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The design-ification of future making: uncertainty and divination in contemporary business discourse

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ABSTRACT
This article investigates how design-oriented approaches have made their way into contemporary business discourse. It does so by exploring how the figures of 'the strategist' and 'the entrepreneur' are portrayed and linked to design in recent business literature on strategy and entrepreneurship, respectively. Theoretically, the article draws on, but also departs from, Jens Beckert's investigation of firms as 'engines of imagination,' juxtaposing it with Laura Bear's work on speculation and capitalist divination. By using strategy and entrepreneurship as case illustrations, the analysis identifies a discursive shift in how firms are supposed to orient themselves towards the future, from a focus on taming uncertainty through predictive knowledge (or credible fictions that could pass as such), to a focus on leveraging uncertainty as a resource in overtly speculative and divinatory ways. The article conceptualizes this shift as the 'design-ification' of future making, whereby design emerges as a means to style and fuel the speculative imagination, producing affective possibilities and reinforcing the promise of an ever more uncertain future. The article concludes by foregrounding the contingency of the certainty/uncertainty duality, inviting scholars to treat them as emic terms found at work in concrete situations where actors vie to shape what is to come.

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Introduction

In his programmatic call for the study of the role of 'fictional expectations' in the constitution of market futures, Beckert (2016; 2021) contends that collectively held narratives of what the future will be like are crucial to economic activity because they produce expectations that ultimately enable the coordination of collective action. Economists have studied expectations in their own way, assuming that markets are good predictors of a future which can largely be forecast through calculative operations.[1] Under Beckert's sociological eye, however, these expectations are recast as more indeterminate, due to their playing out against a backdrop of fundamental and relentless uncertainty that renders calculation more equivocal than economists tend to assume. Thus, for Beckert (2016), the key characteristic of expectations is that they are anchored in fictions, in imagined future states rather than reliable predictions or actual knowledge.

In anthropology, Bear (2020a) has put forward a similarly programmatic call for the study of future-oriented modes of speculation. However, following from Bear's (2015) work on capitalist

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divination, this approach charts a somewhat different route to the study of future-making practices of the contemporary economy. Borrowing from the anthropological tradition of studying divination, Bear (2020a) suggests that the study of capitalist speculation, particularly after the financial crisis of 2007–2008, holds the promise to move beyond previous communicational models – as well as performativity models – which have become integrated into contemporary modes of exercising economic power, enabling and legitimizing dynamics of capital accumulation.

This article aims to build on Beckert's and Bear's respective work by pointing to a set of emergent approaches in the construction of futures in business firms. In particular, the article will focus on design-oriented approaches which have recently spread and drawn considerable interest in business settings. More specifically, this article will explore two instances of design-ification in the fields of strategy and entrepreneurship, looking respectively at how the figures of 'the strategist' and 'the entrepreneur' are portrayed and enacted within recent business literature. The article contends that the expansion of speculation in economic life, notably discernible since the 1980s (Bear 2020a), marked an alteration in economic actors' relation to uncertainty. While previously generally understood as something to be mitigated and (partially) predicted, uncertainty is now also conceived of as something to be embraced and instrumentalized. This, the article argues, has paved the way for the design-ification of future making in business settings.

Design emerged around the late 2000s as a central concern for business (Johansson-Sköldberg, Woodilla, and Çetinkaya 2013), becoming the incarnation of an ideal of creativity that began to spread as a generalized *mot d'ordre* in organizational life at the time (Reckwitz 2017). With this ascendancy, design turned from being a function concerned with the styling of products and communications to becoming a fundamental feature of management concerned with strategic matters for the firm, as evidenced by developments such as the formidable dissemination of 'design thinking' as a distinctive approach to business innovation (Johansson-Sköldberg, Woodilla, and Çetinkaya 2013; Kimbell 2011; Verganti, Dell'Era, and Swan 2021), the successful integration of 'service design' into organizational practices (Kimbell 2009), the celebration of a 'design attitude' (Michlewski 2008) as a novel outlook to managing more generally, the adoption of design-inspired studio pedagogies into business curricula (Meisiek 2016), and more recently, the mobilization of design-led foresight and design futuring approaches (such as speculative design and design fiction) to open up new strategic opportunities for businesses (Aguesse and Decreton 2022; Pinto and Medina 2020; Ringfort-Felner et al. 2023). Design, then, has come to represent an alternative mode of engagement with futures within the business firm – one that promises to creatively access uncertainty and generate affects (Brassett and O'Reilly 2015) by virtue of its imaginative bent and acute sense of material culture, encapsulated in practices such as visualizing and prototyping (Kimbell and Bailey 2017; Wilkie 2014). In this sense, its alternative character lies in it being a mode of engagement with futures that is no longer tied to a pretense of calculability and uncertainty reduction typically bound up with economic rationality. Notably, design-ification, the article argues, does not entail the outright supplantation of calculative practices in future making, but rather the renunciation of pretenses of calculability in favor of openly speculative forms of intuition, thus enacting a different emphasis and relationship to uncertainty and the future, as shall be explored in relation to strategy and entrepreneurship.

