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#### Citation

OC, Burak and CARPINI, Joseph A.. How and why is context important in leadership?. (2023). *The SAGE handbook of leadership*. 359-370.

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# How and Why is Context Important in Leadership?

Burak Oc and Joseph A. Carpini

Leadership can be defined as *a goal-influence process that occurs between a leader and a follower, groups of followers, or institutions that directs effort towards the achievement of a shared objective* (Antonakis & Day, 2018, p. 5). From this definition, we can distil four key elements of leadership: a) leaders, b) followers, c) influence and d) goals, motivation and performance. While leaders and followers are the main actors of leadership processes, how they influence each other has implications for group goals. However, most leadership research focuses on leaders, largely treating them as the sole driver of organisation success or failure (Kelley, 1988; Oc & Bashshur, 2013; Uhl-Bien et al., 2014). One upside of this overemphasis on leaders is a rich body of work on how dispositional characteristics and behaviours of leaders influence followers, the process between leaders and followers, and goals, motivations and performance of the group. The downside, of course, is the short shrift given to followers and other elements of leadership.

Where does this leave us with context of leadership? Although not part of the definition, context (along with followers) has become a prominent theme in leadership scholarship. This is because research has highlighted inconsistencies in the relationships between certain leader traits (e.g., extraversion) or behaviours (e.g., transformational leadership) and important leadership outcomes

(e.g., individual and group performance). Such inconsistencies point to important contextual elements that shape the outcomes of leadership. Building on a rich tradition of contingency models recognising the interaction between individuals and their context, Fiedler (1978) pioneered the contingency theories of leadership. He claimed that a leader's leadership style by itself is not enough to understand why some groups of followers perform better than others, but rather that the suitability of the leadership style depends on leader, followers and situational factors. Other contingency theories followed in Fiedler's footsteps (e.g., Boyatzis, 1982; House & Mitchell, 1974; Vroom & Yetton, 1973) whereby followers were considered to be part of the leadership context. Even though this line of work generated a significant amount of research interest for almost a decade, context has, once again, fallen out of sight, largely overshadowed by new-age leadership theories (Day & Antonakis, 2012).

The good news is, though, increased desire to understand the impact of contextual factors in leadership in the past two decades (e.g., Johns, 2006; Rousseau & Fried, 2001) led researchers to reconsider the potential role that context might play in shaping leadership and its resultant outcomes (Hannah et al., 2009; Oc, 2018; Osborn et al., 2002; Porter & McLaughlin, 2006). In its

entirety, contextual leadership explores the extent to which situational or contextual factors moderate the nature of the relationships among the main four elements of the leadership definition (Day & Antonakis, 2012; Liden & Antonakis, 2009; Oc, 2018).

Although interest in contextual leadership has been increasing, theoretical and empirical progress has been stifled somewhat due to a lack of agreement on which factors should be considered for the context of leadership. While some considered characteristics of market conditions or stages of an organisation's life cycle (e.g., Shamir & Howell, 1999; Osborn et al., 2002), others were interested to understand how leadership occurs in rather extreme contexts *where one or more extreme events are occurring or are likely to occur that may exceed the organization's capacity to prevent and result in an extensive and intolerable magnitude of physical, psychological, or material consequences to – or in close physical or psycho-social proximity to – organization members* (Hannah et al., 2009, p. 898).

To introduce some structure to this diverse body of research, Oc (2018) most recently used Johns's (2006) categorical framework to conceptualise the leadership context at two different levels, namely the omnibus context and the discrete context. Within this framework, he systematically reviewed the existing empirical research on the impact of contextual factors on leadership and its outcomes. In addition, he focused on how contextual factors represent their effects on leadership and its outcomes (e.g., affecting base rates, studied range of variables, and the nature of relationships as well as threatening the generalisability of findings). While the work by Oc (2018) pays significant attention to investigating the current structures, themes and meanings representing the context of leadership, his review offers less room for unsettling, critiquing and revitalising how contextual factors can be studied in leadership research. Thus, our main goal in this chapter is to focus on the latter and point to important theoretical gaps in the literature, methodological concerns and implications for contextualising leadership. Before we do so, this chapter will begin with a brief overview of the omnibus and discrete context of leadership.

