical frameworks to explain a relationship rather than a theoretical argument that directly speaks to the explanatory or outcome variable of interest, the average effect sizes will be weaker. As we will discuss later in our section on methodologies, this theoretical mismatch has implications for how a study should be designed in the initial phases.

Fourth, most theories suggest a mediated link between follower-related predictors and leadership outcomes. However, depending on the study and the theory of interest, the mediator changes. Whereas social identity theory frames follower schemas of a prototypical leader as the underlying mechanism linking follower individual differences to follower attitudes, LMX theory suggests the quality of leader-member relations is what explains the same relationship. These are two competing theoretical explanations for the same relationship. Whereas having multiple mediators of a given relationship is not necessarily a problem, it may be useful and more parsimonious to integrate theoretical arguments explaining similar relationships by creating "theoretical neighborhoods" (Meuser et al., 2016, p. 1395) explaining how different theories connect to each other and identifying the theoretical gaps in the literature. Perhaps even better would be to pit these competing theories against one another empirically and determine which is best supported or if the two can coexist. This would require estab-

lishing causal links from the explanatory variable to the mediating variable and then from the mediating variable to the outcome variable and addressing model misspecification (which we will discuss later in the section on methodology).

Fifth, it is also important to note the overlap between constructs we categorized as explanatory variables and those categorized as outcomes. This suggests that researchers are in some cases simply swapping predictors with outcome variables depending on the study. Although this may make sense depending on the underlying theoretical arguments, this also means that there is a strong possibility for simultaneity or reverse causality. We return to this issue in the methodological section in our discussion of validity threats and endogeneity concerns.

Other notable theoretical work

Another notable finding from our review is that at least three potentially useful theoretical frameworks have not received much attention: implicit followership theories, shared leadership, and self-leadership. These areas stand out because of their unique theoretical perspectives on followers. Each theoretical perspective highlights how individual followers or a group of followers can contribute to leadership processes and shape their outcomes. We believe that a deeper appreciation of these theoretical perspectives in future studies of follower effects could help enrich literature.

Implicit followership theories (IFTs) focus on followers are classified based on their traits and behaviors and how well they match follower prototypes. Although we could locate only three studies in this category, each study seems to build on the findings of the previous one and as such this area represents one of the smaller, but best structured areas of the field. Sy (2010) theorized how a leader's implicit perceptions of a followership prototype (i.e., followers being a good citizen, enthusiastic, and industrious) and perceptions of followership anti-prototype (i.e., followers being incompetent, insubordinate, and easily influenced) should relate to follower attitudes and the quality of leader-member relations. Building on this work, Whiteley, Sy, and Johnson (2012) argued that a leader's IFT may lead to a Pygmalion effect in which a leader's higher performance expectations of followers results in their better performance. Junker, Stegmann, Braun, and Van Dick (2016) suggested that IFTs can vary as a function of cultural differences. Specifically, they theorized that different characteristics represent effective followership in Germany and the United States. The work on implicit followership theories and their outcomes is relatively small but there is some promise here given how well organized and cohesive the literature is.

Another area still in its relative infancy is the work on shared leadership. Shared leadership refers to the leadership context whereby group members self-direct, and leadership responsibilities are horizontally shared among multiple members (Carson, Tesluk, & Marrone, 2007; Pearce & Sims, 2002). Existing studies draw from psychological empowerment theory and the componential model of creativity to argue that shared leadership provides an ideal context for effective team performance. According to psychological empowerment theory (Spreitzer, 1995; Thomas & Velthouse, 1990), followers feel empowered when they experience the sense of control and perceptions of competence that likely occur in the context of shared leadership (Liang, van Knippenberg, & Gu, 2021). In addition, the componential model of creativity (Amabile, 1988) posits creative self-efficacy as an important component of individual creativity. With opportunities for members to self-direct and feel empowered, shared leadership is said to be an ideal context for heightened creativity-related capacity and subsequent performance at the team level (e.g., Evans, Sanner, & Chiu, 2021; He et al., 2020; Sinha, Chiu, & Srinivas, 2021; Wu & Cormican, 2021). Shared leadership provides much needed theoretical arguments to study leadership processes at the group level and better understand how interactions among followers directly contribute to group performance.

Self-leadership is defined as "a comprehensive self-influence perspective that concerns leading oneself toward performance of naturally motivating tasks as well as managing oneself to do work that must be done but is not naturally motivating" (Manz, 1986, p. 589). Those who lead themselves effectively tend to adopt appropriate cognitive, affective, and behavioral strategies. These strategies include goal-setting, self-monitoring, and self-reward. Self-leadership has been developed as a training intervention targeting individual work- and health-related outcomes (e.g., Frayne & Geringer, 2000; Stewart, Courtright, & Manz, 2011) and is theorized to affect follower strain, affect, and general self-efficacy (Unsworth & Mason, 2012). Nonetheless, there are many additional theoretically interesting questions that remain unaddressed. For example, is it reasonable to expect that self-leadership positively contributes to leadership outcomes? How would a group of employees engaged in self-leadership coordinate at the group level to bring about leadership outcomes? What could be the important boundary conditions where self-leadership aligns with the leadership process of the group? Answers to these and other questions around the construct of self-leadership will contribute to the growth of this area but also should help integrate this approach with the broader literature.

Taken together, we believe that IFTs, shared leadership, and self-leadership can serve as useful theoretical starting points to think differently about followers and their respective roles in leadership processes. Given their theoretical foundations and that psychometrically sound measures exist for focal constructs, a systematic way to understand the factors that affect IFTs, self-leadership, and shared leadership and how they in turn shape leader and follower outcomes can only improve our understanding of how followers can help shape leadership processes and related outcomes.

Theoretical recommendations for future research

Research has concentrated on linking a relatively small set of follower-related predictors to a small set of follower and leader outcomes. We identify at least six different ways to enrich this body of work further.

Individual differences

The fact that follower individual differences were the most studied predictor identified in this review harkens back to the very early stages of leadership research. Leadership researchers, as part of the trait school of leadership, spent four decades examining the role of individual differences in predicting leader emergence and effectiveness across different contexts before shifting focus to behaviors (see Fig. 3). The similarly long list of demographic and personality traits witnessed in this literature suggests that researchers tread the same path as did their predecessors in the leadership literature. However, turning away from the role of follower individual differences at this point may be premature. Instead, we argue for assigning a different role to follower individual differences.

