



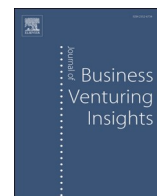
## **Visions of Futures and Futures of Visions: Entrepreneurs, Artifacts, and Worlds**

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# Visions of futures and futures of visions: Entrepreneurs, artifacts, and worlds

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## ABSTRACT

In a recent effort to develop the individual-opportunity nexus, Ramoglou and McMullen (2022) argue that extant conceptualizations of opportunities fail because they reify opportunities by engaging in “thing-talk”. Their proposed alternative ignores concrete things by reinterpreting the nexus in terms of confident entrepreneurs (who imagine world-states) and world-states (that are possible or not). But, regardless of formulation, the dualistic nexus framework fails to account for the creative aspects of entrepreneurship and places impossible demands on the concept of opportunity. A triadic view of entrepreneurs, artifacts, and worlds transcends the distinction between “thing-talk” and “confidence-talk” as central to an unambiguous scholarly use of opportunity language. Acknowledging artifacts as tangible interfaces between entrepreneurial confidence and real-world conditions also prompts a reevaluation of what Ramoglou and McMullen (2022) term “entrepreneurial work”, calling for an approach that duly acknowledges its creative, artifact-centered, and indeed world-making character.

## 1. Introduction

As the entrepreneurship field sought conceptual focus and academic legitimacy, Venkataraman (1997) famously suggested that: “Our field is fundamentally concerned with understanding how, in the absence of current markets for future goods and services, these goods and services manage to come into existence” (120). This is a well formulated question that combines theoretical potential and practical relevance, and which is not answered by other fields. By focusing the field on the emergence of tangible phenomena such as goods, services, and markets, Venkataraman (1997) made clear that this question could not be understood in terms of individuals (psychology) or markets (economics) in isolation.

However, when turning this general question into a specific research agenda, Venkataraman was deeply influenced by highly abstract theories of entrepreneurship—notably the works of Schumpeter, Hayek and especially Kirzner—in which entrepreneurial actions function to innovate or coordinate the economic system.<sup>2</sup> Consequently, the field-defining question above is immediately followed by the following research agenda: “Thus, entrepreneurship as a scholarly field seeks to understand how opportunities to bring into existence “future” goods and services are discovered, created, and exploited, by whom, and with what consequences.” (Ibid). Note

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<sup>2</sup> From the perspective of abstract economic theory, Kirzner has argued that these functions are essentially the same since innovation is merely intertemporal coordination (e.g. Kirzner, 1999; but see Korsgaard et al., 2016).

the subtle shift. Focus is no longer on how concrete goods, services, and markets come into existence. Instead, entrepreneurship is said to concern the discovery or creation of something called “opportunities”, which apparently relate to goods and services in the “future”. Somehow, the term *opportunity* connects our present anticipations of future goods and services with their actual emergence in the future, with the concrete reality of entrepreneurial processes abstracted away in the process. Further developments with and by Shane (Shane, 2003; Shane and Venkataraman, 2000) replaced *created* with *evaluated*, thus completing the shift from the distinct questions of why entrepreneurs act, how they do it, and why they succeed (Berglund et al., 2020; Dimov, 2021) into one merged question of opportunity discovery. Since then, much of our field has been framed in terms of a (dual) nexus of enterprising individuals and opportunities that represent determinate pathways to future entrepreneurial success, into which an individual’s actions hopefully tap.

While Venkataraman himself appears to regret this development—insisting that entrepreneurship is a form of concrete design whose “object never exists independent of a given context” (Venkataraman et al., 2012)—the nexus idea that something independent of the entrepreneur is instrumental for understanding entrepreneurial action has persisted. Empirically, it has been argued that researchers must know “the magnitude of the force exerted by the opportunities themselves” (Shane et al., 2003: 269) in order to properly understand the relevance of individual qualities, e.g., motivation, as a cause of entrepreneurial behavior. However, most of the work has been conceptual and often in response to criticisms of the conceptual, empirical, and practical problems of the opportunity concept (Davidsson, 2015; Dimov, 2011). The most ambitious effort to salvage the idea of objective opportunities has been undertaken by Ramoglou and Tsang who invoke Roy Bhaskar’s transcendental realism in order to “ontologically rehabilitate the objectivity of entrepreneurial opportunities” (Ramoglou and Tsang, 2016: 410) by acknowledging that they are not empirical phenomena but rather “exist as the underlying market conditions making the emergence of desirable entrepreneurial outcomes objectively possible” (Ramoglou and Tsang, 2017: 71–72). While this move has made it possible to conceptualize opportunities as existing objectively, the metaphysical nature of transcendental realism means that the connection to entrepreneurial action is lost. If unknowable by definition, opportunities cannot guide entrepreneurial action (Berglund and Korsgaard, 2017) and thus fall outside the realm of any action-oriented theory.