## THE OMNIBUS AND DISCRETE CONTEXT OF LEADERSHIP

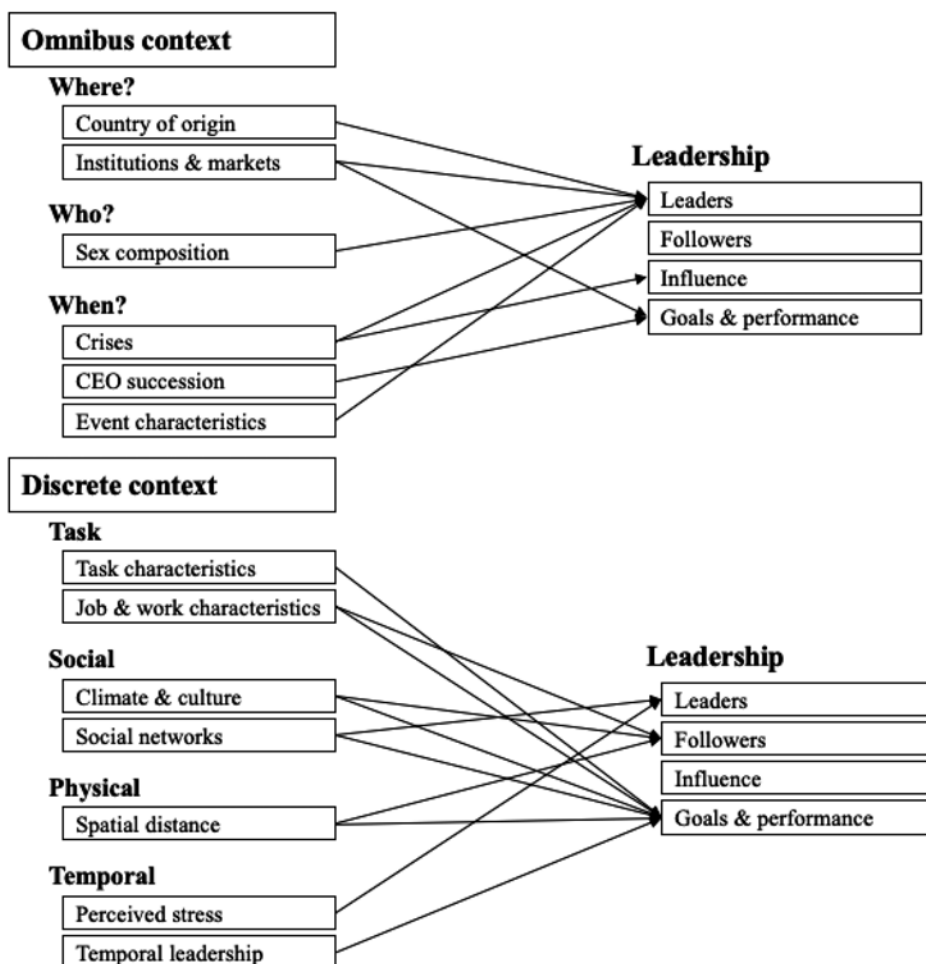
Leadership occurs within a multilayered, multidimensional context, which Johns (2006) conceptualises at two different levels: a) the *omnibus*

*context* and b) the *discrete context*. On one hand, the omnibus context includes contextual or environmental factors. These factors can be aptly summarised in the questions: *who* is being led, as well as *where* and *when* is leadership occurring? As Johns (2006) describes it, the omnibus context represents *an entity that comprises many features or particulars [and] refers to context broadly considered* (p. 391). On the other hand, Johns (2006) considers the discrete context as specific situational variables including the *task*, *social* and *physical* aspects of context, which either directly affect elements of leadership or moderate relationships between them. Although not included in Johns's conceptualisation of the discrete context, but in accordance with previous research on contextual leadership (Hannah et al., 2009; Porter & McLaughlin, 2006) and other areas of organisational research (e.g., teams: Marks et al., 2001), the *temporal* context should also be incorporated.

Next, using the same taxonomy, we turn our attention to *sense-breaking* which draws out what we consider to be the most pressing theoretical and methodological opportunities in the study of contextual leadership. In doing so, where relevant, we briefly discuss common empirical findings with respect to how omnibus and discrete contextual factors influence different elements of leadership (i.e., leaders, followers, influence, goals/performance) and the theoretical arguments and methodologies used to explain and test these findings. We begin by considering four important theoretical gaps, then turn our attention to three methodological concerns.

