FROM "OPPORTUNITY" TO OPPORTUNITY:
The Design Space for Entrepreneurial Action

Dimo DIMOV
University of Bath, UK and Reykjavik University, Iceland
Claverton Down
Bath BA2 7AY, UK
d.p.dimov@bath.ac.uk

ABSTRACT

This paper leverages the distinction between "opportunity" as the content of entrepreneurial intention and opportunity as external conditions for entrepreneurial success to focus on the action space of entrepreneurship. The "opportunity" triangle of person, venture concept, and theory of change provides a holistic, dynamic interface through which entrepreneurs act upon the world. It invites scholarly inquiry grounded in design science and its edges define three core activities of entrepreneurship as a design activity: framing, modelling, and performing. The dialogue between scholar and entrepreneur makes the triangle visible, facilitating reflection and deliberation in entrepreneurial practice.

18 October 2021
Forthcoming in *Journal of Business Venturing Design*

I thank the editor, Henrik Berglund, and two anonymous reviewers for their constructive feedback in the development of the paper.

INTRODUCTION

In the mid-1970s, a man hunted for a ticket for Spain's National Lottery with 48 as its last two digits. He found a ticket, bought it, and won the lottery afterwards. When asked why he had been so intent on finding this particular number on the ticket, he replied, "I dreamt of the number 7 for seven straight nights. And 7 times 7 is 48."[1]

In describing what the man did, we can say both "he purchased a particular ticket" and "he won the lottery". Both descriptions are true in a factual sense and thus give rise to explanatory why questions. Why did he purchase a particular ticket? Why did he win the lottery? The answers to these questions provide two different interpretations of the story, each affording different degrees of agency to the person in question, as represented by the causal efficacy of reasoning what to do. In the first case, the answer lies in the man's determined pursuit of the idea of "ticket ending in 48" based on his idiosyncratic beliefs. This idea played a real, instrumental role in explaining what the man did. Finding a ticket ending in 48 is thus amenable to an agentic interpretation.

The answer to the second why question is that, as part of the lottery draw, a wooden ball was randomly drawn from a huge sphere containing balls with all the numbers from 00000 to 99999 and a second wooden ball was drawn from a second sphere, indicating the nature of the prize. The number on the first ball matched the number on the man's ticket and the second ball indicated the El Gordo ("the fat one") prize. Therefore, winning the lottery is a story of being entirely at the mercy of circumstances. In it, agency is limited to simple participation – showing up by purchasing a ticket – for no win would be possible otherwise.

The questions we ask of the world determine the agency that our interpretations can afford. In this sense, agency is not a feature of the world but inherent to the way we interpret it. As scholars of entrepreneurship, we aim to construct interpretations of what entrepreneurs

[1] Story as told by Mauboussin (2012).

do and achieve. As the opening example illustrates, individual actions and their broader outcomes are subject to different explanatory frameworks. Explaining actions (what someone does) invokes personal considerations and thus an internal, subjective, agentic perspective. Explaining outcomes (what happens as a result) invokes broader social processes and mechanisms and thus an external, objective perspective. In this sense, entrepreneurial action can be seen as both a result of personal deliberation and an instigator of objective outcomes in the world. In one case, the reasons entrepreneurs can offer for what they do act as causes of their actions; in the other case those reasons have no bearing on ultimate outcomes. The theorist needs to be sensitive to this distinction, for conflation of the two aspects of entrepreneurial action would require attributing omniscience and omnipotence to the entrepreneur. Therefore, a theorist can choose to focus on the agentic space of entrepreneurs at the expense of the ultimate impact of their actions; or on the impact of entrepreneurial actions at the expense of their agency.

This paper focuses on the agentic space of the acting entrepreneur with the aim of developing a model that can facilitate and help improve entrepreneurial practice. As such, it is positioned within a design science perspective of entrepreneurship, aligning the theorist with the forward-looking stance of the entrepreneur (Dimov, 2016) and focusing on the interface between the inner system of the entrepreneur and the outer system of the environment (Berglund et al., 2020). Through this interface, the entrepreneur acts upon the world – enacting their subjective worldview and aspirations – and the world responds, activating its complex mechanisms to produce consequences that the entrepreneur can use as feedback for further action, in a recursive process (Dimov and Pistrui, 2020; Drazin and Sandelands, 1992). We might say that the man in our opening example underwent a journey from the initial idea triggered by his dream to purchasing the ticket and ultimately winning the lottery. He could have bought a different ticket had he gone to different places. And a

different ticket could have been drawn to win the lottery. The journey is thus constituted by a series of actions and in turn can be described as successive personal deliberations interspersed with contingent events or outcomes in the world.

In a parallel with the open-ended nature of an entrepreneurial journey, the only constant in that journey was the man's intent (McMullen and Dimov, 2013). Such intent can be captured by three distinct elements: (1) the man's intention to purchase a lottery ticket; (2) the idea of looking for a lottery ticket ending in 48; and (3) the implicit sense or roadmap of where to look for lottery tickets. Collectively, these elements make the man's actions – going from shop to shop and looking intently through stacks of lottery tickets – intelligible. As such they constitute a sort of (cognitive) interface through which the man engaged with the world to enact his dream. This interface is active as long as the journey continues – it is a manifestation of the man's intention and persistence. It is also dynamic in that it responds to various contingencies in the process (e.g. closed shop, tickets out of stock, roads blocked, etc.). In this sense, it provides a gateway to the ongoing journey.

In making this interface a focus of inquiry, the paper uses the philosophy of language and mind to draw a distinction between "opportunity" as the propositional content of entrepreneurial intention and opportunity as the agent-independent conditions for its satisfaction. They are related with a world-to-mind direction of fit, meaning that "opportunity" plays a primary role in action and the intention it signifies can be fulfilled or unfulfilled based on how the future turns out. The model of this intentional space represents an "opportunity" triangle of person, venture concept, and theory of change. It is a holistic, dynamic interface for action that invites scholarly inquiry grounded in design science. The edges of the triangle define three core activities of entrepreneurship as a design activity: framing, modelling, and performing. These activities and the nodes they define become visible in the dialogue between scholar and entrepreneur and serve to facilitate reflection and deliberation.

ENTREPRENEURIAL ACTION AND THE WORLD

Reflecting on the lottery story, we could say that the particular circumstances of the lottery draw constituted the opportunity for the man's win. It is clear that these circumstances are part of an objective, independently unfolding world and that they determined the consequences of the man's ticket purchase. At the same time, such circumstances are easy for anyone to imagine and such imagination in turn can inspire people to act. Indeed, we could also say that the man "saw" an opportunity – literally a mental image of a winning lottery ticket with 48 as it last two digits, following the visions in his dreams – that triggered his ticket search. There is no question of what the man saw being part of the objective world, specifiable or measurable in any tangible sense.

The event "drawn lottery ticket ending in 48" features in both interpretations of the story, once as a content of the man's imagination, driving his actions, and once as actually transpiring external circumstances that determine the man's win. The reference to opportunity in both interpretations is a ready source of confusion without paying attention to the story in which it features. Opportunity can be something that inspires and guides action as well as something that determines the broader success of the action. But it should be clear that we speak of different things in the two cases: one belonging to the mental world of the entrepreneur and the other to the world at large. Therefore, the linguistic use of the concept of opportunity implicates a context or a sense in which it should be understood. To improve clarity, Liuberté and Dimov (2021) distinguish in the two references "opportunity" as the content of the entrepreneur's speech and opportunity as the external, independent states of affairs that would render the entrepreneur's efforts successful. In other words, "opportunity" is what an entrepreneur describes (talks about) and intends to achieve, while opportunity refers to the way the future world needs to be for the entrepreneur to succeed (Sergeeva, Bhardwaj,

and Dimov, 2021). This distinction rests on the broader distinction between propositional content and conditions of satisfaction in speech acts and intentional states, to which I will now turn.

