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Quo vadis, paradox? Centripetal and centrifugal forces in theory development

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So!apbox

Quo Vadis, Paradox?
Centripetal and Centrifugal Forces in Theory Development

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ABSTRACT

Organizations increasingly face contradictory goals, multiple stakeholder expectations, and pluralistic missions that surface and intensify competing demands. Paradox theory offers a lens to understand and engage these tensions. Yet as research adopting a paradox lens continues to grow, scholars warn that its success could advance a dominant logic, which will ultimately hinder conceptual development and result in its downfall. We suggest that scholars can avoid this denigration by embracing theory development's driving forces; centripetal forces that define and buffer a conceptual core and centrifugal forces aimed at challenging the core and extending its boundaries. Although these forces' directions diverge, we depict these dual forces as paradoxical — contradictory and fundamentally interdependent. That is, we explore paradoxical forces of theory development to understand the development of paradox theory. We offer means to use, balance, and leverage these insights to help surface the black boxes in paradox research.

INTRODUCTION

The opposite of a correct statement is a false statement.

But the opposite of a profound truth may well be another profound truth.

attributed to Niels Bohr

Competing demands pervade organizations. Traditionally scholars approached such tensions as dilemmas that can be solved by making trade-offs. In contrast, organizational scholars increasingly adopt a paradox approach, depicting such competing demands as contradictory yet interdependent, and exploring approaches to engaging such complex tensions (Clegg, Cunha, and Cunha, 2002; Lewis, 2000). Scholars have begun to articulate a theory of paradox, offering a common language, assumptions, and boundary conditions (Smith and Lewis, 2011). This lens continues to attract scholars from across disciplinary fields, levels of analysis, and methods (Putnam, Fairhurst, and Banghart, 2016; Schad et al., 2016), engaging scholars from diverse fields in conversations on a shared objective — understanding organizational tensions and their management better.

This shared objective, together with organizational tensions' prevalence, has fueled rising uses of a paradox lens.[1] The accumulating research has advanced scholarly work on key strategic issues, such as the relationship between control and collaboration (Gebert, Boerner, and Kearney, 2010; Sundaramurthy and Lewis, 2003), exploration and exploitation (Andriopoulos and Lewis, 2009; Raisch et al., 2009), and firms' social and financial missions (Hahn et al., 2014; Jay, 2013). As organizations face ever greater technological change,

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[1] The rapid growth of paradox scholarship was documented in two recent review papers in the *Academy of Management Annals*: Through a key word search for contradictions, dialectics, and paradox, Putnam and colleagues (2016) found 852 papers published between 1975 and 2015. In a search based on four foundational pieces on paradox research, Schad and colleagues (2016) identified 133 top journal papers published between 1990 and 2014. Both studies show a strong increase in paradox publications over the last decade.

resource scarcity, and polarized demands, paradox theory and its ongoing development have considerable potential.

In this phase of rapid expansion, Cunha and Putnam (2018) warn about the unintended consequences of paradox theory's success: Concepts evolve path-dependently, resulting in a dominant logic that could inhibit conceptual development. Indicative of an 'Icarus paradox,' past success can limit adaptation to new and dynamic contexts and ultimately lead to failure. Established logics, labels, and concepts could lead to narrowness in theorizing, requiring direct challenges to paradox theory's established paths (Cunha and Putnam, 2018).

While we agree on the potential downsides of success, the excessive challenging of core assumptions risks conceptual confusion or even meaninglessness. We suggest that in order to move forward, scholars should leverage the forces that enable innovation in theory development — centripetal and centrifugal forces (Sheremata, 2000). Centripetal forces revolve around the conceptual core, integrating disparate knowledge and thereby buffering its boundaries. Centrifugal forces pull away from the core to spur exploration and creativity, challenging, spanning, and extending its boundaries. We view these forces as paradoxical — contradictory, yet also interdependent — and propose that engaging them is vital to the development of paradox theory. While extant paradox research helps us grasp the tip of the iceberg, ever more creative and provocative studies will uncover new insights. Indeed, understanding centripetal and centrifugal forces and their interplay can help surface and open the remaining 'black boxes' of paradox theory. And even a mature school of thought should never go unchallenged, but rather benefits from both continuity (centripetal forces) and novelty (centrifugal forces) (McKinley, Mone, and Moon, 1999).