Poor thing, the concept of opportunity. It has taken quite a beating in the scholarly tug-of-war between explanatory power, conceptual simplicity, and practical implications (Wright and Phan, 2020). However, we may be edging toward a truce as several combatants appear to moderate their positions and potentially converge. Davidsson recently suggested that “venture creation” be used to describe the development of specific market offerings of products or services, but also acknowledged that opportunity can be reasonably used to denote an agent’s evolving vision for the venture (Davidsson, 2021). Recognizing that opportunities - as general conditions of possibility - are “ineliminably unknowable”, Ramoglou (2021: 8) similarly urged scholars to focus on more specific “opportunity ingredients”, potentially in combination with context specific “external enablers”, since focusing on knowable rather than unknowable things provides a more realistic guide to action. These developments all suggest that there may be limitations to framing entrepreneurship in terms of a nexus of individuals and external conditions.

In a recent contribution, Ramoglou and McMullen (2022), hereafter RM, argue that whereas entrepreneurs use opportunity-talk to express confidence in their visions for the future (confidence-talk), most academics mistake this as statements about the concrete futures those visions entail (thing-talk). This is said to be reflected in these academics’ theories. Seeking to retain the abstract nexus framework, RM see such concrete and thing-focused entrepreneurial activities as conceptually unimportant. Insisting that “‘opportunity’ should be conceptually disentangled from empirical studies of what entrepreneurs do” (RM: 6), RM instead conceptualize the individual-opportunity relation as one of confident entrepreneurs who “actualize” possible world-states. However, by dismissing recent scholarship as engaged in “thing-talk”, RM fail to appreciate that much of this work not only shares their general ambition to conceptually clarify the discourse but can help address critical blind spots in their own thinking. First, even though “opportunity” does not stand for things in the same way that “chair” does, the confidence it expresses is nevertheless about something, e.g. some propositional content (Sergeeva et al., 2021) expressed as an artifact (Berglund and Glaser, 2022). Second, to make sense of the role of such things in entrepreneurial processes, the simple and elegant dual nexus needs to be extended to slightly more complex artifact-centered triad (cf. Berglund et al., 2020). Third, RM’s conception of the world obscures the fact that the world is both the result of human activity and a condition for future activity. Finally, similar to labels such as medical work or research work, the term entrepreneurial work needs a more substantive conceptualization, i.e., it really needs to be about some-thing.

Viewing entrepreneurship as artifact-centered design provides a suitable framework for understanding how entrepreneurs give concrete shape to their visions, how this requires alignment with the world, and how the results provide conditions for and stimulate further activity. In this framework, artifacts hold a central position as entities that embody both intentionality and materiality (cf. Hilpinen, 1993; Simon, 1996) and as such blend mental constructs—our intentions, visions, or plans (confidence)—and their concrete manifestation in the physical world (things). Artifacts are the tangible interfaces that let the proverbial rubber hit the road.

## 2. Is all academic opportunity-talk really thing-talk?

One remnant of the opportunity battlefield is a cacophony of opportunity-talk. Dimov (2020) recently noted that although many scholars use the term *opportunity* they do so with different meanings, depending on the particular questions they ask about entrepreneurial phenomena and the language of the particular theoretical perspectives they adopt. RM highlight the mystifying role of language and use the clarity with which the word “opportunity” is used in entrepreneurs’ practical discourse to critique academic opportunity-talk and suggest foundations for academic discourse that is better attuned with entrepreneurial practice.