Intentionality in entrepreneurial action

What distinguishes action from mere bodily behaviour (e.g., a twitch) is intention. To understand intention in a way that will help advance the aims of the paper, I will use the work of Searle (1983) that conceptualizes intention as part of a broader set of mental states or events with the property of intentionality, that is their being directed at or being about objects and states of affairs in the world. Such mental states include beliefs, desires, intentions, fears, hopes, etc., all characterised by their aboutness or directedness. Searle makes a number of key distinctions to develop systematic understanding of intentional states. First, there is the distinction between the state and what the state is directed at or being about. Searle refers to the former as the psychological mode of the state and to the latter as its propositional content. He uses the notation *S(r)*, whereby *S* marks the psychological mode and *r* the content. Thus, loving Sally and believing that it is raining can be represented as follows through such notation: Love (Sally) and Believe (It is raining). The implication here is that the same propositional content can be associated with different psychological modes: one can believe, wish, hope, desire, bet, etc. that it is raining.

Second, there is distinction of intentional states in terms of different directions of fit with the world. Searle carries this over from his seminal theory of speech acts that elaborates how words can be used to do things (Searle, 1969). In their performative effects, speech acts combine propositional content (i.e. locution – what the act is about) and illocutionary force, which indicates what the speaker aims to do with that content. Thus, statement, assertion, command, question, promise, and belief are examples of different illocutionary forces that can

be given to the same propositional content. Searle (1979) divides illocutionary acts into five basic categories: assertives (e.g. believe, conclude), directives (e.g. ask, command), commissives (e.g. promise, intend), expressives (e.g. congratulate, apologize), and declarations (e.g. pronounce, declare). Assertive acts such as statements and descriptions have a "word-to-world" direction of fit. Such acts aim to get the word to fit the world. In this sense, they can be true or false. In contrast, commissive or directive acts such as promises and requests have a "world-to-word" direction of fit. They aim to get the world to fit the word and thus can be fulfilled or unfulfilled. With this in mind, Searle (1983) suggests that belief-like states can be true or false and thus can be deemed to have "mind-to-world" direction of fit. In contrast, desires and intentions cannot be true or false but fulfilled or unfulfilled, which implies a "world-to-mind" direction of fit.

Finally, to the extent that an intentional state has a propositional content as well as a direction of fit, it also has conditions of satisfaction, that is external conditions or states of affairs that must obtain in the world for the intentional state to be satisfied, such as being true, fulfilled or carried out. These conditions are defined by the objects or states of affairs reflected in the propositional content of the intentional state, and by the psychological mode, which sets the direction of fit. Importantly, the conditions of satisfaction for a given intentional state depend on the place of this state in a wider network of intentional states as well as on a background of (social) practices and preintentional assumptions. These reflect the complexity of a person's ecology of intentional states as well as the implicit premises provided by one's experience and cultural context.

Let's illustrate this terminology of intentionalty with the example of a recent start-up, San Francisco-based Lypid. It is developing a vegan fat to replace animal fat and make alternative proteins taste like meat. This description on the company's website (lypid.co) is both a speech act by founder Jen-Yu Huang as well as an indicator of the founder's intentional state. Both

have the same propositional content, namely that a vegan fat will make alternative proteins taste like meat. This is not something that the founder claims already exists in the world, but something he pledges to create. In this sense, this is not an assertive, but commissive speech act, characterised by world-to-word direction of fit. In other words, it is not to be evaluated as true or false, but can be fulfilled or unfulfilled based on whether such vegan fat is indeed created in the future. The psychological mode of the founder's intentional state is one of intention, i.e. the propositional content is something that the founder intends to make real. Such intention has a world-to-mind direction of fit – it can be fulfilled or unfulfilled.

Because we are free to imagine and speak about things that do not exist, the propositional content above constitutes the "opportunity" of Lypid. It is what Jen-Yu Huang would refer to when asked what he is doing and it is what we would invoke to describe him as entrepreneur. In other words, to speak of Jen-Yu Huang as entrepreneur is to acknowledge that he is trying to create something that does not yet exist. This intention is part of a wider network of intentional states such as hopes and beliefs that his advanced research will bring the desired results, that he will create a viable product, and that the commercialisation efforts will be successful and profitable. The intention also rests on a background of social practices and preintentional assumptions such as establishing and running a business, raising venture capital funding, commercialisation of university research, team recruitment and management practices, and market launch.

The conditions of satisfaction for the propositional content of Lypid – in other words, the opportunity for Lypid's "opportunity" – are the existence in the future of a vegan fat that makes alternative protein taste like meat, the appeal of this new fat to consumers when used with alternative proteins, and the financial viability of its market offering. It is clear that the opportunity for Lypid cannot be ascertained at this point – only the future will tell if Lypid will be successful. But its "opportunity" – what Jen-Yu Huang is trying to do – is easy for us

to see, imagine, and discuss.

Opportunity and "opportunity"

The distinction between opportunity and "opportunity" can help settle down the vigorous debate around the concept of opportunity in entrepreneurship research (Wright and Phan, 2020). Against any reference to the opportunity of Lypid, one would reasonably argue that such reference is not warranted on the grounds that we do not and cannot yet know whether Lypid will succeed in the future (Davidsson, 2015). If Lypid succeeded, the market and competitive conditions that would make its venturing efforts profitable cannot be fully anticipated (Alvarez and Barney, 2007) even if they involve the actualization of some current propensities in market demand (Ramoglou and Tsang, 2016) and some of them can be ascertained as current facts (Ramoglou, 2021). Notably, all these arguments concern the conditions of satisfaction as the future, agent-independent states of the world.

At the same time, the reference to the opportunity of Lypid is often made in the sense of understanding what Jen-Yu Huang is doing, as a vision or blueprint for his actions (Dimov, 2011). Such articulation of the entrepreneurial project is necessarily something imagined, reflecting certain believes and judgments of what is possible (Klein, 2008) and early on expressible only through language (Dimov, 2020a). Notably, these are references to the propositional content of Lypid and thus to its "opportunity". "Opportunity" is thus an expression of the vision and entrepreneurial intention of Jen-Yu Huang.

The distinction between propositional content and conditions of satisfaction helps disentangle "opportunity" and opportunity as implicated in different conversations – one about action in the present and the other about the state of the future. Nevertheless, an important question still remains about how the two are to be related and thus the order in which they are to be considered. In Searle's (1969; 1983) theories of speech acts and intentional states, the

conditions of satisfactions are inferred from the use of the propositional content. In this sense, we can consider that opportunity becomes specified once "opportunity" is articulated. That is, once a person declares their entrepreneurial vision, we can begin to reason about what the future should be like for that person to succeed. This is consistent with the world-to-mind direction of fit of entrepreneurial intention, as already discussed. In other words, upon meeting an entrepreneur with a (bold) vision, we can consider what the world needs to become in order to fit this vision and thus for the entrepreneur's intention to become fulfilled. This does not mean that the entrepreneurs creates the new world – it simply means that s/he sets processes in motion through their actions that may eventually settle the world in a state consistent with the vision, just as the number on the ball drawn from the lottery urn can match the number on a purchased lottery ticket.

In contrast to this formulation, the entrepreneurship literature seems to have articulated the relationship between "opportunity" and opportunity in the opposite direction. When McMullen and Shepherd define entrepreneurial action as "behavior in response to a judgmental decision under uncertainty about a possible opportunity for profit" (p. 134), there is a sense that "opportunity" is a derivative of opportunity. Indeed, the notion of third-person opportunity (McMullen & Shepherd, 2006) implies a readily interpreted state of the future about which one forms and evaluates beliefs expressed as first-person opportunity. Thus, first-person opportunity is the individuation of third-person opportunity. Implicit in this articulation is a mind-to-world direction of fit, which is consistent with judgments and believes as assertive speech acts. Missing in this account is a sense of who makes the third-person opportunity formulations of possible futures, which entrepreneurs then judge and act upon. But most importantly, it boxes the theorist in the space of mind-to-world direction of fit.