We endeavor to foster these competing, yet interwoven forces by first examining the unique value of paradox theory to identify its core of shared understandings. Thereafter, we explore how interacting centripetal and centrifugal forces could advance insights into

organizational tensions and provide examples from strategy and organization research. Finally, we offer suggestions on how the paradox research community could foster, leverage, and balance these forces to sustain ongoing learning, innovation, and theory development.

PARADOX THEORY'S UNIQUE VALUE

Paradox theory has come a long way. Linguistically, paradox means to go against (para) popular opinion (doxa). While researchers had long used 'paradox' as a loose umbrella term, scholars in the late 1980s began applying long-held premises from philosophy and psychology to better understand tensions in organizations and organization theory. Smith and Berg (1987) presented the contradictory sides of group behaviors; Quinn and Cameron (1988) mapped the tensions in organizational change; while Poole and Van de Ven (1989) suggested that contradictory explanations serve as a promising starting point for theory building. Early paradox research therefore challenged taken-for-granted assumptions embedded within the dominant either/or approaches to management research.

Building on this tradition, Lewis (2000) integrated different research fields and proposed a framework to help explore organizational and theoretical tensions. Smith and Lewis (2011) advanced this perspective toward a theory of paradox. They positioned paradox theory as a way to capture and conceptualize tensions that are both contradictory and interdependent. Such tensions emerge across theories, contexts, and levels, positioning paradox as a meta-level theory (Lewis and Smith, 2014; Schad et al., 2016).

Scholars have explicated the core building blocks of theory development — the what, how, why, and who/when/where (see Whetten, 1989) — toward developing a theory of paradox. In paradox theory, tensions are the starting point and depicted as "persistent contradictions between interdependent elements" (Schad et al., 2016: 6). These key elements — contradiction, interdependence, persistence — differentiate paradox from other research on

tensions, such as duality and dialectics research[2] (Putnam, et.al, 2016) (*what*). Consequently, managing paradox does not denote controlling, but coping with or working through tensions (Lüscher and Lewis, 2008). Balancing opposing and interwoven elements requires constant iteration between integration and differentiation mechanisms — a continuous and increasingly intricate challenge, because paradoxes are dynamic but also surface across domains and levels (Smith and Lewis, 2011; Smith, 2014) (*how*). Paradox theorists offer explanations of the mechanisms that facilitate or hinder engaging with tensions. Tendencies to over-emphasize one side could fuel vicious reinforcing cycles (Tsoukas and Cunha, 2017), which can spur organizational decline (Sundaramurthy and Lewis, 2003)[3] (*why*). Lastly, paradox theory is especially useful under various boundary conditions: Paradoxes surface in situations marked by complexity, scarcity, and plurality (Smith and Lewis, 2011). Further, individuals differ in their capacity and comfort in recognizing and engaging paradoxical tensions (Miron-Spektor et al., 2018) (*who/when/where*).

By focusing on the nature, sources, management, and dynamics of tensions, paradox research is exceptionally diverse and inclusive (Smith et al., 2017). Insights into the tensions in one context have led to and informed investigations in other contexts, widening the scholarly discourse across differing fields and levels of analysis (Fairhurst et al., 2016; Lewis and Smith, 2014). On a meta level, paradox provides a language for scholars to discuss tensions, contradictions, and competing demands (Schad et al., 2016). Embracing differences, scholars build more holistic management theories (Quinn and Nujella, 2017), and also counter the tendency to further parse existing knowledge into ever more nuanced, narrow and defensive specializations.

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[2] Duality scholars emphasize interdependence and focus less on contradictions, while dialectics research claims that there is ultimately a synthesis of two interdependent opposites (see Farjoun et al., 2018; Langley and Sloan, 2012).

[3] In contrast, engaging contradictory and interdependent elements simultaneously can enable virtuous cycles and lead to organizational sustainability (Smith and Lewis, 2011).

