



# Grappling With the Unbearable Elusiveness of Entrepreneurial Opportunities

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The notion of opportunity, as currently discussed in entrepreneurship research, is theoretically exciting but empirically elusive. This article seeks to stimulate a new conversation about entrepreneurial opportunities by distinguishing two conceptions of entrepreneurial behavior—formal and substantive—and situating the construct of opportunity within the latter. It discusses three substantive premises for studying opportunities empirically: (1) opportunity as happening; (2) opportunity as expressed in actions; and (3) opportunity as constituted in market structures. These premises stimulate research questions that can invigorate and expand the study of entrepreneurial opportunities. They invite a continuous dialogue between qualitative and quantitative methodologies in behalf of understanding how opportunities emerge and evolve at the level of individual entrepreneurs.

## Introduction

On September 4, 2009, Jim Safka, the chief executive officer (CEO) of Chegg.com, a college textbook rental company, appeared on CNBC's "Squawk on the Street" program. Asked by the anchor, Erin Burnett, "Where did you get this idea, textbook rentals?", he replied,

Well, it is a lot like Netflix,<sup>1</sup> but for college textbooks. When I was in school, over 20 years ago, textbooks were way too expensive. What shocks me is, at this point, 20 years later, the problem still exists.

Viewed from the pedestal of Chegg's having raised just over U.S.\$33 million in venture capital, the notion of combining a persistent unfulfilled need for cheaper textbooks and the innovative business model of Netflix seems both prescient and inevitable. Once this opportunity has been made obvious to us, it is impossible to look at the past and not see it there.

The question of the origin of entrepreneurial opportunities looms large in the academic dialogue. Entrepreneurship scholars have been excited and invigorated by a shared goal of understanding how and by whom entrepreneurial opportunities are discovered, evaluated, and exploited (Shane & Venkataraman, 2000; Venkataraman, 1997). Yet, for

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1. Netflix is a U.S.-based company that rents movies on DVD via mail.

what should have been the “golden age” of opportunity as a subject for academic enquiry, empirical studies of opportunity discovery appearing in the major journals have been not only restricted to a handful, but also quite diverse in their methodology, findings, and conception of opportunity (e.g., Baron & Ensley, 2006; Corbett, 2007; Dimov, 2007a; Gregoire, Barr, & Shepherd, 2010; Haynie, Shepherd, & McMullen, 2009; Ko & Butler, 2006; Shane, 2000; Shepherd & DeTienne, 2005). Implicit in these studies and in our overall conversation about entrepreneurial opportunities is a narrative of the entrepreneur as a prescient progenitor following a hidden but linear path. As the following example illustrates, this narrative has not only acted as a blinder, directing exclusive attention to the “entrepreneur,” but has also made opportunity an elusive construct.

Cheggpost.com, the precursor of what is now Chegg.com, was launched in October 2000 by Josh Carlson and two friends at Iowa State University (ISU) to allow ISU students “to buy and sell books with other ISU students” (Gardeen, 2003). Notably, it was one of over 300 websites launched at universities around the United States after 1995 to tackle the problem of high textbook prices (Dimov & Gras, 2010). Each website was driven by a sense of opportunity and vowed to ease the financial burden on students. In 2005, Osman Rashid and Aayush Phumbhra joined Josh Carlson to take the venture “to the next level,” “to eventually roll out to 200 major campuses and their near-by community colleges” (McLain, 2005). They eventually assumed full control of the company and are ultimately described as “the co-founders of Chegg.com” (Helft, 2009). Their original conception of Chegg was as “an online marketplace for college students to buy, sell and trade items locally” (Guynn, 2006), “fashioned after Craigslist<sup>2</sup> and geared toward students” (Dawson, 2006). In pursuit of this vision, Chegg obtained business angel financing through Osman Rashid’s former employer (Guynn), acquired Textopedia, a similar business based at Stanford University in February 2006 (Newman, 2006), relocated to Santa Clara, CA, and raised early-stage venture capital at the end of 2006 (Rosenbush, 2007).

Santa Clara, CA was also home to another company, BookRenter.com, led by Santa Clara University alumnus Colin Barceloux. At the time Chegg was honing its Craigslist identity, BookRenter had completed a successful trial of a textbook rental model (BookRenter.com, 2006) and was taking its mission nationwide to let students “rent, not purchase, their books and return them via mail services” (Taylor, 2005). As Chegg’s revenue model did not pan out, it forged a new, “Netflix” identity by also launching a textbook rental service, Textbookflix, in July 2007 (MarketWire, 2007), which was based on renting textbooks to students for a specified time period and which shipped the textbooks to and from the students via mail. This soon became Chegg’s core business; the company raised three successive rounds of venture capital in 2008. The CNBC interview was part of its subsequent media blitz led by its newly hired CEO. The company’s fascinating history and checkered past was fading away under a new narrative as laid out in a feature article in the *New York Times* (Helft, 2009).

Aside from the peculiarities of its time, places, and events, the story of Chegg illustrates an important point: constructing its history forward is quite different from reading it backward. The underlying opportunity has been unfolding from a series of actions and events, each dealing with the uncertainty and possibilities of the future from the point of view of a moving present. Looking at the opportunity backward, from the vantage point of the unfolded—and already known—future, the words *discovery*, *recognition*, or *identification* readily come to mind; looking at it forward, into the opaqueness of the future, only *groping* comes to mind. Chegg’s trailblazing was evidently a result of

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2. Craigslist is a popular U.S.-based website that provides an online forum for classified ads.

a trial-and-error approach, attuned to new information and developments. To simply reduce this story to a single person, single action, single insight, or any other single factor is clearly a folly. But this is where opportunity-oriented research gets cornered after jumping to a “normal science” platform too quickly and seeking to conform to the entrenched paragon of what constitutes rigorous, theory-driven research. And this corner is not particularly hospitable; hence, the sparseness of empirical studies.

Scholars interested in entrepreneurial opportunities and aspiring to publish in the top management journals need to design large-scale studies that have validity and generalizability, while also being theoretically relevant. The question of validity rests on whether what is observed empirically indeed constitutes or is oriented toward an entrepreneurial opportunity. To the extent that this question can only be answered in retrospect, one cannot study what is perhaps most appealing both theoretically and practically, namely aspiring or nascent entrepreneurs; in such settings, the notion of opportunity as it currently stands is inoperable. It lacks tangible premises that can enable researchers to develop theoretically legitimate operational definitions.

The question of generalizability rests on treating different empirical observations as identical replications of theoretically defined cases. Such an approach reduces observations to linear combinations of discrete variables and inevitably leads to pruning away the peculiarities of their context and to collapsing their time into singular moments (Abbott, 1988). Using this template to understand entrepreneurial opportunities indeed yields a person, an insight, and an action. But not just any person, any insight, and any action; only those inherently linked to an opportunity that is already known to the observer or theorizer. This loops back to the question of validity. Without an operable convention about how an entrepreneurial opportunity can be known or observed, one is limited to the realm of pure theorizing, where one can comfortably assume an opportunity to be known. In other words, to a researcher, the construct of opportunity poses the unbearable combination of being theoretically exciting and empirically elusive.