In summary, the two formulations afford different primacy to propositional content and conditions of satisfaction, giving rise to different directions of fit. With propositional content

as the primary anchor, the world-to-mind direction of fit leads us to consider what the world will need to be like for the entrepreneurial intentions to be fulfilled. In contrast, with the conditions of satisfaction as the primary anchor, the mind-to-world direction of fit leads us to consider what the entrepreneur's propositional content needs to be like in order for their judgments to be correct. Visions of possible futures are unbounded, fuelled by the creative power of human imagination. In this sense, "opportunity" is always a step ahead and constantly works to expand the set of opportunities. The first formulation is not only congruent with an intuitive understanding of what entrepreneurs do, but also enables us to focus on their agentic space and thus the development of entrepreneurial practice.

Entrepreneurship as a complex task

One can intend only what one's intention can cause. For instance, one cannot (meaningfully) intend that it rains. This implication is important when we consider the complex intentions associated with the performance of complex tasks, i.e., tasks that consist of a series of inter-related actions. Searle defines complex intentions as "those where the conditions of satisfaction include not just a bodily movement *a*, but some further components of the action, *b, c, d*, . . . , which we intend to perform by way of (or by means of, or in, or by, etc.) performing *a, b, c*, . . . , and the representation of both *a, b, c*,. . . and the relations among them are included in the content of the complex intention" (1983, p. 99).

In our language, we have the ability to describe our actions as narrowly or as broadly as we please, a phenomenon aptly termed "accordion effect" (Feinberg, 1970). This means that one can expand the true description of one's action when this action is part of a broader complex task or project. Thus, one's intention in action can be deemed complex in the sense that the question "What are you doing now?" can be answered at different levels of description of the action. One can say (1) talking to a customer; (2) developing a product; (3) designing a

business model; and (4) launching a new venture; and all of these would be true descriptions of one's intention.

When we consider new venture development as a complex task, we can describe broadly the carrying out of this task as a series of milestones and each milestone as a series of steps or basic actions. Searle defines basic action as follows: "A is a basic action type for an agent S iff S is able to perform acts of type A and S can intend to do an act of type A without intending to do any other action by means of which he intends to do A" (1983, p. 100). This definition makes basic action relative to an agent's skill in the sense that what is a basic action for one agent may not be such for another. Importantly, the basic action is one about which one can form intentions and that can be caused by its prior intentions.

In order to capture the link between a basic action and the broader complex task of which the action is part, I introduce the notion of "theory of change" as a representation of how broader, long-term goals are mapped into necessary preconditions by outlining the requisite causal links (e.g. Funnel and Rogers, 2012). Theory of change is used as a methodological tool in social policy and organizational development in order to evaluate the impact of an intervention by consideration of how it was intended and implemented. It is through an implicit or explicit theory of change that one can describe one's intention as doing a basic action A or a complex task B, e.g., talking to a customer or launching a new venture. Figure 1 provides an illustration of this idea. It portrays the complex task of new venture development as an "accordion" that outlines specific milestones and action steps, linked together by a theory of change.

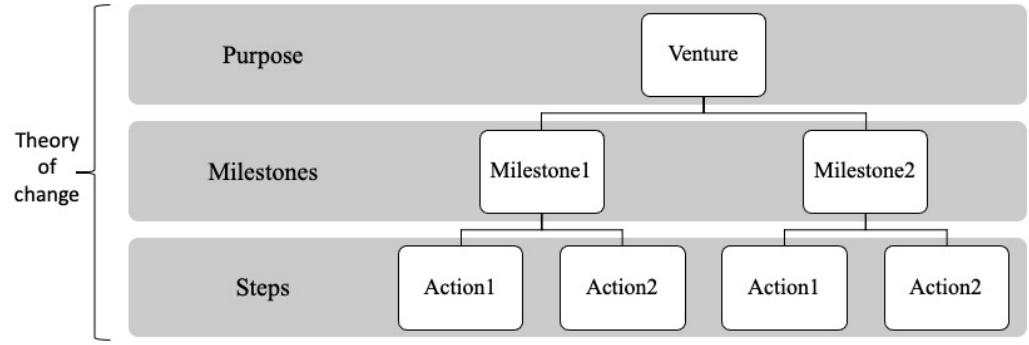

Figure 1: The "Accordion" of New Venture Development

In the example of Lypid, its "opportunity" represents such a complex task, namely the creation and market introduction of a vegan fat that makes alternative protein taste like meat. When the website describes Lypid as developing such a vegan fat, it is clear that this description represents the most stretched "accordion" of entrepreneurial action. To get to that ultimate state, there are a number of milestones such as completing multiple research projects to determine the most promising formulations, developing prototypes for consumer testing, testing these prototypes to refine the product specifications, investigation and arrangement of production processes and facilities, initiation of production, marketing and brand development, and product launch and market expansion. At any point in time, Lypid is working towards one or more of these more proximate milestones. Each milestone can in turn be broken down into smaller activities. For instance, brand development could involve soliciting offers from design agencies, choosing one among them, and working with them to formulate brand requirements and provide feedback to the presented brand concepts.

The implication of this is that when someone states that they are developing a new venture, we expect them to have at least an implicit roadmap of the nature and sequence of specific activities that they will undertake. Without any such "theory of change", they might appear as mere dreamers, failing to earn our confidence in their efforts. At the same time, a

theory of change – once formulated – becomes something that can be refined in response to the contingencies of the entrepreneurial journey. It is thus an important element of the entrepreneur's action dashboard.

ACTION SPACE OF ENTREPRENEURSHIP

Two main points arise from the previous section. First, "opportunity" represents the propositional content of an entrepreneur's intention, i.e. it is what the entrepreneur aims to make work or happen. Second, "opportunity" contains the "accordion" of a complex task, comprising various milestones and activities to be completed over time and captured by the notion of theory of change. Collectively and in simple terms, these points represent the entrepreneurial effort in terms of what the entrepreneur aims to achieve and how.

"Opportunity" as intentional space

We are now in a position to provide a formal account of the action space of entrepreneurship. This entails unpacking what is implicated in referring to an entrepreneur's "opportunity". First, the sense of what an entrepreneurial effort is about invokes the notion of venture idea or a venture concept (Davidsson, 2015; Vogel, 2016). We can now formally consider a venture concept as propositional content, i.e., an imagined future state of affairs in which certain economic transactions will take place. Simply as a standalone propositional content, a venture idea is not an intentional state for anyone – there is no psychological mode to give it illocutionary force. There is thus no sense that an idea by itself forms a hope, belief, desire, intention, pledge, etc. for someone. It is only when it is combined with someone's psychological mode of intention and thus a commissive illocutionary force that we can speak of "opportunity" as something that the person (now entrepreneur) seeks to make happen. In this sense, "opportunity" arises from an intentional stance, a combination of propositional

content and a psychological mode of intention to do what is implied in the propositional content. Such intention becomes satisfied when the venture concept becomes realized, i.e. when its conditions of satisfaction – its opportunity as certain future states of affairs – transpire.

Second, the ontology or mode of existence of a psychological mode is that of a first-person. That is, a psychological mode – a belief, desire, intention – is always someone's belief, desire or intention. It has a first-person ontology in the sense that it may be causally reduced to certain neurophysiological states, but it cannot be deemed ontologically to be nothing but such states (Searle, 1994). We should note here that we can speak of the content of a belief – its propositional content – in an a-personal sense, just like we can speak of a venture idea in an a-personal sense. But given the distinction drawn earlier between an intentional state and its content, to speak of something as intention implies a psychological mode and thus a specification of the first-person, i.e., whose intention it is. Therefore, to speak of "opportunity" inevitably implicates the person whose intention defines it.

Finally, the realization of a venture concept is a complex task and, therefore, the intention towards it is a complex one, comprising many milestones and individual steps towards them. As such, it is underpinned by the theory of change that the person uses to translate the broader aspiration behind the venture concept into some specific, immediate basic action.