This openness to scholarly contexts contributes to a rapidly growing paradox community and its literature. Further, with the plurality of stakeholder demands and polarized conflicts increasingly marking organizations, paradox theory's focus on tensions reflects this zeitgeist. Recent paradox studies span various strategy domains, including change (Jarzabkowski and Lê, 2017), decision making (Calabretta, Gemser, and Wijnberg, 2017), and leadership (Knight and Paroutis, 2017) on the individual (Miron-Spektor et al., 2018), team (Gebert et al., 2010), firm (Schmitt and Raisch, 2013), and inter-firm (Huq, Reay, and Chreim, 2017) levels. New audiences continually adopt paradox theory to advance discussions in their respective, often varied, research streams, spurring continued development.

Nevertheless, this growing body of research also fosters insights that continue to challenge underlying assumptions. While scholars, for instance, initially depicted paradoxes as an inherent feature of organizational life (such as the need for exploration and exploitation, see Raisch et al., 2009), others describe paradoxes as social constructed (e.g., Putnam et al., 2016). Further, while some scholars depict paradox's ontology as a tangible, persistent duality, others stress an evolving dialectical process (Hargrave and Van de Ven, 2017; Langley and Sloan, 2012). Interwoven with these differences are the varied uses of paradox — as a descriptive and provocative lens versus a more normative tool to enhance management (Cunha and Putnam, 2018). Since paradox scholars 'agree to disagree,' such differences surface the 'paradoxes of paradox' (Smith et al., 2017) — conflicting yet interdependent views on key concepts that co-exist and energize community debates. Such discourses reflect paradox's foundations in philosophy, where eclectic traditions have shaped the concept (see Schad, 2017).

Growth in paradox theory thus follows two directions — moving into new fields and challenging key constructs. For paradox research to thrive there is a need to better understand

theory development, which is driven by both centripetal and centrifugal forces. We now examine these forces in paradox theory, as understanding their respective roles and their interplay may aid its continuing progression — to surface and open remaining 'black boxes'.

CENTRIPETAL AND CENTRIFUGAL FORCES SHAPING PARADOX THEORY

Both centripetal and centrifugal forces fuel theory development. These dynamics are certainly not unique to paradox theory, nor to theory development. For instance, early institutional theorists saw the need to integrate accumulating research into clarified conceptualizations (Scott, 1987). Their work paved the way for innovative research applications that challenged and expanded the core concepts (e.g., neo-institutionalism). Eventually, these extensions sparked concerns about potentially overstretching institutional theory (Suddaby, 2010). This example from theory development mirrors similar organizational change patterns — in strategy, innovation, structure, and leadership — with centripetal and centrifugal forces underpinning developmental processes (Sheremata, 2000).

In theory development, centripetal forces revolve around a conceptual core. Such a force provides insights into the core, integrating disparate knowledge and serving to clarify and buffer the conceptual boundaries. These efforts are vital for paradox theory; for if everything is a paradox, nothing is a paradox. A clearly defined conceptual core allows diverse applications and rigorous testing. However, while centripetal forces ensure research's connectedness, unchallenged inertia and dominant logic can inhibit creativity, innovation, and growth (Sheremata, 2000).

In contrast, centrifugal forces in theory development push against the established boundaries. Propelled by novel ideas and techniques, this force constantly moves away from the core, serving to span and extend the boundaries. Centrifugal forces challenge the core elements, encouraging scholars to identify and investigate new questions, contexts, and

lenses. Over time, these forces expand the scope and boundaries of paradox theory. Over-emphasizing centrifugal forces can, however, overstretch the core creating conceptual confusion that renders research less accessible and meaningful (Sheremata, 2000).

While pulling in opposing directions, both centripetal and centrifugal forces play vital roles in theory development. Together, these forces can spark new insights and provoke energizing debates. We argue that centripetal and centrifugal forces are interdependent — not only are both sides needed, but they enable one another (Farjoun, 2010; Gebert et al., 2010). Understanding this linkage will enable theorists to help surface new paradox research questions and possibilities. Centrifugal work tests and extends theoretical and conceptual boundaries enabled by previous centripetal work, while centripetal work deepens and solidifies novel centrifugal understandings to form the enhanced core. Together, these forces enable a theory and its community to thrive. In the remainder of this section, we describe the reciprocal interplay between these two forces and provide mechanisms through which scholars can leverage their synergies. For each mechanism, we provide examples from existing strategy and organization research as well as implications for future paradox research.