As such, the article both complements and challenges Beckert's (2021) account of firms as 'engines of imagination' in the context of fundamental uncertainty, while drawing on Bear's (2020a) insights on the importance of speculation for understanding (and critiquing) contemporary economic life. It does so starting from the observation that the devices of imagination that Beckert (2021) identifies and describes (such as strategic planning, capital budgeting, and technology projections) can be tied to what Henry Mintzberg and colleagues call the 'planning' school of management thought (Mintzberg, Ahlstrand, and Lampel 1998, 74–77). Emerging in the 1960s 'and peak[ing] in a flurry of publications and practices in the 1970s' (Mintzberg, Ahlstrand, and Lampel 1998, 5), this school of thought construed uncertainty faced by the firm as a condition to be mitigated through predictive knowledge and probabilistic projection. Such construal is a corollary to a distinct underlying 'managerial rationality' that arose manifestly in the twentieth century (Le Texier 2016; Shenhav 2000), consisting in the reduction of organizational action to cause-and-effect relationships meant to be marshaled and controlled in the most economical way by the firm in the pursuit of business objectives. Beckert (2021) implicitly recognizes how these devices are undergirded by this managerial rationality, understood as they commonly are as leading to probabilistic representations of actual futures. Beckert's (2021) point is that, although these devices embed a script of reliability and accuracy that casts the future as more or less knowable or calculable, they are more aptly viewed as vehicles for creating imaginaries and their concomitant fictional expectations, for the script they embed is ultimately based on pretense, so the argument goes, given the inherent unforeseeability and uncertainty of the future. This article argues that design-ification represents a fundamental alteration of the script tacitly accepted by Beckert (2021) in his characterization of devices of imagination within the firm. Indeed, the planning school, along with its underlying managerial rationality of cause-and-effect predictability, represents but one approach to dealing with futures (Mintzberg, Ahlstrand, and Lampel 1998), and it is certainly not the only one enacted in contemporary organizations. For this reason, this article proposes to reorient the gaze away from devices associated with the planning perspective and its script of (pretenseful) calculability, as studied by Beckert, and instead focus on exploring emergent design-ified devices of strategy and entrepreneurship that embed a different script that overtly embraces speculation.

The purpose of the article is therefore three-fold. First, it places scholarly attention on emergent approaches that promote design-inspired practices and rationalities as a means to orient the business firm towards the future. Secondly, it locates these approaches in the context of Beckert's (2021) schematic of intra- and extra-organisational devices, pointing to the potential shortcomings of that framework. Thirdly, in mapping these emergent approaches onto the respective perspectives of Beckert and Bear, the argument also contributes to the general discussion within economic sociology and economic anthropology about how to conceive of contemporary future making and capitalist speculation.

In terms of methodological approach, the argument is based on a reading of strategy and entrepreneurship literature. This reading has been oriented towards the identification of schools of thought within these fields as they emerged in the second half of the twentieth century, focusing specifically on how they conceive of uncertainty, and how they recently have mobilized the vocabularies and practices of design. These schools of thought were then mapped onto the respective perspectives of Beckert and Bear. As such, the article may be placed alongside other contributions that study the economy through surveying recent developments in management thought. In so doing, it assumes that management thought can be interpreted as an indicator of the evolution of the contemporary economy, shedding light on imaginaries as well as practices (see e.g. Muniesa et al. 2017; Ortiz and Muniesa 2017), although the actual study of practices is outside the scope of this article. As will be evident, our approach also traces these developments within the 'cultural circuit of capital' (Thrift 2005) – the infrastructure of management consultancies, design agencies, business schools and start-up gurus – which animates the propagation of these imaginaries and practices. Thus, particular attention has been placed on the extent to which the literature studied offers normative recommendations catering to a practitioner audience. Nevertheless, the aim is to stop short of producing 'hagiographies' of such knowledge-producers – of suggesting that economic life is wholly determined by such expert knowledges, or that economic knowledges invariably act as 'initiators or prime movers of social processes' (Bryan et al. 2012, 306).

The argument is structured as follows. The next section reviews the work of Beckert and Bear, highlighting the crucial distinctions between their respective approaches. Then, the following section outlines how ideas from the design field are increasingly informing contemporary views of strategy. It also argues that these design-inflected views are propagated by management consultancies, which have sought to incorporate designerly knowledges and approaches through acquisitions of design agencies. Next, the following section explores how design has influenced the prescriptions put forward by entrepreneurship theorists and start-up practitioners. These observations are then analyzed in the discussion section, calling attention to the wider stakes of this development, specifically focusing on speculation and power. The article ends with a conclusion that highlights some shortcomings of Beckert's approach arising from the examination of these emergent approaches to future making.

Imagination through fiction and divination

Beckert's work on fictional expectations and imaginaries of the future constitutes one of the major contributions to economic sociology in the past decade. It applies to the temporal dynamics of capitalism (Beckert 2016; Beckert and Bronk 2018), to promises about the future offered by economic doctrines (Beckert 2020), as well as to the future-oriented practices of the individual firm (Beckert 2021). As such, it can be placed alongside the influential performativity program launched by Callon (1998).[2] Indeed, Beckert consistently signals where their respective projects overlap (Beckert 2021, 3) but is equally clear on where the two approaches differ from each other (Beckert 2016, 276–277).

For Beckert, fictional expectations cannot act as self-fulfilling prophecies that may bring about the realities they are supposed to foresee. An insistence on the fundamental uncertainty of the future is, he suggests, at odds with the notion of performativity, and with any approach that grants vast constitutive powers to predictive economic reason (MacKenzie, Muniesa, and Siu 2007). Instead, fictional expectations are important because the imagined futures from which these expectations are derived motivate decisions and legitimize actions, regardless of whether they come to pass or not, or whether they adjust to what economic reason would dictate or not.