These three considerations imply that "opportunity" arises at the intersection of an individual, a venture concept, and theory of change. If any of these three elements are missing, there is no "opportunity" and thus no bona fide entrepreneurial effort to speak of. This holistic formulation of "opportunity" has several important implications. First, while every "opportunity" entails an idea (a venture concept), not every idea can be deemed an "opportunity" – it needs to be the content of someone's intention. Second, an "opportunity" cannot be separated from the individual (entrepreneur) who pursues it, because it is that

individual that supplies the psychological force of intention. What we can separate is the idea (the content), but by doing this we necessarily remove the aboutness and directedness that comes with intentional state. Third, without the commissive force of intention – with its world-to-mind direction of fit – the idea can become merely a statement or standalone belief about what is possible. Fourth, without a theory of change we can be left with a simple desire to launch a venture, without this being translated into concrete, immediate action. Indeed, we often discuss entrepreneurial intention as a general intention of launching a venture one day. Such intention lacks a specific venture concept and a theory of change and, in this sense, it is perhaps nothing more than a desire. Searle (1983) make this point more broadly as follows:

> "Biologically speaking, the primary forms of Intentionality are perception and action, because by their very content they involve the organism in direct causal relations with the environment on which his survival depends. Belief and desire are what is left over if you subtract the causal self-referentiality from the Intentional contents of cognitive and volitive representational Intentional states. Now once you subtract that feature the resulting states are much more flexible. Belief, unlike memory, can be about anything and not just about what could have caused it; desire, unlike intention, can be about anything and not just about what it can cause" (p. 105).

In other words, we can freely discuss a general idea or a more specific venture concept as something that is believed and desired. But unless this is translated into an intention that can lead to (cause) specific actions in the pursuit of that idea, we cannot really speak of "opportunity". This is another way of stating the earlier point that one can only intend what one's intention can cause. Without this causal link, we are left simply with a desire, which is unbounded in terms of its intentional object.

As a manifestation of intention, "opportunity" has a world-to-mind direction of fit. This means that its satisfaction is not about being true but about being realized or carried out. Its conditions of satisfaction – its opportunity – are the future states of affairs that can be inferred from its propositional content (venture concept). Because intentional states can involve imaginary objects (such as Santa Claus or the King of France), Searle (1983) deems it crucial

to distinguish between the content of an intentional state (i.e., the proposition of a belief or intention) and the objects of that state. In this sense, the discussion of whether such objects are real, discovered or created is separate from the propositional content in which they are implicated.

In other words, discussions about the nature of opportunities are distinct from considerations of "opportunity" as a manifestation of entrepreneurial intention. Because the states of affairs that define the opportunity lie in the future, they are imaginary in a present sense, but this does not prevent them from serving as intentional objects and thus as premises of action. For instance, I can aspire to become the next mayor of my town. Debates about the ontological status of "the next mayor" are in this regard futile. My aspirations will drive me to do a number of things and, when the next mayor is elected, we will be able to see if the result will satisfy my aspirations. They will be fulfilled or unfulfilled.

The current conception can shed light on a recent discussion of opportunity ("opportunity") as language-dependent and subject to calibration of meaning in the earliest stages of an entrepreneurial process (Dimov, 2020a). Early on, as implicated in an entrepreneur's intention, an "opportunity" can only be expressed in words. Such linguistic articulation already implicates the individual involved (i.e., the entrepreneur making the articulation) and the resulting dialogue with some stakeholder community seeks the clarification or elucidation of the other two elements, namely venture concept and theory of change. In other words, when someone proclaims to be an entrepreneur, we – as the audience – are alerted to the "opportunity" this implies and, having identified the individual, seek to identify its remaining components. This suggests that the venture concept and theory of change are dynamic nodes of a triangle, in which the third node (the person) remains fixed.

The conceptualization of "opportunity" as an intentional space for entrepreneurial action is illustrated in Figure 2. It shares its forward-looking sense with another model of

entrepreneurial action, namely effectuation theory (Sarasvathy, 2001), but it also differs from it in important aspects. Effectuation expresses a non-teleological view of entrepreneurship, whereby one acts not on the basis of some ultimate goals or aspirations to be achieved, but on the basis of proximate effects that can be created. In this sense, the principles of effectuation focus on ensuring small, stepwise wins that can be used to build stakeholder commitments and thus co-create an eventual venture. Missing in this account, however, is a sense of driving purpose, whereby a person would prefer certain pathways to others or be energised by certain imagined futures. In this sense, effectuation can be seen as operating before the other two nodes of the triangle (venture concept and theory of change) become identified and settled. Indeed, without a venture concept and theory of change, there is no sense in which entrepreneurial action can be subjected to reasoning and deliberation. Nevertheless, a direction can also arise from non-deliberate, exploratory activities based on what appear to be promising signals from potential customers or other stakeholders. What is important for the current purposes is that at some point entrepreneurial activity becomes anchored in some venture concept and theory of change.

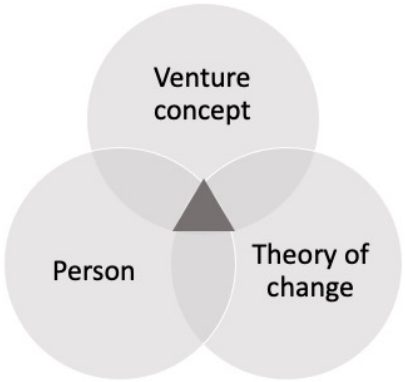

Figure 2: Opportunity as Intentional Space

Scholar and entrepreneur

With an entrepreneur on the scene, we have an "opportunity" as the intentional space for

action and opportunity as the future states of affairs that will serve as conditions of satisfaction for the entrepreneur's intention. In this sense, we speak of a person whose actions are directed at the future state of affairs and at the same time explained in mental terms by the venture concept and linked together by a theory of change. In this conception of entrepreneurship, we can distinguish the action, the person, the venture concept, and the theory of change but to speak of entrepreneurship is to speak of their holistic totality. The holistic nature of the triangle of person, venture concept and theory of change suggests that to speak of entrepreneurship is to speak of actions that are simultaneously performed (1) by particular individual(s), (2) towards a particular venture concept, and (3) as part of a causal map of a theory of change. It is in this sense that "opportunity" can be deemed a symbolic blueprint for action (Dimov, 2011).

The meaning of the action is defined by the venture concept and the theory of change. But the ultimate success or fulfilment of the action is defined by opportunity – the coming into existence of the certain future states of affairs that will serve as conditions of satisfaction for the entrepreneurial intention. Importantly, the relationship between the present intentional space and the future is world-to-mind. That is, how the future transpires will render the entrepreneurial efforts fulfilled or successful. This is not to say that the entrepreneur creates the future but simply that the future adjudicates the success of the entrepreneurial efforts. This idea is illustrated in Figure 3.

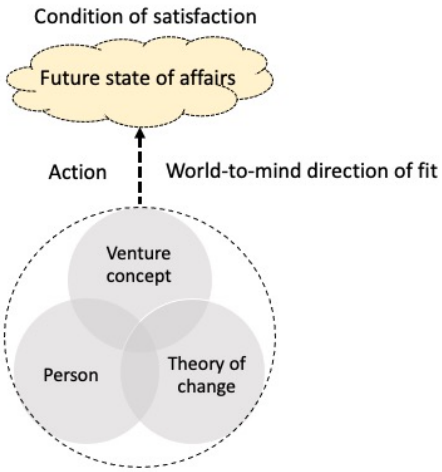

Figure 3: Entrepreneurship as Future-Oriented Action

With this picture in mind, we can now add the academic scholar of entrepreneurship who aims to develop systematic knowledge of this future-oriented nature of entrepreneurial action and the adjudicating role of the future. The scholar studies or observes entrepreneurship as action that can be meaningfully described with the mental elements of the "opportunity" triangle, which are in turn defined within the first-person perspective of the entrepreneur. At the same time, the future states of affairs that serve as conditions of satisfaction are external to both scholar and entrepreneur and I will refer to them simply as "future". We thus have a new triangle: scholar, entrepreneurial action, and future. Each of its edges can define distinct types of scholarship.

