UC Irvine
UC Irvine Previously Published Works

Title

The Imagination Advantage: Why and How Strategists Combine Knowledge and Imagination in Developing Theories

Permalink

https://escholarship.org/uc/item/0bk4j8bh

Authors

Rindova, Violina P

Martins, Luis L

Publication Date

2024

DOI

10.1287/stsc.2024.0184

Peer reviewed

The Imagination Advantage: Why and How Strategists Combine Knowledge and Imagination in Developing Theories

Violina P. Rindova,[a],* Luis L. Martins[b]

[a] Merage School of Business, University of California, Irvine, Irvine, California 92697; [b] McCombs School of Business, University of Texas at Austin, Austin, Texas 78712
*Corresponding author
Contact: vrindova@uci.edu, https://orcid.org/0000-0002-4197-8908 (VPR); luis.martins@mccombs.utexas.edu,
https://orcid.org/0000-0002-4136-181X (LLM)

Abstract. We theorize why and how strategists develop different types of theories when confronted with different types of problems by combining knowledge and imagination in different ways. We propose that strategists' epistemic stances affect how they combine knowledge and imagination and whether they develop either analytic theories, or constructive theories of two types: reconfigurative and projective. We theorize how imagination complements knowledge in theory development to generate distinctive strategies and strategic advantages. We argue that analytic theories enable conjectural anticipation, which contributes to early timing of strategic actions; that reconfigurative theories posit novel value dimensions and enable industry shaping; and that projective theories articulate novel possibilities to shape desired and desirable futures. Our ideas advance research on how imagination is leveraged in theory development, future-oriented strategizing, and shaping strategies.

Introduction

The theory-based view (TBV) of strategists as scientists (Camuffo et al. 2020, Zellweger and Zenger 2023) and theorists (Felin and Zenger 2009, 2017; Zenger 2013; Wuebker et al. 2023) offers a new theoretical perspective on how strategists overcome knowledge problems of bounded rationality (Gavetti 2012, Csaszar and Levinthal 2016) and Knightian uncertainty (Alvarez and Porac 2020, Rindova and Courtney 2020) to create novel, distinctive, and effectual strategies (Gavetti and Porac 2018, Rindova and Martins 2021). At the core of the TBV lie the arguments that strategists' theories guide and improve their decisions in the face of uncertainty and systematize how they think about creating and capturing value.

Theory, in the context of strategy making, has been defined as "a unique, firm-specific point of view" (Felin and Zenger 2017, p. 258). Wuebker et al. (2023, p. 2926) further state that a "theory of value can be thought of as a very specific type of representation—a forward-looking projection or 'presentation' of the causal solution structure specific to a problem—a causal logic that

can then be tested, revised, or abandoned as needed (Ehrig and Schmidt 2022, Zellweger and Zenger 2023)." Across these definitions, theories are understood as "a coherent, abstract, causal representation(s) of the world," through which strategists make observations, predictions, and inferences about possible courses of action (Felin and Zenger 2017, p. 262). Through these processes, strategists test underlying assumptions and hypothesized cause-effect relationships and make better decisions under uncertainty (Camuffo et al. 2020, Ehrig and Schmidt 2022, Gambardella and Messinese 2023, Wuebker et al. 2023, Zellweger and Zenger 2023).

These ideas are a welcome complement to the large body of research on strategic cognition, which has focused on how strategists cognitively represent knowledge in schemas that simplify the representation of complex environments (Porac et al. 1989, Narayanan et al. 2011). Strategic cognition research has emphasized that schemas stabilize over time, leading to cognitive inertia and misalignment between strategists' schemas and their changing environments (Barr et al. 1992, Tripsas and Gavetti 2000). In contrast, the TBV emphasizes

how systematic theory development, causal reasoning, and hypotheses testing, enable strategists to update their knowledge and develop strategies under uncertainty. In doing so, the TBV shifts the paradigm for how we might think about, and study, strategy making. Whereas strategy making has been primarily studied through the lenses of rational positioning, evolutionary learning, and (bounded) cognition (Rajagopalan and Spreitzer 1997, Gavetti and Rivkin 2007, Martins et al. 2015), the TBV gives primacy to causal reasoning and systematic development of theories to guide strategic action. Another distinctive aspect of the TBV is its attention to problems as the impetus for developing theories, which then guide the development of hypotheses about possible solutions to the problems (Felin and Zenger 2017). Connecting problems to theories in the context of strategy making calls for further attention to the question of how the formulation and structuring of problems may affect strategists' theories and the strategies they develop.

In this paper, we address this question by building on the distinction of Simon (1973) between well-structured problems (WSPs) and ill-structured problems (ISPs), and in particular, on his argument that, in reality, *all* strategic problems are ill-structured and therefore require structuring through the application of prior knowledge and inputs from changing environments. We further follow the distinction of Levinthal (2011) between initial problem representations and their subsequent elaboration, that is, problem structuring. Levinthal (2011, p. 1519) argues that initial problem representations are not necessarily characterizations of the "true problem setting" but instead "simply one, possibly focal, option out of a vast sea of possible options." As such, they present an "opportunity to think creatively about the space of alternative representations" (Levinthal 2011, p. 1519). Considering how strategists may think creatively about multiple possible representations suggests the need for further theorization of the role of strategists' intentions and imagination as two types of prospective cognition that are central in future-oriented thinking (Szpunar et al. 2014).

To advance research in this direction, we suggest that strategists' beliefs about how they can structure a problem affect their epistemic stance, which, in turn, influences how they combine knowledge and imagination in structuring problems and developing theories. An epistemic stance is an actor's cognitive relation to the environment that affects whether actors seek to fit the existing state of the environment to their mind or seek a fit between their mind and a nonexistent, but possible, future state of the environment (Rindova and Courtney 2020, Sergeeva et al. 2021). Our argument is that, as strategists confront problems that differ in cognitive distance, that is, in the extent to which they can be represented and structured within the strategists'

current cognitive space, they adopt different epistemic stances, which lead them to combine knowledge and imagination in theory development in different ways.

When strategists perceive the focal problem(s) as low in cognitive distance, and therefore structurable by using and extending the knowledge available in their current cognitive space, they are likely to adopt an environment-to-mind epistemic stance and to seek to develop true beliefs about the environment. To do so, they combine things that they know, and/or aim to learn, and conceptualize relations among known elements. They further engage in deductive reasoning and develop conjectures, test hypotheses, and make inferences (Felin and Zenger 2017, Ehrig and Schmidt 2022, Zellweger and Zenger 2023). Through these processes, they develop *analytic* theories that posit dependable relationships between the present and future situations (Knight 1921) and employ imagination to anticipate and predict the future (Rescher 1998).

When strategists perceive the focal problem(s) as high in cognitive distance and deem current knowledge to be either insufficient or inadequate, they are likely to adopt a mind-to-environment epistemic stance. To structure such problems, they imagine alternative states of the world and orient themselves toward taking actions to generate the imagined, nonexistent future states. Thus, they combine knowledge with imagination to envision how an existing situation could be transformed into a preferred one (Simon 1996). The strategists' preferences direct imagination and actions toward creating what does not exist and realizing their preferences for a desired future. To this end, strategists develop *constructive* theories that guide their actions to create desired, nonexistent future states.

The core distinction we make between analytic and constructive theories follows the arguments of Shackle (1972, p. 51) that *analytic* theories describe "states of affairs," whereas *constructive* theories "describe steps or movements of transformation by which one situation is carried into others." Within this core distinction, we theorize the differences between reconfigurative constructive theories that reorganize existing knowledge to imaginatively rework a problematic situation (Martins et al. 2015; Rindova and Martins 2021, 2022), and projective theories that articulate novel possible states of the world (Rindova and Martins 2022). We focus our paper on constructive theories, as analytic theories are well understood through the lens of the philosophy of science (Popper 1972, Lakatos 1978), whereas constructive theories have received only passing scholarly attention (Cornelissen et al. 2021).

Our ideas contribute to three growing areas in strategy research. First, we articulate a framework for how strategists agentically represent and structure problems in developing theories in strategy making contexts. Specifically, we theorize the relationships between

strategists' intentions and the theories they develop by combining knowledge and imagination in different ways. Second, we broaden the microfoundations of future-oriented strategizing by proposing how the use of productive and creative imagination supports the development of different types of constructive theories. Our ideas advance the understanding of future-oriented strategizing by articulating the different bases of strategic distinctiveness and advantage, as derived from the three types of theories we discuss. Third, we extend strategy research on shaping by distinguishing between shaping industries and shaping the future and theorizing the role of reconfigurative and projective constructive theories is guiding each type of shaping strategy.

Initial Problem Representations and Epistemic Stance

A long line of research, going back to the distinction of Simon (1973) between WSPs and ISPs, has studied how strategists formulate and address *strategic* problems (Levinthal 2011). This research has emphasized that strategic problems, by their nature, are ill structured and therefore require structuring on the part of strategists.[1] Simon (1973) argues that strategists structure problems by relying on memory, that is, prior knowledge, the nature of the task, and the inputs from the environments of action that introduce change in the problem space. Similarly, in developing theories, strategists rely on prior knowledge while simultaneously updating their beliefs and assumptions (Zellweger and Zenger 2023).