### Important Theoretical Gaps in the Literature

*Does research focus on the four elements of leadership equally?* The simple answer is 'no'. As summarised in Figure 29.1, research examining the effect of omnibus and discrete contextual factors developed differently, resulting in four distinct trends. First, leader-related criterion variables are the most studied outcomes of omnibus contextual factors. Specifically, this research examines how the congruence between leaders and the omnibus, macro context of leadership predicts leader's leadership behaviours, leader emergence and so on. Concerning is the fact that these efforts fail to include theoretically relevant mediators in theorised models. This begs the question whether omnibus contextual factors act as distal predictors in these theoretical models with more proximal meso, micro and individual underlying mechanisms



**Figure 29.1 The effect of contextual factors on leadership and its four elements**

*Note:* The arrows represent frequent cases (greater than 75 per cent of the studies).

explaining the hypothesised relationships. Elaborating the mediating mechanisms across different levels will provide a rich framework for future research and will help enhance the predictive ability of theories. Indeed, there is often a fine line in theorising unmeasured mediators versus not providing enough conceptual justification. In the absence of empirical data, we wonder whether bolstering theorising is enough.

Second, follower-related criterion variables are the least studied outcomes of omnibus contextual factors. We fear that the reason why there is a lack of emphasis on the potential effects of omnibus context on followers can be explained by the fact that research dedicated to followership – that is *the nature and impact of followers and following*

*in the leadership process* (Uhl-Bien et al., 2014, p. 89) – is a relatively new area and measurement instruments to identify various followership typologies and styles have been scarce. On the other hand, implicit followership theories (IFTs), which focus on how leaders and followers classify followers based on their traits and behaviours and how well they match prototypes of followers (Sy, 2010), can help generate further research. An interesting finding in this research is that a leader's IFT can lead to a Pygmalion effect. Using leader-follower dyads, Whiteley et al. (2012) showed that leaders' positive IFTs strongly related to leaders having higher performance expectations than their followers, liking their followers more and building higher-quality exchange relationships

with them, all of which related to better follower performance. If so, we wonder whether omnibus contextual factors such as cultural differences can feed into leader's own expectations leading to confirmation of those expectations.

Third, it is follower performance that is the most studied outcome of discrete contextual factors. In other words, researchers theorised and tested how the omnibus context affects leaders themselves, and how discrete context shapes the performance of followers. Major theoretical frameworks such as social identity theory (Tajfel, 1974) and social learning theory (Bandura, 1977) as well as contingency leadership theories (e.g., Fiedler's contingency model: Fiedler, 1978; path-goal theory: House, 1971) are the usual suspects for such focus. These theories help researchers easily theorise the impact of discrete contexts on follower performance. Yet, there may be missed opportunities, in particular around the effect of physical characteristics such as 'the sick building syndrome' (poor indoor air quality and lack of personal control; Crawford & Bolas, 1996), to improve our understanding of how the more understudied aspects of discrete context can shape follower performance.

Fourth, it is influence that is the least studied outcome of the discrete contextual factors. It is however difficult to explain why researchers chose not to pay greater attention to how discrete contextual factors shape the influence process between leaders and followers. There is in fact theoretical work that can inform empirical research. For instance, Oc and Bashshur (2013) argue that the extent to which followers, through social influence, can shape how leaders act depends on several follower-related factors including physical distance between the leader and followers (i.e., the physical context), the number of followers in a group and the unity among followers (i.e., the social context), as well as the frequency of leader-follower interactions (i.e., the temporal context). This work can also be extended to the potential effect followers might have on leader's self-concepts (Lord & Brown, 2001) and contribute to a better understanding of the role that discrete contextual factors play as leaders and followers co-produce leadership (DeRue & Ashford, 2012).

*Do the omnibus and discrete contexts speak to each other?* Another question that needs to be explored is how the omnibus context and the discrete context relate to each other. According to both Johns (2006) and Oc (2018), discrete contextual factors can be described as a subset of omnibus contextual factors such that they can help explain different features of the omnibus context. Thus, discrete contextual factors can be theorised as the underlying mechanisms driving the effects

of omnibus contextual factors on leadership and its outcomes. For instance, if we want to understand whether leaders engage in different leadership behaviours in different types of organisations (i.e., the *where* dimension of the omnibus context), we may want to explore whether those differences are driven because of differences in social and physical characteristics of the discrete context as a function of the type of organisation, the omnibus context. In bringing the omnibus and discrete contexts together, we address theoretical gaps related to the potential mediators between the omnibus context and various criteria.