First, scholars can study the future directly, as an outcome of entrepreneurial action but without direct observation or conceptualisation of the specific instances of entrepreneurship. It is in this sense that Klein (2008) deems opportunity to be a superfluous concept. We can term this approach *future* science of entrepreneurship in the sense that it aims to describe, explain and predict the future as an outcome of entrepreneurial activity, whereby such activity is attributed to an a-personal agent, detached from specific persons and contexts. Entrepreneurship is thereby conceived in terms of its functional role of bringing changes to

the economic system. Descriptions of entrepreneurial action are mainly done in a metaphorical sense, with the purpose of providing a narrative account of how the entrepreneurial function operates. This is the tradition of economic theorizing and the seminal theories of Schumpeter (1934) and Kirzner (1979) can be evaluated in this sense. The notions of entrepreneurship as creative destruction and as alert response to arbitrage opportunities are thus introduced in a metaphorical rather than realistic sense, as Kirzner readily acknowledges (Kirzner, 2009).

In such accounts, the future becomes the direct content of an intentional stance by the scholar. In terms of psychological mode, this stance is best described as theory as a set of propositions or assertions about the future. Importantly, in its assertive nature, a theory has a mind-to-world direction of fit, i.e., it can be rendered true or false by how the future turns out – we effectively test theories of entrepreneurship on the basis of their predictive power.

Second, scholars can study the entrepreneurial action as an external, third-person phenomenon, to be described and explained. This approach is exemplified by the Panel Study of Entrepreneurial Dynamics (Reynolds and Curtin, 2008), which seeks to document the actions taken by nascent entrepreneurs, i.e., those in the process of starting a new business. Studying the "opportunity" triangle from the outside, we can readily observe only the individual and the actions undertaken. We can term this approach *behavioural* science of entrepreneurship. It seeks to explain, describe and perhaps predict the behaviour of entrepreneurs by constructing theories that seek to account for the observable actions. This provides a third-person theory *of* entrepreneurship that renders the scholar a detached, impartial observer.

Although a behavioural approach to entrepreneurship can make reference to the elements of the "opportunity" triangle, because this is done from an external stance, the resulting verbal statements are not direct representations (as an entrepreneur would make) but representations of representations. Such statements are intensional (with an S) in the sense that they report

another person's intentional content (Searle, 1983). Unlike intentional (with a T) content, which commit one to the conditions of satisfaction in accordance with the implied direction of fit, intensional content does not create similar commitment to those conditions. Therefore, when we report in a behavioural sense that a certain person has proclaimed "I am an entrepreneur", "This is my venture concept", and "This is my theory of change", the truth value of our reports pertains simply to the fact that the person has made these utterances. It involves no direct evaluation of the "opportunity" triangle.

Finally, scholars can study entrepreneurial action from the driving seat of the specific "opportunity" that defines its intentional space. This approach aims to get inside the "opportunity" triangle and thus understand the entrepreneurial process holistically. This approach constitutes *design* science of entrepreneurship (Dimov, 2016) in the sense that it studies a phenomenon in the making rather than one taken as given. Design science aims to improve the art and skills of the discipline (Niiniluoto, 1983), which in this case pertains to the personal skills of the individual, the articulation of the venture concept, and the formulation of theory of change. The "opportunity" – in its holistic, triangular sense – represents an artifact that can be designed (Berglund et al., 2020). It arises at the interface between a person (the entrepreneur) and the world and reflects the person's purpose (venture concept) as well as fundamental assumptions about how to engage with the world and go about realizing that purpose (theory of change). The scholar's direct engagement with this design process represents a second-person stance towards the entrepreneur, resulting in direct dialogue (Dimov, Schaefer, and Pistrui, 2020). The theory that the scholar creates is a theory *for* entrepreneurship, i.e., one aiming to inform and facilitate entrepreneurial action.

The scientific relationships between scholar and entrepreneurship are illustrated in Figure 4.

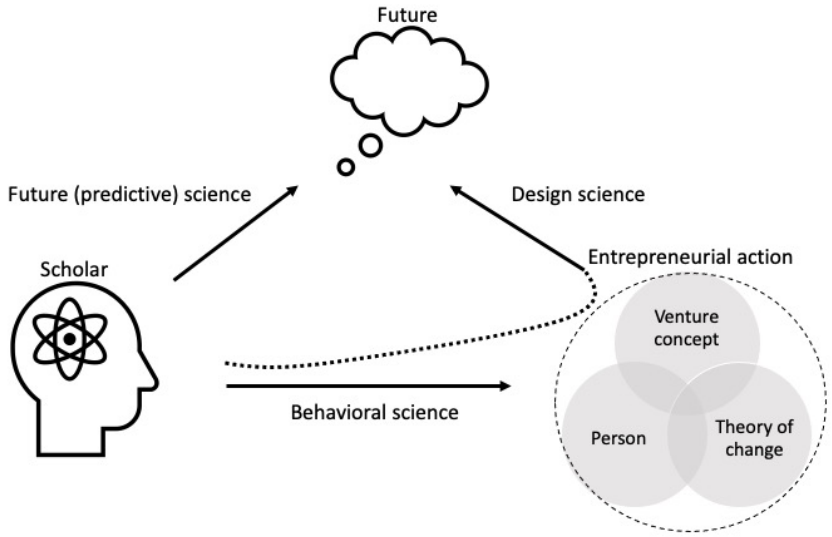

Figure 4: Scientific Relationships Between Scholar and Entrepreneurship

In summary, as scholars we stand in a certain relationship with the entrepreneurial persons we study. We can ignore them, treating them as invisible generic agents and focusing instead directly on the future as an outcome of their activity. We can treat them as *objects* of study, to be explained – a collection of external, established facts to be weaved into a theoretical story of causal relationships to other facts. Equally, we can treat the entrepreneurs as *subjects* to be addressed, understood and edified rather than explained. Thus, as scholars we have a choice of whether to look *at* entrepreneurs or *with* entrepreneurs (Dimov, 2020b). In the next section, I will focus on this third form of engagement as the distinct domain of design science of entrepreneurship, in which we can deploy the framework developed so far.

DESIGN SCIENCE OF ENTREPRENEURSHIP

Simon (1996) drew a seminal distinction between natural and artificial phenomena. Natural phenomena are defined by *necessity*, as something taken for granted and assumed to exist. Artificial phenomena are defined by *contingency* in that they are seen as arising at the interface between human goals and purposes on the one side, and external constraints on the

other. The contingency is expressed in the counterfactual consideration that they could turn out differently under different circumstances. In this sense, fields such as engineering, medicine, business, architecture, painting, planning, economics, education, and law are concerned with design, that is not with how things are, but with how things ought to be.

Entrepreneurship as an artificial phenomenon

To engage with entrepreneurship as an artificial phenomenon, in a design sense, is to focus on an entrepreneurial effort as gateway to a different, not yet transpired future and thus to facilitate its practical purpose. Unlike basic research, which aims to create scientific knowledge without concerns with specific practical application, a design-oriented approach is about applied research, aiming to create knowledge to fulfil particular practical purpose. While basic research pursues the 'epistemic utilities' of truth and information, applied research considers in addition the 'practical utilities' of simplicity and manageability to generate instrumental value for human activity (Niiniluoto 1983).

To elaborate the differences between basic and applied research, Niiniluoto draws further distinction between descriptive and design science. The former describes facts about the world and thereby generates scientific, third-person explanations. The latter aims to create instrumental knowledge that enhances human art and skill in its first-person sense. Niiniluoto thus distinguishes a profession (e.g. an accountant), from the related practice (accounting), art or skill needed in the practice (e.g. art of accounting), and a design science aimed at improving the art (e.g. accounting science). So defined, design science offers normative statements – technical norms – that, while lacking truth value, constitute knowledge by virtue of offering a relation between means and ends. The difference between design and descriptive sciences lies in that technical norms offer not descriptive statements about the world, but suggestions for what the world ought to be in order to attain certain goals.