We know that personality traits can act as distal predictors for various outcomes (Shrout & Bolger, 2002; Vecchione & Caprara, 2009) and that their effects are believed to depend on an array of boundary conditions (e.g., path-goal theory, House, 1971; value or cultural congruence, Hofstede, 1991; Schwartz, 1992). An alternative way to think about individual differences is whether they can be used to help address potentially serious methodological concerns. Because most demographic variables and personality traits are stable over time, they can be considered exogenous and used as instrumental variables to correct parameter estimates in models that are prone to endogeneity concerns (Antonakis et al., 2010). In other words, stable, genetically determined individual differences can be promoted from a fundamen-

tal but relatively weak role to an important supporting role in the study of the effects of other follower-related predictors.

More malleable individual differences

Even though follower CSE and identity have received very little research attention in this literature, extending the nascent research on follower CSE and identity (e.g., Ehrhart, 2012; Shen, 2019; Song, Wang, & Zhao, 2021) may represent low hanging fruit. For example, the existing work on follower authenticity (e.g., Hewlin, Dumas, & Burnett, 2017; Leroy, Anseel, Gardner, & Sels, 2015; Song et al., 2021) may be useful to think about how followers use identity-relevant information (e.g., self-construal, self-representations) in shaping their own and their leader's authenticity. For instance, if followers represent themselves inauthentically when interacting with their leader to generate an acceptable social image, their inauthenticity may have implications for whether leaders express their true selves in their interactions with them (Oc, Daniels, Diefendorff, Bashshur, & Greguras, 2020). Furthermore, one can adopt the theoretical arguments linking leader identity to leader development (e.g., Kragt & Day, 2020) to explore how follower identity relates to follower competencies and their contribution to leadership processes via either self- or shared leadership. Follower CSE and identity can help different areas of research to speak to each other and reduce the risk of compartmentalization in the field.

Power and influence

Follower power and influence represent only a small portion of relationships examined in this literature (approximately 6%; see Fig. 2). This is surprising because power and influence are key elements of leadership (along with leaders, followers, and shared goals). It is hard to imagine leadership without a careful consideration of follower power. For instance, one way to think about follower power is how it affects both followers' and leaders' beliefs in leadership as a process that should be coproduced or constructed by the leaders and followers (e.g., Carsten & Uhl-Bien, 2013; DeRue & Ashford, 2010). However, there is also sufficient theoretical advancement to relate follower power and influence to leadership outcomes. For instance, power is an interpersonal concept defined by mutual dependence of parties that are involved in a relationship. As much as leaders may feel powerful over followers, followers are not without their own sources of power. Leaders are dependent on followers for affiliation, forming and maintaining their social image, or work-related information (French & Raven, 1959; McClelland, 1975). Thus, how leaders' dependence on followers may affect their own identity may be an important theoretical question worth investigating. In addition, there are also emerging theoretical models to guide future research in terms of formulating both how power and influence dynamics result in leader emergence (Bastardoz & Day, 2022) and how followers as individuals or as a group can exert influence over leaders (Oc & Bashshur, 2013). This area represents a set of constructs that have clear theoretical implications for leadership as well as models that may help guide and structure future research.

Followership typologies

Despite the extant work on followership typologies (e.g., Chaleff, 1995; Collinson, 2006; Howell & Mendez, 2008; Kellerman, 2008; Kelley, 1992; Zaleznik, 1965), empirical work on how followership typologies are associated with leadership outcomes is limited. One potential reason for this is the lack of valid and reliable scales of followership typologies (Kelley's scale being an exception). Another potential reason is our general tendency to use variable-centered approaches (e.g., correlation, regression) and examine linear relationships statistically. However, such analytic approaches fail to model the presence of distinct subgroups of followership typologies with different patterns of follower traits and/or behaviors. To do justice to existing theoretical work on followership typologies, research may consider adopting inductive approaches to create followership profiles using latent profile analysis (LPA). Instead of treating different dimensions as subdimensions of a first order factor or using interaction terms of those dimensions, analytical approaches such as LPA can help researchers create profiles based on heterogeneity observed in the data (Morin, Morizot, Boudrias, & Madore, 2011). Whereas traditional variable-centered analyses result in averaged estimates of the observed relationships in the data, person-centered analyses take into consideration subpopulation effects based on quantitative and qualitative differences. Research seeking to theorize and identify such typologies may provide the impetus for the existing theoretical arguments surrounding the dimensionality of different followership typologies and check whether the theorized typologies exist in the real world and are supported by empirical evidence.

Time

Given that scholars have begun exploring the role of time and emphasizing the importance of adopting a temporal lens for understanding leadership and management phenomena (e.g., Ancona, Goodman, Lawrence, & Tushman, 2001; Mohammed and Nadkarni, 2011), it is important to ensure that the theoretical development of time in followership does not lag behind the empirical work. There are several important studies exploring the lagged effects of follower well-being on leadership outcomes. For instance, van Dierendonck et al. (2004) tracked follower general health and affective well-being, as well as perceptions of their leader's leadership competencies. They found that the relationship between follower well-being and leader behaviors became stronger over time, but the lagged effect of follower well-being on leader behavior at later stages dropped significantly in terms of the corresponding effect size. In contrast, in a series of laboratory and longitudinal field studies, Barnes and colleagues found that the relationship between follower sleep and the quality of leader-member relations became weaker over time (Barnes, Guarana, Nauman, & Kong, 2016; Guarana & Barnes, 2017).

The theoretically important question here is why the nature of these relationships changes over time. For instance, research draws on Hobfoll (1989) conservation of resources (COR) theory to argue that followers will strive to protect their resources and will invest their scarce resources in their relationship with their leaders. Thus, followers will have more resources available to them to invest in their relationship with leaders when they are healthy and not ill or tired. If so, to what extent is the duration of time during which follower well-being is observed important for COR theory? How long will the effects of feeling well or ill last? How can the existing theoretical work on recovery experiences (e.g., Fritz & Sonnentag, 2005) help us theoretically formulate such temporal effects? Opportunities for studying questions that concern lagged effects abound.

Levels of analysis

Similar to the calls made by industrial and organizational psychologists to adopt an organizational mindset and study organizational outcomes more frequently (Schneider & Pulakos, 2022), we think that greater attention should be given to understanding how followers might contribute to the outcomes of groups and organizations. If leadership can be seen as a group-level phenomenon, an understanding of how followers shape the outcomes of that group should be fundamental concerns. Whereas there is some research that associates individual-level follower performance behaviors with team-level performance outcomes (e.g., Fortuin, van Mierlo, Bakker, Petrou, & Demerouti, 2021; Sung & Choi, 2021), we wonder whether some of the work on shared leadership and its impact on team creativity, team effectiveness, or team performance (e.g., He et al., 2020; Mitchell & Boyle, 2021; Sinha et al., 2021; Wu & Cormican, 2021) can be extended to organizational-level outcomes. This may require researchers to consider followers, as a group, either part of the leadership context or the context itself shaping organizational outcomes.