Transposed onto the actions of the individual firm, it is the acting 'as if' of organizational actors that carries outsized significance in Beckert's (2021) analysis. The imagined future states that determine this acting, he argues, are constructed by means of a variety of 'cognitive devices'. These include intra-organizational ones, such as strategic planning, capital budgeting, and technology projections, as well as extra-organizational ones, such as marketing and business plans. In this account, these devices are part and parcel of contemporary organizational life, providing a means for organizations to cope with uncertainty by shaping and stabilizing images of what the future may hold. They all contribute to the generation of imaginaries, which Beckert (2021, 4) defines as 'assessments of future developments that combine known facts with assumptions, informed judgements and emotions.' Thus, the firm can be understood as an 'engine of imagination.'

In his analysis of the firm, Beckert (2021) assumes the same epistemological position as he does on the larger scale structures analyzed in Beckert (2016). Thus, his depiction of future-prospecting practices conducted by the firm (Beckert 2021, 4) are no different from his depiction of macroeconomic or technological forecasts (Beckert 2016, 218): they are not evaluated on the basis of their accuracy – since, in this account, foretelling a fundamentally uncertain future is impossible – but rather on the basis of plausibility and credibility. In this way, the question of how to study organizational life shifts towards the cultural practices which generate credible imaginaries: who is a legitimate author of a narrative?; how do such stories connect with existing narratives, and how do they incorporate novel ideas?

In this sense, Beckert's project is anchored in a communicational account of economic life. Indeed, this is the contention of Laura Bear, who suggests that economic sociology 'from Granovetter to Beckert' remains 'focused on economic action as a process of communication of information' (Bear 2015, 410), and is thus accepting a basic premise handed down from the likes of Adam Smith. In other words, Bear suggests that, when economic sociologists study credible stories, they are not too dissimilar from economists studying price signals or information asymmetries. In either case, economic action is construed as prompted by information or communication. As such, economic sociology does not present a sufficient break with the dominant discourses of economics.

Hence, Beckert and Bear represent divergent ontological commitments, which are in turn tied to different critical merits of recent economic sociology. Bear's alternative account of capitalist speculation is a conscious effort to move beyond recent economic sociology, not least Callon's work, which, she argues, leads the analyst to 'remain on the visible surface of economics and never fully step inside its inner darkness of exclusion or the processes of capital capture and social labor associated with market exchanges' (Bear 2020a, 3). In other words, she suggests, much of recent economic sociology has become too preoccupied with the questions of the knowledge of economics, and have thus done too little to counter the worldview of mainstream economics – which, of course, also is blind to the inner darkness of capitalism. This charge, one may add, has also been leveled against the work of not only Callon, but also MacKenzie and Thrift (see Bryan et al. 2012). According to Bear, Beckert's work does not constitute enough of a break with the tendency to focus on economic knowledges – his insistence on the fundamental uncertainty of economic futures leads to an agnostic position on the ethical order of capitalism.

Therefore, Bear (2020a, 5) calls for 'more critical terms of engagement' – terms that counter this 'split between theories centered on technical calculations in financial markets [as evidenced in contemporary economic sociology] and those focused on the ethics of capitalist practices' (Bear 2020b, 47). This is urgent, she argues, especially as the effects of performativity and narratives are becoming deployed by economists as a means to justify policies and practices that underpin economic power.[3] This, then, amounts to an exercise of power in which uncertainty is not construed as a problem to be overcome with knowledge or credible predictions, but as a resource to leverage in the implementation of specific courses of action.

So, to counter these tendencies, Bear (2020a; 2020b) proposes an alternative account of how economic action is oriented towards the future. She too places imagination at the center of analysis, but borrowing from the anthropological study of divination practices, she suggests that economic action is prompted by 'technologies of imagination'. Such technologies generate speculation by invoking 'an invisible ethical realm', making it visible and thus 'explain the past, present and future' (Bear 2020b, 48). More specifically, this includes generating knowledge by revealing 'hidden patterns of society and the universe' (Bear 2015, 410).

Defining divination as 'material, social practices from which styles of imaginative perception emerge' (Bear 2015, 408; see also Tedlock 2006), Bear analyzes capitalist speculation on sites along the Hooghly River in the Indian state of West Bengal. 'Capitalist action', she contends, may be seen 'as motivated by forms of augury' (Bear 2015, 410): by the generation of prophecies through material-social practices designed to interpret signs or omens in certain phenomena. In anthropology, divination has been described as 'a search for occult knowledge about the specifics of [the individual] histories' of those that participate in such practices (Werbner 1973, 1414). Thus, divinatory practices seek to 'construct usable knowledge from oracular messages of various sorts', through 'inductive, intuitive, and interpretive techniques', linking 'diverse domains of representational information and symbolism with emotional or presentational experience' (Tedlock 2006, 62). In other words, divination produces ways of knowing that are tied to the affective and situational aspects of particular material practices.