Several contributions of RM are notable. First, RM highlight that opportunity-talk by entrepreneurs is in effect confidence-talk. It serves “to communicate confidence that non-actual but desirable states of the world [A] can actualize following a course of action [B] when the conditions that make imagined world-states non-imaginary are believed to be in place [C]” (12). Such confidence-talk only

makes sense against a backdrop of what they call the ABC model of understanding. Second, RM provide a grounded definition of entrepreneurship as “innovative process meant to actualize desired and believed-to-be-possible futures” (p. 5) and provide an umbrella term for the associated cognitive, behavioral, and organizational efforts of agents, namely entrepreneurial work. Third, RM emphasize the symbiotic relationship between entrepreneurs and the world by arguing that what can happen is up to the world, but whether it will actually happen is up to the entrepreneurs.

Against these clear and elegant formulations of what they term “actualization theory” of entrepreneurship, RM discuss a misguided form of opportunity-talk, namely thing-talk. It rests on the mistaken idea that opportunity refers to something that exists in the world and thus fails to understand the essentially expressive role that talk of “opportunity” plays in entrepreneurial practice. Unfortunately, argue RM, most academics uncritically reproduce entrepreneurs’ expressive talk of opportunities as thing-talk, which has been a major source of conceptual confusion.

Given that, when they speak of opportunities, entrepreneurs only express confidence about what they aim to achieve, RM suggest that academics uncritically endorse the entrepreneurs’ reports about the (future) world. In contrast, investors would endorse an entrepreneur’s opportunity-talk only if they themselves are confident about what the entrepreneur expresses. This comes most clearly in the example of Elizabeth Holmes and her venture *Theranos*. RM rightly suggest that by using the word “opportunity”, she sought to imbue investors with the confidence that what she imagined was really possible. RM then use three examples of academic opportunity-talk that they see as misguided forms of thing-talk. However, using RM’s own approach of aiming to understand how words are being used in particular discourses, we highlight critical omissions in RM’s interpretation.

First is the argument that the *Theranos* opportunity “is real, because the word ‘opportunity’ is real when pronounced” (Dimov, 2020: 334). RM interpret this as a claim that simply saying a word makes a thing that the word stands for exist in the world. Such literal interpretation aside, examining the sentence in the context of the paper in which it appears suggests that the sense of “the opportunity is real” in relation to the pronouncement of words is the same as “the promise is real” when someone actually pronounces it. This reveals an interesting parallel between the use of the words “opportunity” and “promise”. When someone says, “this is a promise”, it is clear that this is not thing-talk – there is no entity in the world named “promise”. What the sentence conveys is that the speaker is committing themselves (to another person) to bring about a world state A that is desirable to the other person, following a course of action B and with the belief in the totality of conditions C that would make A possible under B. Without C, the speaker would not make the promise.

Promise is a particularly interesting case because it is both a verb and a noun. And it is this dual feature that allows us to say that promises are made. We say both “I promise” and “this is a promise”. In the first case, it is understood from how the word is used that there is something that the person promises (i.e., to bring about a desirable state A). In the second case, one specifies that the world state A in question is something they commit to bringing about. In both cases, the promise is not a thing in the world but simply the fact that one is committed to doing something. When a promise is made, what is made is one’s commitment to do something.

In the light of this, we argue that RM’s emphasis on confidence-talk does not go far enough. What entrepreneurs convey is not just confidence, but commitment. Even intention may not be strong enough as it does not always imply commitment. When one expresses commitment, it is implied that one is confident. But when one expresses confidence, there is no implication of commitment. This reflects a seminal idea by Frank Ramsey that commitment (i.e., the bet one is willing to accept) acts as a measure of confidence (Misak, 2020).

Promises, commitment, intentions, and desires are examples of commissive speech acts (Searle, 1969). As all speech acts, they have propositional content (what they are about – e.g., world state A) and psychological mode (promise, commitment, intention, desire). In addition, there are felicity conditions (Austin, 1962) that determine what makes them sincere, genuine or real acts as supposed to empty talk. In the case of promise and commitment, one should believe in conditions C that make A possible under B. Clearly, the romantic talk “I promise to bring you the moon” is not a real promise despite one’s best intentions.