How centripetal forces enable centrifugal forces

As centripetal forces rotate around and solidify the core, pulling elements inward to foster integration, the dynamic and enhanced core simultaneously clarifies boundaries that enable opposing centrifugal forces (Sheremata, 2000). In theory development, the more centripetal forces solidify conceptual foundations, the more these foundations can be applied and questioned in novel, innovative ways. In turn, the bolder the centrifugal research, the more triangulation strengthens and deepens the core. We suggest three mechanisms through which centripetal foundations enable centrifugal explorations in paradox research.

Specifically, we examine how conceptual clarity aids exploring new contexts, unpacking established 'boxes', and investigating paradoxes empirically.

Exploring new contexts

By clarifying the core concept of paradox, centripetal forces enable paradox research in increasingly varied contexts. Schad and colleagues (2016) found that the greatest growth in paradox research has surrounded studies aimed directly at defining what is and is not paradox. While 'paradox' had become shorthand for surprising inconsistencies, Lewis (2000) returned to theoretical roots in psychology and philosophy to specify paradox as "contradictory yet interrelated elements—elements that seem logical in isolation but absurd and irrational when appearing simultaneously" (760). Over the next decade, studies further tested, refined, and sharpened definitions of paradox as "contradictory yet interrelated elements that exist simultaneously and persist over time" (Smith and Lewis, 2011, 382).

Establishing clear conceptual boundaries (centripetal) has empowered researchers to leverage the concept in broadening contexts (centrifugal). For instance, by identifying innovation as paradoxical, ambidexterity scholars applied the lens to explicate exploration-exploitation tensions (e.g., Andriopoulos and Lewis, 2009; Gibson and Birkinshaw, 2004; Smith and Tushman, 2005). Likewise, to advance sustainability research, paradox is increasingly used to investigate firms' conflicting yet interdependent financial and social responsibilities (e.g., Jay, 2013; Sharma and Bansal, 2017; Slawinski and Bansal, 2015). In this realm, a recent special issue on sustainability paradoxes demonstrates paradox's expanding impact (Hahn et al., 2018).

Such studies continue to test and extend the concept's generalizability, opening new future research domains to paradox. The recently published *Oxford Handbook of Organizational Paradox* showcases applications across diverse fields, including creativity

(Miron-Spektor and Erez, 2017), human resource management (Aust et al., 2017), and strategy practices (Lê and Bednarek, 2017). As theorized, paradox might indeed be relevant to a wide range of perspectives and contexts marked by plurality, scarcity, and change (Smith and Lewis, 2011).

Unpacking established 'boxes'

Beyond conceptualizing paradox, centripetal forces have helped delineate paradox theory's key constructs — the 'boxes and arrows' that are critical for ongoing theory development (Whetten, 1989). These key constructs include tensions as a starting point, elements that can fuel the reinforcing cycles, and management approaches in response to them (Lewis, 2000). Establishing these 'boxes' and their interrelationships followed a centripetal movement, with the resulting foundations enabling more creative and divergent centrifugal forces to unpack their depths.

Management approaches to strategic tensions illustrate this pattern. Smith and Lewis (2011) theorized that organizations can thrive with paradoxes by balancing differentiation and integration activities. Empirical research has since shown how senior managers engage in dynamic decision making by iterating between exploration and exploitation (Smith, 2014) and how these tensions and their management unfold across organizational levels (Andriopoulos and Lewis, 2009). Further, established foundations of paradox management raised questions about more nuanced managerial traits or microfoundations. Leveraging psychology and cognitive sciences, researchers investigate why some individuals are more, or less, capable of coping with paradoxical tensions (Miron-Spektor et al., 2018).