Bear's approach to the study of speculation can thus be summarized as follows. Speculative action is prompted by technologies of imagination – that is, material-social practices that seek to disclose a hidden order. This, then, can be contrasted with Beckert's interest in the collective narration of plausible fictions. Here, there is a difference between the discursively-oriented process outlined by Beckert, and the process of non-discursive intuition implied by Bear's reference to divination. In both accounts, uncertain futures play a central role. However, while seeking to describe the same empirical problem as Beckert – how do economic actors approach uncertain futures? – Bear places the analyst's attention on how uncertainty is used as a productive resource for speculation.

In the two following sections, Beckert's and Bear's divergent frameworks for describing imagination practices will be used when discussing how the figures of the strategist and the entrepreneur are depicted in recent business literature. In the subsequent analytical section, the article will re-engage with the wider ontological and critical stakes of the respective approaches.

Design-ification in strategy

Strategy as a field and discourse is inherently oriented towards the future. More specifically, strategy is concerned with creating legitimate present futures (Kornberger 2012). That is, strategy work revolves around the production of organizationally sanctioned images and narratives that make the future visible in the present, concomitantly turning this imagined future into the reason for action in the present (Doganova and Kornberger 2021). These images and narratives are typically represented via a vast array of graphs, models, diagrams, figures, pictures that are often mediated and circulated in PowerPoint slides (Kaplan 2011), exuding an aura of reliability and robustness from which strategy partly derives its credibility. So this para-epistemic function of strategy as representation is coupled with a performative function of strategy as intervention (Kornberger and Clegg 2011), for strategy is also a political instrument that frames what issues and concerns count, with a view to mobilizing people and resources, thus acting as catalyst for collective action (Kornberger 2013).

Strategy's orientation towards the future, however, has evolved over time. As hinted in the introduction, the planning school emerging from the 1960s and 1970s represented one early approach to systematically manage uncertain futures. Again, the planning school construed uncertainty as a condition to be mitigated through predictions and probabilistic projections. Indeed, if there was ever such a thing as a 'motto of this school of thought' (Mintzberg, Ahlstrand, and Lampel 1998, 51), it would be 'predict and prepare' – a fact somewhat satirically noted by Ackoff (1983). Referring to his own experiences from speaking with the executives of the late seventies and early eighties, Ackoff notes that 'decision makers believe their errors derive more from faulty predictions than from inadequate preparation' (Ackoff 1983, 59). This, he suggests, should be understood in the context of the 'phenomenal growth' of 'the business of foreseeing the future', as expressed in the form of devices discussed by Beckert.

As the history of strategic management thought unfolds during the second half of the twentieth century, the influence of key players in the 'cultural circuit of capital' (Thrift 2005) becomes more prominent. This circuit includes actors such as business schools, management consultancies, and management gurus of the likes of Michael Porter. This Harvard Business School professor became notable in the 1980s as the heir to proponents of the above-mentioned planning school, promoting a view of strategy as an endeavor of 'positioning' performed by top executives. Here, strategy is about consolidating actions to create or maintain a defendable position in a marketplace, dealing effectively with the five forces to ensure competitive advantage. The strategist analyzes the environment surrounding the firm in an attempt to identify and anticipate changes happening in the industry. Such a perspective casts the future as a conquerable and governable domain.

Yet, as the idea of an increasingly uncertain future became more widely acquiesced in over the following decade, the project of strategy became much more associated with innovation and the idea of 'competing for' an uncertain future in the making, as popularized by Hamel and Prahalad (1994), both business school professors and management consultants. Their *Competing for the Future* was an overall statement on how companies should develop and leverage 'core competencies' to pre-emptively 'create the future' and attain industry leadership – ideas which they had begun proposing in articles priorly published in the *Harvard Business Review*, a key medium in the cultural circuit of capital. In a similar vein – and in the pages of the same business magazine – Normann and Ramírez (1993) argued that strategy could no longer be a matter of 'positioning' the firm using the models of industrial economics favored by Porter, but instead it had become a matter of reinventing value creation through the orchestration of relations among different actors. According to these strategy theorists who also straddled academia and consulting, the fast-changing environment in which companies now found themselves competing called for 'designing interactive strategy'.

Following the turn of the century, the trope of an increasingly uncertain, complex and turbulent world became more and more prevalent, further cementing the entanglement of strategy with design. For instance, Ramírez and Mannervik (2016) build on Normann and Ramírez (1993) to further 'design-ify' their approach to strategy, suggesting that the role of strategists is to design new systems of value co-creation, which entails prototyping in an iterative manner and producing scenarios of the future. They argue that their approach uses and is 'intimately linked to design thinking, with its focus on systems of use and its broad meaning of value as created with and for actors in the system' (Ramírez and Mannervik 2016, 83). Unlike traditional strategic approaches that were developed for more stable and less turbulent environments, they contend that their designerly way of strategizing is pertinent in today's 'networked world' where unpredictability and ambiguity have become the norm.