Research within the TBV has problematized the extent to which prior knowledge suffices under conditions of uncertainty and has focused specifically on how strategists extend their knowledge in a rigorous manner, following science-based epistemology (Camuffo et al. 2020, Rindova and Courtney 2020). Research on problem novelty has similarly argued that novelty renders a situation one that "on the face of it, is not sensible, that is, not explicitly related to information stored within the database of the individual's experience" (Gardner and Sternberg 1994, p. 38). As such, novel problems are at the periphery or outside of strategists' cognitive space; that is, they are cognitively distant (Gavetti 2012). They therefore "must be solved either by creating a completely new solution from existing mental resources [processes and data], or by finding an analogy between the existing novel situation and relevant past experience (Raaheim 1974)" (Gardner and Sternberg 1994, p. 38). Taken together, these arguments suggest that in uncertain situations, where strategists face novel, cognitively distant problems, they must rely on cognitive processes that enable them to go beyond the application of existing knowledge and beliefs. Because novel problems are cognitively distant to a greater or lesser extent, cognitive

distance is central to how strategists represent and structure problems. Further, the perception of cognitive distance is subjective, because novelty itself is subjective, as it is "a function of a person-task interaction [such that] [w]hat is novel for one person may not be for another" (Gardner and Sternberg 1994, p. 38). Thus, problem structuring is *necessarily* subjective, and as we argue, an intentional and creative act (Levinthal 2011).

To theorize the role of strategists' intentions in problem structuring, we draw on the philosophy of mind and the notion of "direction of fit" between the mind and reality (Platts 1979, p. 257; Searle 1983, p. 8; Humberstone 1992). Prior research has noted that direction of fit plays a role in how strategists and entrepreneurs conceive of, and enact, opportunities (Sergeeva et al. 2021). The primary intention in fitting reality to one's mind is the development of true beliefs. As Platts (1979, p. 257) states: "Beliefs aim at being true, and their being true is their fitting the world; falsity is a decisive failing in a belief, and false beliefs should be discarded; beliefs should be changed to fit with the world, not vice versa." Thus, when strategists seek to fit the existing state of the environment to their mind, they focus on developing true/accurate representations of the existing environment by learning about important features of their environment, such as competitors and customer segments. The problem representation thus developed seeks a high degree of correspondence with the current situation.

The primary intention in the mind-to-reality direction of fit is realizing one's desires for the future. For example, Platts (1979, p. 257) states that: "Desires aim at realization, and their realization is the world fitting with them; the fact that the indicative content of a desire is not realized in the world is not yet a failing in the desire, and not yet any reason to discard the desire; the world, crudely, should be changed to fit with our desires, not vice versa." When strategists seek a fit between their mind and a nonexistent, but desired future state, they imagine that state and articulate pathways to realizing it (Rindova and Martins 2022). These different intentions underpin why and how strategists "think creatively about the space of alternative [problem] representations" (Levinthal 2011, p. 1519).

We draw on the well-established distinction in the philosophy of mind (Platts 1979, Searle 1983, Humberstone 1992) between the two ideal types of fit while recognizing that, in reality, they are not sharply demarcated. For example, researchers have argued that when strategists seek to understand a strategic situation, they impose their minds on the reality by filtering their observations through their mental models and theories (Felin and Zenger 2017, Felin et al. 2017, Felin and Foss 2023). Conversely, strategists' intentions involve mental simulations that reflect true beliefs about reality (Bratman 1987) while incorporating their perspectives on

how reality "ought to be" (Rindova and Martins 2018a, 2023). Further, both directions of fit involve cognitive processes that generate conjectures about future states (Bratman 1987, Ehrig and Schmidt 2022), but they do so from different epistemic stances (Rindova and Courtney 2020). An environment-to-mind epistemic stance is concerned with the development of true beliefs (Zagzebski 1999), whereas a mind-to-environment epistemic stance is concerned with envisioning of possibilities to enact desired futures (Shackle 1979, Grimes and Vogus 2021, Rindova and Martins 2021). As discussed next, the differences in epistemic stances lead to differences in how strategists combine knowledge and imagination to structure problems and develop theories, because how we imagine is influenced by what we intend (Spaulding 2016).

Combining Knowledge and Imagination in Problem Structuring and Theory Development

Problem structuring is the process through which initial problem representations are elaborated, moving from low-dimensional initial representations to high-dimensional ones through deductive reasoning that initiates the process of theory development (Simon 1973, Levinthal 2011). In addition, theory development in strategy making involves imagination and creativity, through which a firm-specific theory becomes a "unique conjecture or thesis about imagined and possible sources of value" (Felin and Foss 2023, p. 479).

To advance the understanding of how strategists combine their existing knowledge with imagination, we theorize three approaches to theory development, in which knowledge and imagination are combined in different ways. Imagination, defined as "the act or power of forming a mental image of something not present to the senses or never before wholly perceived in reality" (Merriam-Webster 2024), is a necessary ingredient in theory development in strategy making, because strategic situations are uncertain and indeterminate (Shackle 1979). As Felin and Zenger (2017, p. 262) explain, in such situations, "By effectively framing a problem or a set of problems, a theory provides a coherent, abstract, causal representation of the world. It serves not as a (or the) representation of the world, per se, but rather as a map of what might be observed: a way of seeing things that may not be evident or obvious to others."

Different strategic situations, however, present different degrees of novelty and uniqueness (Knight 1921), requiring strategists to judge to what extent their existing knowledge applies, and how they may extend it. As novelty interferes with people's ability to create coherent representations, it is important to further theorize the different ways in which strategists construct the coherent causal representations that define theories under conditions of uncertainty and indeterminacy (Alvarez and Porac 2020).

When strategists subjectively assess their existing knowledge as sufficient to structure the problem at hand, they are likely to focus on extending their knowledge (Rindova and Petkova 2007), using imagination to predict likely future states, and to conjecture forward-looking courses of action. In these situations, strategists develop analytic theories that reflect an environment-to-mind epistemic stance and intentions to correctly represent "states of affairs" (Shackle 1972, p. 51). When strategists deem extant knowledge to be insufficient or inadequate for structuring the problem, they adopt a mind-to-environment epistemic stance and turn to imagination not only to predict likely future states but also to supply additional ideational resources for envisioning alternative states of the world and novel possible pathways that depart from the status quo (Csaszar and Levinthal 2016, Gavetti and Porac 2018). In these situations, strategists develop constructive theories, "which describe steps or movements of transformation by which one situation is carried into others" (Shackle 1972, p. 51). Figure 1 represents our theoretical framework, linking problem structuring and theory development to strategists' intentions and imagination. As the figure illustrates, theory development begins with focal problems that strategists perceive as varying in cognitive distance and structurability. These differences contribute to the epistemic stance strategists take in developing theories and to the resulting differences in how they combine knowledge and imagination. In the sections below, we theorize how knowledge and imagination are combined in analytic and constructive theories of two kinds—reconfigurative and projective—and how each type of theory gives rise to distinctive future strategies and sources of advantage.

Analytic Theories, Conjectural Anticipation, and Early Timing of Strategic Actions

Most strategic problems involve situations where strategists can structure the problem and develop theories of value either by applying their current knowledge, or by extending it (Gavetti and Levinthal 2000, Rindova and Petkova 2007). The degree to which extending extant knowledge to structure novel problems is appropriate depends on the degree of fit between the problem and the strategists' existing schemas (Walsh 1995) and the extent to which the schemas can be stretched to accommodate low to moderate levels of novelty (Rindova and Petkova 2007). Applying or extending existing schemas enables strategists to reason causally and to develop analytic theories.

The process of developing analytic theories is well understood within the TBV through the lens of a scientific epistemology that guides strategists to "develop

Figure 1. Problem Representations, Intentions, and Imagination in Theory Development for Strategy Making
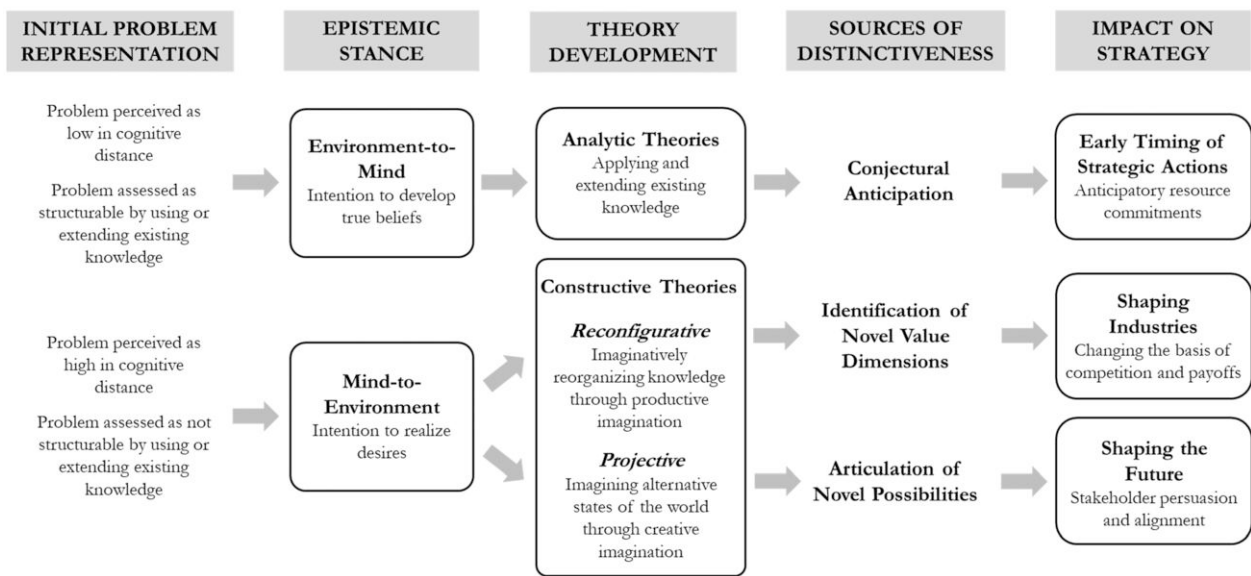
theories, test hypotheses, validate them, and experiment to create value under uncertainty (Felin and Zenger 2009, Ries 2011, Felin et al. 2019, Camuffo et al. 2020)" (Zellweger and Zenger 2023, p. 379). Analytic theory development aims at overcoming strategists' knowledge gaps under conditions of Knightian uncertainty (Felin and Zenger 2009, 2017; Zenger 2013; Camuffo et al. 2020; Ehrig and Schmidt 2022; Gambardella and Messinese 2023; Zellweger and Zenger 2023). As Zellweger and Zenger (2022, p. 696) state, "it is precisely in settings of uncertainty—in settings of 'unknown unknowns'—that a scientific approach is of particular value" as it enables strategists to "select problems with unknown solutions, advance conjectures or theories about how to compose them, and then seek evidence that tests what they form." Testing of hypotheses developed through prediction enables inference and the next round of theory development and testing (Zellweger and Zenger 2023).

