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A REALIST PERSPECTIVE OF ENTREPRENEURSHIP: OPPORTUNITIES AS PROPENSITIES

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The idea that entrepreneurial opportunities exist “out there” is increasingly under attack by scholars who argue that opportunities do not preexist objectively but are actively created through subjective processes of social construction. In this article we concede many of the criticisms pioneered by the creation approach but resist abandoning the preexisting reality of opportunities. Instead, we use realist philosophy of science to ontologically rehabilitate the objectivity of entrepreneurial opportunities by elucidating their propensity mode of existence. Our realist perspective offers an intuitive and paradox-free understanding of what it means for opportunities to exist objectively. This renewed understanding enables us to (1) explain that the subjectivities of the process of opportunity actualization do not contradict the objective existence of opportunities, (2) acknowledge the category of agency-intensive opportunities, (3) develop the notion of “nonopportunity,” and (4) clarify the ways individuals might make cognitive contact with opportunities prior to their actualization. Our actualization approach serves as a refined metatheory for guiding future entrepreneurship research and facilitates the revisiting of subtle conceptual issues at the core of entrepreneurial theory, such as the nature of uncertainty and “nonentrepreneurs,” as well as the role played by prediction in a scientific study of entrepreneurship.

We live in a world of propensities, and . . . this fact makes our world both more interesting and more homely than the world as seen by earlier states of the sciences. . . . [Propensities] are not mere possibilities but are physical realities. . . . The future is, in this way, actively present at every moment (Popper, 1990: 9, 12, 20).

According to the leading theoretical perspective of entrepreneurship, the possibility of entrepreneurial profit requires the preexistence of entrepreneurial opportunities waiting to be discovered (Casson, 1982; Kirzner, 1979; Shane & Venkataraman, 2000). This foundation for the “discovery approach” is increasingly under fire by scholars expressing their dissatisfaction with the idea that opportunities exist objectively “out there” in ways visible to potential entrepreneurs (Alvarez, Barney, McBride, & Wuebker, 2014; Davidsson & Wiklund, 2009; McMullen, Plummer, & Acs, 2007). Moreover, a growing contingent of scholars forming the “creation approach” denies that opportunities are preexisting entities in the

external world and argues that opportunities are created endogenously through entrepreneurial agency (Korsgaard, 2011; Sarasvathy, 2001; Wood & McKinley, 2010).

In this article we advance the “actualization approach”—which theorizes opportunities as unactualized propensities—as an alternative that maintains a commitment to the objectivity of opportunities but does not have the shortcomings plaguing the discovery perspective. Explicit metatheoretical attention to underpinning ontologies is key to the realization of this novel theoretical niche. Discovery scholarship’s treatment of opportunities as “physically observable objects” (Alvarez et al., 2014: 227) subscribes to an empiricist ontology (Ramoglou, 2013a). This realization indicates the potential for rectifying the objectivity of opportunities alongside the sophisticated blueprint of reality as advanced by critical realist metatheory (Bhaskar, 1978; Lawson, 1997; Searle, 1995), which we refer to as *realism* hereafter.

Realism facilitates the move away from the deep-seated empiricist idea that opportunities are present at the *actual* but undiscovered domain of reality and toward the view of opportunities as absent from the actual but present in the deeper domain of existence. To state that

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opportunities exist “out there” is—to paraphrase Popper (1990) in the opening epigraph—to acknowledge that the future lies within the unactualized but no less real layers of the present world. Against this background we define entrepreneurial opportunity as *the propensity of market demand to be actualized into profits through the introduction of novel products or services*. Although our primary aim is to provide an ontological analysis of the “core puzzle of entrepreneurship research—where entrepreneurial opportunities come from” (Suddaby, Bruton, & Si, 2015: 1), we also illuminate and organize aspects of the entrepreneurial cognition as they emerge within our propensity framework of opportunities. We accordingly spell out three fundamental modes for making cognitive contact with possibly real yet empirically unactualized propensities: imagining, believing, and knowing.

This article is organized as follows. In the next section, which serves as a background for the whole article, we discuss the nature of metatheoretical research, followed by a discussion of the major challenges that the discovery approach faces. We then advance our actualization approach in four sections, covering such important issues as opportunities’ propensity mode of being, the role of agentic effort in opportunities’ actualization, the space of the impossible, and key distinctions between entrepreneurial and non-entrepreneurial actions and opportunities. In the following two sections we show how our reconceptualization of opportunity addresses critiques of the discovery approach, on the one hand, and clarifies conundrums surrounding entrepreneurial cognition, on the other. We next discuss a unique strength of the actualization approach in providing a deep understanding of uncertainty that is missing from both the discovery and creation approaches. Finally, we present research and pedagogical implications.

EMPIRICIST, CONSTRUCTIVIST, AND REALIST METATHEORIES

One of the greatest advances in contemporary entrepreneurship scholarship comes from metatheoretical studies into the fundamental conceptual blocks of entrepreneurial discourse, as demonstrated by the influence of Shane and Venkataraman’s (2000), Sarasvathy’s (2001), McMullen and Shepherd’s (2006), and Alvarez

and Barney’s (2007) contributions. Since we also intend to contribute on this level of analysis, in this section we discuss and contrast the basics of metatheoretical research as driven by empiricist, constructivist, and realist philosophies of science.

Metatheoretical Research

Metatheories are essentially worldviews. They comprise sets of understandings regarding the nature of the basic entities forming a field of scholarly interest and the ways these entities interrelate. More specifically, metatheories are the logically interconnected sets of conceptual presuppositions forming the *frame* against which *pictures* of a more substantive nature will be painted (Harré, 2002; Tsoukas & Knudsen, 2003). All substantive research presupposes metatheoretical commitments in the form of fundamental theoretical structures in response to abstract questions regarding the nature of the world (ontological), possibility of knowing (epistemological), and methods of knowledge acquisition (methodological; Lawson, 1997; Suddaby, 2014a). These commitments may exist only subconsciously, even in a state of confusion or internal tension (Kilduff, Mehra, & Dunn, 2011; Lawson, 2009).

Metatheoretical *interventions* represent scholarly efforts to promote scientific progress when substantive inquiry cannot sufficiently adjudicate the truth, soundness, or validity of (a set of) empirical propositions. Metatheoretical work comprises underlaboring efforts to aid substantive research by clearing the ground of whatever obstacles are deemed to be standing in the way of progress (Bhaskar, 1998). Since metatheoretical research antecedes substantive inquiry, it is neither falsifiable nor verifiable. However, the chief contribution of metatheoretical interventions lies in the systematic organization, clarification, defense, and/or development of the fundamental theoretical structures underpinning more substantive research (Calás, Smircich, & Bourne, 2009; Suddaby, 2014a).

The compass guiding the orientation of metatheoretical interventions is the presupposed philosophies of science. In the following discussion we compare realism and empiricism (supporting the discovery approach), as well as realism and constructivism (supporting the creation

approach). We briefly summarize this comparison in Table 1.¹

Realist Reaction to Flat Empiricist Ontology

By stressing the importance of sensory experience for acquiring *certain* knowledge, empiricists equate the knowable with the empirically observable. They accordingly tend to treat the world as reducible to its material dimensions and ground analyses on an ontologically flat conception of the world. Causation lies in the constant conjunction between empirical events, while discourse on powers is treated as unscientific metaphysical speculation. Moreover, empiricists working within the so-called positivist wings of social science are often keen to rely on *knowingly* unrealistic models as long as they offer “objective” (i.e., quantifiable) measures that aid predictive purposes (Friedman, 1953: 3–46). Overall, empiricists endeavor to purge scientific discourse from the “sophistry and illusion” (Hume, 1993: 114) that supposedly come from metaphysical investigations, while trusting that empirical research is the ultimate solution to all scientific problems (Quine, 1969).

In stark contrast, realists prioritize the study of reality via systematic ontological reflection (Harré, 2008). They stress that ontological considerations should invariably antecede other elements of the metatheoretical chain, and they maintain that to go the other way around is to trigger a “meta-theoretical disaster” (Fleetwood, 2014: 187). For instance, realist philosophers of social science point out that econometric techniques—sophisticated as they may be—are by and large unfit for the study of ontologically complex systems comprising unpredictable human

and social behavior (Lawson, 1997). Instead, they uphold the methodological superiority of the cultural and historical analytical tools cherished by institutional and evolutionary economists (Hodgson, 2001).

Realists argue that the empiricist fixation with certainty fallaciously excludes from legitimate scientific discourse the fallibly knowable yet no-less-real domains of the world. They accordingly seek to remedy empiricist ontological distortions by countering that the world is irreducible to the actualized, material, and, in principle, observable modes of being. Unactualized powers are never directly observable but no less real, and (under certain conditions) they can be evidenced through their effects. The empirically observed is only a subset of the actual, which is itself only a subset of the real (comprising variously and complexly interacting causally powerful structures and generative mechanisms; Bhaskar, 1978).

By rejecting the actualist metaphysics of empiricism—that is, the presupposition that “only the actual is possible” (Ayers, 1968: 6)—realism effectively acknowledges that the most fundamental and interesting property of our world lies in its unrealized propensities (Bhaskar, 1978). Even Karl Popper, a preeminent foe of metaphysics, came to appreciate near the end of his life that his empiricist preoccupations had blinded him to the reality of propensities (Runde, 1996). He emphatically acknowledged that propensities are physical realities and “not mere possibilities. They are as real as forces” (Popper, 1990: 9).

Realists maintain that propensities may remain unactualized because powers may not be triggered and, when triggered, need not be evident, either because countervailing factors may constrain their empirical realization or because additional enabling factors might be absent. In such occasions unobservable tendencies are said to operate *transfactually*. For example, gravity operates constantly, although its effects are not always evident: the active tendency of a cup on a desk to fall is countered by the desk (Lawson, 2009; Tsang & Kwan, 1999).

Realist Incorporation of Constructivist Insights

The tension between constructivism and realism in entrepreneurship research is unnecessary (Ramoglou & Zyglidopoulos, 2015). Realism, in principle, is *not* contradictory to social constructivism, and the key insights of the latter are

¹ Our intention with this table is to capture the basic points of tension between empiricism, constructivism, and realism, as well as to communicate the thrust of each philosophical perspective. It would be simplistic to presume that (1) the boundaries among the three perspectives are clear-cut or (2) each perspective represents a set of homogeneous or even harmoniously coexisting positions. For the first point, there is an epistemological overlap between realists and (moderate) constructivists (i.e., those who do not a priori rule out the possibility of objective knowledge), with respect to such statements as “water is made up of H₂O” and “World War II ended in 1945.” For the second point, there can be considerable variance in the form of argumentation and respective conclusions reached by philosophical schools of thought clustered under the banner of empiricism (see Van Fraassen, 2008), constructivism (see Hacking, 1999), or realism (see Collier, 1994).

TABLE 1
Brief Comparison of Empiricism, Constructivism, and Realism

Dimension	Empiricism	Constructivism	Realism
Ontology	The world exists objectively "out there," with an emphasis on material existence. Things that exist must be empirically observable. Causation is indicated by the constant conjunction of empirical events.	The idea of an objective world is an illusion; reality is ultimately reducible to social constructions. There is no single way the world is or can be. Agents can willingly create their own realities as long as they regard them as real.	The world exists objectively, albeit in various modes of being. The real is broader than the domain of the empirically observable. Tendencies are unobservable and operate transfactually.
Epistemology	What can count as scientific knowledge must be based on sensory experience, testable by observation and experiment. The objectivity of research outcomes requires the elimination of subjective interpretations.	Contradictory interpretations of external reality can be equally valid. There are no objective criteria for assessing the truthfulness of some categories of knowledge claims, particularly those that relate to social or cultural knowledge.	We can know the world indirectly. Our observations are theory laden and fallible. We may use our imagination in explaining phenomena, but reality imposes constraints on what should be accepted as plausible knowledge.
Conception of entrepreneurial opportunities	<i>Discovery:</i> Entrepreneurs discover opportunities that preexist independently of entrepreneurs as empirically undiscovered entities.	<i>Creation:</i> Opportunities do not exist until they are created endogenously by entrepreneurs.	<i>Actualization:</i> Opportunities are propensities that exist independently of potential entrepreneurs, in the form of unmet or possible market demand that can be actualized into profits.

accommodated within the former (Kwan & Tsang, 2001). Realists accept the socially constructed nature of social reality and only reject extreme constructivist views that tend to taboo the notions of "reality" and "objectivity" (Bhaskar, 1998).

Realists acknowledge that social reality is dependent on the ways we think about it, but they caution against the implication that social reality does *not* exist. The subjective underpinnings of social reality only imply that social reality (1) would not exist in the absence of humans and (2) exists in ways qualitatively different from the "stuff" studied by natural scientists. Without a doubt, "if we all woke up tomorrow and no longer believed that money existed, money would no longer exist (leaving only relatively useless bits of paper and metal)" (Alvarez et al., 2014: 227). However, this does not mean that money does not exist objectively "out there." It only means that its objectivity is of a different kind by virtue of the more ontologically complicated nature of being money (as opposed to paper).