Similarly, in the pages of the *California Management Review,* an academic publication with a strong applied orientation and an established corporate readership, Knight, Daymond, and Paroutis (2020) observe and make the case for the further integration of design approaches into strategic management, suggesting some practices that managers can use to strategize with design thinking, including engaging in studio-like conversations around materials such as prototypes and customer data. Designerly approaches are seen as offering an alternative way to orient the firm towards the future and define a strategic direction by engaging the visual, sensory and material, as opposed to only the discursive (Knight, Daymond, and Paroutis 2020). Interestingly, beyond this prescriptive literature, qualitative empirical studies in the strategy-as-practice tradition have provided insight into how particular images and narratives of the future are constituted and made consumable in strategy practice with the aid of textual and material artifacts (e.g. Comi and Whyte 2017; Jarzabkowski, Spee, and Smets 2013; Kornberger and Clegg 2011; Vaara, Sorsa, and Pälli 2010). Here, too, there are signs of design-ification. For instance, in their ethnographic study of future making, Comi and Whyte (2017) draw attention to the central role of visual artifacts, such as models, sketches and drawings, in turning abstract ideas of the future into realizable courses of action in the present. Their empirical case focuses on a design project, but they argue that their insights apply to strategy practices more generally. Indeed, they observe that beyond the traditional toolkit consisting of strategy plans, slide decks, and visual timelines, strategy practitioners are now integrating 'newer artifacts that are inspired by the work of designers, such as models, prototypes and sketches' (Comi and Whyte 2017, 1061).

Back to a more prescriptive vein, Jeanne Liedtka, a long-time proponent of the integration of design approaches into strategy practice in outlets such as the *California Management Review* and the *Harvard Business Review* (see Liedtka 2000; 2018), has argued that, beyond simply a matter of broadening the strategist's toolkit, adopting design as an ideal model for strategy represents a fundamental break from traditional approaches to strategizing. To wit, Liedtka and Kaplan (2019, 3) describe design as a set of mindsets and practices to 'imagine, prototype and test new strategies.' According to them, while traditional approaches to strategy view the opportunity horizon through the lens of an existing portfolio of products/services and available market data, a design-led approach to strategy development starts with 'imagining new opportunities' (Liedtka and Kaplan 2019, 4) which are then explored through prototyping and experimentation. From this perspective, traditional strategy models and matrices focused on market share and growth are considered unhelpful in the face of fundamental uncertainty, whereby strategy's task is no longer to monitor or predict markets but to invent them. Liedtka and Kaplan (2019, 7) equate design-led strategy development to managing a portfolio of 'bets': 'in today's hyper-dynamic markets companies are actually managing a set of bets on business growth potential that are hypotheses, not truths.' Here design appears in all its divinatory glory, as a form of speculative labor aimed at revealing a hidden order in the sense of Bear (2020a; 2020b) – one that not only cultivates and harnesses uncertainty as an opportunity but also ensures employee alignment through affective attachment generated through the embodied engagement with design artifacts such as prototypes and visualizations (Brassett and O'Reilly 2015). Indeed, according to Liedtka and Kaplan (2019, 8), the introduction of design tools 'invites emotional connection to new strategies', which is a precondition for 'making change happen at scale' (7) in an organization. Conversely, one can see how Beckert's (2020) communicational understanding of strategy corresponds to the more traditional strategic approaches described above.

In addition to these portrayals of the figure of the strategist in prescriptive strategy texts, the design-ification of strategy can also be perceived in another related development: the acquisition of design firms by management consultancies (Navarro Aguiar 2023). As key agents in the cultural circuit of capital, management consultancies have been crucial to the institutionalization and professionalization of strategy. These actors have been described as 'merchants of meaning' (Czarniawska-Joerges 1990), who, under the mantra of 'value creation', provide strategic advice to their clients, diffusing new business techniques and ideas (often referred to as 'best practices') aimed at transforming and revitalizing organizations. In recent years, design has become one such new business idea, which is evidenced in how firms of the likes of McKinsey, Deloitte, EY, Boston Consulting Group, Capgemini, Accenture, and Wipro, have acquired and scaled up the operations of renowned design agencies such as Veryday, Idean, Designit, Doberman, Fjord, Doblin, frog, Continuum, and Insitum. With design fully integrated as a professional discourse within management consulting, there are more and more overtly speculative incursions into what the future may hold incorporated in the strategy practices of these firms, through e.g. the use of design futuring approaches such as speculative design and design fiction, whose popularity is now spreading in the corporate world (see, for instance, Aguesse and Decreton 2022; Highsmith 2024; Pinto and Medina 2020; Ringfort-Felner et al. 2023).

In summary, the design-ification of strategy suggests that Beckert's conception of the firm as an engine of imagination focuses too narrowly on approaches to uncertainty that emerged in the context of the planning school. Beckert (2021, 5) argues that strategy helps organizations cope with the uncertainty of decision-making inherent to the unknowability of the future 'by anchoring decisions in "as-if" assessments that *pretend* to be a true representation of a future reality' (emphasis in the original). However, the embrace of design approaches in strategy circles makes evident how the figure of the strategist nowadays is not so much looking to assemble 'true' or 'credible' representations of the future as much as to experiment with and speculate about what future to bring about. These developments highlight how actors may not necessarily be seeking to overcome uncertainty – to tame it by relying on credible fictions that could pass as knowledge. Instead, they are cultivating and harnessing uncertainty as a resource. Where these accounts converge, though, is in their conceptualization of uncertainty as a natural state of reality – uncertainty as a form of totalized certainty (more on this later).

Design-ification in entrepreneurship

Aside from the above-mentioned developments in corporate strategy, there is also a design-ification of how new businesses are created. For one, one may speak about a distinct 'turn to design' in entrepreneurship studies, as evidenced by the fact that a key journal in the field has created a design spinoff (Berglund 2021), in which established concepts are repositioned with reference to design (Glaser and Lounsbury 2021).