Most importantly for our purpose, Niiniluoto argues:

> "It should be emphasized that the border between descriptive and design science splits many scientific disciplines. Let S be some activity which can be studied by science, e.g., S might be farming, nursing – or science itself which is the object of "science studies". Then descriptive research of S includes at least the history of S, the psychology of S, the sociology of S, and the economics of S. Basic research about S tries to describe the present state of S and to establish some systematic regularities about S - in this way, we may speak about basic research within technical sciences, life sciences, medicine, social sciences, and jurisprudence. Design science contains only a part - the practical kernel, so to speak - of these disciplines" (1983, p. 14).

This argument reinforces the distinction made in the previous section among future, behavioural and design sciences of entrepreneurship. The first treats entrepreneurship as a set of outcomes, the second as a behavioural phenomenon, and the third as a distinct practice of art and skill. Design science is about studying systems that do not yet exist, about exploring whether something will work rather than whether it is true (Romme, 2003). As such, it is consistent with a world-to-mind direction of fit, must be grounded in real-world problems and ought to focus on creating artifacts that serve human purposes. As March and Smith (1995) argue, design and descriptive / explanatory science are interrelated in three ways: (1) the artifacts created through design can become the subject of descriptive / explanatory scientific inquiry (i.e., into something that already exists); (2) artifacts are created with understanding of the laws (explanations) established by descriptive / explanatory science; (3) the effectiveness of artifacts can provide substantive tests and impetus for further descriptive / explanatory science research (e.g. generating new explanations to accommodate the new facts and explain why things worked or did not work).

The distinction between descriptive / explanatory and design science, and thus between a third-person and a second-person stance towards entrepreneurship reflects a dual role of theory as related to the interplay between person and world. A theory OF the world devises constructs and models to describe and explain it; alternatively, a theory FOR the world can be used as a gateway for engaging with the world and creating entirely new objects (Romme and

Dimov, 2021). Romme and Dimov (2021) refer to the first use as theorizing and to the second as framing.

Research activities of design in entrepreneurship

By engaging in design science of entrepreneurship, we enter the "opportunity" triangle. The three edges of the triangle define distinct research activities, reflecting the interplay of the two nodes they connect. *Framing* captures the edge between the individual person (entrepreneur) and the venture concept. It establishes what the entrepreneurial effort is about, as a premise for further action. In this sense, framing defines an imaginary world in which the entrepreneur will operate. This constructive role of framing makes it consistent with transformation as an ideal type of entrepreneurial design (Berglund et al., 2020). Through the framing role of their bold visions, entrepreneurs enable us to imagine and literally see new, more exciting worlds (Liuberté and Dimov, 2021). In the same manner, an architect can see an empty plot and imagine a building that serves some purpose in the community. We can therefore see the entrepreneur as a conceptual architect of a future – a role enacted through the activity of framing.

Modelling captures the edge between the venture concept and the theory of change. It defines the major milestones and contiguous steps necessary to reach the final outcome, in the same sense that a building blueprint provides a link between an architectural model and a construction plan. In such an aligning role, modelling is consistent with experimentation as an ideal type of entrepreneurial design (Berglund et al., 2020). It operates within an existing frame (or a defined world) and thus aims to create artifacts that can help make that world real. In the construction analogy, an architectural model needs to be translated into a formal blueprint, with all the refinement and experimentation associated with ensuring the different building systems (electric, transportation, communication, ventilation, heating, natural light, etc.) can work

together as well as with optimization of the costs of materials and construction. In this sense, modelling provides the bridge between the unconstrained imagination expressed through framing and the aim to have a vision realized and thus anchored in the actual world.

Finally, *performing* captures the edge between the entrepreneur and the theory of change. This is about carrying out the actions necessary to reach the milestones specified in the theory of change. In the analogy of constructing a building, this is about executing the construction plan, with all the formal processes and specialised skills this involves. We typically see construction projects handed over to a dedicated project managers who looks after the balance of quality, cost, and time of execution. In this sense, through performing entrepreneurs "push" against the world to make their projects real and thereby face the contingencies that the world offers in response.

The three activities are embedded in the broader context of social practices that substantiate their enactment. The latter include business practices associated with its various functions such as marketing, operations, accounting, finance, legal, etc.; management practices of planning, control, recruitment, etc.; and cultural practices of communication, negotiation, relationship building, etc. Figure 5 illustrates this idea.

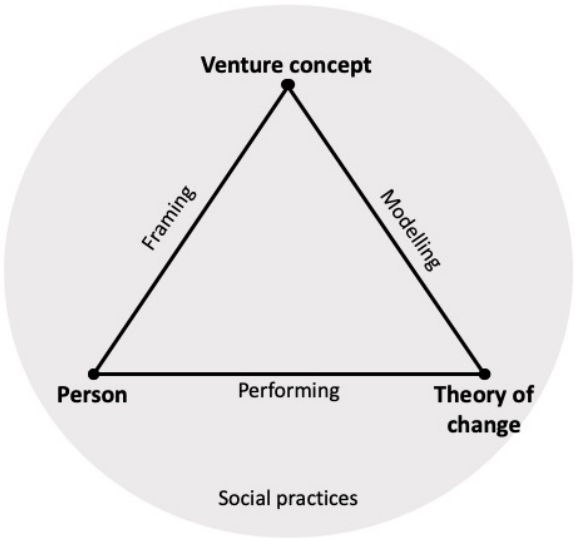

Figure 5: Design Science of Entrepreneurship

The holistic nature of the “opportunity” triangle means that the activities of framing, modelling, and performing are entwined and thus interdependent. What is defined through framing needs to be modelled and then performed. But to the extent that the performance falls short, the model might be reassessed. And to the extent that the model turns out to be unrealistic, the frame needs to be revisited. Therefore, the dynamic interplay between framing, modelling, and performing represents an engine for the entrepreneurial journey and thus provide mechanisms through which we can speak of a venture “opportunity” as being developed. Its venture concept may be refined or modified; its theory of changed may be refined or modified and its entrepreneur can learn and improve his or her skills. In this sense, the ”opportunity” triangle is a dynamic artifact that enables entrepreneurs to map out their action space and thus coordinate their complex activity.

More broadly, by entering the “opportunity” triangle we find ourselves in a world of inquiry in the sense articulated by Dewey (1938): “the controlled or directed transformation of an indeterminate situation into one that is so determinate in its constituent distinctions and relations as to convert the elements of the original situation into a unified whole." (p. 104). The dynamic nature of the “opportunity” triangle reflects Dewey’s denial of the dualism between logic and methodology in enquiry, i.e., the idea that logical requirements are imposed on the methods of inquiry from the outside. For Dewey, rationality or logic pertain to the relation between means (methods) and consequences (conclusions). In this sense, an inquiry can develop its own logical forms by which it can enable and judge further inquiry.

The activities of framing and modelling create the skeleton or postulates of the entrepreneurial inquiry. As Dewey notes, “A postulate is also a stipulation. To engage in an inquiry is like entering into a contract. It commits the inquirer to observance of certain conditions. A stipulation is a statement of conditions that are agreed to in the conduct of some affair. The stipulations involved are at first implicit in the undertaking of inquiry. As they are

formally acknowledged (formulated), they become logical forms of various degrees of generality." (1938, p. 16).

In other words, the postulates of the entrepreneurial inquiry are not something we take as given but ours to define and articulate. This is where the 'science' of design science comes in, in its ability to evaluate, synthesize and make accessible prior knowledge related to the activities of framing, modelling, and performing. Again, Dewey makes this clear: "A postulate is thus neither arbitrary nor externally a priori. It is not the former because it issues from the relation of means to the end to be reached. It is not the latter, because it is not imposed upon inquiry from without, but is an acknowledgement of that to which the undertaking of inquiry commits us" (1938, p. 17). Framing defines the aspired end of inquiry; modelling enlists the means by which such ends might be reached; and performing determines whether the specified means are operable or achievable.