Searle (1995) argued that we ought to draw a distinction between ontological objectivity and ontological subjectivity. Although dollar bills may exist only insofar as they are perceived by human

subjects as dollar bills, their ontologically subjective nature does not diminish their existential weight. It merely underlines the multiplicity of the modes of existence inherent in our world. Money may not exist in the same manner as ordinary pieces of paper, yet it can be studied *objectively*, albeit as an ontologically *subjective* entity. It could not have existed without humans. But it is a crude matter of fact that humans exist and have created the institution of money that has very real powers and effects.

Overall, in response to the constructivist tendency to subjectivize discourse on reality, realists maintain that reality must, to some extent, exist independently and irreducibly from the ways we might think about it. For the realist, the single most important stage in the scientific advancement of a scholarly field lies in clarifying the mode of existence and independence of the entities posited at the foundations of the field (Brock & Mares, 2007; Devitt, 1997), particularly when their objectivity is under dispute.

CHALLENGES TO THE DISCOVERY APPROACH

The most influential contribution to the discovery approach is Shane and Venkataraman's (2000)

article, "The Promise of Entrepreneurship As a Field of Research" (often referred to as "Promise"). Shane and Venkataraman took seriously the complaint that entrepreneurship "has become a broad label under which a hodgepodge of research is housed" (2000: 217). Drawing on Schumpeter's (1983) and Kirzner's (1973) assaults against the opportunity-free economic worldview at the heart of neoclassical economics, Shane and Venkataraman maintain that the defining feature of entrepreneurial phenomena is "the discovery and exploitation of profitable opportunities" (2000: 217). They recommend that the objective existence of entrepreneurial opportunities offers the sturdiest foundation for entrepreneurship as a distinctive subject of study, stressing that the nexus between individuals and opportunities constitutes the most promising research topic.

Entrepreneurship researchers often remark that the discovery approach is grounded in realist ontology (e.g., Alvarez & Barney, 2013; Calás et al., 2009; Roscoe, Cruz, & Howorth, 2013). In sharp contrast, our metatheoretical backdrop suggests that the positing of some "force exerted by the opportunities themselves" (Shane, Locke, & Collins, 2003: 269) or the attribution of challenges to progress to the "lack of instruments for measuring entrepreneurial opportunity" (Dahlqvist & Wiklund, 2012: 185) does not reveal the realist but, instead, the *empiricist* leanings of the discovery approach (see also Ramoglou, 2013a). Before developing a *genuinely* realist concept of "entrepreneurial opportunity," we review the challenges to the discovery approach that gave rise to the constructivist movement, along with the concomitant rejection of the notion of opportunities as objectively existing realities.

Constructivist Reaction

Although Shane and Venkataraman's (2000) framework defines contemporary entrepreneurship research, there is increasing disillusionment regarding its promise to meaningfully drive entrepreneurship research forward. Even Venkataraman has considerably distanced himself from this framework and joined forces with the rising constructivist reorientation (Sarasvathy & Venkataraman, 2011; Venkataraman, Sarasvathy, Dew, & Forster, 2012).

First, we still lack a predictively successful entrepreneurship theory and do not know why only

some individuals can see and/or respond to opportunities (Arin, Huang, Minniti, Nandialath, & Reich, 2015; Roscoe et al., 2013). Second, the discovery approach has revived the notorious research quest for the "entrepreneurial difference" (Gartner, 1989) in response to the puzzle that only a few individuals respond to the presence of opportunities, and Shane himself leads the contentious research concerning the genetic makeup of enterprising individuals (Nicolau, Shane, Cherkas, Hunkin, & Spector, 2008; Shane & Nicolau, 2013).

Moreover, there is an assault on discovery scholarship for portraying entrepreneurs with "superior cognitive capabilities" (Shane, 2003: 45) that supposedly allow them to foresee opportunities in an otherwise uncertain world (Chiles, Bluedorn, & Gupta, 2007; McMullen & Shepherd, 2006). Yet the most troubling aspect of the discovery approach lies in the elusiveness of the opportunity construct (Dimov, 2011; Gartner, 2014): "opportunities are assumed to simply exist . . . without any real clarity as to what this would mean" (Görling & Rehn, 2008: 101).

Given these problems, it is understandable why a growing contingent dismisses the core of the discovery approach—that opportunities are objectively existing entities. Moreover, Alvarez and Barney's (2007, 2010) systematic development of the creation approach harbors promise in progressing entrepreneurship research along a different path. According to this ontological reorientation, the discovery approach cannot either detect opportunities or predict entrepreneurial events because these are only socially constructed "entities" that do not exist independently of the ways entrepreneurs think about them (Alvarez et al., 2014; Spedale & Watson, 2014). We should break free from the notion of exogenous opportunities waiting to be seized and adopt a view of opportunities as endogenously constructed (created, made, fabricated, or manufactured) through human agency (Baker & Nelson, 2005; Bruyat & Julien, 2001; Santos & Eisenhardt, 2009; Sarasvathy, 2001).

In relocating the locus of causality from "ethereally existing opportunities" (Alvarez & Barney, 2010: 562) to human agency, constructivist scholarship neatly sidesteps the conceptual problems associated with the objectivist treatment of opportunity. The constructivist reaction also strengthens the theorization of entrepreneurial phenomena by paying due attention to

the creative aspects of the entrepreneurial process, such as reconfiguring the value chain, manufacturing a new product, and raising the required capital (e.g., Baker & Nelson, 2005; Cornelissen & Clarke, 2010). The role of creative entrepreneurial agency, in fact, sits uncomfortably in a world where opportunities exist as dollar bills simply awaiting discovery. As stressed by McMullen, this static worldview “neglects the importance of agency in entrepreneurship . . . [and] opportunity becomes a deterministic and overly structural concept” (2015: 663). Moreover, skeptics of the discovery perspective are right to remark that treating opportunities as entities awaiting discovery does not allow a meaningful conceptualization of the temporal and uncertain aspects of the entrepreneurial process (Klein, 2008; McMullen & Dimov, 2013).

Toward Realism

Constructivists have surely made important critiques and pioneered promising conceptual advances. Nonetheless, from a realist standpoint, entrepreneurial theory has experienced an oft-documented pattern in the social sciences since the mid-twentieth century—namely, an *over-reaction* to ontologically problematic metatheories encouraged by empiricism, resulting in skepticism toward the treatment of social reality as “mind-independently existing” or “real” (Fleetwood, 2014). As discussed, realism is not incompatible with constructivism. In fact, it allows the theorization of subjectively constituted entities as real entities that can be objectively studied as long as we acknowledge their qualitatively distinctive mode of existence. Realism encourages the formation of rich ontological landscapes through the meaningful metatheoretical organization of varied commitments to existence (Harré & Madden, 1975; Searle, 1995).

Our realist backdrop suggests that we should not hastily dispense with an objectivist intuition that may be waiting to find its proper ontological articulation—beyond empiricist reifications. Moreover, putting aside philosophical considerations, we do find the thesis that opportunities exist “out there” in some objective sense (i.e., they exist independently from potential entrepreneurs or entrepreneurship researchers) intuitively appealing. Is it not compelling to say that Richard Branson exploited a number of “Virgin-branded”

opportunities? Relatedly, there are cases that clearly contradict the creation approach’s argument that “opportunities do not exist until entrepreneurs create them through a process of enactment” (Alvarez, Barney, & Anderson, 2013: 307). Take, for example, the opportunity to profit through the production of T-shirts and aprons with the “Je suis Charlie” slogan (translation: “I am Charlie”) following the terrorist attack at *Charlie Hebdo* in Paris on January 7, 2015 (Moulai & Paysant, 2015). The opportunity itself was by no means created by those who produced the T-shirts and aprons, despite any elements of creativity involved (cf. Sarasvathy, Dew, Velamuri, & Venkataraman, 2010: 92). The opportunity unquestionably came into existence because of the terrorist attack.

Our task in the next sections is to systematically develop a realist theorization of entrepreneurial opportunities. This theoretical alternative will enable us to stay committed to the objectivity of opportunities while withstanding the challenges discussed above.

A REALIST ACCOUNT OF ENTREPRENEURIAL OPPORTUNITIES

We have seen that there are “two dimensions of realism” (Devitt, 1997: 14) required for asserting the reality of a disputed entity—namely, the dimensions of existence and independence (Brock & Mares, 2007). The second dimension is fairly straightforward: that opportunities exist independently means that *without* their pre-existence it is *impossible* for an entrepreneur to profit. Regardless of opportunities’ form of existence, any genuinely realist position requires that an opportunity’s *agent independence* be consistently acknowledged. We will elaborate the independence dimension below when we theorize the space of “nonopportunity” (Dimo Dimov, personal communication).

In this section we probe the first dimension by unpacking the propensity mode of being via rereading Kirznerian analysis in a realist light. This is crucial for the task of moving beyond the idea that in order to be objective, opportunities must be, “in principle, observable” (Alvarez & Barney, 2007: 13), yet without having to deny their objectivity by asserting that “opportunities are social constructions that do not exist independent of entrepreneurs’ perceptions” (Alvarez & Barney, 2007: 15).

Neoclassical Actualism and the Kirznerian Intuition

Physicists study phenomena occurring within the contexts of tight experimental control. In the desire to emulate the research practices of physical scientists, neoclassical economists treat economies as fairly simple and highly predictable systems that exist in states of equilibrium (Arrow & Debreu, 1954; Walras, 1954). Based on such methodologically convenient yet ontologically oversimplified models of reality, supply and demand supposedly equilibrate and their “nexus” manifests in prices.

The most noticeable way in which these static models fail to match the workings of the real world is that they cannot explain change (Schumpeter, 1983). From a realist point of view, however, the problems with the notion of equilibrium run deeper and exceed the limitation of accounting for changes observed in the *empirical* layers of reality. The core concern pertains to the *actualist* treatment of *nonchange*. In a conception of the world lacking underlying powers and tendencies, what is absent from the face of the world is simply impossible. The neoclassical worldview effectively presumes that the possible is in sync with the actual (Arrow, 1974) and is ultimately devoid of the propensity at the heart of realist ontology (Lawson, 1997).

In stark contrast, realism endorses the recognition of propensity even in the most (empirically) stable of situations. In spite of the lack of relevant theoretical vocabulary, Kirzner (1979, 1997) ingeniously grasped this realist insight in appreciating that equilibrium-based economics fails to capture the deeper workings of real-world economies. His insistence that unexploited profit opportunities *exist* essentially is an emphatic rejection of the actualist thesis that existing opportunities must be instantly exploited. Opportunities exist at “each and every moment” (Kirzner, 1997: 82), even in the most seemingly stable of situations. No change is *necessary* for their existence. Kirzner attributed the existence of unexploited opportunities to the scarcity of the “entrepreneurial alertness” (purportedly) required for their discovery (see also Hayek, 1945). For Kirzner, “it is entirely possible for an individual to pass up an available opportunity for pure gain, without taking advantage of it. . . . [We ought to] grapple with the very real possibility of unexploited opportunities for profit” (2006: 262). The seemingly

minor correction of the presumption—in their presence, opportunities are inevitably exploited—has enormous metatheoretical ramifications. It entails commitment to the depth ontology advocated by realism.

The Ontological Status of Opportunities

Realist philosophy can provide a direct answer to the question, “What is the ontological status of the opportunity e.g. Kirzner mentions?” (Görling & Rehn, 2008: 96), which Kirzner himself acknowledged as a “profound philosophical question” (2009: 150). The opportunities that analytically emerge in response to Kirzner’s (instinctive) rejection of the neoclassical worldview’s actualist metaphysics belong to the ontological category of propensity. They exist akin to the unactualized propensity of seeds. Unlike undiscovered archeological artifacts, they do not qualify as empirically unidentified objects of the world. It is therefore misleading to discuss their discovery, since the word “discovery” connotes perceptual contact with actualized entities (or events).

From a realist standpoint, as introduced earlier, entrepreneurial opportunity can be defined as the propensity of market demand to be actualized into profits through the introduction of novel products or services. These products or services do not have to be novel to the global market but, rather, new only for the target market. When the introduction of novel products or services dovetails with profits, then an opportunity *qua* propensity is said to have been actualized. We accordingly call our conceptualization of entrepreneurial opportunities the actualization approach, and distinguish it from the discovery approach. Table 1 presents a brief comparison of the conceptions of entrepreneurial opportunity under empiricism, constructivism, and realism.