This article seeks to address this conundrum by reflecting and elaborating on how to make the construct of opportunity empirically accessible, so that it can engage a cohesive and growing community of scholars. It distinguishes two conceptions of entrepreneurial behavior—formal and substantive—and revisits the current debate about the nature of entrepreneurial opportunities in the light of the implicit stance taken by different scholars in portraying opportunities. On this basis, the article develops the substantive meaning of entrepreneurial opportunities by articulating three premises that make the abstract notion of opportunity better grounded in the reality of what aspiring and nascent entrepreneurs do: (1) opportunity as happening; (2) opportunity as expressed in actions; and (3) opportunity as instituted in market structures. These premises are then used to generate specific research questions and provide research directions.

## **Opportunity in Formal and Substantive Conceptions of Entrepreneurial Behavior**

The notion of opportunity is at once enticing and dejecting. On one hand, it is so intuitive and elegant to think of any (successful) entrepreneurial initiative as a discovery/recognition/identification and pursuit of some opportunity. Our susceptibility to the fundamental attribution error (Ross, 1977) leads us to overemphasize individual intentionality and foresight in explaining meaningful consequences to entrepreneurship (Dimov, 2007b). Thus, viewed from premises that downplay unintended consequences and chance occurrences, entrepreneurial success presupposes conditions of opportunity

and such opportunities appear to have been accessible to certain glorified individuals. On the other hand, one is overwhelmed by irreducible doubt about whether one's current endeavors constitute an opportunity. The ultimate judgment lies in the future and cannot be dissociated from what is yet to come and become known.

The trepidation and doubt of individual aspiring entrepreneurs become blurred when one takes a bird's-eye view of what entrepreneurs do. At this level, explanations invoke abstract categories of behavior that need not correspond to actual persons or actions on the ground. It is in this sense that Kirzner (1979) offers his insightful and well-elaborated notion that opportunities are discovered by alert entrepreneurs. While the field has taken this notion in a literal, anthropomorphic sense, Kirzner himself has had to clarify that his original conception of alertness is only as a metaphor for how an economy can move from disequilibrium toward equilibrium (Kirzner, 2009). Nevertheless, the slip of using a macro-level concept for micro-level explanations has taken hold, with all its negative implications (Gorling & Rehn, 2008).

The nexus of individual and opportunity as a distinctive focus of entrepreneurship research (Shane & Venkataraman, 2000; Venkataraman, 1997) represents a notion that is stable at the bird's-eye level but quite precarious at the level of individual entrepreneurial endeavors. In abstract terms, the notion of opportunity reflects the idea that an economic system never reaches its full potential (i.e., its natural state is one of disequilibrium) and so there is always room for actions that can take it closer to that potential (equilibrium). At this level, it is sufficient to claim that opportunities merely exist, without having to identify specific opportunities. Such claim follows intuitively from the premises of technological change, imperfect knowledge, and changes in values and preferences (Davidsson, 2003). However, at the level of specific individual endeavors this notion is inoperable as it requires one to make a judgment about whether specific instances represent opportunities. At this level, the concept of opportunity is elusive in that it brings to the fore the tension between *ex-post* insight and *ex-ante* foresight. This is why the traditional definition of opportunity as a chance to profitably introduce new goods, services, raw materials, markets, and organizational methods (Casson, 1982; Eckhardt & Shane, 2003; Shane & Venkataraman) has been challenged for its inapplicability to individual cases as it places emphasis on the objective existence of something that prospectively can only be discussed as a speculative idea and that can be fully articulated and explained only retrospectively.

Different arguments have been offered to adapt the notion of opportunity to the realm of individual entrepreneurs: opportunities are created endogenously by the actions of entrepreneurs (Alvarez & Barney, 2007); an opportunity represents a stream of continuously developed and modified ideas (Davidsson, 2003; Dimov, 2007b); an opportunity cannot be separated from the individual (Company & McMullen, 2007; Dimov, 2007a; Sarason, Dean, & Dillard, 2006); an opportunity is intertwined with individual beliefs (McMullen & Shepherd, 2006; Shepherd, McMullen, & Jennings, 2007); and an opportunity exists only in the entrepreneur's imagination (Klein, 2008; Shackle, 1955). As theoretical definitions, none of these arguments can be rejected or disproven. In fact, they are quite consistent in taking the perspective of individual entrepreneurs. But their empirical application is limited unless they are elaborated to define more tangible premises for the construct of opportunity. Simply arguing about and refining definitions can instill a sense of dejecting frivolity.

To turn this academic discourse toward productive consensus, it is important to discern and understand the fundamental positions from which the different arguments about the nature and function of opportunities are made. In this regard, Polanyi's seminal discussion of the meanings of the term "economic" and their implications for understanding economic behavior, is of particular relevance. Polanyi distinguishes formal and substantive meanings

of “economic” (Polanyi, Arensberg, & Pearson, 1957). The formal meaning is rooted in the logical framework of rational means–ends choice, which is superimposed as a framework through which every economic decision is to be understood. In contrast, the substantive meaning is rooted in the empirical reality of how people earn their livelihood and can be seen as an “instituted process of interaction between [people and their] environment, which results in a continuous supply of want satisfying material means” (Polanyi, 2001, p. 34). This distinction can be readily applied to the realm of entrepreneurial behavior in terms of how we are to interpret the actions of entrepreneurs. Indeed, Sarasvathy (2001) offers a conceptually similar distinction between causation and effectuation as logics for entrepreneurial action. Distinguishing formal and substantive conceptions of what entrepreneurs do holds important implications for understanding the nature and role of opportunities in the theorizing offered by different scholars and for outlining the premises under which the opportunity itself can be the focus of scholarly attention.

The current discussion of the individual–opportunity nexus (Shane & Venkataraman, 2000; Venkataraman, 1997) is based on a formal conception of entrepreneurial behavior. This conception is grounded in economic theory and analysis, built on the premise of behavior as a utility-maximizing choice within a given means–ends framework. In this conception, an entrepreneur is an abstract agent operating in the context of equilibrium theorizing and whose defining function is to destroy or restore equilibrium (Hebert & Link, 1988). Because this generic view of the entrepreneur fails to explain the microdrivers of entrepreneurial action, the notion of opportunity has been put forth as a central impetus for such action (Shane & Venkataraman; Venkataraman). It is essentially ascribed an auxiliary role for connecting action and consequences. Building upon the ideas of Austrian economists, Shane and Venkataraman argue that disequilibrium is a natural state; it is in this sense that “opportunities themselves are objective phenomena that are not known to all parties at all times” (p. 220). Eckhardt and Shane (2003) further develop this idea to clarify that opportunities exist because prices are imperfect reflections of value; they are linked to perceptions of new means–ends frameworks. Davidsson (2003) similarly argues that opportunities can exist as uncountable, propped by a configuration of technological possibilities, knowledge, unfulfilled human needs, and purchasing power. But, as Klein (2008) elaborates, these arguments should not be taken as ontological claims about the nature of opportunities; rather, an opportunity should simply be viewed as a metaphor, used to describe what entrepreneurs do. It represents the possibility for entrepreneurial action, to be undertaken by some alert entrepreneur (Kirzner, 2009).