Diving further into established paradox constructs and their interrelationships opens new research possibilities to extend theory. For instance, scholars proposed that reinforcing cycles may be better understood by exploring power (Fairhurst et al., 2016). While paradox

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research has presumed that a tension's two sides are equally important, underlying power mechanisms might explain why disequilibria mark reality. Seeking such an understanding surfaces new opportunities for strategy research. For instance, Huq, Reay, and Chreim (2017) observed that a pole's status influences how individuals position themselves towards a strategic paradox. Future studies could dive deeper still, examining whether and why one pole of a tension is more powerful and status enhancing (e.g., exploration rather than exploitation, social rather than financial responsibility). The role of power may be further complicated as perceptions of tensions may vary and conflict, becoming interwoven with emotional and cognitive responses that trigger ambivalence (Ashforth et al., 2014) and impact one's well-being (Vince and Broussine, 1996).

Investigating paradox empirically

While conceptual studies dominate the field, the stronger the conceptual foundations the better scholars can explore paradoxes empirically. Such research is very challenging as a paradox logic defies traditional, linear and static models (Pierce and Aguinis, 2013). Studying the tensions and dynamics of paradox requires requisite variety — research methods and designs for investigating paradoxes paradoxically (Lewis and Smith, 2014). By concentrating on core paradox components (centripetal), paradox scholars increasingly seek creative means to push the boundaries of conventional empirical methods (centrifugal).

For instance, to explore sensemaking dynamics amongst managers grappling with paradoxes of organizational change, Lüscher and Lewis (2008) used action research, a method largely absent from mainstream management journals. Likewise, while studies of paradoxes in communication and discourse have a long tradition, researchers have focused on identifying paradoxes and their effects (Fairhurst and Putnam, 2018). By applying ever more sophisticated linguistic techniques, researchers may surface temporal aspects and gain insights

into underlying processes (Langley, 2007). For instance, recent studies detail how multiple tensions can become discursively entangled or 'knotted' (Sheep, Fairhurst, and Khazanchi, 2017) and how actors cope with strategic paradoxes using humor (Jarzabkowski and Lê, 2017). Becoming entangled and co-evolving (Jarzabkowski, Lê, and Van de Ven, 2013), such knotted tensions in turn require multiple, varied and flexible response strategies (Putnam et al., 2016).

Applying a paradox lens can help scholars push the boundaries of existing methods. While qualitative methods have largely enabled recent advancements, there are ample opportunities for quantitative research. For instance, by exploring the microfoundations of paradox, researchers have started to leverage experimental methods to establish and test scales (Keller, Loewenstein, and Yan, 2017; Miron-Spektor et al., 2018; Zhang et al., 2015). Future research could use case vignettes to complement the scales' insights. Further, paradox's development over time can be quantitatively explored through process research (Langley et al., 2013). To date, few studies quantitatively trace the development of a strategic tension over time (e.g., Klarner and Raisch, 2013; Luger, Raisch, and Schimmer, 2018).

How centrifugal forces enable centripetal forces

Having detailed how concentrating on centripetal forces enables centrifugal forces by linking growth to a conceptual core, we now examine how the opposite interplay also applies. Centrifugal forces that push established boundaries can also reflect back on the conceptual core to complicate established understandings. We illustrate three exploratory mechanisms that help surface new black boxes and, in turn, strengthen the core: juxtaposing alternative lenses, maturing inter-community engagement, and playing the devil's advocate.

Juxtaposing alternative lenses

Drawing on a rich history in philosophy and psychology, research using paradox theory sought to offer a meta-theory on the nature, dynamics, and management of organizational tensions (Lewis and Smith, 2014; Schad et al., 2016). As such, early scholars positioned paradox theory as an alternative to contingency theory (Lewis, 2000). This development continues as juxtaposing paradox with other lenses pushes its conceptual boundaries (centrifugal), enabling reflections that further complicate and clarify paradox's core building blocks (centripetal).

Theoretical juxtaposition fruitfully challenged core paradox understandings. For example, using duality theory, Farjoun (2010) explicates the tension between stability and change as comprising distinct mechanisms that mutually enable one another. Contrasting duality and paradox theories complicates the understanding of interrelated poles, accentuating the interdependence of paradoxical tensions. This conceptual shift has inspired strategy research to examine how interdependent poles persist under pressure (Ashforth and Reingen, 2014; Ocasio and Radoynovska, 2016) and how strategic tensions could become interdependent with other tensions in intricate and dynamic knots (Jarzabkowski et al., 2013; Sheep et al., 2017).