We can think of the knowledge accumulated through design science of entrepreneurship in the spirit of how the relationship between law and experience has affected pragmatist thought (Misak, 2013). Specifically, Misak discusses the ideas of Oliver Wendell Holmes who saw courts as engaged in a business of inquiry, searching for the best answer given the time and circumstances. This makes law an evolving, growing enterprise. In Wendell Holmes's view of common law, "the law does not consist of a fixed body of doctrines and syllogisms derived from them, but rather, it is an organic structure that has come together in response to experience" (Misak, 2013, p. 78). By the same token, design knowledge for entrepreneurship represents an evolving, growing enterprise – an organic structure that helps encounter the incoming flow of experience and adapts in response to it.

In this sense, our inquiry can search for precedent in the form of principles, methods, frames, concepts established in prior inquiry that be used to subsume the current inquiry in their light and thus create its postulates. The design scientist thus engages in search and

synthesis of prior knowledge as well as in the formulation of new knowledge in the forms of principles, methods, frames, and concepts that have proved useful in the current inquiry and that can be deployed to the benefit of future inquiry.

EMBRACING CLINICAL INQUIRY

In medical practice, when a patient shows up with certain symptoms, the clinical doctor engages in diagnostic activity that aims to uncover the underlying problem by finding the best account of the symptoms from among a range of alternative explanations, each embedded in a distinct area of specialised theoretical knowledge. In this regard, the clinician is not pre-committed to a particular theory but open to their full range. This requires familiarity with many theories and clinical precedents. The goal of the clinician is not to formulate or test a theory, but to solve the undiagnosed problem at hand. In this regard, a theory is deployed at the service of the problem and it is considered relevant or useful only to the extent that it can help solve it. It is therefore possible that a theory that is otherwise true – for it has been tested in laboratory settings – is nevertheless irrelevant in the sense that it does not work for the particular case.

Donald Schön (1987) distinguishes the "high ground" of well defined problems that lend themselves to technical solutions and the "swampy lowland" of confusing problems that defy technical solutions. The former represents the realm of theoretical scholarship and the latter the realm of clinical scholarship. The "high ground" of well defined problems is created by clearing the shrubbery of multiple interfering factors through ceteris paribus assumptions. It enables the scholar to study relationships on a piecemeal basis, uninterrupted by the vagaries of practice. In contrast, the "swampy lowland" reflects the idea of all factors and contingencies being in "live" mode, interacting and readjusting. In this space of practice, the area for intervention does not come pre-defined or pre-cleared. It is down to the practitioner – as per

Dewey (1938) – to transform the situation from indeterminate to determinate, so as to make it possible to deal with it. Schön (1987) acknowledges this as a distinct role of a designer: “In contrast to analysts or critics, designers put things together and bring new things into being, dealing in the process with many variables and constraints, some initially known and some discovered through designing” (p. 42).

By viewing the entrepreneur as a designer, we acknowledge their engagement in an open-ended process of inquiry at the interface between the inner environment of their purpose and aspiration and the outer environment of the natural and social world in which they operate (Berglund et al., 2020). Commitment to design science as focused on improving the art and skill of entrepreneurial practice implies clinical scholarship (Dimov, 2020b), whereby a scholar takes a holist and generalist stance towards that practice. This entails familiarity with a broad range of problems and tools, with the goal of bringing these together under a systemic view of the task at hand. The emphasis is on the broader purpose that the entrepreneur pursues, on how it can be broken down into specific, actionable problems, and on how these problems can be kept in alignment over time.

Clinical scholarship is thus driven by a systemic view of the entrepreneurial effort, aiming to bring together a range of relevant knowledge frameworks, each informing a different problem as an aspect of the broader entrepreneurial effort. It involves working closely with an entrepreneur as an engaged stakeholder in their purpose. Clinical scholarship entails focus on synthesizing good practice and formulating improvements. Its holistic perspective develops sensitivity to how different parts fit together towards the broader purpose. Current challenges are taken not as given problems to be solved, but as symptoms to be explored, for their underlying problems to be diagnosed and new solutions devised as a result.

The ”opportunity” triangle framework presented in this paper facilitates closer

engagement between scholar and entrepreneur. Their dialogue can aim to make the three aspects of the triangle visible, articulated as distinct artifacts to be aligned and further refined. The entrepreneur enters the dialogue looking to formulate what to do next. In turn, the scholar can ask probing, reflective questions to reveal the triangle and make implicit assumptions explicit. What do you aim to do? Why? What is your venture concept? What is your roadmap? Armed with the distinction between propositional content and conditions of satisfaction, the scholar can begin to project what the future will need to be like for the entrepreneurial aspirations to be satisfied. This will begin to reveal a currently invisible web of mechanisms and contingencies that can help with the modelling effort of formulating milestones and the specific activities associated with each. This process will gradually reveal the performing requirements, with their requisite knowledge and skills.

The distinct contribution of clinical scholarship lies in making the entrepreneur's implicit and intuitive understanding of what they are doing explicit, a tangible artifact for facilitating deliberation, reflection, and action. By asking probing questions and connecting different knowledge areas, clinical scholarship can demonstrate that different framing (venture concepts) could be deployed in the given situations, which would lead to different actions. In turn, each venture concept could be modelled differently. In this sense, clinical inquiry treats entrepreneurial problems not as given but as something to defined / framed as part of the inquiry, thereby giving meaning to the situation and assigning priorities. A frame thus represents a working assumption or hypothesis to be tested, refined, discarded or replaced.

Teaching and learning are also major routes for clinical contribution. The focus here is on the development of reflective skills for understanding and honing one's judgment in entrepreneurial situations. One aspect of this is what Schon (1987) describes as reflection-in-action, i.e., thinking what one is doing while doing it. This entails continuous consideration of current choices and the tree of further choices they open up. Possible moves are evaluated in

terms of the desirability of their consequences, conformity to implications set by earlier moves, and in terms of their potential for opening new problems and moves. It makes one sensitive to the path-dependent nature of choices:

> "At some point, he must move from a "what if?" to a decision, which then becomes a design note with binding implications for further moves. Thus, there is a continually evolving system of implications within which the designer reflects-in-action." (Schon 1987, p. 100)

A second reflective skill pertains to stepping mentally out of the process to evaluate its overall course. Schon describes this as reflection-on-action, which informs the next moves to be made. The consequences of action – whether what happens can be deemed a 'good' or a 'bad' outcome – generate information about (1) the situation, (2) suitability of the framing, (3) suitability of the action (Argyris et al., 1985). Thus, in observing that a particular approach does not really work, we could reflect on the features of the context that make the approach ineffective, on the way we have posed or framed the problem, or on the particular way in which we have carried it out.

The "opportunity" triangle can serve as a dynamic tool to structure the entrepreneur's deliberation and reflection. One mentally "loosens" one of its nodes – e.g. looking for different framing concepts, different models, or different purposes – and then reconstructs the triangle around the modified node. In this way, the triangle ensure that one does lose sight of the systemic nature of entrepreneurial action – it balances the possibilities of imagination with the practicalities of delivery and the considerations for personal fulfilment. Clinical scholarship recognizes that action can play multiple roles: (1) to test a hypothesis, (2) to explore the situation, (3) to change the situation (Schon, 1983). These roles invite awareness and reflection at different levels and enable us to improve the activities of the "opportunity" triangle by formulating tentative action principles for future situations.

CONCLUSION

Describing someone as ‘entrepreneur’ tells us nothing about what this means, about the “opportunity” that gives meaning to their actions. We need to knock on the door of their first-person ontology and enter their “opportunity” triangle. As a manifestation of entrepreneurial intention, this triangle provides a blueprint for action and invokes a world-to-mind direction of fit. If the entrepreneurial intention is fulfilled, the “opportunity” becomes opportunity, i.e the future the entrepreneur talks about and aspires towards may one day becomes the present.