In analytic theory building, structuring the problem correctly is critical to the validity of the causal reasoning and assumptions and to the efficacy of the theory in guiding subsequent assessments and actions. Further, analytic theories with well-articulated causal relationships can guide strategic action toward an uncertain future, as substantive knowledge, sound reasoning, and reflection enable strategists to use knowledge for prediction and anticipation (Rescher 1998, Andriani and Cattani 2024). As Rescher (1998, p. 16) notes, "foreseeing the shape of the future demands an insight into how things actually work in the world." Analytic theories therefore can be used to make inferences about consequences of actions, as well as predictions about likely future developments.

Knowledge and evidence, systematically collected and reflected on, are the mechanisms through which

strategists discern patterns, form conjectures, and arrive at analytic theories that define future directions for action. These processes of rational prediction (Rescher 1998) are the basis of what we term "conjectural anticipation," which is a reasoned set of predictions about possible *and* likely future states. The reasoned integration of evidence, insights, and pattern recognition gives strategists the confidence "to take action ahead of empirical validation" (Rindova and Courtney 2020, p. 795). Analytic theories therefore enable rational prediction, which gives strategists sufficient confidence to set a forward-looking direction for the firm (Levinthal 2017).

Such decisions in turn enable strategists to take action, make resource commitments ahead of competitors, and generate early mover advantages (Rindova and Kotha 2001, Rindova et al. 2016). Early timing of strategic actions and resource commitments is a form of *future making* (Yelavich and Adams 2014), through which firms position themselves to capture more value from anticipatory resource commitments. A recent development in the EV charging industry in the US makes this dynamic apparent. Tesla's big bet on EV infrastructure ahead of the general demand for EVs has placed it significantly ahead of competitors who now have developed EV models, but face demand shortages due to the lack of reliable EV infrastructure outside the Tesla network of superchargers. As a result, not only is Tesla in a better position to capture the growing demand for EVs, but it is also in a position to provide access to its EV charging infrastructure on advantageous terms, as both competitors and regulators are looking to partner with it for EV charging access (Mitchell 2024).

In summary, we argue that analytic theories enable conjectural anticipation, which is a perspective on the

future that supports early timing of strategic actions and anticipatory resource commitments. Following from the above exposition, we propose this proposition.

Proposition 1a. *When strategists structure problems by leveraging and extending existing knowledge, they adopt an environment-to-mind epistemic stance and develop analytic theories.*

Proposition 1b. *Analytic theories enable firms to develop distinctive strategies through conjectural anticipation that supports early timing of strategic actions and anticipatory resource commitments.*

Constructive Theories and Imagination in Its Productive and Creative Forms

When strategists deem extant knowledge and its extensions to be insufficient to structure the problem, they turn to imagination to supply additional ideational resources for structuring the problem and developing theory. Specifically, when strategists focus on problems that call for transforming existing situations in accordance with their intentions and desires, they use imagination to generate novel counterfactual alternatives that enable departures from the status quo (Rindova and Martins 2023).

The topic of imagination is vast, and, as Kind and Kung (2016, p. 3) state, "Anyone coming to the imagination literature for the first time would undoubtedly be frustrated by the lack of clear explanation of the mental activity being talked about." For the purposes of strategy research and strategy making, the distinction of Kant (1790/1987) between productive and creative imagination provides a useful framework for thinking about the different uses of imagination and the different cognitive processes involved. Specifically, Kant identified *productive imagination* as the faculty through which people reconfigure and synthesize diverse information and experiences into conceptual knowledge, which provides the foundation of reasoning. *Creative imagination*, which he described as the "free play" of thought that "is rather free to explore or play … putting the manifold together in a multitude of different ways" (Matherne 2016, p. 62) is the foundation of creative artistic pursuits. Whereas a full discussion of Kant's arguments is beyond the scope of this paper, the quote below illustrates the differences between reasoning and imagination that Kant (1781/1996) emphasized while recognizing their interconnectedness:

> "Such is the nature of ideal reason, which must always rest on determinate concepts and serve as a rule and archetype, alike in our actions and critical judgments. The products of imagination are of entirely different nature; no one can explain or give an intelligible concept of them; each is kind of *monogram*, a mere set of particular qualities determined by no assignable rule and forming rather a *blurred sketch* drawn from diverse

experiences than a determinate image." (Kant, *Critique of Pure Reason*, p. 487, quoted in Rundell 2021, p. 61; italics added by Rundell 2021, p. 61).

As this quote illustrates, Kant (1781/1996) distinguished between the structured knowledge captured in conceptual categories used in reasoning, and the "blurred sketch" through which productive imagination begins to reorganize knowledge. Kant's idea of "blurred sketch" is not unlike the notion of initial (low-dimensional) problem representation that enables an actor to think creatively when looking at a problem, addressing the question "What is going on here?" Similar to artists' sketches that outline a potential composition, addressing issues of perspective, foreground and background, and therefore, priorities, a blurred sketch begins to lay out important elements of subsequent detailed representations. Productive imagination leverages blurred sketches to draw on elements of existing schemas to combine and reconfigure them. Creative imagination goes beyond such schema reorganization to create fundamentally novel states of the world (Grimes and Vogus 2021, Rindova and Martins 2022).

Productive and creative imagination, therefore, could be used for different purposes in developing different constructive theories. As a general rule, constructive theories combine knowledge and imagination to guide strategists in transforming strategic situations in accordance with their desires and preferences (Shackle 1972). Constructive theories reflect a mind-to-environment epistemic stance oriented toward creating the nonexistent rather than navigating the unknown or poorly understood existent. Both productive and creative imagination can be used in constructive theories, as in both cases, imagination provides inputs for envisioning alternative possible states and novel pathways to transformation. By combining knowledge with different types of imagination, strategists can develop different constructive theories.

Through productive imagination, strategists recombine known (and proven) knowledge elements and apply these combinations prospectively to develop theories for transforming existing situations into desired new ones. Through creative imagination, strategists reach beyond the known, the familiar, and the existent, incorporating fictive elements that may stretch beyond observed reality in significant ways (Augustine et al. 2019, Rindova and Martins 2022). Strategists develop projective theories to persuade stakeholders to align toward desired (by the firm) and desirable (for stakeholders) futures (Rindova and Martins 2023). As discussed, how knowledge and imagination are combined depends on strategists' intentions because how we imagine reflects what we intend (Spaulding 2016). Both types of constructive theories guide firm strategies and serve as the basis for action and coordination, but do so

through different means, and in the service of different strategic purposes.

Reconfigurative constructive theories ("reconfigurative theories" from here on) combine current knowledge used to define the critical elements and interdependencies of the situation, and imaginative processes to conjure up alternative configurations of these elements. Through imagination, strategists reorganize knowledge to develop theories to solve novel problems or develop novel solutions to existing problems. For example, Starbucks used a reconfigurative theory to solve the commoditization problem in the coffee industry by reimagining the coffee experience through the lens of the bar, which it identified as the center of sociality in the United States (Rindova and Fombrun 2001, Martins et al. 2015).

Projective constructive theories ("projective theories" from here on) are based on leaps of imagination that advance desirable alternatives to the current situation. Unlike reconfigurative theories that place emphasis on articulating reliable interdependencies, projective theories emphasize what could be possible *and* desirable (Rindova and Martins 2021, 2022). They do so by articulating novel possibilities, defined as imagined future states and courses of action that actors see as open to them (Shackle 1979). Strategists develop projective theories to address the indeterminacy of the future and shape it. Projective theories use creative imagination to intentionally de-anchor strategists from existing knowledge and settled assumptions and to propose imagined futures that expand the problem space and depart from the past. To address the indeterminacy of the future, projective theories formulate rationales that persuade stakeholders to align with the possibilities articulated in the theories. For example, in the context of the future of mobility, auto manufacturers and other industry participants advanced different projective theories to articulate competing possibilities aimed at aligning stakeholders around different desired and desirable futures (Rindova and Martins 2022).

While generative, using imagination in theory development can create a mix of possible and impossible strategies, "and imagination cannot tell us which are the strategies that would work in the actual world" (Spaulding 2016, p. 219). As such, constructive theories require additional vetting to determine the utility of the strategies they imply. Spaulding (2016, p. 221) explains that "the mechanisms that serve as reality checks are independent of imagination." Vetting mechanisms include "general background information, theoretical knowledge pertaining to the particular subject matter, and general cognitive capacities for abductive, inductive, and deductive reasoning, memory, and perception" (Spaulding 2016, p. 221). In the following sections, we discuss how knowledge is used to constrain imaginative input in different ways and the implications of that for generating novel *and* useful strategies.