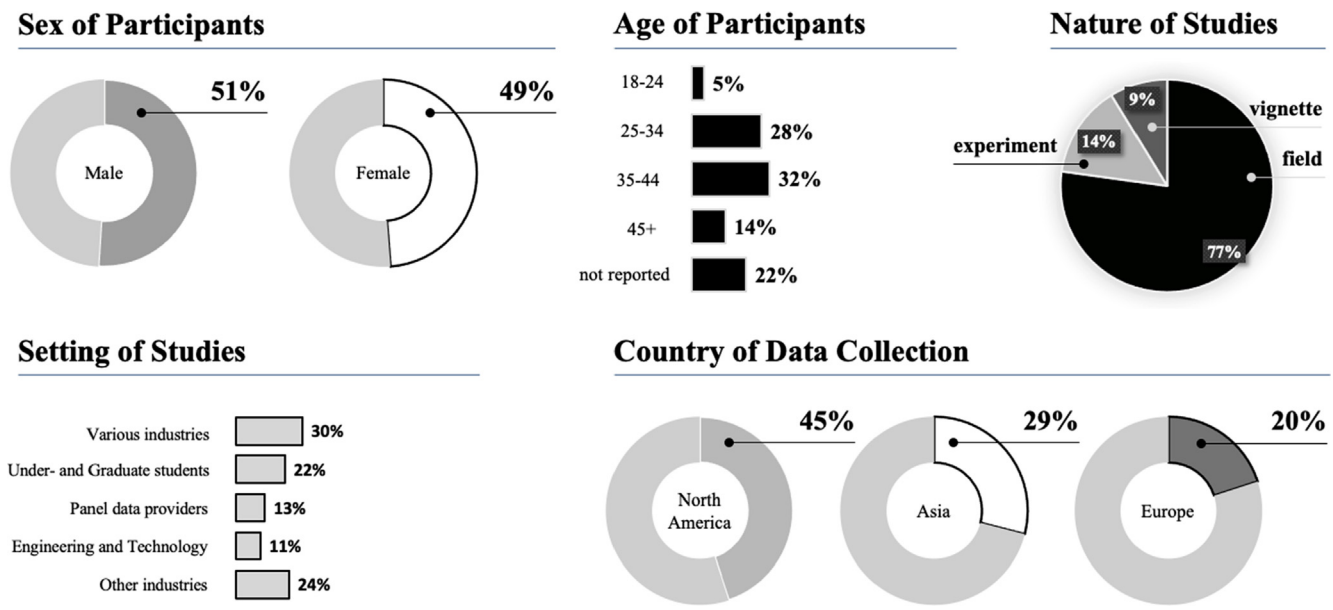
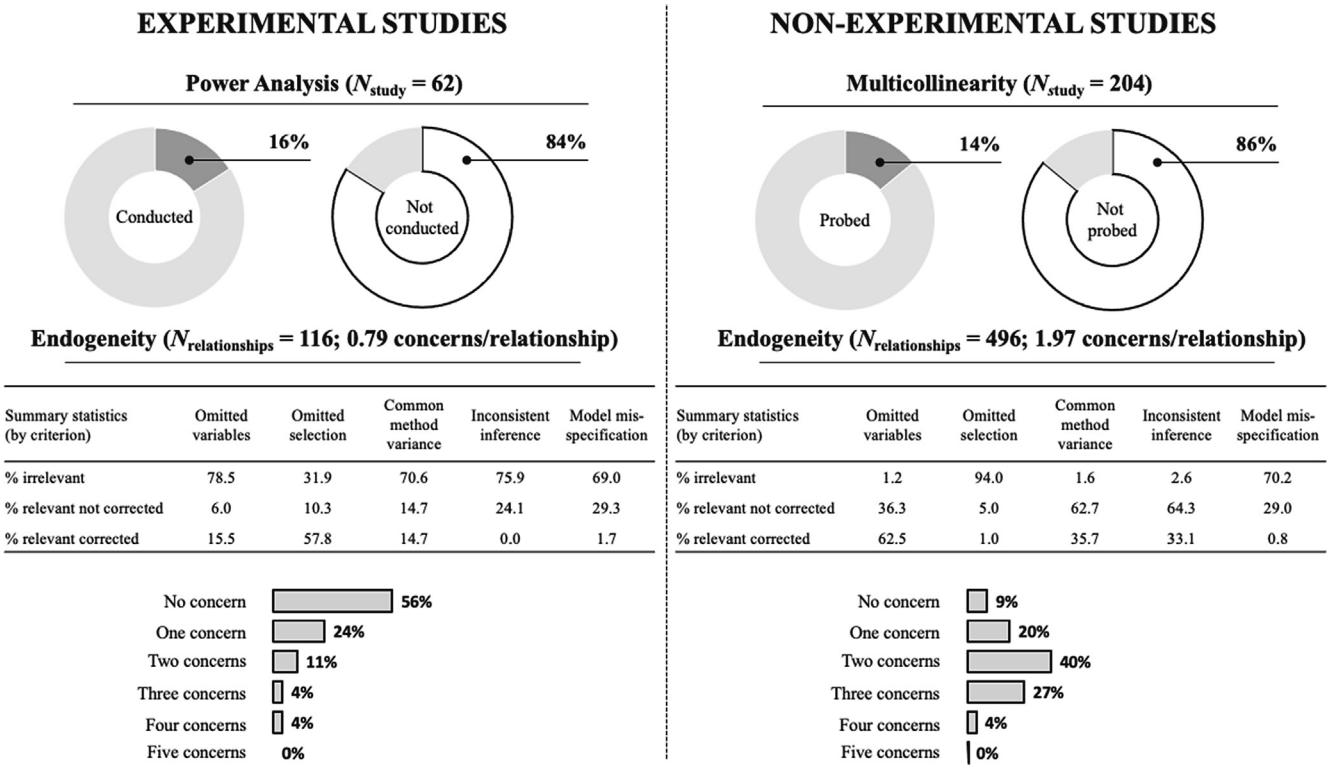


Fig. 4. Participant and study characteristics.