Avenues for paradox research that leverage theoretical juxtaposition abound. Recent studies contrasting paradox with a dialectics perspective demonstrate the opportunities to further explicate tensions' persistence and dynamics. For instance, Hargrave and Van de Ven (2017) propose that while dialectics transform tensions, such changes to the underlying tensions may be consistent with and indeed deepen a paradox logic. Further, dialectics opens the possibility to move beyond recurring tensions to account for dynamic shifts in tensions over time (Farjoun, 2017; Langley and Sloan, 2012; Raisch, Hargrave, and Van de Ven, in press).

Maturing inter-community engagement

When scholars adopt a paradox lens to advance research in their field, they do so by drawing on existing understandings of both research communities. Cunha and Putnam (2018) warn that such interactions could further institutionalize the 'dominant logic,' however, we view such relations as dynamic. When engagement between paradox and another perspective continues over time, mutual understandings and respect grow to foster a more sophisticated discourse that can sharpen the distinct theoretical boundaries of each scholarly community, while also clarifying and empowering their potential linkages.

Interactions between paradox and ambidexterity scholars illustrate this maturing engagement. Initially, applications of a paradox lens shifted ambidexterity research discussions from structural responses to environmental contingencies toward contextual (Gibson and Birkinshaw, 2004) and cognitive (Smith and Tushman, 2005) factors that help ongoing balance of exploration and exploitation. Recent research, however, indicates that sustaining ambidexterity might at times involve moving away from balancing approaches to react directly to environmental changes (Luger et al., 2018). Similarly, applying paradox logic to institutional complexity has shifted discussions from structural organizational responses toward balancing mechanisms linked to individual capabilities (Smets et al., 2015). Over time, engagement has also led to complementary insights into these perspectives, such as institutional complexity's focus on the external sources of tensions pushing paradox inquiry, which usually stops at organizational boundaries (Smith and Tracey, 2016).

There are considerable opportunities for research into further inter-community learning. For instance, while paradox theory is helpful for scholars to frame tensions in sustainability research (e.g., Hahn et al., 2018), scholars might explore how sustainability insights reflect back on paradox research, as sustainability's emphasis on managing temporal tensions (e.g., short-term gains and long-term costs) could accentuate the temporality of paradox (Slawinski

and Bansal, 2017). Since paradoxes are nested in space and time (Poole and Van de Ven, 1989), a sustainability lens could raise new questions regarding tensions' persistence. Further, by linking firms' actions to systemic problems (Bansal and Song, 2017) and complex environments (Scherer, Palazzo and Seidl, 2013), sustainability research could complicate our understandings of nested and interwoven tensions.

Playing the devil's advocate

By applying this last mechanism, researchers play the role of the devil's advocate, challenging the existing knowledge of paradox. Theorizing paradoxes implies using a frame that encompasses and aids our understanding of opposites (Lewis, 2000). Yet Smith and Lewis (2011) provocatively encourage researchers to move beyond framing *known* tensions to purposefully propose and explore unknown opposites. By doing so, researchers develop an antithesis to an existing thesis. Challenging established insights into paradox theory (centrifugal), allows new insights into paradox theory's building blocks to emerge (centripetal).

The 'paradoxes of paradox' (Smith et al., 2017) illustrate this development mechanism. For instance, early paradox research tended to treat paradox as a 'noun' — a concrete problem, highlighting its constituent conflicting poles and seeking a similarly static integrative solution. Later paradox research began examining a contrasting view — assuming the fluid construction of paradoxes and managerial responses — as a 'verb' (Fairhurst et al., 2016). Process approaches explore paradox as ongoing responses, thereby identifying the dynamics between opposing poles and their synergies in practice. The antithesis of a static model of inherent paradoxes shifted the overarching community discourse, stimulating research beyond tensions as elements (e.g., competing demands or practices) toward more

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fluid and subjective experiences, thus identifying responses that defy a 'solution' (Schad et al., 2016).