Reconfigurative Theories, Novel Value Dimensions, and Shaping Industries

Reconfigurative theories are developed by reorganizing existing knowledge to form strategies that can change core status quo interdependencies, thereby transforming the industry. In reconfigurative theorizing, strategists leverage their current knowledge while simultaneously disrupting it and reorganizing it through the use of productive imagination. Reconfigurative theories work well in relatively well-understood strategic situations. For example, in established industries that have clear industry structures with many known and well-understood elements, reconfigurative theories offer solutions that tap into latent or emergent opportunities, making imaginative interventions possible. A now classic example of this is Starbucks, a company that created a high-growth niche within a stable oligopoly with commodity inputs and declining demand (Rindova and Fombrun 2001). In an oft-told story, the company's founder, Howard Schultz, was struck by the observation that coffee provided an occasion for socializing in Italy and came back to the United States determined to transform the coffee experience. The less often told story is that after purchasing Starbucks, Mr. Schultz and his team identified the bar as the locus of sociality in the United States and then developed a theory of value that incorporated a number of elements from the bar into the "coffee bar" (Martins et al. 2015).

The Starbucks example illustrates an important point about reconfigurative theories: The upscale coffee establishment that Starbucks developed was neither a replication of an Italian café nor a replication of the American bar. It was an imaginative creation based on a unique theory of value, which came to be referred to in its corporate communications as "romancing the coffee" (Rindova 2007). This reconfigurative theory led to the selection of new and different activities throughout the entire value chain, many of which were developed by key people joining the senior leadership team and elaborating the theory. The theory also pointed to value in resource combinations that others did not and could not see (Wuebker et al. 2023). Based on its theory, Starbucks took a number of bold actions that were in essence a series of "crucial experiments" (Shackle 1949, p. 163),[2] the results of which revealed new dimensions of the problem that were not known a priori through extrapolation from current knowledge about either coffee or bars.

Thus, Starbucks combined knowledge and imagination to develop a reconfigurative theory that enabled it to imagine novel dimensions of value and to take unconventional actions to create them. Its actions were not focused on achieving a concrete goal but instead were aimed at a transforming a market from one state to another, advancing the company toward realizing a new possibility, the nature of which was revealed only

through a series of crucial experiments (Shackle 1949) and not through prediction. In this transformation, Starbucks built 38,000 stores in 86 countries and achieved a market valuation of more than $100 billion as of the time of the writing of this paper.

This example also illustrates that in reconfigurative theories, productive imagination is constrained by existing knowledge, enabling "a kind of theoretical reasoning" (Myers 2021, p. 103). Specifically, it involves (a) operations on content; (b) quality inputs, that is, evidence that can justify beliefs; (c) quality reasoning, that is, "how one operates on the content of the input states"; and (d) "epistemic responsibility for how well one reasons" (Myers 2021, p. 106). This type of imagining enables *inferential transitions* that are "epistemically appropriate" that in the absence of the imaginative reasoning, "would not be" (Myers 2021, p. 116). In the case of Starbucks, a nonalcoholic morning beverage serving primarily a functional need to wake up was reimagined, designed, and priced like an evening alcoholic beverage serving primarily a hedonic need. Starbucks used conceptual combination (Martins et al. 2015) to make epistemically appropriate inferential transitions about how elements that did not exist within the coffee context can be brought in, including the presence of a "barista" who served hand-made beverages and justified unprecedented pricing levels for nonalcoholic beverages (Vishwanath and Harding 2000). The reconfigurative further guided and justified investments in high-design stores and as bar-like service to elevate the experience and the status of coffee as a drink and as a social occasion.

More generally, when gaps between evidence and belief are large, imaginative reasoning in the form of thought experiments, counterfactuals, or analogies enable people to imaginatively connect the known and the unknown/nonexistent, and to develop justified beliefs about possible future states. Examples of such reasoning in strategists' theories include using mental simulations and counterfactual reasoning to construct value games (Cattani et al. 2018), using analogical reasoning to create new strategies (Gavetti and Menon 2016) and innovate business models (Martins et al. 2015), and using long-chain reasoning to develop visionary strategies (Schilling 2018). As these papers suggest, strategists can use knowledge to simultaneously constrain and stimulate their imagination. For example, greater knowledge about a competitive situation enables strategists to articulate more compelling counterfactuals and to use counterfactuals more effectively in imagining possibilities for value-creating relationships (Cattani et al. 2018).

Although in principle, recombination can produce endless possibilities, only a few are useful, and selection of the useful ones is guided by insights derived from imaginative reasoning related to the specific problem and its context. The more combinations strategists try to generate, the less likely it is that the subsequent, derivative combinations will be valuable. WeWork provides an example of the diminishing returns of repeated recombination efforts that follow from a formula instead of an articulated theory of value. When WeWork entered the coworking market in 2010, it used a reconfigurative theory to combine office space with community to create a "community company" that provided membership-based access to flexible coworking spaces (Thompson 2019). The community aspect, which fostered creativity, collaboration, and networking opportunities, along with the flexible options to create virtual dedicated offices for individuals and teams, made WeWork's offering highly popular, leading to its rapid growth. Within the ensuing decade, "WeWork announced that it would change its name to the We Company to reflect the fact that its ambitions had grown from office-sharing to every facet of the collective human experience. Under this new umbrella company, the firm would revolutionize living space (WeLive), school (WeGrow), and retail (WeMRKT)" (Thompson 2019, p. 1). However, lacking a theory of value, these combinations resulted in failures, contributing to the company's eventual bankruptcy.

This example clarifies that reconfigurative theories involve not only recombination but a judicious combination of knowledge and productive imagination to structure the problem appropriately and to articulate a theory about how known means could be deployed to create imagined new states. Productive imagination is used to combine and reorganize knowledge to propose new dimensions of value, along which strategists could shape existing industries (Gavetti et al. 2017, Rindova and Martins 2021). Used effectively, productive imagination synthesizes previously unconnected ideas, whereas knowledge contributes the use of appropriate known means that support the development of justified beliefs that can direct resource commitments under uncertainty.

Thus, reconfigurative theories reduce uncertainty by leveraging knowledge about known means, but they also posit relationships and processes that alter known relationships in fundamental ways. They therefore require strategists to be willing to let go of settled assumptions while also examining critically both the existing interdependencies and the reasoning behind their imagined alternatives (Myers 2021). Differently from the general notion of creative recombination (Harvey 2014), reconfigurative theories anchor imagined possibilities in careful representations of the problem, the context, the imagined future states, and the substantive resource commitments required to enact the imagined possibilities.

These resource commitments serve as experiments that test the theory, and they do so through crucial experiments, that by definition, change the situation (Shackle 1949). Such resource commitments are not

based on predictions from existing knowledge within the industry. Instead, they represent crucial experiments (Shackle 1949), the effects of which become apparent only after the company has acted toward its imagined future. As such, they are also shaping actions that can change the basis of competition and the payoffs in the focal industry (Gavetti et al. 2017, Helfat 2021). In the Starbucks example, the known means borrowed from the context of bars justified significant anticipatory resource commitments in high quality human capital to ensure bar-like personalization of service and beverages while removing value capture constraints, such as the low price for a standard commodity product. By altering the relations among key elements, reconfigurative theories posit possibilities for novel interactions and exchanges in the focal industry, thereby changing the basis of competition in fundamental ways (Gavetti et al. 2017). Thus, we argue that strategists can use reconfigurative theories to *shape industries* in desired directions. Based on the above discussion, we propose the following.

Proposition 2a. *When strategists structure problems by imaginatively reorganizing knowledge through the use of productive imagination, they adopt a mind-to-environment epistemic stance and develop reconfigurative theories.*

Proposition 2b. *Reconfigurative theories enable firms to develop distinctive strategies by identifying novel value dimensions that change the bases of competition and shape their industries.*

Projective Theories, Novel Possibilities, and Shaping the Future

In developing projective theories, strategists lead with creative imagination to articulate imagined possibilities and to persuade stakeholders to align around the imagined possibilities. Projective theories differ from reconfigurative ones, as the latter guide strategists to transform existing industries by reimagining settled interdependencies, whereas the former guide strategists in addressing problems of indeterminacy, which, by definition, limit the applicability of extant knowledge. Shackle (1979, p. 72) expressed the challenge posed to knowledge by indeterminacy as follows: " … if knowledge, relevant and unarguable, is lacking for some question, can that gap be filled by substitutes for knowledge? My answer … is that [we] can, and must, exploit the creative freedom of [our] essential, inherent unknowledge of that yet-non-existent content of time-yet-to-come." The inapplicability of extant knowledge to indeterminate situations opens up the space for creating—imagining and enacting—fundamentally new possibilities (Shackle 1979).

To structure problems of indeterminacy, strategists can marshal creative imagination, which transports thinking beyond the current cognitive space to foresee new problems and solutions. Structuring problems through creative imagination expands the problem space to what firms and their stakeholders may otherwise find difficult to conceive (Grimes and Vogus 2021). Venturing into a problem space defined by the imaginary brings theory development into the domain of persuasion, as there is no objective basis for establishing agreement and direction in a situation of indeterminacy (Beckert 2016, Rindova and Martins 2022). In such situations, strategists must contend with diverse stakeholder needs and expectations about the future (Filatotchev et al. 2020, Battilana et al. 2022, Gümüsay and Reinecke 2022).