Summary statistics (by criterion)	Omitted variables	Omitted selection	Common method variance	Inconsistent inference	Model mis-specification
% irrelevant	78.5	31.9	70.6	75.9	69.0
% relevant not corrected	6.0	10.3	14.7	24.1	29.3
% relevant corrected	15.5	57.8	14.7	0.0	1.7

Summary statistics (by criterion)	Omitted variables	Omitted selection	Common method variance	Inconsistent inference	Model mis-specification
% irrelevant	1.2	94.0	1.6	2.6	70.2
% relevant not corrected	36.3	5.0	62.7	64.3	29.0
% relevant corrected	62.5	1.0	35.7	33.1	0.8

Fig. 5. Summary of coded methodological issues.

Oc (2018) review of contextual leadership summarizes *where* leadership takes place (e.g., national culture, institutional forces, types of organizations) and *who* is being led (e.g., sex composition, demographic differences) as two major dimensions of the omnibus, macro context of leadership. If so, how can we link leadership that is enacted within the organization to what occurs outside of the organization? In parallel with environmental determinism, organizational theorists try to explain decision makers' strategic choices, behaviors, and outcomes by exclusively studying characteristics of the organization's external environment (e.g., Betton & Dess, 1985; Hannan & Freeman, 1977). These theorists suggest that scarce environmental resources force organizations to continuously adapt to benefit from external environmental changes (also known as institutional logics, which inform how organizations make sense of and respond to situations; Hatch & Cunliffe, 2013). Several others expanded the view to also consider how organizations actively attempt to navigate and change their environments either by establishing inter-organizational alliances or by altering their institutional context (e.g., Thornton & Ocasio, 1999). Taken together,

the next major theoretical challenge is to understand how followers may causally influence how organizations interact with their institutional environment and with each other.

Study design and methodological concerns

Despite the array of interesting questions that exist and our optimism about the literature going forward, there are still serious concerns around design and methods that need to be addressed. Tackling these challenges head on will ensure that as the area grows, it is rooted in strong and stable methodological foundations. As described above, existing theoretical arguments claim that followers should matter in leadership and that follower-related predictors have a causal effect on both follower and leader outcomes. Our next objective is to review how these theoretical arguments have been tested empirically and provide an overview of the results and the average strength of associations. We then explore methodological concerns in this research and offer guidance on how researchers can more rigorously test their research questions going forward.

As described in Fig. 4, the sex and the age of participants across this body of research appear to be representative of working individuals. The setting and location of studies are also diverse and not concentrated in a specific setting or a specific geographic location. Thus, the estimated effects should be generalizable based on the underlying samples. That said, the great majority of research used cross-sectional, single-shot, correlational field studies. Only a smaller portion of research used experimental designs including vignette and recall studies. Out of 1,121 relationships examined in this review, 263 related predictors to a mediating variable and the remaining 858 of them related to an outcome variable (either studying a direct, main effect, or a mediated effect). Unfortunately, most studies did not include analyses to address important methodological concerns such as sample size requirements and multicollinearity checks, or considered how endogeneity might have affected their effect size estimates (see Fig. 5). Furthermore, out of our final sample of 197 articles, only 44 employed a multi-study design.

Table 3 summarizes the range and average strength of effect sizes linking follower-related predictors and leadership outcomes. One can make two broad observations. First, most relationships are relatively small in terms of effect sizes. For instance, we observe that the relationship of follower individual differences (which are more likely to be exogenous than other categories) with outcomes were in the .10 range on average. In fact, medium and large associations are mostly found in relatively less studied relationships (with a few exceptions, such as the relationship between follower motivation with leader behavioral styles). This is the case either because (a) one study with a relatively small sample size and large effect size disproportionally influences the average strength of associations, or (b) relevant but unaddressed validity threats alter (inflate or deflate) the size of associations. Second, within each relationship, there is a large amount of variability in terms of the reported associations. Thus, one needs to be careful in interpreting the average strength of associations. Taken together, questions have to be asked around whether the estimates reported so far are robust estimates of the relationships among follower-related factors and leadership outcomes and the degree to which these study designs were able to establish causality among study variables (regardless of whether that was the intent of the study). Next we discuss what we believe to be the most relevant issues to help us answer these questions.

Power analysis

Underpowered studies are challenging because in underpowered studies disproportionately wide sampling distributions for the estimates in models can be found and they can lead to biased conclusions (Kühberger, Fritz, & Scherndl, 2014; Maxwell, 2004; Turner, Bird, & Higgins, 2013). In other words, all parameters estimated from the sample including effect sizes can vary substantially from the population value as well as when compared with replications of the same effects, potentially harming the reproducibility of scientific evidence (Crutzen & Peters, 2017).

A priori statistical power analyses can help address this issue; however, there are several roadblocks that may dissuade researchers from rigorously considering statistical power. One roadblock tends to be the absence of any previous work examining similar relationships that can be used to estimate a potential effect size. This can be resolved with a multi-study design where researchers can take a conservative approach in determining the sample size by oversampling and use the effect size in an initial study as guidance for future studies. This possibility has not yet been widely used and as reported earlier only around 20% of the articles we located employed a multi-study design.

A second roadblock is determining the sample size needed to detect an interaction effect, especially for experimental studies. The issue is that researchers need to take into consideration the effect sizes of both the explanatory and moderating variables as well as the fact that they need a much larger sample size to detect an interaction effect (Simonsohn, 2014). In what Simonsohn calls a *multiplicative bummer*, if a study with a simple two-condition design requires 100 participants in total, another study that tests a moderation of that main effect (i.e., 2 × 2 design) would require 400 participants in total. A three-way interaction design would require 1,600 participants.

A third roadblock is the difficulty of performing a statistical power analysis for more complex models that test mediation, moderation, or a moderated mediation model. As a simple rule of thumb, most researchers would recommend a sample size of at least 200 participants for simple moderated mediation models (Kline, 2011). Furthermore, Muthén and Muthén (2002) empirically demonstrated that for a simple nested model with no missing data, a sample size between 150 and 265 is needed (depending on whether the indicators are normally distributed) for power of .81 to reject the hypothesis that the factor correlation is zero. Beyond these rules of thumb, researchers can employ more elaborate methods such as a Monte Carlo simulation to determine power and sample size (e.g., Kyriazos, 2018; Meuleman & Billiet, 2009).