The second example RM use is “this opportunity is just imagined, not real” (Foss and Klein, 2020: 369). It should be clear by now that this is not thing-talk. Rather, it simply conveys a sense that desirable future world-state A is imaginary and so is the not-yet-undertaken course of action B (it also lies in the future). For, what else is a future other than something that we imagine (e.g. Beckett, 2016). While RM emphasize that opportunity-talk is more meaningfully seen as confidence-talk, it is notable that, as a meaningful attitude or speech act, confidence is always about something – it has propositional content. In this case, it is about world-state A and course of action B and these are of course imaginary before A is actualized and before B is undertaken. But even if imaginary, A and B are real in that they are *really* imagined. This is not a statement about the world, but about what one does in their mind. This can have real consequences for what one does in the world, but what actually happens in the world as a result is a different question. In our interpretation, all Foss and Klein (2020) are saying is that there is something that entrepreneurs imagine and they intend to try to make it happen. This is fully consistent with RM’s core arguments.

Finally, RM invoke the statement “the opportunity started existing when I conceived a possible artifact” (Ding, 2021: 312). This is again about desirable future world-state A but with the sense that it needs to be somehow described or expressed to be understood (by others). One can neither commit nor express confidence to others about what one cannot articulate. In this regard, “starts existing” has the meaning of something that others can understand and engage with. This is the function of the artifact that Ding (2021) mentions. Upon imagining world-state A and the course of action B, the words one uses to describe these are the very first artifacts produced – they are narrative in nature (e.g. Berglund and Glaser, 2022). Even if entrepreneurs do not need to communicate with anyone, for the purposes of organizing their efforts, they will likely produce artifacts–sketches, plans, prototypes, etc.– that give tangible form to what they aim to achieve and how.

### 3. Possibility and actuality at the interface of mind and world

For RM, opportunity is a nuanced possibility concept. Like possibility, it is about a non-actual world-state. Unlike possibility, it also implicates that this world-state is desirable for someone and that “there exist the necessary conditions (C) for an imagined state of the world to be genuinely possible” (19). This logic carries through to the main implication of RM’s work, which is well summed up at the end: “... even though preexisting conditions determine what one can achieve, it is entrepreneurs’ choices and work that determine whether what can happen will happen” (29).

Since RM’s central conceptual building blocks are minds (that imagine world-states) and world-states (that are possible or not), we can focus on their interplay. Specifically, entrepreneurs can imagine and pursue world-states that are possible, exemplified by Mark Zuckerberg, or they can imagine and pursue world-states that are impossible or perhaps not yet possible, exemplified by Leonardo DaVinci and Elisabeth Holmes. RM rightly emphasize that imagining something does not make it so. In this way, they separate content of the mind (what can be imagined or not) from the states of the world (what is possible or not). Thus, to be imaginable, is to be the content of thought; and to be *merely* imaginable is for the content of thought to be about an impossible world-state. Table 1 summarizes RM’s discussion of the interplay between mind and world. Whether something is possible is up to the world. Whether something is imaginable is up to the entrepreneur’s mind.

The table makes clear that for a future world-state to actualize it must be possible as well as imaginable (and furthermore desirable and acted upon) by the entrepreneur. Possible futures that are imaginable but not desirable, not acted upon, or acted upon with insufficient skills or ineffective course of action are not yet actualized. Possible futures that are unimaginable cannot be the focus of entrepreneurial action, even though they could come about as unintended consequences of other developments. Merely imaginable futures—even if acted upon—cannot actualize for they are impossible. Finally, the impossible and unimaginable falls outside the scope of the interplay.