The goal of developing projective theories, therefore, is to align and persuade stakeholders, as nonexistent futures are shaped and constructed through narratives that persuade (Beckert 2016, Rindova and Martins 2022). Projective theories comprise of *articulated novel possibilities*. Strategy scholars have begun to theorize how firms conceive of (Rindova and Courtney 2020, Grimes and Vogus 2021) and give shape to (Berglund et al. 2020, Rindova and Martins 2021) novel possibilities. They have noted that firms articulate and theorize novel possibilities both through structured foresight scenarios, which project different possible states at the intersection of critical uncertainties (McClanahan 2009, Schwartz 2012, Amer et al. 2013), as well as through fictive narratives, which depict desirable futures as "'as-if' realities" (Augustine et al. 2019; Rindova and Martins 2022, p. 211). The novel possibilities articulated in projective theories depict and propose future states that are desired by the firm and are desirable to stakeholders whose support the firm seeks to obtain.

We illustrate both approaches to projective theorizing using the "future of mobility" context, which came to prominence around 2015, as the auto industry faced a "mega-disruption" from four trends: electrification, autonomous driving, connectivity, and car-sharing. In this context, strategists, experts, and observers developed and disseminated various scenarios and as-if reality depictions to project varying imagined possibilities for the future of mobility. For example, an early consulting report offered the following structured foresight scenario projections:

> "Given the disparate forces shaping the landscape, we envision four different personal mobility futures emerging from the intersection of two critical trends … Vehicle control (driver versus autonomous)" and "Vehicle ownership (private versus shared)" (Corwin et al. 2015, pp. 8–9).

This scenario analysis rendered four imagined futures:

> "Future state 1: Incremental Change," is the "most conservative vision of the future" that "puts heavy weight on the massive assets tied up in today's system." It

envisions consumers "opting for the particular forms of privacy, flexibility, security, and convenience that come with owning vehicles" and "assumes that fully autonomous drive won't become widely available anytime soon."

"Future state 2: A world of carsharing" is built on the anticipation of "continued growth of shared access to vehicles." It envisions that shared mobility meets "a greater proportion of local transportation needs," leading some to reduce the number of vehicles owned.

"Future state 3: The driverless revolution" projects a future where autonomous driving technology "proves to be viable, safe, convenient, and economical" based on imagined intensification of collaboration between "leading academics, regulatory agencies, and businesses [that] accelerates progress toward this future."

Finally, "Future state 4: A new age of accessible autonomy" anticipates "a convergence of both the autonomous and vehicle-sharing trends." This future imagines a new category of "mobility management companies" that "offer a range of passenger experiences to meet widely varied needs at differentiated price points." (Corwin et al. 2015, pp. 8–9)

As this example illustrates, *scenarios* combine heterogenous information, organized around trends and critical uncertainties, to imagine possible industry and societal developments woven together with narrative renditions of possible future states of the world (McClanahan 2009, Amer et al. 2013). Within the research on future-oriented strategizing, scholars have emphasized that scenarios are a source of *structured foresight* (Schwartz 2012, Slawinski and Bansal 2015), because they facilitate strategists' intentional and imaginative construction and consideration of multiple alternative futures, as well as the potential roles of other actors in enacting those. As illustrated in the abbreviated example above, different scenarios foreground different firms: for example, incumbents in Future state 1 versus a new type of market actor, "mobility services companies," in Future state 4. In this way, they enable strategists to consider a variety of potential futures, thus broadening the spectrum of possibilities that they deliberate and use to inform their projective theories.

Another type of future imaginaries that have been identified in the literature on future-oriented strategizing are fictional depictions of desirable futures as as-if realties (Beckert 2016, Augustine et al. 2019, Gümüsay and Reinecke 2022, Logue and Grimes 2022, Rindova and Martins 2022). As Rindova and Martins (2022, p. 211) explain, "the use of creative imagination enables depictions of relatively discontinuous futures that are markedly different from the present, and are aspirational by nature of their possibility, even if clear paths to them are not yet apparent." An iconic example is Mercedes's "as if" reality of an autonomous driving future in which the car will become a place where

"we'll actively want to, and enjoy, hanging out," as "passengers sit face to face [and] … have time for conversations, to read the newspaper or to catch up on lost sleep"; in addition, the car is depicted as taking responsibility for interactions with pedestrians, including projecting a crosswalk onto the street when it is safe to cross (Zetsche 2015). In communicating this as-if reality, Daimler's then chairman of the board, Dr. Zetsche, stated: "the car of the future is really good looking, smart, polite, and helpful," and with which "I think we will get along just fine" (Zetsche 2015), pointing to the desirability of the future Mercedes seeks to promote and persuade about.

The example illustrates how the indeterminacy of the future enables strategists to frame problems and solutions that spell radical departures from the status quo, and emphasize the possible *and* desirable, instead of the predictable and foreseeable. In doing so, they promote "possibilistic thinking," which prioritizes magnitude of impact and potential, over probability and likelihood (Grimes and Vogus 2021, p. 1). Promoting possibilistic thinking stimulates stakeholder imagination, potentially bringing the imagined possibilities into a space of joint problem solving (Filatotchev et al. 2020; Rindova and Martins 2021, 2023). In sum, projective theories incorporate scenarios and as-if reality depictions to persuade and align stakeholders around desired futures.

Although the imaginaries in projective theories may or may not guide strategists' own actions, they shape perceptions and beliefs about the future (Beckert 2016). As such, they have a strategic function to persuade and align stakeholders in the face of indeterminacy. Specifically, similar to how theories provide direction for action through theoretical coherence (Felin and Foss 2023), imaginaries provide direction for action through narrative coherence. Narrative coherence organizes heterogeneous elements into meaningful configurations and enables the comprehension and acceptance of novelty (Rindova and Martins 2022). Thus, although narratives do not adhere to the logic of causality, they enable people to make sense of otherwise unknowable futures and align expectations accordingly. As such, they are persuasive resources (Gans and Ryall 2017) for *shaping the future*. In the Mercedes example above, the imaginary about the car as a new space for socializing and spending time positions Mercedes as a leader in creating Future state 1, centered on individual car ownership. Of note here is that this future is also the least disruptive, most desirable future for industry incumbents. Mercedes thus articulates a novel possibility of a future more desirable than the status quo, positioning itself as innovating for the greater good.

Portrayed as narrative and discursive activities, projective theories may appear to be just "cheap talk" as imaginaries are not necessarily connected to substantive resource commitments (Augustine et al. 2019), and

unlike reconfigurative theories, projective theories do not direct resource commitments to conduct crucial experiments that test the theory. However, in departure from this view, we argue that given that the nonexistent nature of the future, firm's projective theories can shape it in at least three ways: (1) articulating visions of the future that stakeholders debate and consider (Mische 2014); (2) proposing a future that both stakeholders and the firm may desire (Rindova and Martins 2022); and (3) inviting and incentivizing anticipatory resource commitments by stakeholders. Thus, we argue that projective theories are not only persuasive, as emphasized in prior research, but also strategic, as they organize the logic and perspective, from which firms communicate and articulate directions of development. As such, they provide imaginative content that stakeholders can access, use, and incorporate in their own future-oriented strategizing (Rindova and Martins 2021).

Consider the example of IKEA, which is widely known for its innovative low-cost business model that increased the affordability of furniture by transferring delivery and assembly activities to customers (Porter 1996). However, IKEA has entered the 21st century with a projective theory for creating sustainable future through *circular production and consumption of furniture.* In keeping with this theory, it has declared an aim to become a fully circular, climate-positive business by 2030 (IKEA 2024a). The theory has posited eight design principles, design for renewable or recycled materials, design for standardization, design for care, design for repair, design for adaptability, design for disassembly and reassembly, design for remanufacturing, and design for recyclability, that provide coherence to a slew of new activities and business IKEA is developing (IKEA 2024a). Based on these principles, IKEA has developed new capabilities in design for disassembly and reassembly, standardization of components to facilitate repairs, and employee training for circularity and sustainability (IKEA 2024b). IKEA has also added to its business model a used furniture store supplied by buying back used IKEA furniture and sales of assembly parts.

IKEA's theory is also guiding stakeholder alignment to cocreate the imagined future. The company has used its projective theory to reorganize its stakeholder relationships around its circular business strategies, including new customers services and practices that promote furniture longevity, supplier commitments to reduce the environmental footprint of components and finished products, and working with a respected foundation to create common global definitions of circularity to shape consumer preferences and legislation (IKEA 2024b).

This example illustrates how a coherent projective theory can generate multiple future directions of development and connect to stakeholder agendas in ways that are meaningful and generative. It also illustrates

that although fundamentally novel and viable futures states may be difficult to imagine, once articulated, they become a platform for engaging with stakeholders in way that can generate many new options for the firm. Thus, projective theories could afford firms a larger set of options, the pursuit of which, however, depends on how meaningful the theory is, and how well it resonates with stakeholders (Rindova and Martins 2023).

In summary, projective theories leverage creative imagination to articulate specific novel possibilities for desired and desirable futures and to persuade and align stakeholders toward them. Projective theories guide shaping strategies that are different from those involved in shaping industries, as we discussed in relation to reconfigurative theories. By directing stakeholder imaginings and expectations, projective theories can shape the future and pave the way toward positioning the firm for competitive advantage in that future. Reflecting the above discussion, we propose the following.

Proposition 3a. *When strategists structure problems using creative imagination, they adopt a mind-to-environment epistemic stance and develop projective theories that articulate novel possibilities for desirable futures.*

Proposition 3b. *Projective theories enable firms to persuade and align stakeholders toward the novel possibilities thereby shaping the future, and that position the firm for competitive advantage in the future.*

Discussion

We argued that the TBV represents a new paradigm for thinking about strategy making, as it focuses on the deliberate and systematic processes through which strategists apply knowledge, reasoning, and practices of inquiry and experimentation to develop unique and novel frameworks for creating and capturing value. Strategists' and entrepreneurs' theories of value rest on unique beliefs that direct attention, activities, and resources toward "novel, heretofore unseen or unrecognized, sources of value—value that is *not* obvious to others" (Felin and Foss 2023, p. 479, italics in the original). Thus, strategists' theories play a defining role in where strategists focus their attention and how they perceive their environment.