Within the confines of a formal conception of entrepreneurial behavior, the notion of opportunity (i.e., what is to be discovered) is unfitting as *explanandum* because it has to be defined exogenously. It is only in reference to an already specified opportunity that one can speak of discovery and of optimality in the entrepreneur’s decisions. Indeed, because the ultimate results of entrepreneurial actions cannot be reliably anticipated but are revealed only when the uncertainty about the future is resolved (cf. Knight, 1921), for opportunity discovery to be presented as a rational means–ends choice, one needs to assume complete foreknowledge of future states and payoffs, thereby standing outside the realm of uncertainty. Without such axiomatic specification, people cannot be deemed to have acted rationally on the expectation that they would gain what cannot yet be fully or reliably defined before the action takes place. But under such taming assumptions, the problem of discovery becomes “purely one of logic” (Hayek, 1945) and thus limits the study of opportunity to pure theorizing. This argument is laid out by Klein (2008): “expectations about the future are inherently subjective and, under conditions of uncertainty rather than risk, constitute judgments that are not themselves modelable” (p. 180). He therefore suggests that opportunities are best characterized as imagined and most

properly treated as “a latent construct that is manifested in entrepreneurial action—investment, creating new organizations, bringing products to market, and so on” (p. 182).

It is important here to stress the basis for this conclusion. A formalist position is concerned foremost with operating within the premises of its analytical framework, as defined by its axiomatic assumptions. In this regard, within the formal conception of entrepreneurial behavior only what can be modeled within a rational means–ends decision framework—i.e., only the parameters that are free to be optimized—represents a legitimate research topic. There is thus a clear delineation of what aspects of entrepreneurship can and cannot be subject to economic analysis. This suggests that although the entrepreneur’s imagination may be an interesting topic for research in its own right, it is not particularly interesting to someone taking a formalist position. Again, Klein states this clearly and elegantly:

By treating opportunities as a latent construct, this approach sidesteps the problem of defining opportunities as objective or subjective, real or imagined, and so on. The formation of entrepreneurial beliefs is treated as a potentially interesting psychological problem, but not part of the economic analysis of entrepreneurship. It also avoids thorny questions about whether alertness or judgment is simply luck . . . , a kind of intuition . . . or something else entirely. (p. 182)

In contrast, the substantive conception of entrepreneurial behavior, rather than focusing on solving the logical problem of how entrepreneurs should act, is aimed at making sense of how they do act. It is rooted in depicting and understanding the empirical reality of aspiring and acting entrepreneurs and developing theoretical representations in an inductive manner. Substantively, every single entrepreneur offers a fascinating story interweaving personal aspirations and social context. These stories offer a rich ground for identifying meaningful patterns. Indeed, any scholar interested in “getting to know” entrepreneurs can appreciate that the general notion of “pursuing an opportunity” has interesting specifics. In this regard, at the level of individual entrepreneurs, opportunities represent venture ideas (Davidsson, 2003), enacted possibilities for economic gain (Dimov, 2004), a stream of ideas modified as entrepreneurs act (Dimov, 2007b), creations from the entrepreneurs’ actions (Alvarez & Barney, 2007), or organizing vision (Lichtenstein, Dooley, & Lumpkin, 2006).

Notably, these views are not different from Klein’s (2008) notion of opportunities as imagined and from Shackle’s (1955) idea of entrepreneurship as action in pursuit of imagination. In fact, there seems to be an overall consensus that, from the point of view of the individual entrepreneurs, the future is not known or predetermined, and so they act on what at the moment are their beliefs about what the future might be. The point of departure between the two conceptions of entrepreneurial behavior is whether this ideational nature of opportunities would attract or repel a scholar. To a formalist, interested in the exercise of mathematics within a tightly defined theoretical space, the idiosyncratic and nonverifiable nature of ideas and their underlying beliefs make them difficult to contain within an axiomatic framework of preferences and utility maximization; as such, they are best avoided or simply trivialized through simplifying assumptions. To a substantivist, these features represent the very attraction for study as they capture the actual experiences of real-life entrepreneurs. It is in their association with unfolding, open-ended action that opportunities can be considered enacted or created. Polanyi’s (2001, p. 34) notion of “instituted process of interaction between [people and their] environment” is very fitting as a substantive conception of entrepreneurial behavior. In this context, an opportunity epitomizes the symbolic aspect of the interaction between entrepreneurs and their environments. It can be regarded as an evolving blueprint for action, synthesizing the

entrepreneur's sense of, expectations about, and aspirations for the future, and can help us understand what the entrepreneur does at every step of the way from within the worldview that the entrepreneur holds. As such, it can evolve with each subsequent entrepreneurial action, as the case of Chegg clearly demonstrates.

Some scholars have argued that the two featured streams of thought about entrepreneurial behavior, i.e., formal and substantive, offer alternative ontological accounts of opportunities, with the former representing a realist view and the latter representing a constructivist view (Davidsson, 2003; Gartner, Carter, & Hills, 2003). Indeed, the notion that there is a debate as to whether opportunities exist objectively or are created endogenously is now a persistent feature of the academic discourse. But as the above discussion implies, the point of contention between the two streams is not the ontological status of opportunities but what constitutes an appropriate conception of entrepreneurial behavior. The question of ontology can be safely laid aside as it has no bearing on our analyses (Powell, 2003), whether these analyses are carried out from logical postulates or from empirical observations.

In summary, the formal and substantive conceptions of entrepreneurial behavior represent complementary positions in terms of what different scholars view as legitimate research topics. Scholarly conversations across these conceptions can be effective only to the extent that they do not seek to discount a scholar's fundamental belief about how entrepreneurship should be understood. In addition, these conceptions offer diverging views on entrepreneurial opportunities as a research topic. Within the confines of the formal conception of entrepreneurial behavior, opportunity represents a superfluous construct (Klein, 2008). Economic analysis can be more meaningfully carried out in search of predictive validity for entrepreneurial outcomes, without adherence to the actual process through which these outcomes are produced (cf. Friedman, 1953). But within a substantive conception of entrepreneurial behavior, opportunity represents a central lens through which entrepreneurial action and its outcomes can be understood. I devote the following sections of the article to elaborating the substantive premises of opportunity as a subject of scholarly study and the research questions that emerge from these premises.

### **Three Substantive Premises for Studying Opportunity**

It is the year 2005 and we are to meet the Chegg team. If we asked them what they were trying to do (i.e., what is the opportunity?), we would be told that they aspired to be "an online marketplace for college students to buy, sell and trade items locally" (Guynn, 2006). If we were to tour universities around the United States, we would be told by hundreds of students, many perhaps unaware of Chegg's existence, that they were seriously thinking about doing or already doing something similar (Dimov & Gras, 2010). In some cases, e.g., Chegg, these entrepreneurial efforts can be seen as operational, as evidenced by a functioning website and a series of postings that appear on it. In other cases, they are still aspirations, perhaps complemented by some initial steps in the intended direction. In all cases we in essence hear verbal descriptions of intended actions, visions of a desirable and anticipated future. But how are we to treat these statements? Do they represent opportunities—perhaps the same opportunity—and thus signal the presence of entrepreneurs? Or can some of them be discounted as inoperable fantasies, thereby denying the label "entrepreneur" to their enunciators? If we wait for the dust to settle and to see who is left standing before we apply the terms "opportunity" and "entrepreneur," we have to deal with the problem of meritoriously distinguishing the successes from the failures (Gorling & Rehn, 2008).