This design-ification of entrepreneurship and start-up activities is the result of a longer process, in which entrepreneurial practice and academic research have informed one another. A good place to start this story is from the work of Saras Saraswathy, who completed her doctoral research on entrepreneurship (Sarasvathy 1998) with Herbert Simon, whose *The Sciences of the Artificial* (Simon [1969] 1996) has been influential in shaping the field of design studies. Briefly put, Simon ([1969] 1996) distinguishes the natural sciences – which interrogate the world as it is currently constituted – from the design sciences, which focus on the development of artifacts and actions 'aimed at changing existing situations into preferred ones.' Indeed, Sarasvathy (2003) would go on to suggest that the study of entrepreneurship is 'a science of the artificial,' and that entrepreneurship is a design activity as defined by Simon. Interestingly – in the context of the current work of Beckert and Bear – Saraswathy's argument revolves around the issue of futures and predictions, following this quote from *The Sciences of the Artificial*:

> Since the consequences of design lie in the future, it would seem that forecasting is an unavoidable part of every design process. If that is true, it is cause for pessimism about design, for the record in forecasting even such 'simple' variables as population is dismal. If there is any way to design without forecasts, we should seize on it. (Simon [1969] 1996, 147)

Given that the future is radically uncertain, Sarasvathy concludes, the best thing an entrepreneur can do is to actively co-create it: 'By bringing on board key stakeholders who can "deliver" the future, the entrepreneur need not waste time, resources, or effort on prediction' (Sarasvathy 2003, 209). This non-predictive mode of operation differs from how large, existing firms operate. The entrepreneurial entity is a 'pre-firm' – a vehicle for transforming an idea into a firm (Sarasvathy 1998).

A similar proposition was subsequently put forward by non-academic practitioners writing for a practitioner audience – notably Silicon Valley entrepreneurs Steve Blank and Eric Ries, whose work came to define the discourse on the so-called 'lean start-up' (Blank 2003; Ries 2011). Again, one of the points of this perspective is that a start-up is not a small company, because whereas 'existing companies *execute* a business model, start-ups *look* for one' (Blank 2013). Thus, a start-up is 'a temporary organization designed to search for a repeatable and scalable business model' (Blank 2013). This search implies practices of 'experimentation' consciously borrowed from design methods. The onus is on exploring potential customer desires by iteratively testing prototypes, 'minimum viable products.' The outcomes of such tests are interpreted, guiding the entrepreneur on whether to persevere in the current line of development, or to 'pivot' into some other direction.

Here, one may point to a distinct forking of paths: one tendency in contemporary entrepreneurship highlights the radical uncertainty of the future and promotes the shaping of it; the other tendency promotes designerly experiments that disclose undiscovered potentials. Berglund, Bousfiha, and Mansoori (2020) propose that these two tendencies in entrepreneurial practice may be understood as two ideal types of entrepreneurial design: *transformational* and *experimental*. They can be distinguished by how they conceive of uncertainty. In the transformational mode, the key uncertainty is ontological: future market opportunities can never be known, but this problem may be overcome through (co-)designing the future market. In the experimental mode, there are opportunities 'out there' – the uncertainty is not ontological, but epistemological. Here, designerly experimentation is deployed as a means to explore the existence of such opportunities.

In both approaches, artifacts play an important role. Berglund and Glaser (2022) present a typology of artifacts used by practitioners: there are abstract ones, such as business models, material ones, such as prototypes (be they physical or digital), and narrative ones, such as business plans and rhetorical tropes. In the transformational mode of entrepreneurship, narrative devices are crucial. They include business plans which, as also noted by Beckert (2021, 10), serve not as agreed plans to follow in the future, but as devices designed to enroll actors in the project to shape that future (Karlson and Honig 2009). They also include pitches, whether construed as a brief communication of a business idea, or as an 'ask' to involve the listener in the venture (Sarasvathy 2021). In any case, these artifacts are essentially serving the same communicational purposes as the 'cognitive devices' outlined by Beckert (2021).

In the experimental mode of entrepreneurship, devices serve a different purpose. Material artifacts are used to isolate and evaluate one or a few specific aspects of the supposed market opportunity. The artifact is thus used to overcome the epistemological uncertainty regarding the exact nature of the supposedly pre-existing opportunity. Here, there are clear parallels to the 'needs finding' and 'empathy' approaches of contemporary design methodologies. As such, prototypes, 'minimum viable products,' and other 'product dummies' are there to generate insights during interaction with an external world – a world of potential customers, users, partners, and investors. The experimental situation created does not have the proposed product as its object – rather, it is the external world that is explored in such experiments. The aim is not to enroll these actors through communicational means – as in the case of the transformational approach – but to unravel hidden business opportunities.

As such, these artifacts – and the entrepreneurial culture that has emerged around them – function like Bear's (2015) technologies of imagination: they purport to make the invisible in the economy visible, promising to offer knowledge about such hidden order of the economy. In so doing, they prompt speculation and coordinated economic action, for instance through the allocation of risk capital. These practices are also divinatory in the sense that they imply a generation of knowledge based on induction, intuition and interpretation, in which the presentational, situational and affective matters. The test of a material artifact generates much more than indications about the mere functionality of a prototype. Practices such as A/B testing – in which different prototypes are tested on different groups of users – act as a mere 'jumping-off point', leading onto 'more general discussions of the business as a whole' (Berglund and Glaser 2022, 172). This, then, is another instantiation of the tension between the specific and the general already charted by the anthropology of divination.