The potential impact of the *when* dimension of the omnibus context of the temporal dimension of the discrete context can serve as another good example of the benefits of such an approach. While existing research explores how charisma and charismatic rhetoric affects leader outcomes in times of crises (e.g., Davis & Gardner, 2012; Williams et al., 2012; Williams et al., 2009), research does not explore how crises might affect leader's perceived stress or interact with leader's temporal dispositions (Chen & Nadkarni, 2017; Mohammed & Nadkarni, 2011) to predict leadership effectiveness. Examining temporal leadership as the underlying mechanism and the temporal dispositions of leaders and followers as the moderators that explain how crises affect leaders and followers is another 'low-hanging fruit'. Similarly, considering leadership from an event-driven concept and time as the limited resource leaders have, we know that leaders do not necessarily devote enough time to activities directly related to leadership (e.g., Alvesson & Sveningsson, 2003; Holmberg & Tyrstrup, 2010). It will be theoretically interesting to see how omnibus and discrete contextual factors along with leader's temporal dispositions may shape how much time leaders save for leadership activities which in turn shape leadership outcomes. The following questions are other examples of thought experiments helping us learn more about the impact and interaction of the *when* dimension of the omnibus context with the discrete context factors on leadership. For instance, can CEO succession or characteristics of events at the omnibus level shape the social networks at the discrete level? How will institutional or market changes affect the task context of leadership? Will leaders and followers differ in terms of temporal dispositions depending on their country of origin and whether temporal leadership is conceptualised differently in an Asian context as opposed to a Western context?

In addition to the main effects, we can also explore the interaction of omnibus and discrete contextual factors. For instance, one can examine whether the relationship between social and

physical characteristics of the discrete context and the type of behaviours leaders engage in can change depending on the type of organisation. Thus, considering the omnibus context and the discrete context in a nested manner, with the omnibus context being the higher-level variable, will help better pinpoint top-down effects. Such an approach represents leadership as a complex multilevel system (Oc, 2018) and mimics more contemporary areas of leadership research that assert that *leadership is multi-level, processual, contextual and interactive* (Uhl-Bien & Marion, 2009, p. 631). Therefore, several key theoretical questions in the contextual leadership may be better answered by a multilevel approach, that can also help us test boundary conditions of some of the relationships researchers heavily explored in the past. For example, will the effects of sex composition on leader emergence and leader effectiveness weaken or strengthen as the spatial distance increases? How would temporal leadership change the relationship between institutional/market forces and organisational performance? Should we theoretically expect organisational or national culture to moderate the relationship between CEO succession and organisational performance (you can find some hints in Chapter 19, Self-regulatory focus and leadership)?

*Can one create profiles of context?* To date, the primary approach to exploring the effect of contextual factors on leadership is to examine the consequences of each contextual factor in conjunction with leader and follower characteristics (Oc, 2018). This analytic method describes a *variable-centred* approach in which the impact of context on leadership via unique and different relations is demonstrated (as we discuss in the section above). For example, variable-centred approaches (i.e., correlation, regression) frequently test linear relationships among theorised variables, overlooking the possibility for these variables to associate in new and different ways to affect leadership outcomes. Even though interaction terms can be used to describe how two or three different constructs coalesce in variable-centred approaches, such analytic approaches fail to discover the presence of unique and distinct subgroups of context that show different patterns of the studied variables, especially when a relatively small number of contexts characterise a subgroup.

Variable-centred approaches fail to explain whether certain situations or contexts with unique combinations of characteristics exist and affect how leadership unfolds. For instance, the theoretical works by Osborn et al. (2002) and Hannah et al. (2009) took a stab at defining dimensions of different types of contexts. Such theoretical efforts suggest that different types of leadership contexts

likely exist, and a *context-centred* approach needs to be employed to investigate whether there are distinct subpopulations of contextual factors that conjointly within context affect leadership. Similarly, doing so can help us better understand whether leaders might engage in initiating structure and consideration behaviours at different intensities across contexts. To do so, research can adopt inductive approaches to form context profiles using latent profile analysis (LPA, e.g., Gabriel et al., 2015). Instead of using interaction terms of multiple contextual factors or analyses and potentially creating artificial categories of context, approaches like LPA can form categories based on heterogeneity observed in the data (Morin et al., 2011). Indeed, whereas traditional variable-centred analyses report averaged estimates of the observed relationships in the data, person-centred analyses consider subpopulation effects based on quantitative and qualitative differences (Morin et al., 2011). Research seeking to identify such typologies may provide the impetus for theoretical development surrounding the dimensionality of the omnibus and discrete contexts.