The people we meet on our tour, each enamored by what they can enthusiastically claim to be an opportunity, constitute the empirical reality of entrepreneurship. To the extent that none of them can be discounted as illegitimate representatives of an entrepreneurship-relevant population, we need to accept their momentarily perceived opportunities as legitimate, even if these perceptions are ultimately proven to be wrong or misguided. Therefore, a starting point for this exposition can be the premise that opportunities sojourn in the minds of aspiring entrepreneurs as venture ideas, propped by perceptions and beliefs formed from the interpretations of tangible evidence (Davidsson, 2003; Dimov, 2007b, 2010). The content of these ideas pertains to the initiation and perpetuation of market relationships (e.g., the establishment of a marketplace for college students to buy, sell, and trade items locally). These ideas inspire entrepreneurs to act (McMullen & Shepherd, 2006) and such action breeds new ideas (i.e., new or modified possibilities) and impetus for new action (or inaction) as initial assumptions and intuition about future possibilities are gradually replaced with experiential facts and juxtaposition of circumstances. In other words, in substantive terms, an opportunity comprises the perpetuation of a cycle of venture ideas and actions oriented toward the formation and sustenance of market relationships.

Elaboration of this substantive notion of opportunity requires further discussion of the elements of the cycle: how venture ideas come into being, how they relate to entrepreneurial action, and how they are instituted in the marketplace. These questions will be discussed in the context of the biological metaphor of entrepreneurship, the relationship between idea and action, a sociological conception of markets (Swedberg, 1994), and the notion of emerging organizations (Katz & Gartner, 1988).

## Opportunity as Happening

The notion of opportunity as unfolding from a seed venture idea conjures up the image of a developing living organism. Biology has long represented an inviting metaphor for entrepreneurship (Cardon, Zietsma, Saparito, Matherne, & Davis, 2005). The metaphor of organizations as living organisms that are born, grow, evolve, and die is well established (e.g., Aldrich & Ruef, 2006) and is reflected in the entrepreneurship terminology of firm conception, gestation, birth, growth, and death (e.g., Reynolds & White, 1997).

Let's explore this metaphor in greater depth and think of an opportunity as a living thing—conceived, gestated, and possibly ultimately born as a new venture. What is produced at the “moment” of conception is a raw venture idea that may or may not be considered viable as it gets developed (Davidsson, 2003; Dimov, 2007b). In human biology, there is a similar distinction between embryo and fetus. Indeed, it is not inconceivable to use the adjective “embryonic” to refer to emerging, still untested ideas. The transition from embryo to fetus is marked by the formation of major structures in the organism and signifies a sharp increase in viability and reduced sensitivity to environmental exposure. There is a potent analogy in how we teach entrepreneurship: a transition from idea to viable opportunity can be marked by some validation of its main premises (e.g., market, product conception, possible strategy). Lack of confidence in these premises can lead to abandonment of the entrepreneurial efforts (Dimov, 2010). Similarly, Lichtenstein et al. (2006) speak of a venture emergence event as “a coordinated and punctuated shift in multiple modes of entrepreneurial organizing at virtually the same time, which generates a qualitatively different state—a new identity—withina nascent venture” (p. 167).

But let's also acknowledge early on the limits of the biology metaphor. The first, and obvious, limitation is that in human biology, embryonic and fetal development follows a relatively linear, predetermined, self-driven path (within the constraints imposed by the

behavior of the expecting mother). This developmental pattern cannot be transposed to the development of opportunity ideas. Rather, they follow an open-ended, retractable process, dependent on the actions that entrepreneurs take and their momentary consequences. Acknowledging the unpredictable, open-ended nature of the opportunity development process prompts us to focus on the immediate problem space (cf. Newell & Simon, 1972) of the entrepreneurs, capturing their momentary perceptions, assumptions, and expectations that in turn define their set of possible and desirable actions. The second limitation is that the developmental space of the embryo (i.e., the womb) is well defined and integrated within the mother's organism. In contrast, to be developed, opportunities require that the entrepreneurs "carve out" space within the social context in which they are to be instituted. That is, customers, suppliers, employees, etc. need to be attracted and retained as each of them can engage with other market actors. In this sense, there is no tailor-made, reserved gap in the market space (i.e., in the same way that a womb is situated and expands among the surrounding internal organs) that waits for the current entrepreneur to fill it. Rather, to use the metaphor of entering an unregimented, crowded market, in pursuing opportunities entrepreneurs elbow themselves in the market space and seek to secure and sustain an area in which to run their venture.

Given these premises, how are we to explain the initial perception of an opportunity, i.e., the appearance of a particular venture idea? To answer this question, we can stretch the analogy between idea–opportunity and embryo–fetus further back. The antecedents to an embryo–fetus are two biological progenitors and an act of conception. The analogous antecedents for a venture idea would be an aspiring entrepreneur and a surrounding environment (as a source of information and situational stimuli) as the progenitors and an act of perception of something possible. Notably, both the embryo and the idea emerge from the configuration of the two progenitors and the creative acts; they have no existence prior to these acts and are not deterministically linked to the individual progenitors in the sense of being inevitable. The relationship between the individual progenitor and the embryo/idea represents at best necessary causality. What remains to be explained are the fleeting circumstances that bring the two progenitors together and enable their creative act. Just as there are numerous paths that can lead two biological parents to an embryo (courtship, chance encounters, etc.), so there are numerous paths that can link an entrepreneur to the conception of a business idea (search, serendipitous discovery, fortuitous circumstances, etc.).

The analogy continues to be, perhaps a bit uncomfortably, intuitive. It suggests that "Why do some people and not others discover particular entrepreneurial opportunities?" (Shane & Venkataraman, 2000) requires careful reconsideration as a research question, particularly as we consider its human biology counterpart, "Why do some biological parents and not others produce a particular embryo?" On one hand, the "not others" part is redundant—given the embryo, there can be no other parents. Similarly, given an idea verbalized by a particular person and the idiosyncratic, complex constellation of circumstances surrounding the particular person, it may be futile to search for a deterministic answer to the question of why so many others have not come up with that same idea because these circumstances cannot be replicated. It is our awareness of the articulated idea that makes the person behind it meaningful.<sup>3</sup>

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3. One could perhaps argue here that if two different individuals come up with and pursue the same idea then that idea represents a third-person opportunity and each of the two individuals has converted it into a first-person opportunity (McMullen & Shepherd, 2006). But the point is that, in practical terms, this opportunity has meaning only because we are already aware of what the two individuals are trying to do. Without such

On the other hand, if the “why” question is to be understood as a search for a deterministic link between the two progenitors and the act of conception, the answer is contained not in the standalone characteristics or actions of the progenitors—such as their possession of some necessary prior information or valuation skills (Shane & Venkataraman, 2000)—but in their emerging interaction or coevolving actions, which collectively explain the particular case. In other words, the appearance of a venture idea or an embryo can be most properly understood not as an inevitable occurrence from some premises that are to be identified but as an unfolding story that needs to be told in its entirety.

In the story of Chegg, the encounter and eventual arrival of Osman Rashid and Aayush Phumbhra as venture partners, the acquisition of Textopedia at Stanford University and the associated relocation to Silicon Valley, and the adjacent experimentation of BookRenter with a textbook rental model are too significant for the emergence of Chegg’s ultimate business identity to be treated as noise and too serendipitous and idiosyncratic to be ascribed predictive status. Therefore, the occurrence of a particular opportunity idea to a particular person lies at the tail end of a series of path-dependent actions and happenstances. Whether we refer to this appearance as discovery, recognition, identification, or creation is a reflection of how just some of the elements of the story may be picked up to be deterministically linked to its denouement. A more substantive, less loaded conception of appearance is that particular ideas simply happen to the people in question. This is due to the fact that in empirical settings we can observe only *particular* ideas, just as we can only observe particular embryos. They come attached to the persons articulating them and cannot be dissociated from those persons.