In the light of these obstacles, the fact that researchers conducted *a priori* power analysis only in 10 out of 62 experimental studies and 6 out of 204 correlational field studies is not entirely surprising but it is worrisome (see Fig. 5). For instance, we know that effect sizes can be lower when individuals make hypothetical as compared with actual decisions (FeldmanHall et al., 2012). As such, methodological design (e.g., whether actual behaviors are measured versus behavioral intentions) will influence the expected effect sizes and thus the required sample size across different studies even when exploring the same relationship. It would improve the literature (and help guide researchers) if providing the specifics of a priori power analysis became standard practice. In combination with the accepted – and accessible – guidelines for conducting power analyses, we argue that going forward these practices should help under- or over-powered studies become a thing of the past.

Multicollinearity

Multicollinearity occurs when an explanatory variable (i.e., predictor) is highly correlated with one or more of the other variables in a multiple regression model, resulting in a relatively large standard error for that predictor. In presence of high multicollinearity, the variance of the regression coefficient increases and the estimate of the partial regression coefficient becomes unstable. Consequently, the statistical significance of that explanatory variable can be spurious as multicollinearity reduces the precision of the estimated coefficients, which is why researchers should be cautious about the *p*-values when determining the statistical significance of predictors (Farrar & Glauber, 1967). This becomes especially relevant when researchers include several control variables to address omitted variable bias as including or

excluding a specific control variable may affect the estimated partial regression coefficient.

Out of 159 correlational studies in our review that included a control variable in their analyses, only 19 reported performing checks to ensure whether multicollinearity was a problem in their analyses. Even though multicollinearity is rarely an issue in most studies, we strongly believe that researchers should examine their data for multicollinearity among the independent variables and report how they address it. For instance, while follower-related predictors were relatively strongly associated with follower and leader outcomes in our review ($r_{average}$ = .14), it is unclear how multicollinearity may have affected the significance of estimates. A simple analysis to calculate variance inflation factor (VIF) scores for all the variables included in the analysis can help researchers identify to what extent multicollinearity might bias their results (Chatterjee & Price, 1977; Freund & Wilson, 1998). It is also possible to conduct exploratory analyses by dropping a variable suspected of causing multicollinearity to ascertain whether there are significant changes in parameter estimates and levels of statistical significance for the remainder of the variables in the model.

It is important to note that as multicollinearity originates from the research design or the context in which the research is undertaken, it cannot be rectified in the analysis stage (Wooldridge, 2015). In line with the suggestions of Cohen, Cohen, West, and Aiken (2003), some of the nineteen studies in our review that identified multicollinearity as a potential problem grand-mean centered all predictor variables prior to hypotheses testing to minimize the impact of multicollinearity. Researchers should be cautious in removing highly correlated explanatory variables, especially if the goal is to establish causality among study variables. Removing a theoretically relevant control variable may result in omitted variable bias. Instead, a more reasonable approach to address multicollinearity is to employ a research design that diminishes the risk of its occurrence (e.g., excluding theoretically irrelevant variables that likely depend on each other, collecting additional data) or using other statistical tools to interpret the contribution of variables to the regression effect (e.g., structure coefficients, relative importance weights; Kraha, Turner, Nimon, Zientek, & Henson, 2012).

Endogeneity

As pointed out by Antonakis et al. (2010), endogeneity can represent a significant threat to causal inferences. In light of the problems already detected in our review (i.e., lack of power analysis, multicollinearity), we sought to determine whether endogeneity was also an issue for the literature on the effects of followers on leadership. We followed an approach similar to the one Antonakis et al. used with two exceptions. First, we decided to code at the relationship level, rather than study level, because the presence and relevance of validity threats may differ depending on the relationship observed. For instance, when researchers test mediation models, model misspecification may be irrelevant when predicting the mediating variable, but it may become relevant when predicting the outcome variable in the same study. Second, we decided to also include experimental studies in our review for two different reasons. When researchers gather mediating and outcome variables from the same rating source after manipulating their explanatory variable, common method variance may bias the estimate of the effect of the mediator on the outcome variable. In addition, heteroscedasticity can be an issue in experimental studies in presence of unequal variances among all experimental conditions, unbalanced group sizes, and non-normal data (Herberich, Sikorski, & Hothorn, 2010). Thus, heteroscedasticity affects the true variance of the parameter estimates, potentially leading to false positive results when examining mean differences between multiple conditions (Wooldridge, 2015). Each of these issues can lead to problems of endogeneity, even in an experimental setting.

We reviewed and coded all the relationships that estimated follower emotional state and well-being, follower power and influence, follower motivation and performance, followership behaviors, and group-level concepts such as climate as well as follower cognition variables such as follower attitudes and follower perceptions and attributions of leaders or leadership with the outcomes described earlier. We chose to focus on these relationships because they are the ones most likely to be endogenous, and where most potential validity threats would be evident. In contrast, we excluded predictors that fall under follower stable individual differences (e.g., personality) and follower identity and CSE because they are likely exogenous factors due to their relatively stable nature. The final sample of coded relationships was large (n = 612). We evaluated relationships on five out of the seven categories provided by Antonakis et al. (2010) (see Table 4). Specifically, we focused on omitted variables, omitted selection, common method variance, inconsistent inference, and model misspecification. We chose not to code simultaneity because reverse causality will be a possibility in almost any correlational study. Simultaneity is also irrelevant in experimental studies where the explanatory variable is manipulated. Furthermore, we did not code the relationships for measurement error as this would require a more exhaustive effort in assessing all the measures used in this research. We coded each criterion, using a categorical scale (0 = irrelevant criterion; 1 = relevant criterion which we were unable to determine whether it was corrected by the authors; 2 = relevant criterion which was corrected by the authors).

We present the results of the coding in Fig. 5 and in Table 5. There are at least two different ways to look at the results. First, even though there are fewer validity threats in experimental studies (M = .79 concerns per relationship) than in non-experimental studies (M = 1.97

Table 4
The internal validity threats.