Kirzner not only did not develop his realist intuition far enough but also inadvertently allocated opportunities to an ontologically unfit category: from the category of unactualized propensities to that of *actualized* but *undiscovered* realities. We already noted that strong reliance on the inapt word “discovery” may be a linguistic barrier to grasping the reality of opportunities *qua* propensities. This seemingly innocent linguistic malpractice alone might entrap our theoretical imagination within the bounds of the ontologically erroneous category, bewitching us into inferring that opportunities *must* exist as

actualized entities that can be somehow observed (Wittgenstein, 1958). Our realist analysis nonetheless allows us to break free from the counter-intuitive yet deep-seated picture of opportunities existing “like dollar bills blowing around on the sidewalk” (Casson & Wadeson, 2007: 285). Our analysis additionally facilitates the appreciation that opportunities are more like the (unobservable) intrinsic power of a seed’s propensity to germinate into a flower—versus the flower itself.

Up to this point we have explicitly identified the ontology of entrepreneurial opportunity through a realist reconstruction of Kirzner’s critical engagement with ontologically neglectful studies of economies. In doing so, we afford an answer to the recalcitrant puzzle of entrepreneurial theory (Kirzner, 2009; Suddaby et al., 2015), offer a realist definition of entrepreneurial opportunities, and uncover a category mistake in the foundation of entrepreneurial theory. An in-depth realist account of opportunities, however, requires us to move beyond analogies borrowed from the natural world (Birkinshaw, Healey, Suddaby, & Weber, 2014; Lawson, 2003) and reflect on the ways opportunities may be plausibly said to exist in human societies where entrepreneurial actions take place.

Entrepreneurial opportunities must have vast ontological differences compared with the crude propensities of the natural world; for one, the very meaningfulness of the word “opportunity” presupposes the background existence of subjectively set and socially conditioned goals. Even in the rudimentary example of a seed’s propensity to actualize into a flower, this propensity cannot be said to exist as an opportunity without the presumption that it can make the satisfaction of agricultural goals possible. Moreover, although profit is customarily treated as an “objective outcome” motivating entrepreneurial action, individuals will typically have various evaluative reactions to publicly describable outcomes (McMullen, 2015: 655). The level (or duration) of profitability judged as “adequate,” as well as the act of measuring profitability (e.g., in choosing accounting vis-à-vis economic metrics; McMullen & Dimov, 2013: 1494, 1508–1509), is inevitably a subjective matter.

Despite the *subjectivity* of goals, the conditions of their satisfaction lie in the *objective* conditions of the world. To more closely scrutinize the nature of the propensity that makes the satisfaction of entrepreneurial subjectivities

objectively possible, we face the question, “What is the fundamental nature of the ‘seed’ of market demand that must preexist for the goal of profit to be a genuine ontological possibility?”

EXISTENCE AND ACTUALIZATION OF ENTREPRENEURIAL OPPORTUNITIES

In this section we deepen our theorization of opportunities through (1) the identification of desire as the core ontological ingredient of opportunities qua latent market demand and (2) the recognition of the role of enhanced agentic effort in actualizing ontologically demanding opportunities.

Realist Theorization of Unmet Market Demand

In the neoclassical worldview there is “no scope for pure profit” (Kirzner, 1997: 69), and the idea of unmet demand is intrinsically paradoxical (see also Sarasvathy et al., 2010). Demand is synonymous with purchasing behavior—“What could be, is” (Martin, 2009: 519)—and there is no ontological space for demand that is both real and simultaneously absent from market transactions. A realist conceptualization of demand requires an ontological deepening capable of analytically disjoining it from actual consumer behaviors (see McMullen, 2011, and Schumpeter, 1983). The category of desire is crucial for conceptualizing a demand that is out of sync with overt consuming behaviors. It satisfies the requirement of realist philosophy of science for ontological depth (Danermark, Ekstrom, Jakobsen, & Karlsson, 2002) and is also central to the realist philosophy of mind (Searle, 1983).

The concept of desire most typically refers to transfactually operating tendencies. It exists as an unobservable and *ex ante* nonevident force that can nonetheless produce observable effects under appropriate circumstances. Take as an example the behavior of prisoners who do not try to escape. The absence of escape attempts by prisoners does not imply an absence of the desire to escape. Desire captures an existing dynamism underlying even the most empirically stable of situations; prisoners’ desire to break free is out of sync with the compliant behavior observed on a quiet day in the prison.

Consider the currently absent yet highly desired cure for HIV as an example of a desire forming the core component of an objectively

existing profit opportunity. This desire operates as a transfactually existing tendency that will materialize into consuming behavior once a pharmaceutical company offers the cure. With respect to the opportunity to profit through T-shirts and aprons with the "Je suis Charlie" slogan, that opportunity fundamentally existed in the active desire of people to express repulsion for the terrorist attack at *Charlie Hebdo*. Consider also an example in which no technological breakthrough or environmental change is necessary for the existence of a transfactual opportunity: profiting by opening a Mediterranean restaurant in a city where no similar restaurants previously existed. In the first two cases, desire is arguably manifest or easy to discern before the product actually enters a market. In contrast, this need not be the case with the Mediterranean restaurant. The desire for such cuisine need not be knowable by an entrepreneur, or even customers themselves before encountering exotic tastes not previously on offer.

Finally, it is worth noting that unmet market demand need not exist in the desire for concrete products or services. For instance, desire is not targeted at a specific HIV-curing substance or a particular slogan such as "Je suis Charlie." Desires typically exist in the abstract (e.g., the desire to cure oneself of the HIV virus or to protest against religious terrorism), and novel products and services can be suitable candidates for their satisfaction.

Differentiating Mode of Actualization from Mode of Existence

Up to this point we have demystified the kind of propensity intuited by Kirzner in his reference to unfulfilled tendencies toward equilibrium or "ready-made" opportunities awaiting discovery by "passive" agents. However, skeptics object to this static view of opportunities because it fails to acknowledge the salience of entrepreneurial effort and agency (McMullen, 2015). Suddaby et al. astutely recognize that it is empirical cases of intense entrepreneurial effort fueling the creation perspective's rejection of the notion that opportunities exist objectively:

When Steve Jobs created the iPhone . . . he recognized that he could create and promote a product that consumers did not even realize they wanted. Similarly, when Edison created the electric light bulb, he supplemented the innovation effort with

a tremendous effort to legitimize the product—i.e., to socially construct the conditions for consumer acceptance of a product that had no prior contextual understanding or awareness in the marketplace (2015: 3).

We agree that transfactually existing opportunities cannot capture the totality of opportunities.

However, this premise does not lead to the conclusion that "opportunities are social constructs" (Barreto, 2012: 360) that "do not exist as independent realities" (Spedale & Watson, 2014: 761). We resist the polarization between objectively existing opportunities and subjectively constructed opportunities by explaining that there is no genuine tension between the constructivist intuitions animating the creation approach and the objectivity of opportunities. With subtle conceptual adjustments, our actualization approach can accommodate constructivist intuitions without surrendering commitment to their objective ontology. In keeping their mode of existence apart from their mode of actualization, we acknowledge the ontology of opportunity types animating creation theory's reaction as *agent-independent opportunities* whose actualization is nevertheless *agency intensive*.

Agency-Intensive Opportunities

Schumpeter discerned the insufficiency of product development for the successful realization of business goals by noting that consumers often ought to "be taught to want new things . . . [or] educated by . . . [producers] if necessary" (1983: 65; see also Penrose, 1995: 80). For example, "it was not enough to produce satisfactory soap, it was also necessary to induce people to wash" (Schumpeter, 1939: 243).

Thomas Edison's case is particularly instructive. In hindsight, electric lighting looks like a technological inevitability. However, the development of a product that could be a superior solution to users' needs was alone insufficient for the successful venture realization. It took Edison remarkable effort to overcome the resistance and skepticism toward this innovation, such as his effort in working out design details that invoked familiarity with widely used technologies of the time (Hargadon & Douglas, 2001).

While creation theorists correctly acknowledge the elements of creativity and skillful entrepreneurial engagement, they unnecessarily throw the baby out with the bathwater by denying the

objectivity of opportunities. Instead, we can retain commitment to their objectivity by acknowledging a type of desire that does not exist in ways that the cure for HIV does but that can exist in the presence of appropriate *desire-eliciting efforts*. What we can potentially desire may not operate actively. Imagine, for example, a situation in which an individual meets a person who at first sight seems uninteresting, but the individual then gradually develops a desire for this person's continued presence. A desire to own a sports car after watching a compelling advertisement can emerge in someone who does not currently have an active desire to buy an automobile. In the case of a transfactually existing desire, the very supply of a product can prove sufficient for the realization of profits. In contrast, in the case of a desire that can emerge but is not active at a given point in time, the actualization of a related opportunity is unlikely without appropriate marketing, advertising, and/or legitimating efforts (Suddaby & Greenwood, 2005; Webb, Ireland, Hitt, Kistruck, & Tihanyi, 2011).

If in the examples of the iPhone and the electric light bulb the very fact that they eventually led to profits testifies to the objective preexistence of the related opportunities, we may also consider what appears to be a yet-to-actualize opportunity that nonetheless does not seem to be readily exploitable. Janicki Bioenergy recently produced a machine that generates clean water out of human excrement. Although there is a strong desire for sanitized water in many regions of the world, not many individuals would desire to drink water poured from this machine. It arguably takes ingenious effort, such as having Bill Gates drink the water (*BBC News*, 2015), to actualize the opportunity in question. The image of Gates carries strong symbolic power with potent reassuring effects regarding the safety of this new technology. On an ontological level, eradication of fears that counter the desire for this technological solution is a prerequisite for success.

Just as the blossoming of a flower may require efforts aimed at realizing the flower seed's propensity to blossom, the possibility of entrepreneurial success may require a multitude of creative endeavors aimed at the actualization of a preexisting opportunity (see also Ramoglou & Zyglidopoulos, 2015). Still, the existence of entrepreneurial opportunities remains independent of the thoughts, imagination, or actions of any given entrepreneur, entrepreneurial team, or

entrepreneurial organization. Edison did not create or design the opportunity. To deny this agent-independence premise is to accept that limits to the possible are ultimately determined by creative agency and that Edison could effectively use his entrepreneurial resourcefulness to succeed in any entrepreneurial undertaking.

UNPACKING THE INDEPENDENCE DIMENSION

In acknowledging the causal role of creative agency in realizing entrepreneurial goals, we run the risk of violating the above-mentioned realist dimension of independence. Here we show that our position is consistent with this dimension, thus guarding against the tendency of portraying entrepreneurial agents as limitlessly powerful superagents (see also Suddaby, 2010a). The theorization of the nonopportunity space is key to tackling the metaphysics of possibilism, as presupposed by exaggerated portraits of creative entrepreneurial agency (e.g., Garud & Karnøe, 2001; Venkataraman, 2011).

Pitfalls of Possibilism

The actualist resists granting ontological plausibility to currently absent and only imaginable states of the world. In sharp contrast, the possibilist asserts that "what is thinkable is possible too" (Wittgenstein, 1922: 3.02). If for the actualist the absent is impossible, then the possibilist commits the diametrically opposite fallacy by failing to acknowledge ontological limits to the possible. Possibilism translates into a worldview in which entrepreneurs have the power to create the future they dream of. This implies that one can successfully realize the goals motivating entrepreneurial actions as long as one tries hard enough.

By denying the existence of objective opportunities, the creation approach subscribes to the metaphysics of possibilism. If "an opportunity is an epistemological construct [and its] ontological status is irrelevant" (Venkataraman, 2011: 106), it is logically inevitable that the market demand required for the realization of successful outcomes must be reducible to agentic social construction processes. There are simply no limits to the possible in a world in which opportunities have no agent-independent existence. In stating that creation theorists posit a failure-free world, we do not imply that they do not acknowledge the

possibility of failure. Rather, we mean that failure is treated as a *mere* possibility.

Space of the Impossible

In a possibilist frame of mind, Stevenson and Jarillo seminally defined opportunity as a "future situation which is deemed desirable and feasible" (1990: 23). In contrast, we conceptualize opportunity as the objectively existing propensity that makes *ontologically possible* a future situation deemed desirable and feasible. We drive the agent independence of opportunity home by underscoring the category of nonopportunity next to the domain of unactualized opportunities. The ontological domain of nonopportunity is one that lacks the objective conditions necessary for profit actualization. Like watering soil where no seeds exist, venturing in this domain cannot be profitable, regardless of the level of effort or entrepreneurial resourcefulness.