## Opportunity as Expressed in Actions

An embryo is self-propelled by virtue of being alive. Opportunities, beyond the initial articulation of venture ideas, lack such self-propelling mechanism. If they were to remain mere ideas, they would be a legitimate object to those who study creativity, i.e., the production of novel and useful ideas (Amabile, 1996). They engage entrepreneurship scholars when they prompt aspiring entrepreneurs to act toward realizing what they perceive as beneficial and feasible possibilities (cf. McMullen & Shepherd, 2006). In this sense, actions represent the expression, the empirical footprints of opportunities. What this implies is that an idea cannot be labeled “opportunity” unless acted upon (Dimov, 2007b). In other words, some action is already presumed when what is observed is considered to be an opportunity. Therefore, our explanation should be focused not so much on why the action occurs but on the particular form and elements of the action.

More broadly, this premise suggests that we need to go beyond the exclusive focus of traditional science on *efficient* cause and consider all four Aristotelian causes: *material*, *final*, *formal*, and *efficient* (McKelvey, 2004). A search for an efficient cause focuses on the immediate trigger of the change in the object of causal explanation, i.e., going from inaction to action. The trigger comprises the differential aspect of what are otherwise identical antecedent conditions for the different outcomes. Just as in the case of the appearance of venture ideas, for specific actions this trigger is inaccessible empirically. Theoretically, based on the ubiquitous *ceteris paribus* assumption, it is easily reduced to a single person conception that highlights the distinguishing characteristics of the acting person such as human capital, cognitive abilities, or risk-taking propensity.

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awareness, the third-person opportunity can be anything, anywhere, and thus regarded as having no bearing on our discussion. We can only observe already articulated ideas.

To understand specific actions, the *why* question can be more productively steered toward the form and elements of the actions. To refer back to the example of Chegg, given that they relocated from Iowa to California, the meaningful question is not what differential antecedent conditions preceded this move, but why California and why the move occurred the way it did, through the acquisition of Textopedia at Stanford University. These questions direct our attention to the material, final, and formal causes behind this action and represent the means through which an underlying opportunity is expressed in particular actions.

Material cause pertains to the compositional ingredients of the object of causal explanation. In the simplest example, a newly built house can be deemed as caused by the bricks used in its construction. For entrepreneurial action, it is the enabling resources under the entrepreneur's control that can be seen as the action ingredients. For example, signing a lease or establishing a customer contact can be seen as enabled by the entrepreneur's financial resources or social contacts. Clearly, in the absence of these, the particular actions could not have taken place. In the case of Chegg.com, the acquisition of Textopedia was facilitated by U.S.\$500,000 in seed capital provided by, among others, the chairman and chief strategy officer of Chordiant Software, the previous employer of Chegg's CEO at the time, Osman Rashid (Guynn, 2006; Rosenbush, 2007).

Final cause pertains to the purpose that the object of causal explanation serves, e.g., to provide a dwelling for a family in the case of the newly built house. For an entrepreneurial action, the final cause has to do with the momentary aspirations of the entrepreneur. In the example of Chegg, this can pertain to bringing the venture to the "next level," become the "Craigslist" of campuses, etc. It dictates and can explain the immediate actions undertaken, such as the acquisition of other sites to increase geographical presence and the seeking of capital and relocation of Silicon Valley. In the words of Chegg's CEO at the time, "We want to launch the Web site on the West coast and Stanford is where we want to start" (Newman, 2006). In other words, big aspirations can lead to more sweeping actions; small aspirations can prompt a bootstrapping approach with small-scale actions. In either case, the action is appropriate and rational given what the aspirations of the entrepreneur are.

Formal cause pertains to what the object of causal explanation is supposed to be. For instance, the newly built house is caused by its formal blueprint. In this sense, an entrepreneurial action can be explained by the nature or type of venture that an entrepreneur is trying to create, e.g., a retail shop, a software developer, an advertising agency, or a transportation service. In each case, there are specific actions that can be considered relevant, necessary, appropriate, or likely. If the entrepreneur is thinking of opening a retail shop, then signing a rental lease or buying premises is a relevant and likely action; such action may be unlikely for a transportation business or a software development shop. I will use the term "business template" to designate the formal cause behind the entrepreneurial action. Such a template is evident in the case of Chegg. In the words of Chegg's CEO at the time, "From what we know about the campus classifieds, it's very fragmented. No one has really pulled it together with an overall solution, as one big network among students. We're going to unify. Our approach is unique in that we're working with students who have already built systems on their own campuses" (Newman, 2006).

Based on this discussion, an opportunity can be conceived as a momentary, symbolic blueprint for the entrepreneur's actions, interweaving the entrepreneur's resources, aspirations, and business templates. The blueprint pertains to the entrepreneur's immediate action possibilities and, once a particular action is undertaken, evolves iteratively into a new blueprint for further action that incorporates the new knowledge afforded by the

previously undertaken action. It is in this sense that an opportunity can be considered perpetuated through the cycling of ideas and actions.

## Opportunity as Instituted in Market Structures

An opportunity is inherently market oriented. But what does a market represent, substantively? Its aggregate conception as an “invisible hand” (Smith, 1776) or as an abstract-clearing mechanism for production decisions tells us little about what an aspiring entrepreneur does to enter or operate in a market. From a sociological perspective, markets are conceptualized as self-reproducing social structures (White, 1981), involving exchange and competition (Swedberg, 1994). More precisely, “the social structure of a market is characterized by a special type of interaction that begins as competition between a number of actors (buyers and/or sellers) and that ends up with an exchange for a few of the actors” (Swedberg, p. 271). The number and identity of the involved buyers and sellers characterize different markets, such as labor, capital, consumer, or industrial, each with a different structure of social interactions. In other words, an entrepreneur’s participation in the market entails the formation and sustenance of exchange relationships with other market actors.

Based on this sociological conception of markets, an opportunity can be seen as a vision of a future in which the aspiring entrepreneur occupies a market niche, engaged in a set of market relationships that collectively constitute the business the entrepreneur intends to create. From the substantive position of the present, this market position is neither real nor guaranteed to be available to the entrepreneur. Rather, it is to be constructed through the actions of entrepreneurs as they “elbow” themselves in the market space and seek to forge exchange relationships. In the Chegg example this took the form of working to institute a presence on campus after campus, building relationships with students who had already started and operated local campus sites. Once a campus is brought online, the challenge then becomes to engage and entice students to start using the site.

In the absence of a particular aspiring entrepreneur, the world does not stand still; it is engaged in “business as usual,” in which the existing, ongoing market processes and relationships remain unperturbed. No one may be aware of or impacted by the entrepreneur’s business idea when it occurs or as the entrepreneur takes first steps toward its realization. In the ultimate realization of the idea, the entrepreneur will be actively engaged in market relationships through an operating business (venture). In that realization, the venture that is established becomes part of the new market order, i.e., a modified set of market relationships. In other words, the opportunity which the entrepreneur pursues becomes instituted in existing market structures. Played forward, this process of instituting operates on a continuum from one “business as usual” setting, in which aspiring entrepreneurs are purely engaged in their thoughts or contemplate actions unbeknownst to other market actors, to another “business as usual” setting, in which the entrepreneur is an active participant. In between the two extremes lies a series of “footprints” in the marketplace—newly forged market relationships by the entrepreneur—that gradually coalesce to reveal the newly established venture. Through these footprints an opportunity becomes realized—it moves from being a product of the aspiring entrepreneur’s imagination to becoming a self-sustaining, organized set of market exchange activities that gradually becomes independent of its progenitor.