There are, of course, boundaries to what entrepreneurs can achieve. To paraphrase Popper, the entrepreneur proposes, the world disposes. If an entrepreneur succeeded, what they aimed to do must have been possible. RM emphasize that “one can be confident about the future shape of the world *without* being certain or correct” (p. 22). The key to understanding this claim is unknowability: “entrepreneurs cannot know in advance whether the totality of the conditions necessary for the actualization of desired world-states exists” (p. 22). This suggests that the dividing line between the possible and the impossible – and thus between the *merely* imaginable and *really* possible – exists in principle but is unknowable. As such it is not relevant for practice, even in principle. Not incidentally, this echoes the distinction between opportunities and non-opportunities, which were also acknowledged to be ontologically real but irrelevant for practice (Ramoglou and Tsang, 2016). Just as general existence of profit opportunity says nothing about whether a particular entrepreneurial effort will ultimately prove the existence of a specific profit opportunity, so the existence of possible world-states says nothing about whether a particular imagined future world-state is possible. As RM elegantly put it, not knowing whether an opportunity exists (an epistemic position) is not logically equivalent to knowing that it does not exist (an ontological claim). By the same token, not knowing whether something imagined is possible is not logically equivalent to knowing that it is impossible.

This suggests that our discourse about possible and impossible is a modal description of future world states rather than adjudicator of past beliefs. As such it is limited to the realm of beliefs and confidence. In this regard, “everything is possible” does not mean “nothing is impossible”. An academic who makes the former claim does not make an ontological commitment but simply dares people to dream and to act on their dreams. This means that anyone can be an entrepreneur in that no one can assure them with certainty that they would not succeed.

We can therefore reconfigure Table 1 by moving the boundary between the possible and impossible to the edge of human discourse in the sense that, in human discourse, “impossible” simply means “not yet believed possible”. In this way, we highlight the productive space of the imaginable and not yet possible in which human aspirations drive the dynamic interface between entrepreneurs and world. This is shown in Table 2 below. Through the lens of hope and courage of human aspirations, the seemingly impossible can be deemed not yet possible. It reflects the reality that not knowing does not result in not doing.

### 4. From actualization as abstract nexus to design as concrete triad

From the perspective of entrepreneurship as a form of management, there is something missing in the actualization view of the nexus framework. The key building blocks are confident entrepreneurs and world-states that are possible or not. Connecting the two we also have conceptually unimportant entrepreneurial work. Entrepreneurs are described as midwives of the possible, which is equivalent to describing doctors as midwives of the healable. In RM’s actualization theory, the notion of entrepreneurial work – just as

**Table 1**  
Interplay between mind and world.

WORLD-STATES		MIND		
		Imaginable		Unimaginable
		Actualized	Not yet actualized	Possibly actualizable
	Possible			
	Impossible	Merely imaginable		

**Table 2**  
Human aspirations in an open world.

WORLD-STATES	Possible	MIND		
		Imaginable		Unimaginable
		Actualized	Not yet actualized	Possibly actualizable
	Not yet possible	Human aspirations		Not yet imaginable

the notion of medical work – simply conveys the truism that (desired) things tend not to happen without human intervention. This idea is so intuitive as to need no defending.

RM's theory of entrepreneurship remind us of Michelangelo's theory of sculpting: "The sculpture is already complete within the marble block, before I start my work. It is already there, I just have to chisel away the superfluous material." Both are elegant but tell us little about entrepreneurship and sculpting as practices. Both achieve their simplicity by disregarding process details and by implication important aspects of how specific outcomes are produced.

Importantly, this does not mean that these theories are wrong. After all, the finished sculpture was within the marble block and successful ventures were indeed possible. It simply means that certain theoretical values were prioritized over others (Berglund, 2021; Kuhn, 1977). Specifically, they prioritize coherence with the economics inspired nexus framework and in doing so retain the simplicity one achieves by black-boxing the intricate details of practice (e.g. sculpting the David or designing Facebook). This can be contrasted with theories – wrongly interpreted by RM as concerned with thing-talk—that sacrifice some theoretical simplicity for phenomenal accuracy of entrepreneurial processes and outcomes. Again, this is not a matter of right or wrong, but a matter of epistemic priorities. By prioritizing phenomenal accuracy over conceptual simplicity, the dual nexus is extended to an artifact-centered triad that also includes the imagined and gradually designed ventures (or sculptures).