Validity threat	Explanation
1. Omitted variables	(a) Omitting a regressor, that is, not including theoretically relevant control variables when testing the predictive validity of dispositional or behavioral variables
	(b) Omitting fixed effects or using a random-effects model without statistical justification (e.g., not using Hausman test to justify using random effects)
	(c) In all other cases, independent variables not exogenous
2. Omitted selection	(a) Comparing a treatment condition to other relevant, non-equivalent conditions
	(b) Comparing individuals that are grouped categorically where selection to group is endogenous
	(c) Sample (participants or survey responses) suffers from self-selection or is non-representative
3. Common-method variance	(a) Explanatory and outcomes variables gathered from the same rating source (irrespective of whether the study uses time-lagged designs, Sajons, Bastardoz, & Antonakis, 2022)
4. Inconsistent inference	(a) Using normal standard errors without examining for heteroscedasticity
	(b) Not using cluster-robust standard errors in panel data (i.e., multilevel hierarchical or longitudinal)
5. Model misspecification	(a) Not correlating disturbances of potentially endogenous regressors in mediation models (e.g., not testing for endogeneity using a Hausman test or Durbin-Wu-Hausman test)
	(b) Using a full information estimator (e.g., maximum likelihood, three-stage least squares) without comparing estimates to a limited information estimator (e.g., two stage-least squares)
6. Simultaneity	(a) Reverse causality (i.e., an explanatory variable is possibly affected by the dependent variable)
7. Measurement error	(a) Including imperfectly measured variables as explanatory variables and not modelling measurement error

Note. Adapted from "On making causal claims: A review and recommendations", by J. Antonakis, S. Bendahan, P. Jacquart, and R. Lalive, 2010, The Leadership Quarterly, 21, p. 1091.

Table 5
Coded relationships and results.

Experimental studies						
Number of concerns	Emotional state Well-being	Cognition	Motivation Performance	Power Influence	Followership behaviors	Group-level concepts
% No concern	71.4		57.6	93.8	38.5	66.7
% One concern		18.2	27.3	6.3	46.2	33.3
% Two concerns		36.4	1.6		15.4	
% Three concerns	14.3	9.1	4.5			
% Four concerns	14.3	36.4				
% Five concerns						
$average_{concerns}$	1.0	2.6	.6	.1	.8	.3
# of relationships	7	11	66	16	13	3
Non-Experimental studies						
Number of concerns	Emotional state Well-being	Cognition	Motivation Performance	Power Influence	Followership behaviors	Group-level concepts
% No concern	2.6	4.8	13.0	5.8	35.0	8.6
% One concern	7.0	34.7	13.0	25.0	15.0	34.3
% Two concerns	63.2	26.6	39.7	34.6	25.0	31.4
% Three concerns	21.9	28.2	3.5	34.6	17.5	22.9
% Four concerns	4.4	5.7	3.8		7.5	2.9
% Five concerns	.9					
$average_{concerns}$	2.2	2.0	2.0	2.0	1.5	1.8
# of relationships	114	124	131	52	40	35

Note. Figures do not sum to 100% due to rounding.

concerns per relationship), experimental studies are not immune to validity threats. The two biggest concerns in the set of experimental studies revolve around inconsistent inference (present in 24.1% of the relationships coded) and model misspecification (present in 29.3% of the coded relationships). These studies use normal standard errors without examining or discussing heteroscedasticity when performing a regression analysis and do not test for endogeneity (using either Hausman or Durbin-Wu-Hausman tests) when testing mediation models. Furthermore, common method variance, or the fact that both mediating variable(s) and outcome variable(s) were collected from the same source after the experimental manipulation, constitutes third major validity threat in experimental studies (14.7% of the relationships).

Similar to experimental studies, non-experimental studies also suffered from issues of inconsistent inference (present in 64.3% of the relationships coded) and model misspecification (present in 29% of the relationships coded). However, non-experimental studies also had major issues with omitted variables and common method variance (identified in 36.3% and 62.7% of the relationships, respectively; see Fig. 5), which represent serious threats to the internal validity of results reported in non-experimental studies. In comparison to experimental studies, the results in non-experimental studies present a more pessimistic picture, with followership behaviors (M = 1.5 concerns per relationship) being an exception (see Table 5). For every other follower-related predictor, more than 50% of each examined relationship was potentially exposed to two or more validity threats with emotional state and well-being being the most affected (9.4%). Overall, these results suggest a widespread issue in the literature that uses non-experimental studies to examine the effect of followers on various leadership outcomes.

That said, there is also some good news. A sizeable portion of studies have corrected potential issues around omitted variables by including theoretically important control variables (62.5% of the relationships), addressed common method variance by collecting explanatory, mediating, and outcome variables from different sources (35.7% of the relationships), and dealt with inconsistent inference by either testing for heteroscedasticity or using (cluster-) robust standard errors when analyzing nested observations (33.1% of the relationships). Nevertheless, despite the presence of some good practices, given the overwhelming evidence for threats to causal inference in the literature, we next explore the effect of these validity threats (when unaddressed) on the magnitude of associations reported in this research.

The effect of validity threats on the strength of associations

One of the main goals of this review is to examine how strongly follower-related predictors are associated with leadership outcomes in research when validity threats are relevant, but not addressed. To do so, we used the part of the dataset (612 relationships) we had already coded for validity threats. The dataset included the absolute value of bivariate correlations and sample size for each relationship, our coding of five validity threats and power analysis, and dummy variables for the follower-related predictors used as explanatory variables as well as setting and location of studies. The 612 relationships are nested within 154 studies, which are themselves nested within 114 articles. Thus, we used multilevel analyses to explore the relationship between validity threats and the average strength of associations.

Before conducting our analyses, we used the Hausman (1978) specification test (e.g., Greene, 2008) to decide between a random effects and fixed effects model (to address potential omitted variable threat). This test checks whether the random effects modeling assumption is violated by exploring the correlation between the independent variable and individual effects. In absence of a significant correlation, the estimates in the fixed effects model should not be different than the estimates in the random effects model. The Hausman test revealed that the two models were not statistically different from each other (p = .21). Our empirical model included the absolute association strength as the outcome variable, validity threats (dummy coded: relevant criterion, not addressed = 1, otherwise = 0) as the explanatory variables, sample size, power analysis (dummy coded: a priori conducted = 1, otherwise = 0), whether or not the effect reported in a published study (published = 1, unpublished = 0) as well as specific categories of follower-related predictors, setting and location of studies as control variables for robustness checks.[4] This approach helps us estimate the variation in average strength of associations depending on whether the researchers addressed relevant validity threats while

[4] We performed our analyses in a regression-based framework using Stata 16 (command: xtmixed y x + controls || cluster_id:, ml vce(robust)). VCE is robust to heteroskedasticity of the errors, addressing inconsistent inference threat. It tempers the assumption of independence of the errors and restores it with the assumption of independence between clusters. Thus, the errors are allowed to correlate with each other within clusters.

Table 6
The relationship between validity threats and the magnitude of bivariate correlations.