Viewed from the perspective of other market actors, an opportunity is initially invisible, occupying the aspiring entrepreneur’s imagination or expressed through obscure initial actions. But gradually it looms as an emerging venture, distinct from but largely dependent on the entrepreneur (Davidsson & Wiklund, 2001), and identified and described by intentionality, resources, boundaries, and exchange (Katz & Gartner, 1988).

Of these properties, exchange embodies the institution of the underlying opportunity in the market space. In the absence of exchange, other market actors can be deemed to continue their “business as usual” activities, oblivious to the aspirations of the focal entrepreneur. Therefore, the actions through which an opportunity is expressed can be seen as directed toward forging exchange relationships in the marketplace that collectively constitute an emerging venture.

## Research Implications

The previous section outlined three premises that can be used to make the construct of opportunity more accessible empirically. These premises have been derived from a discussion of the substantive nature of what aspiring entrepreneurs do when they are deemed to recognize and pursue opportunities. Such discussion is necessary due to the conundrum in which scholars of opportunity find themselves, in which the notion of opportunity is conceptually clear in abstract, bird’s-eye-view terms, but inoperable in the context of specific, unfolding entrepreneurial endeavors. It elaborates on the nature of the observations that we can make of aspiring entrepreneurs and makes inferences in terms of possible operational definitions or conceptual axioms from which we can develop new theories and design empirical studies.

In substantive terms, from the perspective of an aspiring entrepreneur, an opportunity comprises the perpetuation of a cycle of venture ideas and actions oriented toward the formation and sustenance of market relationships. This conception suggests three angles from which the notion of opportunity can be studied. First, an opportunity happens through the generation and modification of venture ideas. Because we can observe venture ideas only as already conceived by particular individuals, our focus should be not on explaining why these individuals (and not others) have come up with the ideas but on understanding and appreciating the circumstances through which this occurs. This process is hardly linear, predictable, or inevitable. Second, an opportunity is expressed through the entrepreneur’s actions. Again, because we can observe actions only as already undertaken by particular individuals, our focus should be not on explaining why these actions occur (versus not occur) but on understanding why they occur in the particular way. In this sense, an opportunity represents an evolving blueprint for action that interweaves the entrepreneur’s resources, aspirations, and business templates. Finally, an opportunity becomes instituted in market structures through the gradual formation of exchange relationships. Focusing on the competition and exchange interactions inherent to such relationship formation can provide insights into how opportunities are perceived, articulated, and modified.

## Variance and Process Explanations

Before proceeding with a discussion of the research questions and implications stemming from these premises, it is useful to consider the nature of scientific explanation that we may seek. In social sciences, there is a general distinction between variance and process explanations (Aldrich, 2001; Mohr, 1982; Van de Ven & Engleman, 2004). Variance explanations focus on making inferences from the covariance patterns among particular variables without reference to the underlying generative mechanisms. Such explanations rely on specific assumptions about the replicative nature of observed cases, the invariant nature of their attributes, and the particular form of causal relationships (Poole, Van de Ven, Dooley, & Holmes, 2000; Van de Ven & Engleman). These assumptions have

become a backbone for theorizing in which individual cases are regarded as linear assemblies of discrete, invariant attributes (Abbott, 1988). Process explanations, in contrast, focus on the specific path—in terms of a sequence of events or concrete experiences—that observed cases follow from one state to another. They seek to identify the generative mechanisms that can explain the particular sequence of events and are thus mindful to the holistic configuration of contributing circumstances and actions. Although variance explanations currently dominate entrepreneurship research as a paragon for empirical research and as a template for theorizing, advancing research on entrepreneurial opportunities along the lines outlined by the three premises requires an explicit consideration of the match between research questions and the type of explanation.

## Studying Venture Ideas

As researchers, we can observe individuals with venture ideas, whether these ideas are actively pursued or simply articulated, but cannot observe venture ideas before they have been intuited and articulated by some individual. This suggests an asymmetry in how individuals and venture ideas can be linked empirically: a particular individual can be linked to many different possible ideas but a particular idea can be linked only to the individual articulating it. Based on this asymmetry and on the discussion in the previous section about the origin of ideas, there are two main research questions that can be asked given the reality of our observations: (1) why does a particular individual come up with a particular venture idea (out of many possible ideas)? and (2) why are some individuals more likely to come up with venture ideas (any ideas, not particular ideas)? These questions offer important changes to the question posed by Shane and Venkataraman (2000) in regard to the discovery of entrepreneurial opportunities, namely why some individuals and not others discover *particular* entrepreneurial opportunity (emphasis added). They acknowledge that the retrospectively narrated inevitability of a *particular* opportunity has no empirical content.

**Process Explanations.** The question of why a particular individual comes up with a particular venture idea invites a rich account of the actions, events, and circumstances that precede the intuition and articulation of a venture idea. Such accounts should be cognizant and sensitive to the social time and space in which the various actions and developments occur (Abbott, 1997). In addition, they should embrace chance, acknowledge the ubiquitous presence of fortuitous developments, and be more concerned with process and less concerned with causality (Gorling & Rehn, 2008; Manis & Meltzer, 1994). After all, we seem to invoke the notions of chance or luck only when we realize that what is retrospectively meaningful to us cannot be seen as an inevitable outcome of past situations. From the viewpoint of variance-oriented, theory-driven notions of causality, elaborate focus on the origin of one or few venture ideas can be easily dismissed as mere description with little generalizable content and theoretical relevance. But descriptions are not only useful in themselves; they can also spur theoretical development through the intuiting of consistent patterns or deviations from emerging conceptions of normal, as well as provide more complex explanations (Abbott, 1998). And obsession with theory can be counterproductive to the development of a field of study, especially in its early stages (Hambrick, 2007). After all, we lack the theoretical language to describe how venture ideas are intuited and experienced.

There are different ways in which we can conceptualize and study entrepreneurial process (Steyaert, 2007). Of particular relevance for understanding the emergence of a particular venture idea from the perspective of the individual entrepreneur are the

sensemaking, phenomenology, social constructionism, narrative, and pragmatism associated with the process. In terms of sensemaking, venture ideas can be seen as arising from the way in which aspiring entrepreneurs see the world around them (Gartner et al., 2003). They entail the identification of meaning against a momentary cultural background (Lavoie, 1991). There is an interesting analogy that can be made here between how aspiring entrepreneurs interpret their world in a way that suggests gaps to be filled (i.e., the venture idea) and how scholars frame their journal articles—i.e., interpret the extant literature on a topic—to suggest that there is a gap to be filled. The phenomenology of venture ideas pertains to how they are experienced in everyday life. For instance, they can be seen as disclosures of new ways of being, following from the sensing of anomalies to the traditional ways of doing things and responding to these anomalies by shifting to new ways of doing things (Spinoza, Flores, & Dreyfus, 1997). In social constructionist terms, a venture idea can be seen as emerging “through pieces of dialogue that are themselves fragments of previous conversations, experiences, thoughts and happenings” (Fletcher, 2006, p. 433). In narrative terms, a venture idea can be seen as part of a story (Steyaert, 1997) or a literary experience (Hjorth, 2007). In studying processes, stories can be seen as theoretical constructs as they reflect deeper narrative structures that encompass a sequence of events and can explain the relationships between these events (Pentland, 1999). Finally, in pragmatic terms, venture ideas can be seen as effectuated from the means available to aspiring entrepreneurs (Sarasvathy, 2001). They may reflect simply what they can do at a particular point in time, given their knowledge and resources.