The significant strategic impact of theories brings forth an important set of questions about why and how strategists choose and develop theories of value to guide their exploration of environments, resources, and opportunities. In this paper, we propose that strategists develop different types of theories to address different types of strategic problems. We theorize that strategists combine knowledge and imagination in different ways, which generate different types of theories

that provide different sources of distinctive strategies and competitive advantage. The distinction we propose between reconfigurative and projective theories is important because it addresses the question of how strategists theorize to addresses problems under conditions of uncertainty versus conditions of indeterminacy (Alvarez and Porac 2020). Whereas strategy scholars have recently given considerable attention to situations of uncertainty, less theory exists about situations of indeterminacy. In theorizing how strategists address indeterminacy in their theorizing, we build on the ideas of Shackle (1979, p. 72) about the inherent incompleteness of strategic situations, within which economic actors have the freedom to create in the face of an unknown, unknowable, and indeterminate future: the "yet-nonexistent content of time-yet-to-come." Thus, our paper offers a new answer to long-standing questions in strategy research about the sources of distinctiveness in firm strategies. Our answer spotlights the imagination advantage, that is, how combining knowledge and imagination enables strategists to develop different theories that reveal different sources of competitive advantage.

Our ideas also provide an intellectual bridge that connects the study of problem representations (Simon 1973, Levinthal 2011) and problem-centered strategizing (Nickerson and Zenger 2004, Nickerson and Argyres 2018), the TBV, and the ideas of Shackle (1972, 1979) about imaginative choice under uncertainty and indeterminacy. We make three novel contributions to the TBV, research on future-oriented strategizing, and research on shaping strategies.

First, we articulate a framework for how strategists represent and structure problems in developing theories in strategy making contexts. Whereas prior research has noted that problem representations may be conceived as creative acts (Levinthal 2011, Felin and Zenger 2017, Rindova and Martins 2018b, Wuebker et al. 2023), we articulate how strategists can exercise their agency in representing and structuring problems through different combinations of knowledge and imagination. Second, we broaden the microfoundations of future-oriented strategizing by building on the ideas of Kant (1790/1987) to theorize the use of productive versus creative imagination in the development of constructive theories. Third, we extend strategy research on shaping strategies by distinguishing between shaping industries and shaping the future, and theorizing the role of reconfigurative and projective constructive theories is guiding shaping strategies.

Intentionality and Epistemic Stance in Problem Structuring and Theory Development
Theories and their development have been consistently understood as outcomes of cognitive, perceptual, and reasoning processes (Felin and Zenger 2017, Cornelissen et al. 2021, Ehrig and Schmidt 2022, Zellweger and

Zenger 2023). Building on current thinking on problem representation and structuring as potentially creative acts (Levinthal 2011), we theorize the role of intentions and imagination in these processes. Our framework expands the theoretical foundations for studying theory development in the context of strategy making by focusing on strategists' intentions and epistemic stances. Specifically, we distinguish between an environment-to-mind epistemic stance, which is associated with the development of analytic theories, and a mind-to-environment epistemic stance, which we argue is associated with developing constructive theories.

An important question for future research is whether epistemic stances reflect strategists' default assumptions about the nature of reality, or whether they reflect their intentions and desires for creating preferred strategic situations that depart from the status quo (Gavetti and Porac 2018). Whereas evidence exists that passion (Cardon et al. 2017), identity (Zuzul and Tripsas 2020), and values (Fauchart and Gruber 2011) influence entrepreneurial strategies, the directional role of emphasizing beliefs versus desires has remained relatively unexamined (but see Sergeeva et al. (2021)). Further, whereas in practice, strategists may oscillate between the two epistemic stances or combine them in pragmatic or unreflective ways, as responses to situational cues, future research is needed to understand whether the intentional approach we theorize leads to better or worse knowledge and strategic outcomes than ad hoc pragmatic responses do. It is possible that whereas the pragmatic approach affords strategists flexibility, the intentional approach enables them to establish consistency in the practices and resources commitments through which they generate knowledge and develop better theories and strategies. Of further research importance is understanding whether an intentional epistemic stance is associated with epistemic rigidity in the form fixedness of perspective, or whether it promotes epistemic humility (Conn and McLean 2020) through the intentional focus on the incompleteness of knowledge in uncertain and indeterminate contexts.

Future-Oriented Strategizing, Imagination, and Theory Development
An important advance in the strategy research introduced by the TBV is close attention to the perceptual and cognitive processes through which strategists develop and update beliefs (Camuffo et al. 2020, Agarwal et al. 2023), and the role of unique beliefs in the discovery of novel resources and sources of value creation (Felin and Zenger 2017, Wuebker et al. 2023). This line of research has also recognized that imagination plays a role, but its specific mechanisms have remained unspecified. In theorizing how knowledge and imagination are combined in theory development, we both highlight the role of imagination in theory development more

broadly, and we establish its *necessary use* in developing constructive theories.

Imagination has not received much attention in strategy research more generally, because, as philosophers explain, imagination is not "world sensitive" (Badura and Kind 2021); that is, it is not bound to reality and truth conditions. However, philosophers have also recognized that imagination could be made world sensitive when it is combined with knowledge. We theorized different approaches of intertwining knowledge and imagination, based on two types of imagination—productive and creative—and articulated their implications for developing theories in the context of strategy making. By focusing on different combinations of knowledge and imagination, we specified three different mechanisms for problem structuring and theory development. These involve different future-thinking processes: conjectural anticipation in analytic theories, schema reconfiguration in reconfigurative theories, and imagined possibilities in projective theories.

These different mechanisms play different roles in how strategists address near versus distant futures. We see possibilities for future research connecting the use of imagination and theory development to strategists' efforts to navigate the fundamental differences that near versus distant futures present (Augustine et al. 2019). Near futures are characterized by uncertainty but they can be envisioned in practical terms to form plausible expectations, whereas distant futures entail radical uncertainty and ambiguity (Zuzul 2019) and are represented as imagined possibilities that need to appeal to stakeholders and orient their actions toward desired and desirable futures (Augustine et al. 2019, Gümüsay and Reinecke 2022, Rindova and Martins 2022).

Future research on how strategists develop theories for problems associated with different temporal horizons, the present, the near future, and the long term, would be valuable. For example, strategists looking to commercialize new enabling technologies in the near future (e.g., fully autonomous driving) can benefit from reconfigurative theories that connect variant technology applications (new ends) to existing complementary assets (known means) (Gambardella et al. 2021). In contrast, strategists who seek to develop constructive theories for distant futures (e.g., space exploration) are likely to develop projective theories that make extensive use of scenarios and as-if reality depictions (e.g., colonies on Mars) that may or may not have direct relationships to current technological investments. Given these differences, it would be valuable for future research to examine what determines "persuadability" (Gavetti 2012, p. 276) in these different contexts and what role theories versus narratives, and the different types of coherence they provide, play in the acceptance and legitimation of novel strategies.

Early Timing of Strategic Actions, Shaping Industries, and Shaping the Future

Developing theories enables strategists to orient toward the future and generate distinctive approaches and bases of advantage. By providing theoretical coherence, analytic theories enable strategists to take action ahead of empirical evidence, thus providing the basis for early timing of strategic actions and anticipatory resource commitments. Constructive theories shift the focus from timing of strategic actions to shaping the basis for competition and the bases of stakeholder engagement. Thus, our theorization of constructive theories connects the TBV to the growing body of research on shaping strategies, including industries (Gavetti et al. 2017, Helfat 2021), value games (Cattani et al. 2018), uncertainty-ridden contexts (Rindova and Courtney 2020), and possible futures (Beckert 2016, Rindova and Martins 2022). Whereas researchers working on shaping generally agree that shaping refers to endogenous change, they disagree about whether shaping refers to cognition and beliefs, behaviors, or outcomes (Helfat 2021). Our framework offers some insights into the sources of these differences.

The arguments we develop about how different constructive theories support different types of shaping strategies suggest that that shaping may require different processes in different contexts. Specifically, we theorize how, by intertwining knowledge and imagination more closely, reconfigurative theories support the development of justified beliefs, which enable firms to commit significant resources to enact strategies that shape their industries. We further theorize how reconfiurative theories introduce novel value dimensions, and how the combination of knowledge and imagination contributes to quality of imaginative reasoning associated with superior architectures for value creation and capture (Martins et al. 2015). Thus, reconfigurative theories enable firms to systematically redesign their business models (Martins et al. 2015), incorporate new technologies and processes (Gambardella et al. 2021), and change the economic payoffs at the industry level (Gavetti et al. 2017).

These ideas extend our understanding of the origins of firms' theories of value (see Felin and Foss (2023) for a related discussion on research on the origins of capabilities), as well as on the processes through which theories are updated and replaced (Ehrig and Schmidt 2022). Future research connecting specific theories of value to specific industry shaping strategies can provide critical insights into the impetus behind industry changes, such as industry disruptions and transformations (Gambardella and McGahan 2010, Gavetti and Porac 2018, Furr and Eisenhardt 2021).

Our theoretical ideas also articulate how projective theories may support firm strategies for shaping the future, which is not only unknown, but also nonexistent,

and therefore subject to a wide range of imaginaries. Research on the use of imagination in strategy making, and the role of imaginaries in coordinating futures, is in its nascency. This is a vast area for future research, within which we highlight the importance of firms' projective theories for articulating possibilities and for persuading stakeholders of the desirability of those possibilities. Investigating how projective theories accomplish persuasive goals promises useful insights into understanding how strategists shape the future and, in particular, distant futures.