Schumpeter captured this intuition by stating, "contra to conventional wisdom," that, in the productive process, there is "in general no real leader, or rather *the real leader is the consumer*" (1983: 21, emphasis added). In fact, Schumpeter went so far as to assert that the "people who direct business firms *only* execute what is prescribed for them by wants or demand" (1983: 21, emphasis added). We do not rule out the power of creative agency to alter the course of events. The preceding section demonstrates how the propensity framework allows us to resist deterministic conceptions regarding the actualization of propensities, acknowledging that it often takes considerable effort to stimulate demand. This acknowledgment nonetheless does not contradict the thesis that an opportunity must be either preexistent or absent; it is "an either/or occurrence. Something is either possible, or not. . . . There are no shades of grey" (Gartner, 2014: 28). Whether an entrepreneurial action can dovetail with profits is predetermined, although whether a potentially profitable entrepreneurial action *will* dovetail with profits is not.

In contemporary entrepreneurship research this insight is best expressed by McMullen and Dimov, who stress that "there is no entrepreneurial opportunity without customer demand" (2013: 1494). Their argument is that

the entrepreneur can be in the right place at the right time, but what makes this place and time "right" is the presence of a customer who is willing

and able to pay the entrepreneur's asking price. Without this demand, no opportunity exists (McMullen, 2011). The entrepreneur may engage in hard-sell tactics in an aggressive attempt to influence the customer, but ultimately the choice to engage in an exchange is the customer's to make (McMullen & Dimov, 2013: 1494).

The notion of nonopportunity arguably resonates with what the layperson accepts as plausible. Potential entrepreneurs, whether business students (Keh, Foo, & Lim, 2002) or prison inmates (Patzelt, Williams, & Shepherd, 2014), typically face few difficulties in coming up with ideas for profitable ventures. We are nonetheless aware that our ideas need not be consistent with reality and may be nothing but a figment of our willful imagination.

People's desire to travel to the moon, for instance, has existed from time immemorial. However, current aerospace technology would render the commercialization of moon travel an unprofitable venture because of the insurmountable financial costs involved. It is likewise unrealistic to believe that one can profit by selling Mercedes in places where the desire for luxury might exist but the median income does not exceed a few thousand U.S. dollars (Shane et al., 2003: 262). Consider also the spectacular failure of Ford Motor Company with the Edsel model in the 1950s, which could not have been averted regardless of any marketing approach Ford might conceivably have deployed (Brooks, 1963). The design and pricing of the Edsel in the 1950s were arguably a nonopportunity.

Institutional insights can also shed valuable light on the ways historical contingencies limit the boundaries of the possible (DiMaggio & Powell, 1983; Sydow, Schreyögg, & Koch, 2009). For instance, it is arguably impossible to run a profitable venture by selling dog or horse meat in certain markets. The cultural schema that dogs and horses share human properties, coupled with the script "edibility is inversely related to humanity," simply makes their consumption unthinkable in many regions (Sahlins, 1976: 174–175). In addition to cases of nonopportunity for all interested agents (e.g., it is impossible for *anybody* to profit in market X), the boundaries of the possible can also vary along the contextual positions in which individuals find themselves (Lawson, 2003; Stinchcombe, 1983). Although a profit opportunity can exist objectively, it need not be an opportunity for anyone not suitably positioned to

take advantage of it (see McMullen & Shepherd, 2006, for a distinction between first- and third-person opportunities). For instance, an organization might not have the opportunity to profit by bringing an otherwise desirable product to the market if it lacks the required reputation or if the product can be easily copied by competitors who can produce it at an improved quality or reduced cost (George, Chattopadhyay, Sitkin, & Barden, 2006; Schumpeter, 1983).

As mentioned, academic possibilist dispositions are at odds with what laypersons are predisposed to accept as possible, since prospective entrepreneurs are arguably better attuned to the realist intuition that the realm of the naturally possible is a subset of the thinkable. The lack of reflective and systematic theorizing, as well as the intrinsic recalcitrance of the opportunity construct, may well explain the strong possibilist tendencies of entrepreneurship discourse. Searle's explanation of the counterintuitive tendency to downplay the limitations of the real world is of potential relevance as well:

It satisfies the basic urge to power. It just seems too disgusting, somehow, that we should have to be at the mercy of the "real world." It seems too awful that our representations should have to be answerable to anything but us (1998: 17).

Unexciting as it might be, our realist analysis forces us to categorically acknowledge that failure is a necessary and unavoidable state of the world when venturing into the domain of nonopportunity—no matter how hard one might try.

CONSTRUCT CLARITY

In this section we clarify some logical dimensions of entrepreneurial opportunities by delineating them from nonentrepreneurial actions and opportunities. Such discussion is imperative for the task of eloquent theory development (Suddaby, 2010b), given the considerable conceptual stretch that the entrepreneurial and opportunity constructs have undergone (Gartner, 1990; Hansen, Shrader, & Monllor, 2011).

Boundary Conditions of Innovative and Entrepreneurial Action

Being entrepreneurial is being innovative, because "if entrepreneurial action is always a break

with the status quo, then it is likely to involve some degree of innovation for the individuals involved" (McMullen, 2015: 671). Yet what exactly makes an action "sufficiently" innovative cannot be determined by means of philosophical analysis and inevitably involves subjective evaluation. If being innovative is doing "things that are not generally done in the ordinary course of business routine" (Schumpeter, 1983: 7), then the logic of the innovative construct is essentially contrastive: it does not lie in the nature of the activity but, rather, in the *departure* from the established ways of doing things. The very same practice can be varyingly innovative against the backdrop of different reference points. A corporation can innovate with a product that has not appeared in the global market before (e.g., Apple with the iPad), an individual can innovate by introducing a novelty to one market that is nonetheless ordinary in other regions of the world (e.g., Howard Schultz's introduction of the Italian "coffee experience" to the U.S. market with Starbucks), and an organization can also innovate against its past practices through the implementation of total quality management techniques.

Moreover, whether a practice is counted as innovative will vary for different scholarly communities. While some will view as innovative only high-impact Silicon Valley venture types (e.g., Guzman & Stern, 2015) or immensely profitable businesses (e.g., Henrekson & Sanandaji, 2014), others may follow Schumpeter and frame as innovative deeds as "trivial" as the decision to "change pigs with cows" (1983: 79). Such definitional matters eventually boil down to subjective preferences, local norms, and intersubjective consensus.

For our metatheoretical purpose, there is nothing precluding an action from counting as entrepreneurial as long as it is deemed to be somehow novel *from a market's point of view*. Changing pigs with cows can be considered an entrepreneurial act if the departure from past practices leads to the offering of a new product to the target market. The level of technological sophistication, degree of inventiveness, or realization of profits (or lack thereof) are all inconsequential to our conceptualization of entrepreneurship.

Although the boundaries of what can be counted as innovative are fairly broad in this respect, our definitional criterion of novel interaction with a market entails that entrepreneurial activities are a subset of innovative

activities. Entrepreneurship must be somehow innovative, but the reverse does not necessarily follow. Not all innovations lead to the offering of a novel product or service. An obvious example is cost-cutting innovations, such as more efficient organizing methods or cheaper ingredients for the production of the same product. Cost-cutting efforts can certainly contribute to a venture's profitability by increasing profit margins or boosting revenues. Analytical precision nonetheless requires that we guard against their analytical conflation with *entrepreneurial* innovations.

Entrepreneurial Opportunities vis-à-vis Opportunities for Entrepreneurial Action

The single most important source of confusion in discovery theory lies in the interchangeable use of opportunities for profit with opportunities for entrepreneurial action (e.g., Davidsson, 2015; Dyer, Gregersen, & Christensen, 2008; Martin & Wilson, in press; Shane & Venkataraman, 2000; Shook, Priem, & McGee, 2003; Short, Ketchen, Shook, & Ireland, 2010). Consider, for instance, Shane's (2012: 16) somewhat synonymous use of "technological opportunities" and "profit opportunities" in his recent example of the opportunity to commercialize aviation when airplanes were invented. Using these two constructs interchangeably conflates them. The invention of aircraft gave rise to the opportunity to act entrepreneurially by introducing the aviation innovation in the transportation market. However, the opportunity to profit was determined by market factors. In the example of electric lighting, there was a gap of approximately seventy-five years between the invention of electric lighting and its profitable commercial exploitation by Edison (Hargadon & Douglas, 2001: 482–486).

"Situations in which new goods, services, raw materials, markets and organizing methods can be introduced" (Eckhardt & Shane, 2003: 336) are interrelated but ontologically distinct from entrepreneurial opportunities. It is therefore imperative that we embrace "a distinction between opportunities to realize an event outcome (e.g., profit)—i.e., 'an opportunity to succeed'—and opportunities to engage in action—i.e., 'an opportunity to try'" (McMullen, 2015: 660). The propensity framework facilitates this distinction well: the introduction of novel products or services into a market is the means of triggering

the actualization of profit propensities, but the opportunities for the introduction of novel goods and services are *not themselves* entrepreneurial opportunities. Venture opportunities lie in the conditions making the *supply* of novel products possible through technological advances, access to financial and social capital, and so on (see also McMullen, Wood, & Palich, 2014). These market offerings might, in turn, trigger the actualization of profit opportunities, which nevertheless involves market *demand*.

For conceptual precision, we should also refrain from naming the opportunity to create social value as entrepreneurial opportunity (cf. Lee & Venkataraman, 2006: 110), in spite of the fact that social value can emerge (intentionally or not) from profit-seeking activities (see also Baumol, 1990: 897–898). It is otherwise tempting to cursorily frame Mark Zuckerberg as motivated to create social value when attempting to actualize a profit opportunity via Facebook (versus being motivated to making profits alone). Confounding goals with their side effects unintentionally encourages the idea that entrepreneurship is an act of altruism, and it inadvertently conflates for-profit actions with social entrepreneurship (see also Austin, Stevenson, & Wei-Skillern, 2006).

REVISITING THE CHALLENGES PLAGUING THE DISCOVERY APPROACH

We revisit below the challenges to the discovery approach and show how they are addressed by the actualization approach. We specifically focus on issues related to time and uncertainty, along with the puzzle of real but unexploited opportunities.

Time and Uncertainty

Klein questioned the sensibility of referring to opportunity existence *prior* to the realization of profits, because "gains (and losses) do not come into being objectively until entrepreneurial action is complete" (2008: 181), echoing Kaish and Gilad's concern that "in intertemporal markets, the opportunity does not yet exist to be discovered" (1991: 46). From a complementary viewpoint, Korsgaard, Berglund, Thrane, and Blenker assaulted the idea that opportunities may be objectively present by stressing that "future markets do not yet exist" (in press). In a similar

vein, Buchanan and Vanberg (1991) embraced Shackle's thesis that "the content of time-to-come is not merely unknown but inexistent" (1983: 33), in an attempt to expose the absurdity of the Kirznerian idea that opportunities may already exist "out there" in a future that has "yet to be created" (Buchanan & Vanberg, 1991: 178).

Tensions stemming from the temporalities of the entrepreneurial process do not refute the objectivity of entrepreneurial opportunities. Instead, they underscore the need to embrace their propensity mode of being and to pay closer attention to subtle logical intricacies. These tensions fade away once we differentiate between the two meanings of existence associated with the temporal transition from propensity to actuality:

- at Stage A, the existence of the propensity *itself* (propensity to actualize into profits when the opportunity is successfully exploited), and
- at Stage B, the existence of empirical events (i.e., profit realization) that *manifest* the propensity's preexistence.

It is important to note that the second meaning of existence does not refer to propensities but, rather, to events that convey *knowledge* regarding preexisting propensities. There are two discrete kinds of existence at play, and contradictions emerge only when this subtle ontological distinction is overlooked. The transition from Stage A to B is typically uncertain since there is no metaphysical guarantee that venturing will result in profit making (McMullen & Dimov, 2013).

Although Klein was correct in noting that profits "do not come into being objectively until entrepreneurial action is complete" (2008: 181), he unnecessarily questioned the objective existence of entrepreneurial opportunities, since profits are ontologically distinct from opportunities. Profits relate *epistemologically* to opportunities: when profits are realized, we know that the related opportunities exist. However, opportunities are *ontologically* irreducible to profits, and, therefore, it does make sense to discuss opportunities as propensities prior to the realization of profits. To also respond to Kaish and Gilad's (1991) concern, although opportunities exist, what does not exist prior to their actualization is our knowledge of their existence. It is profits but not opportunities that can be discovered. The preexistence of opportunities can be retrospectively *inferred* when

profits are realized, but it is not entirely accurate to say that opportunities themselves are discovered.

Moreover, given that the ontological transition from Stage A to Stage B requires the passage of time, propensities do not actualize at the very moment they come into existence. This demystifies Popper's *prima facie* paradoxical proposition that the "future is, in this way, *actively* present at every moment" (1990: 20). Any sense of paradox surrounding notions of "pre-existing futures" disappears once we clearly grasp that "future" refers to events yet to actualize, which nonetheless currently exist in a state of propensity.