These different conceptions of the process through which a venture idea is intuited and articulated are complementary in nature and, collectively, can contribute to the development of an extensive and elaborate theoretical vocabulary for our understanding of opportunities as initiated by venture ideas. The main challenge in studying venture ideas through these lenses lies in collecting rich contemporaneous data on the origination of venture ideas as well as in employing a new set of qualitative analytical tools. To this end, there need to be more engaged scholarly conversations and learning from the research tradition that emphasizes the prosaic nature of entrepreneurship (Steyaert, 2004).

**Variance Explanations.** The question of why some individuals are more likely to come up with venture ideas offers a platform to create variance explanations of the emergence of venture ideas. By emphasizing the mere intuiting and articulation of venture ideas and not their specific content, it allows different cases to be treated as identical replications and thus shifts the focus to identifying systematic variation in individual characteristics and other antecedent conditions. Such analysis can most meaningfully be conducted in experimental and quasi-experimental settings, given the complexity and fortuity of circumstances in which venture ideas appear in natural settings. Notably, there is an emerging stream of entrepreneurship research of using (quasi-)experiments to understand the individual characteristics, environmental conditions, and cognitive processes most conducive to the generation of venture ideas. They have focused on the number of identified ideas (Corbett, 2007; Shepherd & DeTienne, 2005), the cognitive process through which ideas emerge (Baron & Ensley, 2006; Gregoire, Barr, et al., 2010), the nature of the beliefs that underlie venture ideas (Gregoire, Shepherd, & Lambert, 2010), and the intention to pursue generated ideas (Dimov, 2007a). The current discussion helps ascribe a more central position to such studies and build a platform for programmatic research on the origin of entrepreneurial opportunities. The elements of such a platform comprise the outcome of interest, the antecedent conditions to be varied, and the research design to be used.

In regard to the outcome of interest, there are several ways in which venture ideas can be operationalized: whether they occur (i.e., a dichotomy), the number of ideas that occur,

and in terms of behavioral or judgmental markers for ideas that occur, such as intention to pursue or expressed confidence in their viability. Each of these highlights a different aspect of idea generation and calls for the examination of different antecedent factors. In terms of antecedent conditions, in addition to domain knowledge, cognitive skills, and motivation, there is a wide range of contextual and circumstantial factors that can be manipulated: the interpretation of available information, momentary experiences, conversations, literary situations, available means, etc., as contained in the different conceptualizations of the process of entrepreneurship (Steyaert, 2007). Finally, in regard to research designs, there is a choice between lab experiments and naturalistic quasi-experiments. The former require careful crafting of response scenarios from which one can be deemed to generate “valid” venture ideas. Prior experimental studies have used descriptions of real and contemporaneous technologies in deference to the issue of external validity. But another avenue for scenario development lies in the creation of simulation settings in which generated ideas have high internal validity, i.e., they make sense within the artificial environment created by the simulation, but do not necessarily represent real possibilities outside the laboratory. As to quasi-experiments, the teaching of entrepreneurship courses, participation in venture labs or accelerators, and other forums oriented toward entrepreneurial practice represent naturalistic settings in which reasonably controlled cohorts of participants can be surveyed in different points in time on their experiences with venture ideas. Overall, a researcher interested in the generation of venture ideas can implement a broad range of combinations of outcomes, antecedent conditions, and research designs.

## Studying Entrepreneurial Actions

Having come up with venture ideas, aspiring entrepreneurs can do different things to start their pursuit of these ideas. A researcher can observe those actions as they are undertaken, but has no reliable recourse to actions contemplated but never undertaken (unless privy to an ethnographic account of the associated deliberations). Therefore, similar to venture ideas, actions are subject to an empirical asymmetry: a particular opportunity (venture idea) can be linked to many possible actions, but a particular action can be linked only to the opportunity from which it is prompted. Based on this asymmetry, there are two main research questions that can be asked in relation to the empirical observations that we can make: (1) why does a particular venture idea prompt a particular action (out of many possible actions)? and (2) why are some venture ideas more likely to be acted upon (any action, not particular ideas)?

**Types of Actions.** Regardless of the research question at hand, one needs to have a clear conception of what entrepreneurial action prompted by a perceived opportunity means substantively. There is a range of actions possible upon one’s awareness of an attractive business possibility—search for information, discussion with others, formal or informal planning, establishment of relationships, etc. (Dimov, 2007b). These actions clearly differ in the amount of effort extended by the entrepreneur and the amount of resources committed to the action. As a consequence, actions differ in how much uncertainty the entrepreneur bears. They can be exploratory or experimental in nature, carried out in the absence of reliable market information to gauge the market acceptance of a potential product or refine the product’s market positioning. Actions can also be schematic in nature, aimed at creating a plan or other organized frame of reference for further actions. Finally, actions can be exchange oriented, aimed at conveying credibility, persuading, and engaging other parties in relationships that further the development of the venture. In other words, actions are oriented toward some immediate goals, whether explicitly articulated

or implicitly inferred. It is only in the context of these immediate goals that different actions can be compared and their drivers systematically understood.

**Process Explanations.** The question of why a particular venture idea prompts a particular action invites qualitative studies into the causal relationship between idea and action, in view of Aristotle's four causes as discussed in the previous section. Considering the material, formal, final, and efficient cause behind an action can allow us to probe into how a venture idea gets elaborated in actionable terms. The image of the future that it represents is put against the more prosaic reality of the entrepreneur's resources, business templates, aspirations, and knowledge to reveal a feasible way to proceed. There should also be room for chance or fortuitous events to explain actions that are deliberate in nature but experimental in intention. Again, a major challenge in pursuing this research direction lies in collecting rich contemporaneous data on the context of action as well as in employing a new set of qualitative analytical tools. Its ultimate goal is the induction of new theoretical constructs and relationships that can make action and the opportunity behind it more tangible.

**Variance Explanations.** The question of why some venture ideas are more likely to be acted upon allows us to develop variance explanations for action based on the nature and perceived viability of an idea. This question can be elaborated not just in terms of whether action occurs but also in terms of the type of action that occurs. In regard to the nature of venture ideas, extant typologies of venture ideas based on their information triggers (e.g., Dimov, 2007a; Sarasvathy, Dew, Velamuri, & Venkataraman, 2002) can be linked to the type of action (exploratory, schematic, or exchange oriented, as discussed above) that entrepreneurs undertake. Such relationships can be most reliably established in experimental settings that combine carefully crafted scenarios that reflect different types of ideas—e.g., initiated from experience as a frustrated customer, awareness of a new technology, or observation of a novel business concept—with observable actions or stated intentions. In regard to the perceived viability of an idea, entrepreneurs harbor certain doubt about the opportunities at hand, emerging from their current beliefs about them (Shepherd et al., 2007). While doubt can never be fully eliminated—the future is never certain—the perceived viability of the opportunity is inherently linked to the reduction of doubt. In this regard, a venture idea can be seen as a collection of specific hypotheses (beliefs) and action, whether observable or as stated intention, can be linked to particular constellations of the degrees of confidence that these hypotheses command. Thus, an overarching construct should be developed and operationalized that gauges the entrepreneur's evolving confidence or beliefs in the opportunity at hand (Dimov, 2010; Gregoire, Shepherd, et al., 2010).