On this view, entrepreneurial action is centered on more or less concrete artifacts that range from imaginings and visions, through pitches, prototypes, and business plans, to final outcomes. This is also how entrepreneurs tend to talk about the opportunities they perceive and pursue. Phenomenological studies of opportunity-talk have also found that when "theorizing entrepreneurial opportunities in relation to entrepreneurial action ... it seems fruitful to view opportunities in terms of a bundle of perceptions and projections which, in different ways and in different situations, influence venture development" (Berglund, 2007: 269). Interestingly, RM seem to acknowledge this by saying that: "Entrepreneurs routinely talk about opportunities as entities that can be introduced by entrepreneurial action." (RM p.16).

## 5. World as artifact and outcome of design

By defending the view of the world as the adjudicator of the possible, RM do not provide an account of the world that is granular enough as to have practical purchase. Although they acknowledge the evolving nature of the world and thus its constant churning of new possibilities, there is more to be said about the engine of such evolution in terms of the largely artificial nature of our world and the endogenous, combinatorial complexity that human culture and technology bring (e.g. Arthur, 2009; Simon, 1996).

RM suggest that there is a way to think about the world as a realm of pre-determined possibilities, in the sense that there is an ultimate boundary of the possible. To illustrate this point, RM discuss the example of a chef: "The possible dishes chefs can cook is limited to the ingredients at hand, but what any given chef actually cooks from the ingredients available can vary tremendously based on knowledge of recipes and culinary skill such that it may vary from delicious to nauseating and/or from simple to sophisticated. Thus, generic ingredients constrain what is possible, but the creation of delicious new dishes typically involves knowledge, skill, and effort." (29)

This example rightly suggests that agency is bounded by current structure. Perhaps structure implies available technology, but shining the light on the nature of technology can help us understand how technology for cooking sets the boundaries of the possible and how new knowledge expands the imaginable. Thus, as knowledge grows and technology expands, so do the realm of things that can be envisioned and done with a given set of ingredients. With milling stones, we can turn grains into flour; with a churn we can turn milk into butter; with fire we can turn flour, milk, and butter into pancakes. Crucially, the realm of the artificial—the product of man-made endeavor—continuously expands and becomes part of the world we take for granted, which in turn invites new aspirations leading to its further expansion. We are in this sense not constrained by what exists naturally since almost everything we can conceive of and do is affected by the affordances and constraints of a fundamentally artificial world.

There are 92 naturally occurring elements on Earth, with carbon, hydrogen, oxygen, nitrogen and a handful of others accounting for the vast majority of matter. These ingredients give rise to an enormous number of combinatorial possibilities, which can be recursively combined and recombined into ever more complex technologies and artifacts. Resulting from of a long history of such "combinatorial evolution" (Arthur, 2009: 18), the complexly structured world we inhabit today is arguably much more artificial than natural. This may sound excessive, but as Herbert Simon would reply when accused of exaggerating the artificiality of our world: "I shall plead guilty to overstatement, while protesting that the exaggeration is slight" (Simon 1996: 3).

Entrepreneurs often start by pursuing unrealistic—what the venture capitalist Marc Andreessen termed *non-consensus*—visions, like air travel during medieval times, which gradually get moulded by the world's constraints and affordances into more realistic outcomes



that serve as stepping stones into what previously may have seemed impossible. Indeed, George Bernard Shaw aptly reminds us that progress is down to the unreasonable person. Their unreasonableness lies in believing that the (seemingly) impossible is simply not yet possible and in summoning the confidence to do something.

## 6. From ABC to ABCD

RM's work is very insightful in bringing to the fore the interface between entrepreneur and world and in showing that we can understand entrepreneurial work as an attempt to actualize desirable future-state A using a course of action B (while believing in enabling conditions C). A notable blind spot of this view is that the notion that A and B are self-explanatory. What are A and B? What actualizes? How can we affirm that what actualizes is what was originally imagined?

To speak of A and B is to signify them. The Latin root of 'design' – *de signo* – conveys the idea of imposing a shape on the world in its arrangements. In this sense, one creates signs of A and B, which are then used as a blueprint for one's action (Dimov, 2011). Entrepreneurs do entrepreneurial work in the same senses that architects do architectural work and doctors do medical work. Entrepreneurs, architects, and doctors are designers in the sense that they focus not on the world as it is, but on the world as they desire it to be (Simon, 1996). They all pursue desired future states by following certain courses of action. In order to understand entrepreneurial work in more systematic terms that are conducive to the professionalization of entrepreneurial activity, we should focus on the design nature of what they do, understanding the artifacts they create to signify their aspirations and organize their activity.