	Magnitude of bivariate correlations					
	B	*SE*	*B*	*SE*	*B*	*SE*
Validity threats not addressed						
Omitted variables	−.01	.03	−.00	.03	.01	.03
Omitted selection	−.07*	.03	−.06*	.03	-.07*	.03
Common method variance	.05**	.02	.06**	.02	.06**	.02
Inconsistent inference	−.02	.03	−.04	.03	-.03	.03
Model misspecification	−.07**	.02	−.07**	.02	-.08**	.02
Covariates						
Sample size			−.04**	.01	-.04**	.01
Power analysis			−.02	.05	-.01	.04
Published			.10	.07	.09	.06
Robustness Checks						
Follower-related predictor categories						
Follower cognition					.02	.06
Follower emotion & well-being					-.05	.06
Follower power & influence					-.04	.06
Follower motivation & performance					.02	.05
Follower followership behaviors					.06	.06
Setting of the study						
Setting: Various industries					-.00	.03
Setting: Students					.08†	.04
Setting: Panel data providers					.04	.05
Setting: Engineering and technology					-.05	.04
Continent of the study						
Continent: North America					-.01	.10
Continent: Asia					.03	.10
Continent: Europe					-.04	.10
Intercept	.29**	.03	.20**	.06	.18	.13
Model fit						
Wald – χ^2 (Prob > χ^2)	61.18(5) (p <.001)		78.35(8) (p <.001)		105.24(20) (p <.001)	

Note. N = 612 relationships are nested within 154 studies which are nested within 114 articles. "Sample size" is mean centered for the ease of interpretation. Validity threats dummy coded: relevant criterion, not addressed = 1, otherwise = 0. Power analysis dummy coded: a priori conducted = 1, otherwise = 0. Published dummy coded: published = 1, unpublished = 0. Robustness checks variables dummy coded. Group-level concepts, other settings and other continents omitted because they are treated as base or reference categories.

† p <.10.

* p <.05.

** p <.01 for a two-tailed test.

accounting for manuscript-, study-, and relationship-level factors and allowed us to see their effects on the average bivariate correlations reported in this research (LoPilato & Vandenberg, 2015). We assume that researchers designed the studies before they collected the data and performed their analyses, ensuring that the explanatory variables precede the outcome variable in our model (addressing simultaneity and reverse causality).

We report the findings in Table 6. Omitted variables (B = .01, SE = .03, p =.69) and inconsistent inference (B = −.03, SE = .03, p =.29), when relevant but not addressed, appeared not to affect the magnitude of associations. However, when omitted selection (B = −.07, SE = .03, p =.03) and model misspecification (B = −.08, SE = .02, p <.001) were relevant but not addressed, much weaker associations were reported than when they were either irrelevant or relevant and addressed. In contrast, when common method variance (B = .06, SE = .02, p <.001) was relevant and not addressed, stronger associations were reported than when it was either irrelevant or relevant and addressed. The robustness checks also showed that the relationship between validity threats and the magnitude of associations were reliable and robust. Arguably, there is evidence suggesting that whereas average associations between follower-related predictors and leadership outcomes may be deflated in research that fails to address omitted selection and model misspecification, they may be inflated in research that fails to address common method variance. In other words, estimated effects are biased, but it may be unclear in which direction.

In addition, conducting a priori power analyses to determine the required sample size to detect a significant effect of follower-related predictors with leadership outcomes did not seem to matter for how strong the associations were (B = −.01, SE = .04, p =.75). However, sample size had a robust, negative effect on the magnitude of associations (B = −.04, SE = .01, p =.01). The larger the sample size, the weaker were the associations. The magnitude of associations in published studies did not differ from those reported in unpublished studies (B = .09, SE = .06, p =.13). Finally, results revealed that the effect of control variables that include the follower-related predictor categories, as well as the setting and the continent of the study, failed to reach statistical significance (p >.09).

The findings of our analyses here should not be interpreted as causal but rather as correlational. We are not suggesting that all unaddressed validity threats cause a change in the size of reported bivariate correlations. Instead, our analysis helps us understand whether there are significant differences in bivariate correlations depending on whether validity threats are unaddressed versus addressed. It was perhaps unsurprising to see that those relationships that suffer from common method variance appeared to be stronger than those that do not and that those relationships that suffer from omitted selection and model misspecification appeared to be weaker than those that do not. However, it is important because as shown here, that validity threats lead to biased estimations in both directions, strengthening or weakening reported relationships and leading to potentially inconsistent findings. One piece of good news may be that

non-significant or weak associations can become significant or stronger when these threats are addressed, providing additional incentive for leadership researchers to pay extra attention to these threats.

Methodological recommendations for future research

We consider the issue of validity threats and endogeneity in the study of the relationships between followers and leadership an important area for future researchers to consider. Many of the issues discussed above and the solutions to address them are relatively simple and straightforward. Before testing a theoretical model, researchers can be more critical about their study design. Specifically, researchers need to be cognizant of the plusses and minuses of experimental and non-experimental studies. Experimental studies are relatively immune to threats to internal validity but suffer from external validity concerns. In contrast, non-experimental, field studies can address external validity or generalizability of findings, but they are more prone to internal validity threats or threats to consistent estimates (Cook, Campbell, & Shadish, 2002). No single study will be perfect, and, as researchers, we will need a combination of both field and experimental studies. Highhouse (2009, p. 555) tempers the polarization of research design concerns between field and laboratory studies because, when "[researchers are] caught up in the distinctiveness of the research setting, [it] implies that we are testing effects in settings rather than testing theories that should apply to multiple (especially organizational) settings." Thus, researchers should use both experimental and non-experimental designs to address issues around internal and external validity.

The next important question is the number of studies needed to ensure causality among study variables and rigorously test the theorized model. For instance, if the goal is to describe the mediating mechanisms of theorized relationships, researchers need to be aware of the method by which it is currently tested in the leadership literature and that there is a difference between demonstrating statistical mediation and true process mediation (Fiedler, Schott, & Meiser, 2011). Study designs that include correlational (survey) or even experimental studies to examine mediation models without manipulating the mediating variable fail to address model specification issues. Analyses also can be compromised if mediating variables are endogenous (Antonakis et al., 2010). Omitted variables, along with other potential validity threats, can lead to endogeneity and bias the estimation of causal effects of mediating variables on outcome variables.

There are at least two solutions to address this issue. On one hand, we can perform endogeneity tests to explore whether mediating variables are endogenous or whether they are systematically related to unobserved antecedents of outcome variables. This again may occur because of omitted variable bias as well as measurement errors in the outcome variables or reverse causality (Antonakis et al., 2010). Results of both the Hausman test and Durbin–Wu–Hausman endogeneity tests can help us reveal whether there is an endogeneity problem. If a problem is detected, an instrumental variable approach can be adopted to address validity threats in a single study.