*What happened to the contextualisation?* One of the critical steps of understanding how context can shape leadership is contextualising where the leadership unfolds. Rousseau and Fried (2001) described contextualisation as the *linking of observations to a set of relevant facts, events or point of view that make possible research and theory that form part of a larger whole* (p. 1) and identified six issues related to selecting the right research setting and assessment tools: 1) construct comparability, 2) points of view, 3) representativeness, 4) range restriction, 5) time and 6) levels. While we believe contextualisation of leadership research can be the focus of another review or meta-analysis, readers can find an excellent example in Chapter 35, The impact of context on healthcare leadership. Inspired by the recent novel coronavirus pandemic and its implications on health systems across and within countries, the authors provide an intellectually engaging and demanding conversation (rich with metaphors) around the context in healthcare. In doing so, they similarly touch on the distinction between external (i.e., omnibus) and internal (i.e., discrete) factors of the healthcare context and identify the importance of leading change in rapidly changing, complex healthcare settings.

*Can leadership shape its own context?* Existing research in organisational theory can shed light on this question. On one hand, consistent with environmental determinism, organisational theories attempt to describe the organisations' strategic choices, behaviour and outcomes by almost exclusively studying characteristics of the organisation's external environment (e.g., Betton & Dess, 1985;

Hannan & Freeman, 1977). These theories suggest that scarce environmental resources force organisations to continuously adapt to benefit from external environmental changes (also known as institutional logics, that inform how organisations make sense of and respond to situations; Hatch & Cunliffe, 2013). For instance, using the arguments rooted in environmental determinism, Delegach et al. (Chapter 19, Self-regulatory focus and leadership) make a compelling case for how environmental determinism can shape an important boundary condition for leader regulatory focus and organisational outcomes. On one hand, leaders with a promotion focus on advancement, accomplishments and aspirations (Higgins, 1997) can help their organisations perform better in dynamic market conditions, which forces organisations and those leading them to be more proactive, follow more complex strategic goals and end up making risky decisions (Ruiz-Ortega et al., 2013). On the other hand, leaders with a prevention focus on safety, responsibilities and obligations (Higgins, 1997) likely shine in more stable environments but may be ill-suited to more dynamic and uncertain business contexts. In contrast, several others expanded the view to also consider how organisations actively attempt to navigate and change their environments either by establishing inter-organisational alliances or by altering their institutional context (e.g., Thornton & Ocasio, 1999).

Although in this chapter we focus on the effect of contextual factors on leadership and its four elements, it becomes clear that the interesting question is whether or how leadership will change its own context (in particular the omnibus context) in a way similar to how organisations do. To help develop new theory in this area, we will need to reverse the lenses and have both leadership and followership research assign leaders and followers to a more active role (where possible). For instance, rather than studying the effects of crises or event characteristics, can research think of ways leaders and followers themselves a priori affect the base rates of organisational crises or CEO succession or restrict the range of event characteristics. What are the traits and/or behavioural qualities that help leaders prevent being exposed to certain types of crises or avoid forced succession? Similarly, what is the role that followers could play in diminishing the duration, urgency, magnitude, or even nature of disruptive events in organisations before they occur? For instance, in one of the few attempts Chizema et al. (2015) explore the impact of institutional forces (i.e., women's representation in politics, economic environment and religiosity) on the occurrence of female directors on corporate boards. Can we reverse the lenses here and ask

ourselves what may be the characteristics of these female directors that in turn affect the institutional forces? Work on the context of leadership would be made richer if researchers reverse and broaden their lenses to consider these issues.

### **Methodological concerns**

What can be said about the commonly employed study design and measurement of key constructs? Before we reflect on the robustness and the rigour with which the research on contextual leadership has progressed so far, we first want to spotlight two relatively important limitations that challenge the validity of findings in the field: a) study design and b) measurement. In particular, our aim is to consider whether the literature on contextual leadership suffers from potential problems of endogeneity so that future research takes the necessary steps to improve scientific and practical merit of research concerning the impact of context on leadership while considering these issues.