There are, of course, aspects of these technologies of imagination that require further investigation. Scholars of divination describe it as a practice that suspends reason or deliberation to mobilize intuition (Struck 2016). Interestingly, entrepreneurial practitioners like Blank argue that this experimenting practice removes the element of intuition that otherwise tends to influence business development. This is because prototypes allow for hypothesis-testing of propositions about business opportunities. However, one may suspect that this very belief in the scientific credentials of such material practices – the belief that they do unravel hidden, yet pre-existing, opportunities – is precisely why they have become so pervasive.

Speculation and power: the stakes of designerly imagination

The two previous sections have highlighted emergent approaches to future making that should be placed alongside the intra- and extra-organisational devices and practices that Beckert (2021) has already outlined. As regards the strategizing of existing firms, traditional schools of thought tied to either 'planning' or 'positioning', which are aimed at mitigating the uncertainty of decision-making, correspond to Beckert's communicational understanding of strategic planning as a cognitive device. On the other hand, the increasing adoption of design approaches in the making of strategy, such as prototyping, visualization, and an experimental attitude as if 'managing bets', fit much more within Bear's notion of speculation. As regards the entrepreneurial activities of start-ups, there are the narrative devices that can be placed in Beckert's framework, but there are also the physical devices whose function sit somewhat uneasily in his framework. Instead, as suggested above, the use of prototypes, minimum viable products, A/B tests and the like are more in line with Bear's description of speculative economic action. This section will discuss the speculative nature of these practices, and then comment upon the questions of power that emerge from them.

First, the issue of *speculation*. The emergent approaches outlined above are arguably products of a recent period in which speculation has superseded planning as the paramount way to orient oneself towards the future. In contrast, the practices outlined by Beckert – such as strategic planning, capital budgeting, and technology projections – bear the script of a 'managerial rationality' (Le Texier 2016; Shenhav 2000) which is product of the twentieth-century process in which the 'visible hand' of the modern corporate hierarchy sought to introduce control and order in economic activity (Chandler 1977). Whether it is manifested in specific occupations (Harvey 1989), or in a more general social tendency (Komporozos-Athanasiou 2022), the orientation towards speculation involves a conception of a future whose uncertainty is subject to exploitation. While planning is a matter of aligning one's activities with a given trajectory, speculation implies opportunist action that benefits from the unexpected. Speculative imagination, then, is 'a generative, creative (albeit unequally distributed) capacity to imagine under conditions of incalculable uncertainty… [which] seeks opportunities to engage constructively (but not to master or eliminate) life's ambiguities and the future's unknowable outcomes' (Komporozos-Athanasiou 2022, ix).

As suggested above, the mobilization of design is prompted by the lure of speculative imagination. This, in turn, dovetails with developments within design theory, in which the notion of speculation has gained in significance. The concepts and practices associated with 'speculative design' were originally formulated in the context of critical design, as a means to counter the commercial elements of design practice (Dunne and Raby 2013). Ironically, the 'what if?' approach to the world has been productively integrated into corporate strategy efforts (Aguesse and Decreton 2022; Pinto and Medina 2020; Ringfort-Felner et al. 2023). Again, as suggested above, key tenets of speculative design – moving from problem solving to problem finding, asking questions instead of providing answers, using design as a medium that stimulates debate and not as an actual product solution – have been adopted in the forging of technologies of imagination.

In other words, as hinted before, one way to explain the success of designerly approaches is that they do not hold on to the same pretense of calculability that the earlier approaches (strategic planning, capital budgeting, forecasting) have been scripted to adhere to. Here, though, it is worth noting that this notion of uncertainty, against which both scripts of predictability and speculation are set, has been widely naturalized in discourses about future making. Such a notion of uncertainty has taken broader importance in recent decades, as the currency of any notion of certainty in economic life has waned, if not entirely vanished. Yet, the very notion of an accelerated uncertainty that has propelled the ascendancy of design as a practice that thrives in ambiguity in dealing with 'wicked problems' is itself based on a particular temporal ontology in which we are at every moment always breaking from the past – an antigenealogical tendency that is at the heart of the project of modernity, as Sloterdijk (2016) has shown. Here, as Savage (2021, 95) argues, the predictability of long-term processes, such as climate breakdown or rising inequality, is conveniently repressed in favor of a 'giddy search for novelty' that fails to recognize the 'weight of the past.' The idea of a radically uncertain future becomes a convenient narrative, even a truism, rendering it a fictional expectation in and of itself, which has set an opaque veil over *longue durée* continuities. Indeed, contemporary future making is imbued with this very modern inclination to continuously sever ties with the past, with design contributing to its obsession with newness. Perhaps a way to deploy more critical terms of engagement to counter this tendency is to move from the idea of *making* futures to the idea of *inheriting* futures in need of redirection (Bonnet, Landivar, and Monnin 2021; see also Fry 2009).