On the other hand, the methodological solutions described by Spencer, Zanna, and Fong (2005) can be considered to test true process mediation models using experimental studies. When there is the chance to manipulate and measure a suggested psychological process (which involves at least two causal relationships), examining this process using a series of experiments tends to be superior to relying on other methodological tools (Antonakis et al., 2010; Spencer et al., 2005). We can use alternative experimental designs depending on the difficulty of manipulating and measuring the theorized mediator (see Table 1 in Spencer et al., 2005). For instance, if the mediating variable(s) is (are) rather easy to manipulate, Spencer and colleagues (p. 848) offer two alternative designs: "experimental-causal-chain" and "moderation-of-process". Experimental-causal-chain designs involve two studies to test our model in a piecemeal fashion. In the initial study, we manipulate the explanatory variable to show its impact on the mediating variable. In a follow-up study, we manipulate the mediating variable to show its impact on the outcome variable. Moderation-of-process designs involve a single study whereby we manipulate the mediating variable and explore whether it moderates the impact of the explanatory variable on the outcome variable.

We strongly believe that we should take note of both approaches described by Spencer and colleagues (2005). Even though we view randomized experiments as providing the highest standard of empirical evidence to establish causality between the manipulated explanatory variable and an outcome variable (Cook et al., 2002; Rubin, 2008), they are not immune to issues of endogeneity. This is especially the case when researchers estimate the effects of measured variables such as perceptions, preferences, or attitudes (Sajons, 2020). For instance, imagine that a researcher aims to understand the effect of follower power on a certain type of leader behavior and manipulates follower power. To ensure that the manipulation was successful, the researcher then examines whether the differences in participants' perception of power in the treatment condition versus the control condition are statistically significant. However, those perceptions of power will also be affected by other often unmeasured factors (e.g., personality traits, attitudes, beliefs, and values). If these factors also predict leader behavior, and are not included in the analysis, they will render the researcher's manipulation of power endogenous when predicting leader behavior. Another important issue is what Sajons (2020) describes as "post hoc ergo propter hoc" fallacy (p. 4). Researchers tend to think that when the explanatory or mediating variable is measured before the mediating or outcome variable, the mediating or the outcome variable must be caused by the explanatory or mediating variable. However, "omitted variables tend to correlate with themselves over time, and also with the outcome variable" (Sajons, 2020, p. 1). Thus, using experimentally randomized instrumental variables is an important solution to endogeneity problems even in experimental studies (Sajons, 2020).

Taken together, the number and the type of studies as well as the methodological tools we need to use will depend on the theorized model. We encourage the continued use of correlational field studies to address external validity threats, but re-emphasize the fact that they are prone to internal validity threats. Thus, experimental studies are also needed with the incorporation of Sajons (2020) suggestions to address issues regarding endogeneity in experimental studies. And if we test a mediation model, we will need to adopt one of the designs Spencer and colleagues describe and manipulate the mediating variable(s) in the model. However, if manipulating a mediator is not feasible, we will then need to check whether our model suffers from endogeneity, and if so, try to address it with the help of instruments (Antonakis et al., 2010). If we fail to find appropriate instruments, this limitation to the field study needs to be acknowledged. We very much echo Antonakis et al. (2010) observation that economics underwent a similar fine-tuning period where scholars advanced their methodological practices, particularly when trying to establish causality among study variables. Currently, it is indeed nearly impossible to publish research in top-tier economics journals without a well-designed experimental study, addressing internal validity threats and generating robust and rigorous empirical evidence. We also know that these approaches will surely require spending more time and effort in generating research but, at the expense of quantity, researchers will be able to offer higher quality research. Leadership research has taken the lead in this quest (Antonakis et al., 2010; Hughes et al., 2018; Martin et al., 2021); however, we hope that this review will help research exploring the role that followers play in leadership evolve in a similar fashion.

Conclusion

Followers play an essential role in leadership processes. If there were no followers, there could be no leadership. Leadership is also a

dynamic process, and who is leading and who is (or are) following can change rapidly, just as who is influencing and who is being influenced often changes dynamically. Indeed, good leaders should be open to influence from those designated as followers. After all, no leader has all the answers and followers can be an important source of information (Jones & Gerard, 1967), especially in times of crisis. Ignoring the role of followers in leadership may lead us to seek universal, rigid ways of leading and prevent us from recognizing that the process of leadership is dynamic and frequently changing (Oc, 2018). One implication is that follow the leader is inherently a dynamic process over time.

An important practical implication of this review is recognizing the role of followers in shaping leadership processes and outcomes and what followers mean for leader and leadership development. Whereas leader development focuses on initiatives targeting individual leaders, leadership development focuses on initiatives targeting the leadership process and thus individuals involved in this process including leaders, followers, or any member of the work team (Day, 2000; Day, Fleenor, Atwater, Sturm, & McKee, 2014; Day, Riggio, Tan, & Conger, 2021). With respect to the leader development, 360-degree feedback ratings and their influence on how leaders construct their own personal narratives about themselves have been a major development tool. As our review reveals, there is now sufficient theorizing, and some empirical evidence, on how followers can shape leader cognition (see Tables 1 and 3). Thus, organizations should be cognizant of the fact that how some followers (e.g., those higher in influence) think of their leaders may have an impact on their leader's personal development and growth.

With respect to the latter, traditional leadership development initiatives are frequently designed to help leaders only (Hosking, 2007; Schyns, Tymon, Kiefer, & Kerschreiter, 2013). Our review however suggests that they should focus on how a group of individuals interact with each other first to determine their common, shared objective and then turn to the things they need to do to achieve that objective. It is critical to appreciate that leaders and followers alike need to learn how leadership can be shared and how the roles they play can change depending on the circumstances. For a leadership intervention to be most effective, organizations should ensure followers' inclusion in leadership development initiatives including conflict management, team building, or even promoting group's self-awareness.

The idea that followers play a role in leadership is not a new one. Leadership researchers have been including followers in their theoretical models for approximately 100 years. Efforts have also been made to bring some structure to this large and varied body of research (see Fig. 3). However, as our appreciation for followers as integral contributors to leadership processes grows, there is an emerging risk of compartmentalization in the literature. Our review attempted to build on previous reviews and help researchers make sense of the existing research while highlighting a range of ways to ameliorate that risk. We hope that the opinions and thoughts offered here help meaningfully structure the field and pave the way for theoretical and methodological advancements in the area.

Appendix A. Supplementary material

Supplementary material to this article can be found online at https://doi.org/10.1016/j.leaqua.2022.101674.

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