As it is evident from Table 29.1, cross-sectional, survey-based field studies are the most frequently used study designs. This should come as no surprise given that it is relatively hard to mimic leadership contexts, especially the omnibus contextual factors, in experimental laboratory studies. One possible avenue forward is the use of high-quality vignette studies for unravelling the unique effects of various contextual factors at both the omnibus and discrete levels. Experimental vignette studies *consist of presenting participants with carefully constructed and realistic scenarios to assess dependent variables including intentions, attitudes, and behaviors, thereby enhancing experimental realism and also allowing researchers to manipulate and control independent variables* (Aguinis & Bradley, 2014, p. 351). However, scholars should carefully consider the realism and representativeness of their manipulations (Highhouse, 2009) because using non-consequential tasks in low-stakes scenarios can produce offbeat effect sizes (e.g., Ma et al., 2017) and threatens the external validity of such studies (e.g., Hertwig & Ortmann, 2001). Thus, coupling vignette studies with other methodologies may help triangulate findings, bolster theoretical development and contribute to research that generalises.

An additional under-utilised methodology is the use of archival datasets. Archival data *entails capitalizing on research data that are already in existence and includes such data as company records, government research archives, sports data, media-communications, historiometry, stock exchange information and O\*NET* (Barnes et al.,

**Table 29.1 Most commonly used study designs and measurement of contextual factors, along with presence of meta-analytic evidence**

<i>Omnibus context</i>	<i>Dimensions</i>	<i>Study design</i>	<i>Measurement</i>	<i>Meta-analysis</i>
<b>Where?</b>	Country of origin	Survey	Categorical variables	
	Institutional forces	Survey	Proxies	
	Market forces	Archival	Leader-rated psychometric scales	
<b>Who?</b>	Sex composition	Experimental Survey	Categorical variables	<input checked="" type="checkbox"/>
<b>When?</b>	Crises	Survey Archival	Follower-rated psychometric scales Categorical variables	
	CEO succession	Survey	Categorical variables	<input checked="" type="checkbox"/>
	Event characteristics	Survey	Leader- and follower-rated psychometric scales	
<i>Discrete context</i>	<i>Dimensions</i>	<i>Study design</i>	<i>Measurement</i>	<i>Meta-analysis</i>
<b>Task</b>	Task characteristics	Experimental	Categorical variables	<input checked="" type="checkbox"/>
		Survey	Follower-rated psychometric scales	
<b>Social</b>	Job/Work characteristics	Experimental	Categorical variables	<input checked="" type="checkbox"/>
		Survey	Follower-rated psychometric scales	
		Survey	Follower-rated psychometric scales	
<b>Physical</b>	Spatial distance	Survey	Network measures	<input checked="" type="checkbox"/>
		Survey	Follower-rated psychometric scales Categorical variables	<input checked="" type="checkbox"/>
<b>Temporal</b>	Stress	Experimental	Categorical variables	<input checked="" type="checkbox"/>
		Survey	Leader-rated psychometric scales	
	Temporal leadership	Survey	Follower-rated psychometric scales	

2018, p. 1454). An analysis of leadership-related scholarship by Antonakis et al. (2014) found only 10 per cent of articles published in top-tier social science included archival data. Archival datasets can allow researchers to identify the temporal order between study variables and eliminates the problem of reverse causality. For example, archival datasets can be used to understand the effect of the *when* dimension of the omnibus context and, in particular, the crises and institutional forces (e.g., Bligh & Hess, 2007; Scully et al., 1994). Datasets such as Archigos (originated from the Greek term for rule; Goemans et al., 2009), CHISOLS (i.e., change in source of leader support; Mattes et al., 2016), LEAD (i.e., the leader experience and attribute descriptions; Ellis et al., 2015) or DPI (i.e., database of political institutions; Beck et al., 2001) contain valuable information such as modes of leader transition and political institutions, and allow researchers to explore the effect of leaders in tandem with institutions on policy change across different time points in the history. Additionally, highly relevant, quantified and downloadable information about the discrete context is available through O\*NET including physical proximity, level of competition and the level of

work structure (see ‘Work context’), all of which can be considered as discrete context, that offers an untapped opportunity for innovative research in this area.

Research concerning the effect of contextual factors on leadership has used a wide range of leader- and follower-rated psychometric scales as well as categorical variables (e.g., dummy coding for country of origin, coding events in archival datasets, dummy variables for the experimental conditions). While we will consider the psychometric measures in detail later, the categorical variables merit some attention.