Explication, prototyping, testing, and revising are part of all entrepreneurial design processes (Berglund et al., 2020). Importantly, this is true for successes as well as failures. In the first year of Facebook, Mark Zuckerberg's stated goal was to "create, like, a really cool college directory product" and when asked about the next step, his reply was "I mean, there doesn't necessarily have to be more." (Facebook interview, 2005). To say that Zuckerberg "actualized" a real possibility when creating what eventually became Facebook/Meta clearly tells us nothing about his actions, little about how Facebook developed, and ignores how this changed the world in ways that afforded new opportunities and possibilities for countless entrepreneurs. The only constant in that journey was his evolving entrepreneurial intent (McMullen and Dimov, 2013) in the sense that he aimed to create a venture, which also came to transform the world.

The ABC theory of understanding opportunity-talk in entrepreneurship is an invitation to get back to practical basics and RM rightly highlight the importance of entrepreneurial work. We advocate adding D – for the giving of form to A and B and thereby creating actionable interfaces between minds and worlds, defining the action that ultimately gives rise to new products, services, and markets. It is only in this context that opportunity as a managerial concept makes sense: as something that signifies what one is committing to, defining an interface between human intentionality and a world that is largely artificial and continuously evolving, in no small part because of what entrepreneurs imagine and do.

## 7. Conclusion

In 1997, Venkataraman asked a question that centered on the products, services, and markets that entrepreneurs bring into being. Unfortunately, the research agenda he helped usher in came to focus on a notion of "opportunity" that conflated the future-focused aspirations of acting individuals with the factual account of their successes. RM help re-affirm the future oriented nature of entrepreneurial work and re-align our theories with the concerns of practitioners. By connecting their work to complementary strands of thought, we highlight the various media through which entrepreneurs both act out their aspirations and in doing so enact the world. The two conceptual frameworks (actualization and design) are not mutually exclusive but prioritize different theoretical values. From a design perspective, the artifact-centered way in which entrepreneurs speak of and "enact" opportunities transcends the distinction between confidence-talk and thing-talk that RM see as central to an unambiguous scholarly use of opportunity language. The artifacts of entrepreneurial design are not the futures of visions but embody the evolving visions of futures, without which there is nothing to be confident about and no entrepreneurs to speak of (the wheels would keep spinning and the world would keep waiting).

## Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

## Data availability

No data was used for the research described in the article.

## References

- Arthur, W.B., 2009. *The Nature of Technology: what it Is and How it Evolves*. Simon and Schuster.
- Austin, J.L., 1962. *How to Do Things with Words*. Oxford university press.
- Beckert, J., 2016. *Imagined Futures: Fictional Expectations and Capitalist Dynamics*. Harvard University Press.
- Berglund, H., 2007. Opportunities as existing and created: a study of entrepreneurs in the Swedish mobile internet industry. *J. Enterprising Cult.* 15 (3), 243–273.
- Berglund, H., 2021. Entrepreneurship as design and design science. *J. Bus. Ventur. Design* 1 (1–2), 1–4.
- Berglund, H., Bousfiha, M., Mansoori, Y., 2020. Opportunities as artifacts and entrepreneurship as design. *Acad. Manag. Rev.* 45 (4), 825–846.
- Berglund, H., Glaser, V., 2022. The artifacts of entrepreneurial practice. In: *Research Handbook on Entrepreneurship as Practice*.