Although playing the devil's advocate can be an uncomfortable role, future research could use this mechanism to bring about ever more provocative paradoxes of paradox. An example of an established assumption is that tensions spur defensive behavior and resistance (Vince and Broussine, 1996). However, what if tensions not only spur defenses, but also enable coping? Such an insight could shift management approaches, by not requiring strategic leaders to necessarily 'protect' their employees from tensions, but also to actively seek out tensions to spark creativity.

NAVIGATING PARADOXES IN PARADOX THEORY

In this paper we have sought to explicate paradoxical forces impacting development of paradox theory. Cunha and Putnam (2018) astutely warn that paradox theory's growing attractiveness might inhibit further conceptual development and argue that key constructs need to be challenged. While they describe an Icarus paradox, where success ultimately leads to failure, we suggest that we face a Socratic paradox: The more we know about paradox, the more we know what we do not yet know. The rub lies in the potential to continuously challenge and expand the conceptual boundaries of the lens, but remaining wary of over-stretching the theory, which can create confusion and ultimately deprive core concepts of their meaning. With paradox research attracting more scholars from different fields, we encourage future research that leverages and thereby tests paradox's distinctive core, in order to strengthen and extend its value.

We have illustrated how centripetal and centrifugal forces and their interplay enable the continuous development of paradox theory. Understanding these dynamics sheds new light on how paradox could progress. While centripetal forces buffer existing boundaries, centrifugal

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forces foster boundary spanning. Rather than opposing one another, we depict the forces as fundamentally linked. Centripetal forces enable centrifugal forces and vice versa, enabling an interplay between existing and new knowledge vital for the 'disciplined imagination' of theory development (Weick, 1989). Ultimately, we argue that balancing continuity and novelty will further increase paradox research's scope on its way to becoming a school of thought in organization theory (McKinley et al., 1999).

Our insights have several implications for research and for the paradox community. In research, paradoxes must be approached paradoxically — allowing for and seeking opposing views to advance understanding. As the concept grows, researchers with differing ontological assumptions will leverage paradox theory. For instance, conceptualizing paradoxical tensions as 'real' or 'socially constructed' has important implications for their potential study and management (Schad and Bansal, in press). Paradox research embraces such tensions, especially as conflicting ontologies offer research opportunities. For instance, how do real and constructed tensions relate? How could constructed tensions materialize over time? Given such complex questions, we encourage researchers to be explicit about their underlying ontological assumptions, while remaining open to potential alternatives.

The interplay between centripetal and centrifugal forces may become more important over time as their effects are likely to co-occur. First, we can expect some degree of specialization, such as in sub-discussions on varied strategic paradoxes. This applies not only to different building blocks of paradox (e.g., microfoundations), but also to increasingly refined methods (e.g., experiments) and maturing inter-community engagement (e.g., ambidexterity). Second, new tensions challenging established assumptions are likely to emerge. These tensions may form new 'paradoxes of paradox' (Smith et al., 2017), expounding tensions already identified between different schools of thought in the philosophical foundations (Schad, 2017).

The ongoing theoretical developments will also have implications for the broader paradox community. As members confront different worldviews, their interaction with scholars from eclectic conceptual and methodological backgrounds will enrich and challenge the established core. However, a shared sense of paradox and its core building blocks is also needed. It is thus key to preserve the community's values for diversity and inclusion. Our common purpose can serve as a binding element: Paradox theory stands for an intellectual endeavor that allows us to break through the gridlock of polarized either/or debates.

CONCLUSION

With its core established, research using paradox theory is growing rapidly. To fuel its continued success, however, theory development must embrace centripetal and centrifugal forces alike. While centripetal forces strengthen key constructs to enable integration and a common core, centrifugal forces attract and foster new and creative ideas that challenge and expand its boundaries. These forces are distinct and fundamentally linked. To further thrive, we provide paradox scholars with different mechanisms — means by which centripetal forces can enable centrifugal forces and centrifugal forces enable centripetal forces. As researchers this requires that we approach paradoxes paradoxically and take tensions in our research as a starting point to further challenge and develop our existing knowledge.

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