Consider, additionally, Shackle's thesis that "the content of time-to-come is not merely unknown but inexistent" (1983: 33), as endorsed by Buchanan and Vanberg (1991), Venkataraman (2011), and Korsgaard et al. (in press). On the one hand, these scholars are right to assert that the future is inexistent, in the sense that it is absent from the present world. On the other hand, they overlook that the present reality of opportunities can be meaningfully maintained once the objectivity of opportunity is viewed within a propensity framework. The proposition that "future parts of a market simply do not exist; they are, by definition, not present" (Buchanan & Vanberg, 1991: 176) holds water only on a blueprint of existence that lacks the ontological depth brought to prominence by propensity-based realism.

Reconsidering a Core Puzzle

Discovery theorists cannot resolve the puzzle that "so many people 'miss' opportunities that literally stare them in the face" (Baron, 2006: 115) without drawing a deep ontological dichotomy between entrepreneurs and so-called non-entrepreneurs, who are treated as either "essentially blind" (Gartner, Carter, & Hills, 2003: 107) or genetically unsuitable (Nicolaou et al., 2008; see also Ramoglou, 2013b). For the actualization approach, the puzzle of asymmetrical opportunity perception is a nonissue. Once we realize that opportunities do not exist like dollar bills or lost luggage and are not supposed to be "discovered" as such, we are in a better position to appreciate the uncertainties of the entrepreneurial process (McMullen & Shepherd, 2006). We abandon the expectation that opportunities will inevitably be perceived at the moment of their emergence or will be exploited at the moment they are

perceived. Opportunities might exist unperceived and unexploited, similar to potent seeds that remain unperceived and their propensity to become flowers unactualized.

The actualization approach also overcomes the associated idea regarding the presence of some causal “nexus” between opportunities and individuals (McCaffrey, 2014). Opportunities do not have any sort of causal interaction with individuals. They exist as the background against which the realization of profits becomes objectively possible (akin to nourishment that does not stand causally to life but, rather, is an ontological precondition for the possibility of life). In realist terms, opportunities exist as ontological conditions of possibility.

ENTREPRENEURIAL SUBJECTIVITIES IN THE ACTUALIZATION APPROACH

In the previous section we addressed challenges concerning the objectivity of opportunities that plague the discovery approach. In this section we discuss the subjectivities of the entrepreneurial process by demonstrating the nature of the interplay between entrepreneurial subjectivities and opportunities qua propensities.

Whether the subjective perception of opportunities contradicts notions of objectivity is a perennial source of tension between creation and discovery scholars (e.g., Alvarez & Barney, 2013; Eckhardt & Shane, 2013). Here we explain how the *subjectivity* of “opportunity perception” can be meaningfully conceptualized in parallel with the *objectivity* of “opportunity existence” within the actualization approach. If propensities are absent from the world’s actualized domains, they lack “the sharp-edged reality of all things which we have seen and experienced” (Schumpeter, 1983: 85), and the possibility of making cognitive contact with them—at the bare minimum—requires that they be seen as a “figment of our imagination” (Schumpeter, 1983: 85; see also Shackle, 1979). Yet what imaginative content could, within reason, bring about an individual’s attempt to grasp an opportunity? Can the “dreaming of things that do not yet exist” (Gaglio, 2004: 533), such as the “imaginary combination of product/service offering” (Davidsson, 2015: 683), qualify as imagining opportunities? For example, would an individual perceive opportunity in *imagining* oneself producing “Je suis Charlie” T-shirts simpliciter?

If activities are the means toward the satisfaction of goals—but are not opportunities themselves—the imaginative inception of an entrepreneurial course of action alone cannot describe an individual’s imaginative contact with a possible opportunity. Instead, it is in the imaginative projection of *a favorable state of the world to follow a course of action* that we may say that an individual makes imaginative contact with a possible opportunity. This conceptualization entails two key distinctions—(1) between imagination and belief and (2) between belief and knowledge—suggesting, effectively, three ways of “seeing” opportunities.

For the first distinction, using the word “opportunity” connotes confidence that one is making contact with something not merely imaginable but in an important sense real. However, there exists a subtle ontological distinction between the medium of imagination and the structure of beliefs (Searle, 2001); imagination is more of a neutral cognitive projection into the future that need not be accompanied by positive (phenomenological) experiences (see also Popper, 1963). We can imagine winning a fortune by gambling in the casino or making billions by starting a far-fetched entrepreneurial venture. Yet we do not typically experience such projections as anything more than the offshoot of a playful imaginative endeavor. We are aware that what *can* (objectively) be the case is considerably narrower than what we *can* (subjectively) *imagine* as possible. Imagining “if X, then Y” future scenario types might offer the raw material or stimulus (see McMullen, 2015, on the stimulus problem) for making cognitive contact with opportunities, but such imagination is insufficient for offering the experience one has when believing one has recognized an opportunity. One must additionally trust that the imaginative projection corresponds to a naturally possible world state.

The second distinction concerns the fact that even if an individual claims to know that he or she has recognized an opportunity, we (qua researchers) cannot share this confidence prior to opportunity actualization. “Individuals can only *believe* (not know) that they have recognized entrepreneurial opportunities under uncertainty” (McMullen, 2015: 657); hence, the (epistemologically) neutral “opportunity belief” should replace expressions such as “opportunity recognition” or “opportunity identification” (McMullen & Shepherd, 2006). Just as imagining scenarios is ontologically

different from believing that they correspond to genuine possibilities, the belief in imagined future projections is ontologically distinct from knowledge concerning the genuinely possible. If “in an uncertain world, expectations may be disappointed” (Kregel, 1976: 209), as seminally maintained by Keynes (1936), beliefs regarding opportunities can also be disappointed.

To summarize, we have discussed three ways through which an individual can make cognitive “contact” with opportunities qua propensities. The vague construct of “entrepreneurial alertness” (Kirzner, 1997) can therefore be meaningfully replaced by three types of seeing that can appear sequentially in an entrepreneurial process: imagining (S_1), believing (S_2), and knowing (S_3):

- S_1 : *imagining* the state of the world in which one makes profits after engaging in an entrepreneurial course of action;
- S_2 : *believing* this state of the world as ontologically possible; and
- S_3 : after the realization of profits, *knowing* retrospectively that an opportunity was truly there.

Although objective knowledge of opportunities' existence can be gained only retrospectively (S_3), this recognition is not at odds with the objective ontology of opportunities. Moreover, their objective existence does not negate the meaningfulness of discussing purely subjective ways of making sense of them prior to their actualization (S_1 and S_2).

If the perception of objectively existing “stuff” strictly concerned the ways we perceive dollar bills or mountains, it would be right to deny notions of opportunity objectivism and assert that “opportunities are subjectively imagined rather than objectively existing” (Korsgaard et al., in press). Yet the (otherwise sensible) urge to subjectivize opportunities can relax once we adopt the propensity reasoning that transcends the either subjectively perceived or objectively existing dichotomy. It is perfectly intelligible to maintain that objectively existing opportunities are subjectively imagined and believed in.

A REALIST THEORIZATION OF UNCERTAINTY AND FAILURE

In the previous two sections we demonstrated how the actualization approach addresses challenges to the discovery approach and, at the same

time, takes into account the subjectivities of the entrepreneurial process. In this section we discuss a unique strength of the actualization approach—namely, a profound conceptualization of uncertainty regarding opportunity existence (1) prior to the outcomes of action and (2) in instances of failure.

A More Nuanced Treatment of Uncertainty

In looking to the future from a realist vantage point, we are in a state of agnosticism. We can imagine endless possibilities, but we cannot know whether they fall within the domain of unactualized propensities or whether our imagination has sidetracked into the domain of the impossible. We know philosophically that unactualized propensities exist in abstracto but not where they exist in concreto.

This nuanced view of uncertainty is overlooked in entrepreneurial discourse by proponents of the discovery and creation approaches alike (for exceptions see McMullen, 2015; McMullen & Dimov, 2013; Ramoglou & Zyglidopoulos, 2015). Scholars tend to limit uncertainty to the *empirical* realization of profits, as opposed to the more fundamental *ontological* uncertainty regarding the existence of conditions capable of sustaining a venture's profitability. It is typically presupposed that one *can* succeed, and uncertainty pertains to whether one *will* succeed.

We explained above that in denying the existence of exogenous conditions for possibility, the creation approach subscribes to the metaphysics of possibilism. A worldview that presumes that “nothing we imagine is absolutely impossible” (Hume, 1985: 81) is at odds with the deep kind of uncertainty that we advocate. Without the domain of the impossible, there is no uncertainty regarding the limits of the possible; anything is, in principle, achievable (see also Arend, Sarooghi, & Burkemper, 2015).

The way in which discovery scholarship trivializes uncertainty is more indirect and likely unintentional. Specifically, epistemologically charged words like “discover,” “recognize,” and “identify” connote that individuals *know* they come across opportunities prior to action (whereas opportunities might only be imagined or believed to exist as we have argued; see also Dimov, 2011). If opportunities are objectively discovered *and then* exploited, we unintentionally commit to their necessary existence,

and uncertainty concerns whether they will be successfully exploited.

Note in this regard the sense of paradox inherent in Shane's claim that the

definition of entrepreneurial opportunities does not require them to be profitable; rather, our definition suggests only that the probability new goods, services, raw materials, and organizing methods could be introduced and sold at greater than their cost of production exceeds zero (2012: 15).

When a person is said to discover an entrepreneurial opportunity and then exploit it, the probability of having a profitable outcome must be greater than zero (and cannot be zero). In other words, this profitability attribute of the outcome is supposedly known with certainty at the moment of "discovery," before even the exercise of entrepreneurial action. This conundrum is caused by conceptualizing opportunities as actualized entities.

In brief, the discovery framework cannot accommodate the more profound kind of uncertainty envisaged by realist metatheory. If prior to action we are in a state of agnosticism and cannot know whether a projected venture falls into the domain of nonopportunity, can we *ex post* truly know the existence of opportunities?

The Indeterminacy-of-Failure Thesis

The only occasion where we can know the existence of opportunity is at the realization of profits. Yet in the case of failure, we are agnostic. This proposition stands contrary to the assessment by objectivist scholars who acknowledge uncertainty *ex ante* but tend to infer the absence of opportunity in the absence of profits (e.g., McMullen, 2015; Ramoglou & Zyglidopoulos, 2015). In contrast, the actualization approach suggests that we can seldom rule out the preexistence of an opportunity. If the entrepreneur stopped short of deploying the required agentic effort, the opportunity might have simply remained unactualized. The absence of anticipated profits might often be due to wrongdoings or omissions in either the design or the execution stage (Singh, 2001).

For example, Hargadon and Douglas (2001) suggested that Edison failed to profitably exploit the phonograph innovation because of wrongdoings in infiltrating the market. Specifically, Edison offered a device with multiple functions, such as audible books for blind people and

talking dictation, whereas the market retrospectively showed that promoting *solely* the function of music reproduction was the proper means of actualizing this opportunity (Conot, 1979). It was a real opportunity that was just waiting the *appropriate* mode of actualization, yet Edison had incorrectly dismissed it as lacking "any commercial value" (Hargadon & Douglas, 2001: 493).

In summary, a realist conception of uncertainty entails that (1) when looking *forward* into the future, we know neither whether an opportunity exists nor whether it will actualize, and (2) when looking *backward* at instances of failure, we cannot typically determine whether an opportunity was absent or simply unactualized. In essence, realist ontology suggests that we are in a state of agnosticism for questions that are by their very nature unanswerable. Still, the fact that we cannot acquire knowledge of this kind does not mean that there are no contributions to be made at the level of empirical inquiry. Empirical scientists benefit not only by becoming informed regarding novel theories and research implications (cf. Arend et al., 2015; Davidsson, 2015; Dimov, 2011) but also by being alerted to theoretical dead ends and unwholesome research orientations.

Moreover, if we cannot address empirically unanswerable metaphysical questions, we can certainly study how individuals engage with the metaphysical uncertainties at the heart of entrepreneurship. Our sensemaking is not fully informed by empirical and testable theories after all; in order to survive in an inescapably uncertain world, we cannot but hold tight to notions that are by their very nature untestable. As seminally appreciated by Kant (1999), by virtue of possessing a human mind, we are already metaphysical philosophers. The metaphysical issues elaborated in this article could serve as theoretical searchlights (Popper, 1972) into the deeper beliefs (Krueger, 2007) that individuals hold with respect to inevitably "unanswerable metaphysical considerations" (Tetlock & Belkin, 1996: 3). We discuss below research implications along with attendant pedagogical possibilities.

RESEARCH AND PEDAGOGICAL IMPLICATIONS

We have argued that we can neither foresee where opportunities exist nor know retrospectively whether opportunities remained unexploited or were simply absent. We can nonetheless try to

understand how agents make sense of these metaphysical puzzles. This is analogous to the move of scholars interested in empirically unanswerable questions about the existence of God switching from theology to the psychology of religion. The following are some fruitful research directions constructed based on this spirit, coupled with remarks toward a critical pedagogy in entrepreneurial studies (Giroux, 1988).