Categorical variables are employed for at least three different purposes. First, they are used as objective measures representing the context. For instance, studies used nominal categorical variables to represent country of origin as an objective description of the omnibus context. They either compare Eastern countries to Western countries (e.g., Dorfman et al., 1997; Fu & Yukl, 2000) or use the same categories as proxies for cultural differences while showing separately how those cultural factors differ across countries (e.g., Ensari & Murphy, 2003). A similar creation of nominal categories also exists for sex composition – that is,



groups of male majority, female majority groups, or equal sex composition (Eagly & Karau, 1991; Eagly et al., 1992) – as well as type of crises, incidents, or periods of time (e.g., Bligh & Hess, 2007; Davis & Gardner, 2012). Second, nominal categorical variables are frequently used to operationalise experimental conditions designed to test the effects of discrete contextual factors. In these studies, categories created represent treatment and control conditions. Third, and finally, ordinal categories are created to convert actual continuous measures of contextual factors. For instance, Howell and colleagues in two different studies converted physical distance between followers and leaders into a five-point scale ranging from 1 (*very close*) to 5 (*very distant*) and then further to a dichotomous variable (close versus distant) to ensure that their categorisation of physical distance included the majority of study participants (Howell et al., 2005). Although a pragmatic solution to a measurement issue, one should reflect as to the cost and benefits of such decisions given that the categorisation of otherwise continuous variables can increase measurement error (Liu et al., 2010).

When more objective operationalisations of contextual variables are not feasible, use of psychometric scales becomes a suitable method. Task- and job-related characteristics from Hackman and Oldham's (1976) Job Diagnostic Survey, the physical distance dimension of Kerr and Jermier's (1978) substitutes for leadership scale and Mohammed and Nadkarni's (2011) temporal leadership measure are some of the most used scales to measure discrete contextual factors. Researchers also frequently change or adapt some of the items, use a subset of items of scales or combine them with items from one or multiple scales. This frequently happens when there is no validated or widely used scale, the items provide poor contextual fit, or researchers want to reduce participant fatigue. While these strategies can be methodologically meaningful and reasonable, the fact that researchers rarely compare the psychometric properties of the new and original scale is somewhat problematic. As such, we recommend future research include an empirical consideration of how the new or revised measures relate to the established measures so the knowledge generated from the research can be integrated within the nomological network. Additionally, scholars should be encouraged to report all the revised items to ensure transparency and replicability either in-text or using online supplementary offerings (Carpini et al., 2017).

We next return to whether we believe that the findings in this field are prone to endogeneity concerns and how research can improve its practices

in its pursuit of reporting unbiased, robust estimates of contextual factor effects.

Should we be concerned about endogeneity? From a methodological perspective, we consider the issue of endogeneity to be the most pressing as it poses a serious threat to the internal validity of research. While by no means a unique issue to contextual leadership research, we contend future scholars may want to pay special attention to certain threats more than others because of the nature of contextual factors. With this said, there is some good news that merits consideration. That is, we consider the issue of endogeneity in the study of contextual leadership an opportunity for future research. We now turn our attention to two primary issues before considering the 'good news'.

The first issue is that research has frequently studied either the main effect of contextual factors or their interaction effects with other factors on leadership, yet fails to include mediating variables in their theoretical models and analyses. Although absence of any underlying mechanisms may be a limitation, establishing causal relationships among study variables in mediation models is more difficult than it is presently represented in the current leadership literature. In fact, study designs that involve survey or even experimental studies that test mediational models without manipulating mediating variable(s) raise concerns about making causal inferences among study variables in the theorised model. In fact, analyses can be compromised if the mediating variable is endogenous (Antonakis et al., 2010). For instance, omitted variables, along with other potential threats, can create endogeneity and bias the estimation of causal effects of mediating variable(s) on the dependent variable. There are at least two potential solutions. On one hand, researchers can carry out endogeneity tests to see whether there is any empirical evidence to suggest that mediating variables are endogenous (i.e., they are systematically related to unobserved antecedents of dependent variables). This again may happen because of omitted variable bias as well as measurement errors in the dependent variables or reverse causality (Antonakis et al., 2010). Results of both the Hausman test and Durbin–Wu–Hausman endogeneity tests can help researchers reveal whether there is an endogeneity problem in their studies. If there is a problem, an instrumental variable approach may prove useful (Gennetian et al., 2008). On the other hand, researchers can employ a *experimental-causal-chain* design (Spencer et al., 2005, p. 846). When there is the chance to manipulate and measure a suggested psychological process (which involves at least two causal relationships), an examination of this process using a series of experiments is superior to relying

on mediational analyses (Antonakis et al., 2010; Spencer et al., 2005). We strongly suggest leadership researchers consider the methodological solutions proposed by Spencer and colleagues (2005).