As a second point of discussion, there is the question of *power*. Here, it is worth reconnecting to the distinction between Beckert's and Bear's respective approaches to imagination. Again, when studying how the above-mentioned figures of the strategist and the entrepreneur are enacted, some fit squarely into Beckert's communication-oriented schema, and some may be more productively described as divinatory practices. What, then, of Bear's (2020a) proposition that the study of how capital orientates itself towards the future must move beyond the description of 'the visible surface' of economic knowledge and explore the 'inner darkness' of how capital operates? What would it mean to speak, as Bear does, about the control of 'the means of speculation'? If the speculative imagination is 'unequally distributed' (Komporozos-Athanasiou 2022), how does this inequality manifest itself?

While Bear's (2020a) analysis stretches 'up' to the level of central banks, one may still propose that economic power is exercised in the context of the corporate and start-up domains studied above. After all, the practices prescribed by the emergent approaches – whether related to narrative fictions or acts of divination – all unfold in particular settings in which economic power is wielded in some way or another. As Bear (2020a) suggests, the control of the means of speculation is fundamentally tied to the distribution of contracts and credit in society. A scenario plan is deemed more credible if it is constructed at the Royal Dutch Shell HQ; a minimum viable product offers greater divinatory powers when interpreted under the auspices of a prominent venture capital firm. These devices are more likely to move money than similar devices used in less powerful settings. Power – in Bear's (2020a) account – is exercised as the capacity of such entities to make value uncertain, and then project unseen ethical orders onto the world, using technologies of imagination.

This analysis of the power exercised in these settings is, however, broadly consistent with Beckert's approach. Indeed, given that the future is conceived as inherently uncertain, the generation of credible fictions is fundamentally shaped by social factors. 'To have power means: My expectations count!' (Beckert 2016, 80). Firms that have a large set of cognitive instruments at their disposal have more power to create fictional expectations. Still, Beckert's account of power is nevertheless somewhat more idealist, inasmuch as it more exclusively focuses on expectations and fictions. Indeed, for Beckert, the shaping of expectations is the *main* mode in which the power of firms is exercised: 'Organizations are *foremost* engines of imagination, framers of the future that exercise their power on the social world through their influence over the imagination of their own members and of outside stakeholders' (Beckert 2021, 13, italics added). As such, Beckert's description of power is less attentive to the affective aspects of imagination – aspects that are better in alignment with the divinatory practices discussed by Bear. This, in turn, is one central aspect of what design adds to the business world. As Brassett and O'Reilly (2015) pointed out, design *styles* futures, producing affective possibilities and attachments that open new spaces for exploring how things might be rather than what can be known, thus championing uncertainty and experimentation. With design, the ethico-aesthetic – that is, non-cognitive – qualities of the future are enhanced, endowing it with 'a kind of felt presence, an affective presence, as an attractor' (Massumi and McKim 2008, 8). Herein lies the power and political import of design-ification: it reinforces the promise of an ever more uncertain future and the affect it generates fuels the speculative imagination in ways which can be both affirming and repudiating of capitalist dynamics. With design-ification, the question of the control of the means of speculation raised by Bear (2020a) takes on an enlarged dimension beyond contracts and credit and into creative acts of designing.

Conclusion

This article has highlighted how design-oriented approaches to future making are increasingly being prescribed in certain strands of strategy and entrepreneurship literatures. These approaches, it has been argued, can be placed alongside the 'devices of imagination' that Beckert (2021) identifies. However, in the course of this exploration, problematic aspects of Beckert's approach have heaved into view. For one, the very fact that not all futuring practices can meaningfully be categorized as Beckertian narratives or fictions – the fact that some are better described as divinatory practices – seems to suggest that an all-encompassing description of future-oriented economic action is elusive. This casts doubt on Beckert's ambition of turning economic sociology into a microfoundation of capitalist totality (Fourcade et al. 2023, 709–712).

The main point of concern, though, is related to the question of uncertainty. A recurring refrain of this article has been that actors do not necessarily see uncertainty as a problem to be overcome with credible fictions that may pass as knowledge, but as a resource to leverage in the implementation of specific courses of action, as made manifest in the instances of design-ification explored in this article. This pushes us to recognize the contingency of the certainty/uncertainty duality upon which many old and contemporary discussions around 'futures' and 'future making' in economic life are predicated. From twentieth-century planning to twenty-first-century speculation, certainty and uncertainty seem to be mobilized by scholars and practitioners alike to explain, justify or criticize particular decisions or states of affairs concerning how and what futures are to be made or brought about. Thus, rather than naturalizing them as incontrovertible backdrops to the frontstage of social action, our article invites scholars to engage with certainty and uncertainty as vernacular or emic terms found at work in concrete situations where actors vie to shape what is to come. In view of the limits of the present investigation, there is a need for empirical studies of future-making practices, which may clarify the extent to which the tools and knowledges associated with design-ification are re-shaping organizational life. In particular, there is scope for explorations of how different conceptions of – and practical modes of mobilizing – (un)certainty coexist in the contemporary business firm.

Notes

1. Beckert's contribution primarily engages with economic sociology and is thus distinct from previous work on the sociology of expectations that emerged in the context of STS (van Lente 1993; Brown and Rappert 2000; Brown and Michael 2003; Wilkie and Michael 2009).
2. For the purposes of brevity and clarity, the performativity program is used here as a common reference point from which to locate the work of Beckert and Bear. Thus, an extended engagement with the program is outside the scope of this article.
3. Bear (2020a) cites the example of the justification for Quantitative Easing; another is the increasingly self-reflexive and knowing modes of 'forward guidance' currently performed by central bankers.

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