Making Sense of Entrepreneurial Failure and Success

Are failed entrepreneurs inclined to maintain their original beliefs in the existence of the postulated opportunity while attributing failure solely to mishaps during the exploitation phase? Or are they instead inclined to regret believing in the opportunity's existence in the first place? The following reflection by Richard Branson, following the crash of a Virgin Galactic spacecraft on October 31, 2014, is thought-provoking:

I found myself questioning seriously for the first time, whether in fact it was right to be backing the development of something that could result in such tragic circumstances. In short—was Virgin Galactic and everything it has stood for and dreamt of achieving, really worth it? . . . I got a very firm answer to that question immediately when I landed in Mojave. From the designers, the builders, the engineers, the pilots and the whole community who passionately believed—and still believe—that truly opening space and making it accessible and safe is of vital importance to all our futures (Boyle, 2015).

It seems that despite his initial doubt immediately following the tragedy, Branson decided to hold on to his belief that commercializing space travel is a profitable opportunity. Where does his confidence come from? How could “narrative attributions” shed light on underlying metaphysical attitudes (Mantere, Aula, Schildt, & Vaara, 2013)?

How do failed entrepreneurs resonate with our indeterminacy thesis? How might culture relate to different metaphysical attitudes toward the unknowable? Are individuals from cultures high in “uncertainty avoidance” (Hofstede, 1980) more likely to resist the agnostic mental state, or even more likely to appeal to superstitious means driven by the desire for certainty in an uncertain world (Tsang, 2004)? It would also be interesting to examine the variety of metaphysical attitudes that emerge among different

types of entrepreneurs, or the evolution of such attitudes for individuals who face a sequence of failures. Do the metaphysical schemata of highly experienced entrepreneurs differ from those of novice entrepreneurs? For example, are the former, such as Branson, more aware that existing opportunities do not actualize necessarily, and that one should often persist, than the latter, who might be prone to quickly revise their initial beliefs in the absence of anticipated outcomes?

This line of research has strong pedagogical potential. Just as realist philosophers of science warn experimental scientists about the temptation of pseudo-falsification (Bhaskar, 1978), realist entrepreneurship educators could make enterprising individuals cognizant of the dangers of premature opportunity abandonment. This realist attitude can also shed light on the puzzle of standard economic theory regarding entrepreneurial persistence despite the apparent unprofitability of the activity (Åstebro, Herz, Nanda, & Weber, 2014). Persistent individuals might simply be aware of the ontological insight that absence of profits does not necessarily mean absence of opportunity for profit.

Conversely, patterns of persistence in the face of failure might also be explained by unrealistic presuppositions. For example, if one is rigidly committed to a possibilist worldview and does not let failure weaken the initial belief in opportunity existence, then one is likely to persevere, and even to escalate resource commitment toward a probably hopeless venture. On such occasions the entrepreneurship educator could problematize deep-seated worldviews—in the style of cognitive therapy—by encouraging enterprising individuals to question dogmatic worldviews that might be entrapping them in financial dead ends.

Moreover, it would be interesting to investigate how highly successful entrepreneurs relate to the view that their actions might have simply triggered the actualization of an objectively existing propensity. For example, would Zuckerberg be willing to accept that the “Facebook opportunity” might have been just waiting to be actualized and that anybody in his position could have enjoyed a similar level of success? Or would he instead be inclined to attribute the core ingredient of his success to ingenious steps taken during the exploitation process? In other words, would he be willing to accept the counterfactual scenario of failure as plausible in the absence of his efforts, or

would he view his success in an important sense as metaphysically predestined?

We should also be alert to the possibility that some entrepreneurs might tend to display a more constructivist mindset. For example, this would be the case if Zuckerberg's ontological presumptions resonated with popular culture portraits, according to which he possesses the supreme world-creating ability required "for changing how we live our lives" (Time, 2010). Realist educators could challenge such world-creating convictions by offering alternative explanations that do not ascribe spectacular successes to "superior innovative abilities" (McMullen & Shepherd, 2006: 149) but instead highlight other contributing factors, such as related technological advances and a favorable institutional surrounding. Such pedagogical advice could, in turn, protect successful entrepreneurs from potentially self-destructive hubris (Hayward, Shepherd, & Griffin, 2006).

Nonentrepreneurs

From an empiricist standpoint, if one does "not do an action, then either . . . [one] lacks the capacity or lacks the opportunity" (Ayers, 1968: 105). It is therefore unsurprising that for discovery theory nonenterprising individuals have the opportunity but lack the capacity to exploit it (Ramoglou, 2013b). Realism does not dismiss nonenterprising individuals as helpless nonentrepreneurs. Instead, the category of nonenterprising individuals (those who *could have* yet did *not* act entrepreneurially) emerges as a particularly interesting domain for the realist entrepreneurship researcher, given that realist philosophy of science is "concerned essentially with possibilities, and only derivatively with actualities" (Bhaskar, 1978: 18). Nonenterprising individuals may not lack opportunity exploitation capacities but may simply doubt that their imaginative projections into the future correspond to ontologically genuine possibilities.

Instead of asking why some and not others are capable of exploiting the opportunities they "discover" (Shane & Venkataraman, 2000) and searching for unique qualities in enterprising individuals (Gartner, 1989; Ramoglou, 2013b), a more fruitful research question would be, "When facing the same imaginative scenario, why do individuals have vastly different views regarding its plausibility?" The

vocabulary associated with the actualization approach can facilitate research along these lines by deepening our understanding of the underlying causes for doubt:

- D₁: doubt that profits *will* follow (e.g., I doubt that I will make profits by acting on this opportunity);
- D₂: doubt that profits *can* follow (e.g., I doubt that this opportunity exists in the first place);
- D_{2a}: doubt that profits can follow because I doubt that an opportunity exists here for *me*;
- D_{2b}: doubt that profits can follow because I doubt that opportunities exist here for *anyone*;
- D₃: doubt that opportunities exist *in general*; and
- D₄: doubt that I possess the capability to "identify" opportunities.

This more nuanced view of doubt enriches pedagogy as well. Individuals who believe that they lack the cognitive ability required for "identifying" entrepreneurial opportunities (D₄) could be helped to appreciate that there need not be any extraordinary ability involved. Entrepreneurial success need not require prescience (Dimov, 2011). The distance between success and failure can also be attributed to luck: successful entrepreneurs might simply trust their imagination and find out *ex post* that they were fortunate enough to pursue a course of action based on that belief.

A strong potential for a realist pedagogy also lies in the case of D₃ as an expression of the actualist worldview cherishing the actual as necessary—and a priori dismissing the absent as impossible. Consider for instance the 217 of the 242 potential investors approached by Howard Schultz who gave him various arguments regarding why cafés could not be a growth industry in the United States:

Many investors I approached told me bluntly that they thought that I was selling a crazy idea. . . . "Why on earth do you think this is going to work? Americans are never going to spend a dollar and a half for coffee!" "You're out of your mind. This is insane. You should just go get a job." . . . Americans, they insisted, could never enjoy espresso the way Italians do (Schultz & Yang, 1997: 73, 67, 76).

When Schultz shared his vision with potential investors, all of them visualized imaginatively the very same projection—namely, a state of the world in which the American public's desire for the coffee experience sustained the profitability of Starbucks-type ventures. Yet the majority of these

individuals not only did not experience this scenario as ontologically possible but forcefully dismissed its plausibility.

The Starbucks example suggests that entrepreneurial pedagogy could target action-hindering beliefs. This is not to say that one must always believe in the existence of opportunities. Rather, possible opportunities should not be automatically rejected because of metaphysical dogmatism. To this end, we could communicate the invaluable realist insight that the world "out there" exists in more ways than the eye can meet, and we should refrain from falling for the idea that existing propensities must have been *inevitably* imagined, believed, and actualized. There are always opportunities remaining unimagined, imagined yet unpursued, or pursued but unactualized. It is sheer epistemological superstition to believe that as long as cognitively privileged agents possessing the flashlight of "entrepreneurial alertness" happen to be around (Kirzner, 1979), opportunities will instantly be spotted and exploited.

Last, we should move decisively beyond the entrepreneur versus nonentrepreneur divide and the associated static explanations of risk propensity and entrepreneurial potential (Gartner, 1989; McMullen & Shepherd, 2006). Instead, we should study the (likely) evolution from doubt to belief among enterprising individuals, and vice versa among nonenterprising individuals. Such a diachronic mode of study could help us understand why some individuals allow peer skepticism to undermine their confident beliefs in opportunity existence, whereas others hold tight to their personal judgment (Metcalf, 2004; Shepherd, 2015). How do individuals make sense of this conflict of judgments? Do they even attempt to make rational sense of it, or are they inclined to dogmatically hold on to original beliefs?

Promoting Reflective Entrepreneurship

The promotion of enterprise is an increasingly prominent topic on the public policy agenda (Nightingale & Coad, 2014). Individuals are encouraged to take fate into their own hands, and entrepreneurship is celebrated as the panacea to some of our most pressing socioeconomic challenges, such as poverty and unemployment. According to our realist analysis, this entrepreneurship public policy is erected on the precarious metaphysics of possibilism. If we lived in a world free from nonopportunities, it would be

right to place primary emphasis on raising the "entrepreneurial spirit." However, if our world is close to the realist view that there is a large space of nonopportunity next to the domain of entrepreneurial opportunities, we should tone down the oft-unqualified enthusiasm about entrepreneurship and caution against the tendency to celebrate wanderings of imagination as "opportunity identification."

This is not to say that realism discourages entrepreneurship. Rather, in promoting a more nuanced worldview, realism guards against simplistic and potentially irresponsible narratives (Calás et al., 2009), and it underscores the need for more *reflective* entrepreneurs, as opposed to more entrepreneurs *simpliciter*. Opportunities surely exist. But we cannot know *where* they exist and for *whom*, nor *how much* effort must be invested for their actualization.

Prediction versus Explanation

Finally, realism can soothe entrepreneurship researchers' worry about lacking predictively successful theories (Shane & Venkataraman, 2000). As mentioned, predictive power is a prime positivist criterion for theory assessment. From a realist standpoint, however, the scientific status of a discipline is *not* threatened by the lack of predictively powerful theories. Prediction is only feasible on the relatively rare occasions of experimental closure produced in laboratory situations or in the study of astronomical phenomena (Miller & Tsang, 2011). But the complexity of factors affecting entrepreneurial activities and outcomes makes the lack of predictively powerful theories far from surprising. For example, it does not suffice to believe in the existence of an opportunity for the exercise of entrepreneurial activity, for a number of reasons, such as the doubt that the opportunity *will* materialize into profit (see D_1 and $D_{2\alpha}$). Rather than maintaining that prediction of entrepreneurial activities is a reasonable expectation, we may instead focus our attention on explaining and understanding entrepreneurial phenomena, as well as improving the effectiveness of entrepreneurial actions through reflective teaching.

After all, while the study of planets does not make them alter their orbits, management researchers' conceptions of reality do shape the business world that they study (Ferraro, Pfeffer, & Sutton, 2005; Suddaby, 2014b): "Our

very understanding of the world changes the conditions of the changing world" (Popper, 1990: 17). In the context of entrepreneurship, why worry that we cannot predict entrepreneurial events as long as we can help train more reflective entrepreneurs?

CONCLUSION

Shane and Venkataraman (2000: 224) close their "Promise" by highlighting the possibility that they may have made some flawed assumptions and invalid arguments, and Shane concludes his recent article by inviting future researchers to "identify errors and confusing points" (2012: 18). In an important sense our article responds to Shane's (2012) invitation for further meta-theoretical research by addressing prevailing puzzles and confusion from a realist philosophy of science standpoint. Most crucially, by rehabilitating the objectivity of opportunities along the depth ontology offered by realist meta-theory, we could more explicitly appreciate the propensity mode of opportunity existence that has been hindered by inadequate theorizing and overpowered by empiricist preconceptions.

We do not imply that we have said the last word on these foundational issues. It is likely that weaknesses will be revealed and new conceptual challenges will emerge. This possibility seems even more likely if we take into account that the subject matter of entrepreneurial discourse lies at the crossroads of some of the most intellectually challenging matters, such as the metaphysics of potentiality and the nature of human intentionality. It would not be an exaggeration to say that the study of entrepreneurial phenomena touches on some of the most demanding aspects of philosophy. This is readily evidenced by the fact that philosophers since Aristotle (including Bertrand Russell and Roy Bhaskar) have often found themselves struggling with the task of theorizing *real* yet empirically *absent* modes of existence.