- Berglund, H., Korsgaard, S., 2017. Opportunities, time, and mechanisms in entrepreneurship: on the practical irrelevance of propensities. *Acad. Manag. Rev.* 42 (4), 731–734.
- Davidsson, P., 2015. Entrepreneurial opportunities and the entrepreneurship nexus: a re-conceptualization. *J. Bus. Ventur.* 30 (5), 674–695.
- Davidsson, P., 2021. Ditching discovery-creation for unified venture creation research. *Entrep. Theory Pract.* 10422587211030870.
- Dimov, D., 2011. Grappling with the unbearable elusiveness of entrepreneurial opportunities. *Entrep. Theory Pract.* 35 (1), 57–81.
- Dimov, D., 2020. Opportunities, language, and time. *Acad. Manag. Perspect.* 34 (3), 333–351.
- Dimov, D., 2021. From “Opportunity” to Opportunity: the design space for entrepreneurial action. *J. Bus. Ventur. Design* 1 (1–2), 100002.
- Ding, T., 2021. What if opportunities are conceived as design artifacts? *Acad. Manag. Perspect.* 35 (2), 310–313.
- Facebook interview, 2005. <https://www.youtube.com/watch?v=APdD6vejI>.
- Foss, N.J., Klein, P.G., 2020. Entrepreneurial opportunities: who needs them? *Acad. Manag. Perspect.* 34 (3), 366–377.
- Hilpinen, R., 1993. Authors and artifacts. In: *Proceedings of the Aristotelian Society*, vol. 93. JSTOR, pp. 155–178.
- Kirzner, I.M., 1999. Creativity and/or alertness: a reconsideration of the Schumpeterian entrepreneur. *Rev. Austrian Econ.* 11 (1–2), 5–17.
- Korsgaard, S., Berglund, H., Thrane, C., Blenker, P., 2016. A tale of two kirznerns: time, uncertainty, and the “nature” of opportunities. *Entrep. Theory Pract.* 40 (4), 867–889.
- Kuhn, T.S., 1977. Objectivity, value judgment, and theory choice. *Arguing Sci.* 74–86.
- McMullen, J.S., Dimov, D., 2013. Time and the entrepreneurial journey: the problems and promise of studying entrepreneurship as a process. *J. Manag. Stud.* 50 (8), 1481–1512.
- Misak, C., 2020. Frank Ramsey: A Sheer Excess of Powers. Oxford University Press.
- Ramoglou, S., 2021. Knowable opportunities in an unknowable future? On the epistemological paradoxes of entrepreneurship theory. *J. Bus. Ventur.* 36 (2), 106090.
- Ramoglou, S., McMullen, J.S., 2022. “WHAT IS an opportunity?”: From theoretical mystification to everyday understanding. *Acad. Manag. Rev.* In press.
- Ramoglou, S., Tsang, E.W., 2016. A realist perspective of entrepreneurship: opportunities as propensities. *Acad. Manag. Rev.* 41 (3), 410–434.
- Ramoglou, S., Tsang, E.W., 2017. Accepting the unknowables of entrepreneurship and overcoming philosophical obstacles to scientific progress. *J. Bus. Ventur. Insights* 8, 71–77.
- Searle, J.R., 1969. *Speech Acts: an Essay in the Philosophy of Language*, vol. 626. Cambridge university press.
- Sergeeva, A., Bhardwaj, A., Dimov, D., 2021. In the heat of the game: Analogical abduction in a pragmatist account of entrepreneurial reasoning. *J. Bus. Ventur.* 36, 106158.
- Shane, S.A., 2003. *A General Theory of Entrepreneurship: the Individual-Opportunity Nexus*. Edward Elgar Publishing.
- Shane, S., Locke, E.A., Collins, C.J., 2003. Entrepreneurial motivation. *Hum. Resour. Manag. Rev.* 13 (2), 257–279.
- Shane, S., Venkataraman, S., 2000. The promise of entrepreneurship as a field of research. *Acad. Manag. Rev.* 5 (1), 217–226.
- Simon, H.A., 1996. *The Sciences of the Artificial*, 3. ed. MIT Press, Cambridge, Mass.
- Venkataraman, S., 1997. The distinctive domain of entrepreneurship research. *Adv. Entrepren. Firm Emergence Growth* 3.
- Venkataraman, S., Sarasvathy, S.D., Dew, N., Forster, W.R., 2012. Reflections on the 2010 AMR decade award: whither the promise? Moving forward with entrepreneurship as a science of the artificial. *Acad. Manag. Rev.* 37 (1), 21–33.
- Wright, M., Phan, P., 2020. Opportunity: is there a future in the construct? *Acad. Manag. Perspect.* 34 (3), 297–299.