In the language we use to understand what people do, there is a dual description of action: a task sense of what someone is trying to do and an achievement sense of what outcomes are brought about (Ryle, 2009). The lottery story at the start aimed to demonstrate that although these descriptions seem readily interchangeable, they implicate different explanatory frameworks. The example was deliberately provocative in showing that the link between trying and achieving can be completely severed and thus down to luck. Even without claiming that entrepreneurial outcomes are entirely a matter of luck, we can recognize that luck – in the sense of favourable circumstances outside of one’s control – plays an instrumental role in entrepreneurial success. This suggests that our inquiry into entrepreneurial action can productively focus on the parts that the entrepreneur can control, namely deciding what to do next and how to respond to the contingencies that arise. This is about understanding the action space of the entrepreneur, the interface through which they act upon the world.

As design scientists we engage with and address entrepreneurs. We look at the world with them, bringing the inter-disciplinarity of different perspectives and seeking to merge isolated pockets of knowledge into a holistic picture. Engaging with entrepreneurs invites a complex interplay of multiple theoretical perspectives, each of which can provide only a partial understanding of their situations. As scholars, we can play an instrumental role in synthesizing

such perspectives and evaluating their roles as guides to action. The “opportunity” triangle provides a dynamic interface for this effort.

REFERENCES

Alvarez, S. A., & Barney, J. B. (2007). Discovery and creation: Alternative theories of entrepreneurial action. *Strategic Entrepreneurship Journal*, 1(1-2), 11-26.

Argyris, C., Putnam, R., & Smith, D.M. (1985). *Action Science*, San Francisco, CA: Jossey-Bass.

Berglund, H., Bousfiha, M., & Mansoori, Y. (2020). Opportunities as artifacts and entrepreneurship as design. *Academy of Management Review*, 45(4), 825-846.

Davidsson, P. (2015). Entrepreneurial opportunities and the entrepreneurship nexus: A re-conceptualization. *Journal of Business Venturing*, 30(5), 674-695.

Dewey, J. (1938). *Logic: Theory of inquiry*. New York: Henry Holt and Company.

Dimov, D. (2011). Grappling with the unbearable elusiveness of entrepreneurial opportunities. *Entrepreneurship Theory and Practice*, 35(1), 57-81.

Dimov, D. (2016). Toward a design science of entrepreneurship, in A.C. Corbett and J.A. Katz (eds), *Models of Start-up Thinking and Action: Theoretical, Empirical, and Pedagogical Approaches*, *Advances in Entrepreneurship, Firm Emergence and Growth*, Bingley: Emerald Group Publishing, Volume 18, pp. 1- 31.

Dimov (2020a). Opportunities, language, and time. *Academy of Management Perspectives*, 34(3), 333-351.

Dimov, D. (2020b). *The entrepreneurial scholar*. Cheltenham, UK: Edward Elgar.

Dimov, D. & Pistrui, J. (2020). Recursive and discursive model of and for entrepreneurial action. *European Management Review,* 17, 267-277.

Dimov, D., Schaefer, R., & Pistrui, J. (2020). Look who is talking ... and who is listening: Finding an integrative "we" voice in entrepreneurial scholarship. *Entrepreneurship Theory and Practice*, 45(5), 1176-1196.

Drazin, R., & Sandelands, L. (1992). Autogenesis: A perspective on the process of organizing. *Organization Science*, 3(2), 231-249.

Feinberg, J. (1960). *Doing & deserving: Essays in the theory of responsibility*. Princeton, NJ: Princeton University Press.

Funnell, S. C., & Rogers, P.J. (2012). *Purposeful program theory: Effective use of logic models and theories of change*. San Francisco: Jossey-Bass/Wiley.

Kirzner, I.M. (1979). *Perception, opportunity, and profit: Studies in the theory of entrepreneurship*. Chicago University Press, Chicago.

Kirzner, I.M. (2009). The alert and creative entrepreneur: A clarification. *Small Business*

Economics, 32, 145–152.

Klein, P.G. (2008). Opportunity discovery, entrepreneurial action, and economic organization. *Strategic Entrepreneurship Journal*, 2(3), 175–190.

Liuberté, I., & Dimov, D. (2021). "One tiny drop changes everything": Constructing opportunity with words. *Journal of Business Venturing Insights,* 15, e00242.

March, S.T., & Smith, G.F. (1995). Design and natural science research on information technology. *Decision Support Systems,* **15** (4), 251-266.

Mauboussin, M.J. (2012). *The success equation: Untangling skill and luck in business, sports, and investing*. Boston, MA: Harvard Business Review Press.

McMullen, J.S., & Dimov, D. (2013). Time and the entrepreneurial journey: The problems and promise of studying entrepreneurship as a process. *Journal of Management Studies*, **50** (8), 1481-1512.

McMullen, J.S., & Shepherd, D.A. (2006). Entrepreneurial action and the role of uncertainty in the theory of the entrepreneur. *Academy of Management Review*, 31, 132-152.

Misak, C. (2013). *The American pragmatists*. Oxford: Oxford University Press.

Niiniluoto, I. (1983). The aim and structure of applied research, *Erkenntnis*, **38** (1), 1-21.

Ramoglou, S., & Tsang, E.W.K. (2016). A realist perspective of entrepreneurship: Opportunities as propensities. *Academy of Management Review*, 41(3), 410-434.

Ramoglou, S. (2021). Knowable opportunities in an unknowable future? On the epistemological paradoxes of entrepreneurship theory. *Journal of Business Venturing*, In press. https://doi.org/10.1016/j.jbusvent.2020.106090.

Reynolds, P.D., & Curtin, R.T. (2008). Business creation in the United States: panel study of entrepreneurial dynamics. II: Initial assessment. *Foundations and Trends in Entrepreneurship*, 4, 155–307.

Romme, A.G.L. (2003). Making a difference: Organization as design. *Organization Science,* **14** (5), 558-573.

Romme, A.G.L., & Dimov, D. (2021). Mixing oil with water: Framing and theorizing in management research informed by design science. *Designs*, 5(1), 13.

Ryle, G. (2009). *The concept of mind*, 60th anniversary edition. Abingdon: Routledge.

Sarasvathy, S.D. 2001. Causation and effectuation: Toward a theoretical shift from economic inevitability to entrepreneurial contingency. *Academy of Management Review,* 26, 243-263.

Schon, D.A. (1983). *The reflective practitioner*, New York: Basic Books.

Schon, D.A. (1987). *Educating the reflective practitioner*, San Francisco: Jossey-Bass.

Schumpeter, J. (1934). *Theory of economic development*. Cambridge, MA: Harvard University Press.

Simon, H.A. (1996). *The sciences of the artificial* (3rd edition), Cambridge, MA: MIT Press.

Searle, J.R. (1969). *Speech acts: An essay in the philosophy of language.* Cambridge: Cambridge University Press.

Searle, J.R. (1979). *Expression and Meaning.* Cambridge: Cambridge University Press.

Searle, J.R. (1983). *Intentionality: An essay in the philosophy of mind*. Cambridge: Cambridge University Press.

Searle, J.R. (1994). *The rediscovery of the mind*, Cambridge: The MIT Press.

Sergeeva, A., Bhardwaj, A., & Dimov, D. (2021). In the heat of the game: Analogical abduction in a pragmatist account of entrepreneurial reasoning. *Journal of Business Venturing*, 36 (In press).

Venkataraman, S. (1997). The distinctive domain of entrepreneurship research, in J.A. Katz (Ed.), *Advances in entrepreneurship, firm emergence, and growth*, Greenwich, CT: JAI Press, Volume 3, pp. 119–138.

Vogel, P. (2016). From venture idea to venture opportunity. *Entrepreneurship: Theory and Practice*, 41(6): 943–972.

Wright, M., & Phan, P. (2020). Opportunity: Is there a future in the construct? *Academy of Management Perspectives*, 34(3), 297-299.