We close by daring a novel reading into the causes of the slow intellectual progress in the field of entrepreneurship so routinely documented. Entrepreneurship stands on the thin line between possibility and actuality and therefore faces unique conceptual difficulties unknown to disciplines studying actualized phenomena with more discernible patterns of causality (e.g., astronomy or molecular biology). Yet despite the challenges intrinsic to the subject matter, scholars should not become easily intimidated, let alone dismiss

the option of realist studies by surrendering this domain to ill-conceived philosophical conceptions of scholarly research (see Suddaby, 2014b: 449–453, on scientism and dustbowl empiricism). To this end, it is imperative that we fully embrace the theoretical intricacies and uncertainties stemming from the fact that we "live in a world of propensities" (Popper, 1990: 9).

REFERENCES

- Alvarez, S. A., & Barney, J. B. 2007. Discovery and creation: Alternative theories of entrepreneurial action. *Strategic Entrepreneurship Journal*, 1: 11–26.
- Alvarez, S. A., & Barney, J. B. 2010. Entrepreneurship and epistemology: The philosophical underpinnings of the study of entrepreneurial opportunities. *Academy of Management Annals*, 4: 557–583.
- Alvarez, S. A., & Barney, J. B. 2013. Epistemology, opportunities, and entrepreneurship: Comments on Venkataraman et al. (2012) and Shane (2012). *Academy of Management Review*, 38: 154–157.
- Alvarez, S. A., Barney, J. B., & Anderson, P. 2013. Forming and exploiting opportunities: The implications of discovery and creation processes for entrepreneurial and organizational research. *Organization Science*, 24: 301–317.
- Alvarez, S. A., Barney, J. B., McBride, R., & Wuebker, R. 2014. Realism in the study of entrepreneurship. *Academy of Management Review*, 39: 227–233.
- Arend, R. J., Sarooghi, H., & Burkemper, A. 2015. Effectuation as ineffectual? Applying the 3E theory-assessment framework to a proposed new theory of entrepreneurship. *Academy of Management Review*, 40: 630–651.
- Arin, K. P., Huang, V. Z., Minniti, M., Nandialath, A. M., & Reich, O. F. M. 2015. Revisiting the determinants of entrepreneurship: A Bayesian approach. *Journal of Management*, 41: 607–631.
- Arrow, K. J. 1974. Limited knowledge and economic analysis. *American Economic Review*, 64: 1–10.
- Arrow, K. J., & Debreu, G. 1954. Existence of an equilibrium for a competitive economy. *Econometrica*, 22: 265–290.
- Åstebro, T., Herz, H., Nanda, R., & Weber, R. A. 2014. Seeking the roots of entrepreneurship: Insights from behavioral economics. *Journal of Economic Perspectives*, 28(3): 49–69.
- Austin, J., Stevenson, H., & Wei-Skillern, J. 2006. Social and commercial entrepreneurship: Same, different, or both? *Entrepreneurship Theory and Practice*, 30: 1–22.
- Ayers, M. R. 1968. *The refutation of determinism*. London: Methuen.
- Baker, T., & Nelson, R. E. 2005. Creating something from nothing: Resource construction through entrepreneurial bricolage. *Administrative Science Quarterly*, 50: 329–366.
- Baron, R. A. 2006. Opportunity recognition as pattern recognition: How entrepreneurs "connect the dots" to identify new business opportunities. *Academy of Management Perspectives*, 20(1): 104–119.

- Barreto, I. 2012. Solving the entrepreneurial puzzle: The role of entrepreneurial interpretation in opportunity formation and related processes. *Journal of Management Studies*, 49: 356–380.
- Baumol, W. J. 1990. Entrepreneurship: Productive, unproductive, and destructive. *Journal of Political Economy*, 98: 893–921.
- BBC News**. 2015. Bill Gates drinks water distilled from human faeces. January 7: <http://www.bbc.co.uk/news/technology-30709273>.
- Bhaskar, R. 1978. *A realist theory of science*. Hassocks, UK: Harvester Press.
- Bhaskar, R. 1998. *The possibility of naturalism* (3rd ed.). New York: Routledge.
- Birkinshaw, J., Healey, M. P., Suddaby, R., & Weber, K. 2014. Debating the future of management research. *Journal of Management Studies*, 51: 38–55.
- Boyle, A. 2015. How Richard Branson almost scrapped Virgin Galactic, and why he didn't. *NBC News*, January 4: <http://www.nbcnews.com/storyline/virgin-voyage/how-richard-branson-almost-scrapped-virgin-galactic-why-he-didnt-n279411>.
- Brock, S., & Mares, E. 2007. *Realism and anti-realism*. Oxford: Routledge.
- Brooks, J. N. 1963. *The fate of the Edsel and other business adventures*. New York: Harper & Row.
- Bruyat, C., & Julien, P. A. 2001. Defining the field of research in entrepreneurship. *Journal of Business Venturing*, 16: 165–180.
- Buchanan, J. M., & Vanberg, V. J. 1991. The market as a creative process. *Economics and Philosophy*, 7: 167–186.
- Calás, M. B., Smircich, L., & Bourne, K. A. 2009. Extending the boundaries: Reframing "entrepreneurship as social change" through feminist perspectives. *Academy of Management Review*, 34: 552–569.
- Casson, M. 1982. *The entrepreneur: An economic theory*. Totowa, NJ: Barnes & Noble Books.
- Casson, M., & Wadeson, N. 2007. The discovery of opportunities: Extending the economic theory of the entrepreneur. *Small Business Economics*, 28: 285–300.
- Chiles, T. H., Bluedorn, A. C., & Gupta, V. K. 2007. Approach to entrepreneurship beyond creative destruction and entrepreneurial discovery: A radical Austrian approach to entrepreneurship. *Organization Studies*, 28: 467–493.
- Collier, A. 1994. *Critical realism: An introduction to Roy Bhaskar's philosophy*. London: Verso.
- Conot, R. E. 1979. *Thomas Edison: A streak of luck*. New York: Seaview Books.
- Cornelissen, J. P., & Clarke, J. S. 2010. Imagining and rationalizing opportunities: Inductive reasoning and the creation and justification of new ventures. *Academy of Management Review*, 35: 539–557.
- Dahlqvist, J., & Wiklund, J. 2012. Measuring the market newness of new ventures. *Journal of Business Venturing*, 27: 185–196.
- Danermark, B., Ekstrom, M., Jakobsen, L., & Karlsson, J. 2002. *Explaining society: Critical realism in the social sciences*. London: Routledge.
- Davidsson, P. 2015. Entrepreneurial opportunities and the entrepreneurship nexus: A re-conceptualization. *Journal of Business Venturing*, 30: 674–695.
- Davidsson, P., & Wiklund, J. 2009. Scott A. Shane: Winner of the Global Award for Entrepreneurship Research. *Small Business Economics*, 33: 131–140.
- Devitt, M. 1997. *Realism and truth*. Princeton, NJ: Princeton University Press.
- DiMaggio, P. J., & Powell, W. W. 1983. The iron cage revisited: Institutional isomorphism and collective rationality in organizational fields. *American Sociological Review*, 48: 147–160.
- Dimov, D. 2011. Grappling with the unbearable elusiveness of entrepreneurial opportunities. *Entrepreneurship Theory and Practice*, 35: 57–81.
- Dyer, J. H., Gregersen, H. B., & Christensen, C. 2008. Entrepreneur behaviors, opportunity recognition, and the origins of innovative ventures. *Strategic Entrepreneurship Journal*, 2: 317–338.
- Eckhardt, J. T., & Shane, S. A. 2003. Opportunities and entrepreneurship. *Journal of Management*, 29: 333–349.
- Eckhardt, J. T., & Shane, S. A. 2013. Response to the commentaries: The individual-opportunity (IO) nexus integrates objective and subjective aspects of entrepreneurship. *Academy of Management Review*, 38: 160–163.
- Ferraro, F., Pfeffer, J., & Sutton, R. I. 2005. Economics language and assumptions: How theories can become self-fulfilling. *Academy of Management Review*, 30: 8–24.
- Fleetwood, S. 2014. Bhaskar and critical realism. In P. Adler, P. Du Gay, G. Morgan, & M. Reed (Eds.), *Oxford handbook of sociology, social theory, and organization studies: Contemporary currents*: 182–219. Oxford: Oxford University Press.
- Friedman, M. 1953. *Essays in positive economics*. Chicago: University of Chicago Press.
- Gaglio, C. M. 2004. The role of mental simulations and counterfactual thinking in the opportunity identification process. *Entrepreneurship Theory and Practice*, 28: 533–552.
- Gartner, W. B. 1989. "Who is an entrepreneur?" is the wrong question. *Entrepreneurship Theory and Practice*, 13(4): 47–68.
- Gartner, W. B. 1990. What are we talking about when we talk about entrepreneurship? *Journal of Business Venturing*, 5: 15–28.
- Gartner, W. B. 2014. Notes towards a theory of entrepreneurial possibility. In E. Chell & M. Karatas-Özkan (Eds.), *Handbook of research in small business and entrepreneurship*: 25–37. Cheltenham, UK: Edward Elgar.
- Gartner, W. B., Carter, N. M., & Hills, G. E. 2003. The language of opportunity. In C. Steyaert & D. Hjorth (Eds.), *New movements in entrepreneurship*: 103–124. London: Edward Elgar.
- Garud, R., & Karnøe, P. 2001. Path creation as a process of mindful deviation. In R. Garud & P. Karnøe (Eds.), *Path dependence and creation*: 1–40. Mahwah, NJ: Lawrence Erlbaum Associates.

- George, E., Chattopadhyay, P., Sitkin, S. B., & Barden, J. 2006. Cognitive underpinnings of institutional persistence and change: A framing perspective. *Academy of Management Review*, 31: 347–365.
- Giroux, H. A. 1988. *Teachers as intellectuals: Toward a critical pedagogy of learning*. Westport, CT: Greenwood.
- Görling, S., & Rehn, A. 2008. Accidental ventures: A materialist reading of opportunity and entrepreneurial potential. *Scandinavian Journal of Management*, 24: 94–102.
- Guzman, J., & Stern, S. 2015. Where is Silicon Valley? *Science*, 347: 606–609.
- Hacking, I. 1999. *The social construction of what?* Cambridge, MA: Harvard University Press.
- Hansen, D. J., Shrader, R., & Monllor, J. 2011. Defragmenting definitions of entrepreneurial opportunity. *Journal of Small Business Management*, 49: 283–304.
- Hargadon, A. B., & Douglas, Y. 2001. When innovations meet institutions: Edison and the design of the electric light. *Administrative Science Quarterly*, 46: 476–501.
- Harré, R. 2002. *Cognitive science: A philosophical introduction*. London: Sage.
- Harré, R. 2008. The complexity of Wittgenstein's method. *Philosophy*, 83: 255–265.
- Harré, R., & Madden, E. H. 1975. *Causal powers: A theory of natural necessity*. Oxford: Blackwell.
- Hayek, F. A. 1945. The use of knowledge in society. *American Economic Review*, 35: 519–530.
- Hayward, M. L., Shepherd, D. A., & Griffin, D. 2006. A hubris theory of entrepreneurship. *Management Science*, 52: 160–172.
- Henrekson, M., & Sanandaji, T. 2014. Small business activity does not measure entrepreneurship. *Proceedings of the National Academy of Sciences*, 111: 1760–1765.
- Hodgson, G. M. 2001. *How economics forgot history: The problem of historical specificity in social science*. London: Routledge.
- Hofstede, G. 1980. *Culture's consequences: International differences in work related values*. Newbury Park, CA: Sage.
- Hume, D. 1985. *A treatise of human nature*. London: Penguin.
- Hume, D. 1993. *An enquiry concerning human understanding*. Indianapolis, IN: Hackett.
- Kaish, S., & Gilad, B. 1991. Characteristics of opportunities search of entrepreneurs versus executives: Sources, interests, general alertness. *Journal of Business Venturing*, 6: 45–61.
- Kant, I. 1999. *Critique of pure reason*. Cambridge: Cambridge University Press.
- Keh, H. T., Foo, M. D., & Lim, B. C. 2002. Opportunity evaluation under risky conditions: The cognitive processes of entrepreneurs. *Entrepreneurship Theory and Practice*, 27: 125–148.
- Keynes, J. M. 1936. *The general theory of employment, interest and money*. New York: Harcourt Brace Jovanovich.
- Kilduff, M., Mehra, A., & Dunn, M. B. 2011. From blue sky research to problem solving: A philosophy of science theory of new knowledge production. *Academy of Management Review*, 36: 297–317.
- Kirzner, I. M. 1973. *Competition and entrepreneurship*. Chicago: University of Chicago Press.
- Kirzner, I. M. 1979. *Perception, opportunity and profit*. Chicago: University of Chicago Press.
- Kirzner, I. M. 1997. Entrepreneurial discovery and the competitive market process: An Austrian approach. *Journal of Economic Literature*, 35: 60–85.
- Kirzner, I. M. 2006. *The driving force of the market: Essays in Austrian economics*. London: Routledge.
- 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: 175–190.
- Korsgaard, S. 2011. Entrepreneurship as translation: Understanding entrepreneurial opportunities through actor-network theory. *Entrepreneurship & Regional Development*, 23: 661–680.
- Korsgaard, S., Berglund, H., Thrane, C., & Blenker, P. In press. A tale of two Kirznerns: Time, uncertainty and the "nature" of opportunities. *Entrepreneurship Theory and Practice*.
- Kregel, J. A. 1976. Economic methodology in the face of uncertainty: The modelling methods of Keynes and the post-Keynesians. *Economic Journal*, 86: 209–225.
- Krueger, N. F. 2007. What lies beneath? The experiential essence of entrepreneurial thinking. *Entrepreneurship Theory and Practice*, 31: 123–138.
- Kwan, K.-M., & Tsang, E. W. K. 2001. Realism and constructivism in strategy research: A critical realist response to Mir and Watson. *Strategic Management Journal*, 22: 1163–1168.
- Lawson, T. 1997. *Economics and reality*. London: Routledge.
- Lawson, T. 2003. *Reorienting economics*. London: Routledge.
- Lawson, T. 2009. *Ontology and economics: Tony Lawson and his critics*. London: Routledge.
- Lee, J.-H., & Venkataraman, S. 2006. Aspirations, market offerings, and the pursuit of entrepreneurial opportunities. *Journal of Business Venturing*, 21: 107–123.
- Mantere, S., Aula, P., Schildt, H., & Vaara, E. 2013. Narrative attributions of entrepreneurial failure. *Journal of Business Venturing*, 28: 459–473.
- Martin, A. 2009. Critical realism and the Austrian paradox. *Cambridge Journal of Economics*, 33: 517–531.
- Martin, L., & Wilson, N. In press. Opportunity, discovery and creativity: A critical realist perspective. *International Small Business Journal*.
- McCaffrey, M. 2014. On the theory of entrepreneurial incentives and alertness. *Entrepreneurship Theory and Practice*, 38: 891–911.
- McMullen, J. S. 2011. Delineating the domain of development entrepreneurship: A market-based approach to facilitating inclusive economic growth. *Entrepreneurship Theory and Practice*, 35: 185–215.
- McMullen, J. S. 2015. Entrepreneurial judgment as empathic accuracy: A sequential decision-making approach to