Conclusion

In our age of uncertainty, marked by extraordinarily rapid advances in technology, changes in societal expectations, and novel forms of governance and organizing, additional theoretical and empirical work on how imagination can help strategists creatively leverage uncertainty and develop distinctive strategists focused on *what could be* is paramount. Such work would provide exciting advances to strategy research that have direct and meaningful impact on practice and by extension on our collective future. We proposed that differences in strategists' intentionality, reflected in their epistemic stances, lead them to develop different theories: analytic versus constructive. We further theorized how theories that combine knowledge and imagination in different ways may provide strategists with distinctive imagination advantages. We see imagination advantages not only as a source of better strategies for positioning within uncertain futures but also as a source of change in the very nature of the futures we will come to inhabit.

Acknowledgments

Endnotes

[1] As Simon (1973, p. 186) argues, "In general, the problems presented to problem solvers by the world are best regarded as ISPs. They become WSPs only in the process of being prepared for the problem solvers. It is not exaggerating much to say that there are no WSPs, only ISPs that have been formalized for problem solvers."

[2] Shackle (1949, p. 163) defined a crucial experiment as one in which the experimenter "cannot exclude from his mind the possibility that the very act of performing the experiment may destroy for ever the circumstances in which it was performed … [including] the individual's own stock of experience and mental attitude."

References

Agarwal R, Bacco F, Camuffo A, Coali A, Gambardella A, Msangi H, Sonka ST, et al. (2023) Does a theory-of-value add value? Evidence from a randomized control trial with Tanzanian entrepreneurs. Preprint, submitted April 20, https://dx.doi.org/10.2139/ssrn.4412041.

Alvarez SA, Porac J (2020) Imagination, indeterminacy, and managerial choice at the limit of knowledge. *Acad. Management Rev.* 45(4):735–744.

Amer M, Daim TU, Jetter A (2013) A review of scenario planning. *Futures* 46:23–40.

Andriani P, Cattani G (2024) Toward an evolutionary theory of shadow options: Emergent functions of Corning's glass-based innovations. *Organ. Sci.*, ePub ahead of print April 5, https://doi.org/10.1287/orsc.2023.17512.

Augustine G, Soderstrom S, Milner D, Weber K (2019) Constructing a distant future: Imaginaries in geoengineering. *Acad. Management J.* 62(6):1930–1960.

Badura C, Kind A (2021) Introduction: The epistemic role of imagination. Badura C, Kind A, eds. *Epistemic Uses of Imagination* (Routledge, New York), 1–20.

Barr PS, Stimpert JL, Huff AS (1992) Cognitive change, strategic action, and organizational renewal. *Strategic Management J.* 13(S1):15–36.

Battilana J, Obloj T, Pache AC, Sengul M (2022) Beyond shareholder value maximization: Accounting for financial/social trade-offs in dual-purpose companies. *Acad. Management Rev.* 47(2):237–258.

Beckert J (2016) *Imagined Futures* (Harvard University Press, Cambridge, MA).

Berglund H, Bousfiha M, Mansoori Y (2020) Opportunities as artifacts and entrepreneurship as design. *Acad. Management Rev.* 45(4):825–846.

Bratman ME (1987) *Intention, Plans and Practical Reasoning* (Harvard University Press, Cambridge, MA).

Camuffo A, Cordova A, Gambardella A, Spina C (2020) A scientific approach to entrepreneurial decision making: Evidence from a randomized control trial. *Management Sci.* 66(2):564–586.

Cardon MS, Post C, Forster WR (2017) Team entrepreneurial passion: Its emergence and influence in new venture teams. *Acad. Management Rev.* 42(2):283–305.

Cattani G, Sands D, Porac J, Greenberg J (2018) Competitive sensemaking in value creation and capture. *Strategy Sci.* 3(4):632–657.

Conn C, McLean R (2020) Six problem-solving mindsets for very uncertain times. *McKinsey Quart.* 1–7.

Cornelissen J, Höllerer MA, Seidl D (2021) What theory is and can be: Forms of theorizing in organizational scholarship. *Organ. Theory* 2: 1–19.

Corwin S, Vitale J, Kelly E, Cathles E (2015) *The Future of Mobility: How Transportation Technology and Social Trends Are Creating a New Business Ecosystem* (Deloitte University Press).

Csaszar FA, Levinthal DA (2016) Mental representation and the discovery of new strategies. *Strategic Management J.* 37(10):2031–2049.

Ehrig T, Schmidt J (2022) Theory-based learning and experimentation: How strategists can systematically generate knowledge at the edge between the known and the unknown. *Strategic Management J.* 43(7):1287–1318.

Fauchart E, Gruber M (2011) Darwinians, communitarians, and missionaries: The role of founder identity in entrepreneurship. *Acad. Management J.* 54(5):935–957.

Felin T, Foss N (2023) Microfoundations of ecosystems: The theory-led firm and capability growth. *Strategic Organ.* 21(2):476–488.

Felin T, Zenger TR (2009) Entrepreneurs as theorists: On the origins of collective beliefs and novel strategies. *Strategic Entrepreneurial J.* 3(2):127–146.

Felin T, Zenger TR (2017) The theory-based view: Economic actors as theorists. *Strategy Sci.* 2(4):258–271.

Felin T, Koenderink J, Krueger JI (2017) Rationality, perception, and the all-seeing eye. *Psychonomic Bull. Rev.* 24:1040–1059.

Felin T, Gambardella A, Stern S, Zenger T (2019) Lean startup and the business model: Experimentation revisited. *Long Range Planning* 53(4):1–6.

Filatotchev I, Aguilera RV, Wright M (2020) From governance of innovation to innovations in governance. *Acad. Management Perspect.* 34(2):173–181.

Furr NR, Eisenhardt KM (2021) Strategy and uncertainty: Resource-based view, strategy-creation view, and the hybrid between them. *J. Management* 47(7):1915–1935.

Gambardella A, McGahan AM (2010) Business-model innovation: General purpose technologies and their implications for industry structure. *Long Range Planning* 43(2–3):262–271.

Gambardella A, Messinese D (2023) Theory-based and design-based approaches to strategic decisions. Working paper, Bocconi University, Milan, Italy.

Gambardella A, Heaton S, Novelli E, Teece DJ (2021) Profiting from enabling technologies? *Strategy Sci.* 6(1):75–90.

Gans J, Ryall MD (2017) Value capture theory: A strategic management review. *Strategic Management J.* 38(1):17–41.

Gardner MK, Sternberg RJ (1994) Novelty and intelligence. Sternberg RJ, Wagner RK, eds. *Mind in Context* (Cambridge University Press, Cambridge, UK), 38–73.

Gavetti G (2012) Toward a behavioral theory of strategy. *Organ. Sci.* 23(1):267–285.

Gavetti G, Levinthal D (2000) Looking forward and looking backward: Cognitive and experiential search. *Admin. Sci. Quart.* 45(1):113–137.

Gavetti G, Menon A (2016) Evolution cum agency: Toward a model of strategic foresight. *Strategy Sci.* 1(3):207–233.

Gavetti G, Porac J (2018) On the origin of great strategies. *Strategy Sci.* 3(1):352–365.

Gavetti G, Rivkin JW (2007) On the origin of strategy: Action and cognition over time. *Organ. Sci.* 18(3):420–439.

Gavetti G, Helfat CE, Marengo L (2017) Searching, shaping, and the quest for superior performance. *Strategy Sci.* 2(3):194–209.

Grimes MG, Vogus TJ (2021) Inconceivable! Possibilistic thinking and the sociocognitive underpinnings of entrepreneurial responses to grand challenges. *Organ. Theory* 2:1–11.

Gümüsay AA, Reinecke J (2022) Researching for desirable futures: From real utopias to imagining alternatives. *J. Management Stud.* 59(1):236–242.

Harvey S (2014) Creative synthesis: Exploring the process of extraordinary group creativity. *Acad. Management Rev.* 39(3):324–343.

Helfat CE (2021) What does firm shaping of markets really mean? *Strategy Sci.* 6(4):360–370.

Humberstone IL (1992) Direction of fit. *Mind* 101(401):59–83.

IKEA (2024a) Designing for a circular future. Accessed September 16, 2024, https://www.ikea.com/global/en/our-business/sustainability/designing-for-a-circular-future/.

IKEA (2024b) Our circular agenda. Accessed September 16, 2024, https://www.ikea.com/global/en/our-business/sustainability/our-circular-agenda/.

Kant I (1781/1996) *Critique of Pure Reason*, Unified Edition, translated by Werner S. Pluhar, 1996 (Hackett Publishing, Indianapolis, IN).

Kant I (1790/1987) *Critique of Judgment*, translated by Werner S. Pluhar, 1987 (Hackett Publishing, Indianapolis, IN).

Kind A, Kung P (2016) Introduction: The puzzle of imaginative use. Kind A, Kung P, eds. *Knowledge Through Imagination* (Oxford University Press, Oxford, UK), 1–40.

Knight FH (1921) *Risk, Uncertainty and Profit* (Hart, Schaffner and Marx, New York).

Lakatos I, Worrall J, Currie G, eds. (1978) *The Methodology of Scientific Research Programmes,* Philosophical Papers, vol. 1 (Cambridge University Press, Cambridge, UK).

Levinthal DA (2011) A behavioral approach to strategy—What's the alternative? *Strategic Management J.* 32(13):1517–1523.

Levinthal DA (2017) Mendel in the C-Suite: Design and the evolution of strategies. *Strategy Sci.* 2(4):282–287.