The second issue is that researchers have generally employed experimental studies to examine the effects of contextual factors, in particular discrete contextual factors, and have not considered issues of endogeneity. Even though randomised experiments can be considered the highest standard of causal evidence (Rubin, 2008), they are not immune to issues of endogeneity (Sajons, 2020). There are several reasons scholars should take note of this issue. For instance, assume that a researcher aims to understand the effect of temporal leadership on leadership effectiveness and manipulates temporal leadership. However, because perceptions of expressed leadership behaviours are manipulated, it is likely that such perceptions will be affected by a diverse range of omitted variables (e.g., personality traits, demographics). If known to researchers, they can control for the effects of these omitted variables; however, they may be sometimes unknown to researchers, or it may be simply unfeasible to include them all. There is then the so-called *post hoc ergo propter hoc* fallacy (Sajons, 2020, p. 1). We, researchers, like to think that when the explanatory variable happens before the outcome variable, the outcome variable must be caused by the explanatory variable. In fact, *omitted variables tend to correlate with themselves over time, and also with the outcome variable* (Sajons, 2020, p. 1). The use of experimentally randomised instrumental variables is an important solution to endogeneity problems (Sajons, 2020).

*Where to from here?* While issues related to endogeneity, study design and measurement are all pressing (see Antonakis et al., 2010; Sajons, 2020), we outline several avenues for overcoming these challenges and point to the possibility of theoretically rich and empirically sound research in the future. First and foremost, we believe that scholars must begin by asking themselves: *To what extent might omitted selection play a role in studying the effects of contextual factors?* Although one might consider context as a relatively exogenous factor (e.g., crises can be considered as exogenous shocks, opening doors to the use of regression discontinuities; Antonakis et al., 2010), the fact a) that the selection process into a group can be endogenous and b) that the samples recruited may not be representative (because leaders or followers might self-select themselves into specific context) potentially creates endogeneity bias in estimating the effect of contextual factors on leadership. For instance, sex composition of groups and CEO succession can be subject to such biases. Questioning the extent to which such unobserved factors may

be influencing results is an important first step in designing better research and developing deeper theory.

In addition, most of the empirical research fails to include theoretically important control variables while simultaneously using cross-sectional study designs that are prone to common-method variance problems (e.g., Bernerth & Aguinis, 2016). We also fail to explore heteroscedasticity and assume that standard errors are normally distributed. Bligh and Hess (2007) as well as Chung and Luo (2008) are some of the few, noteworthy exceptions. Finally, using rather imperfect scales as explanatory variables and not including measurement error terms in our models biases the estimates of models exploring the effect of contextual factors on leadership.

The answers to some of these problems are quite simple and straightforward. The study design that we employ becomes critical. We will need to be aware of the advantages and disadvantages of using field and experimental studies. While field studies help us with external validity or generalisability of our findings, they are prone to threats to internal validity or threats to consistent estimates. In contrast, experimental studies are protected from threats to internal validity to a greater extent but can generate external validity concerns. In contrast, Highhouse (2009, p. 555) tempers the polarisation 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*. As such, researchers should attend to ensuring issues of endogeneity are adequately addressed in both research settings as a primary concern. Moreover, a combination of field and laboratory studies may be, unsurprisingly, a compelling approach for future research.

Taken together, the next important question is the number and type of studies needed if we want to rigorously test our theorised model. If we aim to explain the underlying mechanisms of the theorised relationships, we will need to either use instrumental variable approaches, if the mediator(s) is (are), endogenous, or employ an experimental-causal-chain design (Spencer et al., 2005). Depending on the theorised model, we may need multiple studies to test our model in a progressive fashion. We may also need to perform experimental studies while incorporating Sajons's (2020) suggestions to address the issues around endogeneity. However, if an experimental manipulation of a contextual variable is not feasible, we then need to ascertain whether our model suffers from endogeneity, and if so, find and

use instruments. If we cannot find instruments (which is not an easy task on its own), we need to highlight this as a limitation of the field study and consider performing quasi-experiments (which is also not an easy task). While we may sound like economists or econometricians, we echo Antonakis and colleagues' (2010) observation that economics underwent a similar period of research adjustment where scholars had to advance their methodological practices, particularly when trying to establish causal inferences. We are aware that these approaches will certainly result in us devoting more time and effort to generating our research but, at the expense of quantity, we will be able to offer higher-quality research. While leadership research has taken the lead in this quest, we hope that other fields of organisational behaviour will join the cause.

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