- entrepreneurial action. *Journal of Institutional Economics*, 11: 651–681.
- 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: 1481–1512.
- McMullen, J. S., Plummer, L. A., & Acs, Z. J. 2007. What is an entrepreneurial opportunity? *Small Business Economics*, 28: 273–283.
- 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.
- McMullen, J. S., Wood, M., & Palich, L. 2014. Entrepreneurial cognition and social cognitive neuroscience. In R. Mitchell, J. R. Mitchell, & B. Randolph-Seng (Eds.), *Handbook of entrepreneurial cognition*: 316–363. Cheltenham, UK: Edward Elgar.
- Metcalf, J. S. 2004. The entrepreneur and the style of modern economics. *Journal of Evolutionary Economics*, 14: 157–175.
- Miller, K. D., & Tsang, E. W. K. 2011. Testing management theories: Critical realist philosophy and research methods. *Strategic Management Journal*, 32: 139–158.
- Moulay, S., & Paysant, D. 2015. From shirts to aprons, “Je Suis Charlie” sells online. *France 24*, January 10: <http://www.france24.com/en/20150110-shirts-aprons-je-suis-charlie-sells-online/>.
- Nicolaou, N., Shane, S., Cherkas, L., Hunkin, J., & Spector, T. D. 2008. Is the tendency to engage in entrepreneurship genetic? *Management Science*, 54: 167–179.
- Nightingale, P., & Coad, A. 2014. Muppets and gazelles: Political and methodological biases in entrepreneurship research. *Industrial and Corporate Change*, 23: 113–143.
- Patzelt, H., Williams, T., & Shepherd, D. 2014. Overcoming the walls that constrain us: The role of entrepreneurship education programs in prison. *Academy of Management Learning & Education*, 13: 587–620.
- Penrose, E. T. 1995. *The theory of the growth of the firm*. Oxford: Oxford University Press.
- Popper, K. R. 1963. *Conjectures and refutations*. London: Routledge & Kegan Paul.
- Popper, K. R. 1972. *Objective knowledge*. Oxford: Oxford University Press.
- Popper, K. R. 1990. *A world of propensities*. Bristol, UK: Thoemmes Antiquarian Books.
- Quine, W. V. O. 1969. *Ontological relativity and other essays*. New York: Columbia University Press.
- Ramoglou, S. 2013a. On the misuse of realism in the study of entrepreneurship. *Academy of Management Review*, 38: 463–465.
- Ramoglou, S. 2013b. Who is a “non-entrepreneur”? Taking the “others” of entrepreneurship seriously. *International Small Business Journal*, 31: 432–453.
- Ramoglou, S., & Zyglidopoulos, S. 2015. The constructivist view of entrepreneurial opportunities: A critical analysis. *Small Business Economics*, 44: 71–78.
- Roscoe, P., Cruz, A. D., & Howorth, C. 2013. How does an old firm learn new tricks? A material account of entrepreneurial opportunity. *Business History*, 55: 53–72.
- Runde, J. 1996. On Popper, probabilities, and propensities. *Review of Social Economy*, 54: 465–485.
- Sahlins, M. D. 1976. *Culture and practical reason*. Chicago: University of Chicago Press.
- Santos, F. M., & Eisenhardt, K. M. 2009. Constructing markets and shaping boundaries: Entrepreneurial power in nascent fields. *Academy of Management Journal*, 52: 643–671.
- Sarasvathy, S. D. 2001. Causation and effectuation: Toward a theoretical shift from economic inevitability to entrepreneurial contingency. *Academy of Management Review*, 26: 243–263.
- Sarasvathy, S. D., Dew, N., Velamuri, S. R., & Venkataraman, S. 2010. Three views of entrepreneurial opportunity. In Z. J. Acs & D. B. Audretsch (Eds.), *Handbook of entrepreneurship research*: 77–96. New York: Springer.
- Sarasvathy, S. D., & Venkataraman, S. 2011. Entrepreneurship as method: Open questions for an entrepreneurial future. *Entrepreneurship Theory and Practice*, 35: 113–135.
- Schultz, H., & Yang, D. J. 1997. *Pour your heart into it: How Starbucks built a company one cup at a time*. New York: Hyperion.
- Schumpeter, J. A. 1939. *Business cycles: A theoretical, historical, and statistical analysis of the capitalist process*. New York: McGraw Hill.
- Schumpeter, J. A. 1983. *The theory of economic development: An inquiry into profits, capital, credit, interest, and the business cycle*. New Brunswick, NJ: Transaction Publishers.
- Searle, J. R. 1983. *Intentionality: An essay in the philosophy of mind*. Cambridge: Cambridge University Press.
- Searle, J. R. 1995. *The construction of social reality*. London: Penguin.
- Searle, J. R. 1998. *Mind, language and society: Philosophy in the real world*. New York: Basil Books.
- Searle, J. R. 2001. *Rationality in action*. Cambridge, MA: MIT Press.
- Shackle, G. L. S. 1979. *Imagination and the nature of choice*. Edinburgh, UK: Edinburgh University Press.
- Shackle, G. L. S. 1983. The bounds of unknowledge. In J. Wiseman (Ed.), *Beyond positive economics*: 28–37. London: Macmillan.
- Shane, S. 2003. *A general theory of entrepreneurship: The individual-opportunity nexus*. Northampton, MA: Edward Elgar.
- Shane, S. 2012. Reflections on the 2010 AMR Decade Award: Delivering on the promise of entrepreneurship as a field of research. *Academy of Management Review*, 37: 10–20.
- Shane, S., Locke, E., & Collins, C. 2003. Entrepreneurial motivation. *Human Resource Management Review*, 13: 257–279.

- Shane, S., & Nicolaou, N. 2013. The genetics of entrepreneurial performance. *International Small Business Journal*, 31: 473–495.
- Shane, S., & Venkataraman, S. 2000. The promise of entrepreneurship as a field of research. *Academy of Management Review*, 25: 217–226.
- Shepherd, D. A. 2015. Party on! A call for entrepreneurship research that is more interactive, activity based, cognitively hot, compassionate, and prosocial. *Journal of Business Venturing*, 30: 489–507.
- Shook, C. L., Priem, R. L., & McGee, J. E. 2003. Venture creation and the enterprising individual: A review and synthesis. *Journal of Management*, 29: 379–399.
- Short, J. C., Ketchen, D. J., Shook, C. L., & Ireland, D. R. 2010. The concept of “opportunity” in entrepreneurship research: Past accomplishment and future challenges. *Journal of Management*, 36: 40–65.
- Singh, R. P. 2001. A comment on developing the field of entrepreneurship through the study of opportunity recognition and exploitation. *Academy of Management Review*, 26: 10–12.
- Spedale, S., & Watson, T. J. 2014. The emergence of entrepreneurial action: At the crossroads between institutional logics and individual life-orientation. *International Small Business Journal*, 32: 759–776.
- Stevenson, H. H., & Jarillo, C. J. 1990. A paradigm of entrepreneurship: Entrepreneurial management. *Strategic Management Journal*, 11: 17–27.
- Stinchcombe, A. L. 1983. *Economic sociology*. New York: Academic Press.
- Suddaby, R. 2010a. Challenges for institutional theory. *Journal of Management Inquiry*, 19: 14–20.
- Suddaby, R. 2010b. Construct clarity in theories of management and organization. *Academy of Management Review*, 35: 346–357.
- Suddaby, R. 2014a. Editor’s comments: Why theory? *Academy of Management Review*, 39: 407–411.
- Suddaby, R. 2014b. Indigenous management theory: Why management theory is under attack (and what we can do to fix it). In J. Miles (Ed.), *New directions in management and organization theory*: 447–456. Newcastle, UK: Cambridge Scholars.
- Suddaby, R., Bruton, G. D., & Si, S. X. 2015. Entrepreneurship through a qualitative lens: Insights on the construction and/or discovery of entrepreneurial opportunity. *Journal of Business Venturing*, 30: 1–10.
- Suddaby, R., & Greenwood, R. 2005. Rhetorical strategies of legitimacy. *Administrative Science Quarterly*, 50: 35–67.
- Sydow, J., Schreyögg, G., & Koch, J. 2009. Organizational path dependence: Opening the black box. *Academy of Management Review*, 34: 689–709.
- Tetlock, P. & Belkin, A. (Eds.). 1996. *Counterfactual thought experiments in world politics: Logical, methodological, and psychological perspectives*. Princeton, NJ: Princeton University Press.
- Time. 2010. Person of the year: Mark Zuckerberg. December 15: <http://www.time.com/time/specials/packages/0,28757,2036683,00.html#ixzz2BRYmFAUU>.
- Tsang, E. W. K. 2004. Toward a scientific inquiry into superstitious business decision-making. *Organization Studies*, 25: 923–946.
- Tsang, E. W. K., & Kwan, K. M. 1999. Replication and theory development in organizational science: A critical realist perspective. *Academy of Management Review*, 24: 759–780.
- Tsoukas, H., & Knudsen, C. (Eds.). 2003. *The Oxford handbook of organization theory: Meta-theoretical perspectives*. Oxford: Oxford University Press.
- Van Fraassen, B. C. 2008. *The empirical stance*. New Haven, CT: Yale University Press.
- Venkataraman, S. 2011. Entrepreneurship and entrepreneurial opportunity: Made as well as found. In R. K. Mitchell & R. N. Dino (Eds.), *In search of excellence: Exemplars in entrepreneurship*: 97–115. Cheltenham, UK: Edward Elgar.
- Venkataraman, S., Sarasvathy, S., Dew, N., & Forster, W. 2012. Reflections on the 2010 AMR Decade Award: Whither the promise? Moving forward with entrepreneurship as a science of the artificial. *Academy of Management Review*, 37: 21–33.
- Walras, L. 1954. *Elements of the political economy*. Homestead, NJ: Irwin.
- Webb, J. W., Ireland, R. D., Hitt, M. A., Kistruck, G. M., & Tihanyi, L. 2011. Where is the opportunity without the customer? An integration of marketing activities, the entrepreneurship process, and institutional theory. *Journal of the Academy of Marketing Science*, 39: 537–554.
- Wittgenstein, L. 1922. *Tractatus logico-philosophicus*. London: Kegan Paul, Trench and Trübner.
- Wittgenstein, L. 1958. *Blue and brown books*. Oxford: Blackwell.
- Wood, M. S., & McKinley, W. 2010. The production of entrepreneurial opportunity: A constructivist perspective. *Strategic Entrepreneurship Journal*, 4: 66–84.

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