Logue D, Grimes M (2022) Living up to the hype: How new ventures manage the resource and liability of future-oriented visions within the nascent market of impact investing. *Acad. Management J.* 65(3):1055–1082.

Martins LL, Rindova VP, Greenbaum B (2015) Unlocking the hidden value of concepts: A cognitive approach to business model innovation. *Strategic Entrepreneurial J.* 9(1):99–117.

Matherne S (2016) Kant's theory of the imagination. Kind A, ed. *The Routledge Handbook of Philosophy of Imagination* (Routledge, London), 55–68.

McClanahan A (2009) Future's shock: Plausibility, preemption, and the fiction of 9/11. *Symplokē* 17(1–2):41–62.

Merriam-Webster (2024) Definition of imagination. Accessed July 10, 2024, https://www.merriam-webster.com/dictionary/imagination.

Mische A (2014) Measuring futures in action: Projective grammars in the Rio + 20 debates. *Theory Soc.* 43(3):437–464.

Mitchell R (2024) Broken chargers, lax oversight: How California's troubled EV charging stations threaten emission goals. *Los Angeles Times* (January 24), https://www.latimes.com/environment/story/2024-01-24/california-ev-charging-stations-broken.

Myers J (2021) Reasoning with imagination. Badura C, Kind A, eds. *Epistemic Uses of Imagination* (Routledge, New York), 103–121.

Narayanan VK, Zane LJ, Kemmerer B (2011) The cognitive perspective in strategy: An integrative review. *J. Management* 37(1):305–351.

Nickerson J, Argyres N (2018) Strategizing before strategic decision making. *Statist. Sci.* 4(3):556–682.

Nickerson J, Zenger T (2004) A knowledge-based theory of governance choice–A problem-solving approach. *Organ. Sci.* 15(6):617–632.

Platts M (1979) *Ways of Meaning* (Routledge and Kegan Paul, London).

Popper K (1972) *Objective Knowledge: An Evolutionary Approach* (Clarendon Press, Oxford, UK).

Porac JF, Thomas H, Baden-Fuller C (1989) Competitive groups as cognitive communities: The case of Scottish knitwear manufacturers. *J. Management Stud.* 26(4):397–416.

Porter M (1996) What is strategy? *Harvard Business Rev.* (November-December), https://hbr.org/1996/11/what-is-strategy.

Raaheim K (1974) *Problem Solving and Intelligence* (Universitetsforlaget, Oslo, Norway).

Rajagopalan N, Spreitzer GM (1997) Toward a theory of strategic change: A multi-lens perspective and integrative framework. *Acad. Management Rev.* 22(1):48–79.

Rescher N (1998) *Predicting the Future: An Introduction to the Theory of Forecasting* (State University of New York Press, Albany, NY).

Ries E (2011) *The Lean Startup: How Today's Entrepreneurs Use Continuous Innovation to Create Radically Successful Businesses* (Currency, New York).

Rindova VP (2007) Starbucks: Constructing a multiplex identity in the specialty coffee industry. Lerpold L, Ravasi D, van Rekom J, Soenen G, eds. *Organizational Identity* (Routledge), 157–173.

Rindova VP, Courtney HG (2020) To shape or adapt? Knowledge problems, epistemologies, and strategic postures under Knightian uncertainty. *Acad. Management Rev.* 45(4):787–807.

Rindova VP, Fombrun CJ (2001) Entrepreneurial action in the creation of the specialty coffee niche. Schoonhoven CB, Romanelli E, eds. *The Entrepreneurship Dynamic: Origins of Entrepreneurship and the Evolution of Industries* (Stanford University Press, Stanford, CA), 236–261.

Rindova VP, Kotha S (2001) Continuous "morphing": Competing through dynamic capabilities, form, and function. *Acad. Management J.* 44(6):1263–1280.

Rindova VP, Martins LL (2018a) From values to value: Value rationality and the creation of great strategies. *Strategy Sci.* 3(1):323–334.

Rindova VP, Martins LL (2018b) The three minds of the strategist: Toward an agentic perspective in behavioral strategy. Augier M, Fang C, Rindova VP, eds. *Advances in Strategic Management: Behavioral Strategy in Perspective*, vol. 39 (Emerald Group, Bingley, UK), 167–179.

Rindova VP, Martins LL (2021) Shaping possibilities: A design science approach to developing novel strategies. *Acad. Management Rev.* 46(4):800–822.

Rindova VP, Martins LL (2022) Futurescapes: Imagination and temporal reorganization in the design of strategic narratives. *Strategic Organ.* 20(1):200–224.

Rindova VP, Martins LL (2023) Moral imagination, the collective desirable, and strategic purpose. *Strategy Sci.* 8(2):170–181.

Rindova VP, Petkova AP (2007) When is a new thing a good thing? Technological change, product form design, and perceptions of value for product innovations. *Organ. Sci.* 18(2):217–232.

Rindova VP, Martins LL, Yeow A (2016) The hare and the fast tortoise: Dynamic resource reconfiguration and the pursuit of new growth opportunities by Yahoo and Google (1995–2007). *Advances in Strategic Management: Resource Redeployment and Corporate Strategy*, vol. 35 (Emerald Group, Bingley, UK), 253–284.

Rundell J (2021) *Kant: Anthropology, Imagination, Freedom* (Routledge, New York).

Schilling M (2018) The cognitive foundations of visionary strategy. *Strategy Sci.* 3(1):335–342.

Schwartz P (2012) *The Art of the Long View* (Doubleday, New York).

Searle J (1983) *Intentionality: An Essay in the Philosophy of Mind* (Cambridge University Press, Cambridge, UK).

Sergeeva A, Bhardwaj A, Dimov D (2021) In the heat of the game: Analogical abduction in a pragmatist account of entrepreneurial reasoning. *J. Bus. Venturing* 36(6):106158.

Shackle GLS (1949) Probability and uncertainty. *Metroeconomica* 1:161–173.

Shackle GLS (1972) *Epistemics and Economics: A Critique of Economic Doctrines* (Cambridge University Press, Cambridge, UK).

Shackle GLS (1979) *Imagination and the Nature of Choice* (Edinburgh University Press, Edinburgh, UK).

Simon HA (1973) The structure of ill structured problems. *Artificial Intelligence* 4(3–4):181–201.

Simon HA (1996) *The Sciences of the Artificial*, 3rd ed. (MIT Press, Cambridge, MA).

Slawinski N, Bansal P (2015) Short on time: Intertemporal tensions in business sustainability. *Organ. Sci.* 26(2):531–549.

Spaulding S (2016) Imagination through knowledge. Kind A, Kung P, eds. *Knowledge Through Imagination* (Oxford University Press, Oxford, UK), 207–226.

Szpunar KK, Spreng RN, Schacter DL (2014) A taxonomy of prospection: Introducing an organizational framework for future-oriented cognition. *Proc. Natl. Acad. Sci. USA* 111(52):18414–18421.

Thompson D (2019) WeWork's Adam Neumann is the most talented grifter of our time. Retrieved September 16, 2024, https://www.theatlantic.com/ideas/archive/2019/10/how-weworks-adam-neumann-became-billionaire/600607.

Tripsas M, Gavetti G (2000) Capabilities, cognition, and inertia: Evidence from digital imaging. *Strategic Management J.* 21:1147–1161.

Vishwanath V, Harding D (2000) The Starbucks effect. *Harvard Bus. Rev.* 78(2):17.

Walsh JP (1995) Managerial and organizational cognition: Notes from a trip down memory lane. *Organ. Sci.* 6(3):280–321.

Wuebker R, Zenger T, Felin T (2023) The theory-based view: Entrepreneurial microfoundations, resources, and choices. *Strategic Management J.* 44(12):2922–2949.

Yelavich S, Adams B, eds. (2014) *Design as Future-Making* (Bloomsbury Publishing, London).

Zagzebski L (1999) What is knowledge? Greco J, Sosa E, eds. *The Blackwell Guide to Epistemology* (Blackwell, Oxford, UK), 92–116.

Zellweger T, Zenger T (2022) Entrepreneurs as scientists: A pragmatist alternative to the creation-discovery debate. *Acad. Management Rev.* 47(4):696–699.

Zellweger T, Zenger T (2023) Entrepreneurs as scientists: A pragmatist approach to producing value out of uncertainty. *Acad. Management Rev.* 48(3):379–408.

Zenger T (2013) What is the theory of your firm? *Harvard Bus. Rev.* 91(6):72–78.

Zetsche D (2015) CES 2015 Mercedes-BenzKeynote. Accessed February 16, 2024, https://www.youtube.com/watch?v=cMmYFxe6O-I.

Zuzul TW (2019) "Matter battles": Cognitive representations, boundary objects, and the failure of collaboration in two smart cities. *Acad. Management J.* 62(3):739–764.

Zuzul T, Tripsas M (2020) Start-up inertia vs. flexibility: The role of founder identity in a nascent industry. *Admin. Sci. Quart.* 65(2):395–433.

Violina P. Rindova is a professor of strategy, the Dean's Leadership Circle Chair, and the Associate Dean for Research and PhD Program at the Merage School of Business at the University of California, Irvine. She studies strategy under uncertainty, with a focus on how sensemaking and imagination affect firm strategies and the creation of value in markets. Her research examines the processes through which firms build, claim, and sustain positions of advantage and create new market opportunities.

Luis L. Martins is a professor of management and the Zlotnik Family Chair in Entrepreneurship at the McCombs School of Business at the University of Texas at Austin. He received his PhD in management and organizational behavior from the Leonard N. Stern School of Business at New York University. His research bridges micro and macro aspects of organizations and is focused on examining the cognitive underpinnings of strategy, innovation, organizational change, and effects of team composition.