Given that the entrepreneur's confidence in the feasibility of the opportunity at hand comprises different combinations of beliefs, of particular promise for this line of research is the development of qualitative comparative methodology, which is particularly “well suited for addressing questions about outcomes resulting from multiple and conjunctural causes—where different conditions combine in different and sometimes contradictory ways to produce the same or similar outcomes” (Ragin, 1987, p. x). Its main point of departure from the dominant multivariate analytical paradigms in entrepreneurship lies in treating opportunities as holistic, contextually situated cases rather than an atemporal collection of individual parts (variables). Relationships are thus examined in the context of the entire case rather than at the level of the individual variables. This methodology offers a synthesis of the rigor of variable-oriented approaches and the appreciation of complexity inherent to case-oriented approaches (e.g., Ragin, Mayer, & Drass, 1984). It is based on Boolean algebra and entails the identification of a set of relevant causal factors

for an outcome of interest and constructing a “truth table,” which shows the different combinations of those factors and the respective outcome for each combination (Ragin, 2000; Ragin, Drass, & Davey, 2006). This approach is holistic by design and moves from maximum complexity toward some simplification of that complexity. In this method, the unit of analysis is the configuration of factors rather than the individual for whom these factors are measured. Notably, the analysis of such higher-order configurations in a traditional multivariate setting poses significant problems in terms of model specification, statistical power, and interpretation of individual effects.

## Studying Market Interactions

A vital part of opportunity pursuits is the engagement of other market actors as customers, suppliers, investors, employees, advisors, etc. To establish such relationships, entrepreneurs need to “sell” their opportunities—i.e., tell credible, attractive stories to their counterparts (Aldrich & Fiol, 1994). Therefore, the nature and presentation of opportunity features prominently in this process as an observable social and linguistic activity (O’Connor, 2004). Similar to the above discussion of opportunity as a collection of beliefs that can prompt or suppress action, an opportunity can be portrayed as a collection of statements and an underlying story that can attract or repel other market actors. To formulate relevant research questions on this topic, I will again invoke the empirical asymmetry in linking an opportunity with market actors: a particular opportunity can be linked to many possible market actors, but an observed market exchange relationship—e.g., with a customer, supplier, investor, or employee—can only be linked to the opportunity on behalf of which it is formed. Thus, two main questions emerge: (1) why does a particular venture idea (opportunity) enable the formation of a particular exchange relationship (out of many possible relationships)? and (2) why are some venture ideas more likely to attract exchange partners (any exchange partner, no particular exchange partner)?

**Process Explanations.** The first question invites qualitative analysis. Similar to the discussion of the initiation of particular action, it can elaborate on the material, formal, final, and efficient causes behind the formation of the relationship. Of particular interest in conjunction with each type of cause is the implicit competition in which the focal opportunity is involved, i.e., how its nature, articulation, and communication make it relatively superior in the eyes of the exchange partner. Two types of exchange partners require explicit and elaborate attention. The first, in view of the achievement of first sale as an important milestone in the nascent entrepreneurial process (e.g., Davidsson & Honig, 2003), is the initial or early customer. Relevant considerations include how the entrepreneur’s opportunity statement positions the product or service in relation to those offered by already established actors in the market. The second type of partner is the initial or early investor. Relevant considerations include how the opportunity statement portrays its risks and potential. Existing ethnographic accounts reveal that opportunity stories can change in response to market or investor resistance (O’Connor, 2004). This suggests that a proper consideration of the market context in which an opportunity is to be instituted is essential for understanding how it evolves.

**Variance Explanations.** The second question invites larger-scale, variance explanations based on the structure and components of opportunity stories as tools for building market legitimacy. The question can be framed for each market—labor, capital, consumer, or industrial—in which an entrepreneur can engage in the pursuit of a particular opportunity. A research program in this direction requires elaboration of the outcome of interest,

relevant antecedent conditions, and research designs. An outcome can be operationalized in terms of observed behavior or stated intention to engage in further deliberation. Opportunity stories can be differentiated in terms of their emphasis, delivery, or content elaboration. Finally, in terms of research design, experimental studies with well-crafted manipulations of story conditions are most appropriate for achieving high internal validity, but quasi-experimental, naturalistic settings such as business plan competitions and business angel investor forums also have high research potential.

## Some Final Thoughts

Discussions about opportunities as a central focus of entrepreneurship research are at once conceptually grabbing and empirically elusive. The general notion that there are entrepreneurial opportunities out there—possibilities for profitable introduction of products or services—is very intuitive and hard to disprove; indeed, it is made evident by incessant entrepreneurial successes around us. But in turning toward an empirical investigation of those aspiring to such possibilities, one finds it impossible to reliably distinguish opportunities from nonopportunities. Such a conundrum naturally stifles empirical investigation as the construct of opportunity lacks tangible tenets to guide our observations of aspiring entrepreneurs.

This article seeks to address this challenge by discussing the notion of opportunity in substantive terms, i.e., in terms of what aspiring entrepreneurs do. It elaborates on three premises of opportunity as a focus of empirical investigation—opportunity as happening, opportunity as expressed in actions, and opportunity as instituted in market structures—and uses these premises to generate relevant research questions. For each unit of observation—venture idea, entrepreneurial action, and market interaction—it poses questions that focus on understanding the processual complexity of specific instances and outcome variability in general representations. It therefore invites a continuous dialogue between qualitative and quantitative methodologies on behalf of understanding how opportunities emerge and evolve at the level of individual entrepreneurs. The research implications contained in this article are summarized in Table 1.

Table 1

### Overview of Research Implications

Premise	Unit of observation	Research questions	Type of explanation
Opportunity as happening	Venture idea	Why does a particular individual come up with a particular venture idea?	Process
		Why are some individuals more likely to come up with venture ideas?	Variance
Opportunity as expressed in actions	Entrepreneurial action	Why does a particular venture idea prompt a particular action?	Process
Opportunity as instituted in market structures	Market interaction	Why are some venture ideas more likely to be acted upon?	Variance
		Why does a particular venture idea enable the formation of a particular exchange relationship?	Process
		Why are some venture ideas more likely to attract exchange partners?	Variance

This article is not the first to advocate a process perspective. It follows a long stream of reflections on the future of entrepreneurship, each emphasizing the need to pay attention to context, unfolding process, and particular level of analysis (Aldrich, 2001; Aldrich & Martinez, 2001; Davidsson, 2004; Davidsson & Wiklund, 2001; Gartner, 1989; Low & MacMillan, 1988; Shaver & Scott, 1991; Van de Ven & Engleman, 2004). But it builds on recent discussions on the nature and diversity of process theories (McKelvey, 2004; Steyaert, 2007) to suggest specific questions and possibilities for studying venture ideas, actions, and market interactions as representing different aspects of opportunities. It orients opportunity scholars toward theoretical perspectives and research traditions that offer valuable insights but lack visibility in the mainstream academic journals.

This article seeks to direct outcome-oriented theorizing and methodologies toward research programs based on controlled experiments and qualitative comparison of different configurations of relevant antecedent conditions. It emphasizes that venture ideas, actions, and market interactions are subject to an inferential asymmetry: although they belong to a set of possible alternatives, in natural settings they can be observed only as singularities. Thus, in the absence of the underlying set of possibilities from which particular outcomes emerge, cross-sectional differences in outcomes cannot be attributed to differences in a given set of antecedent conditions. In addition, higher-order configurations of factors cannot be easily and meaningfully assessed within the dominant framework of multivariate analysis.

In closing, this article has been an epitome of opportunity from the viewpoint of an aspiring individual, with its inherent complexity and unpredictability as it unfolds. It started as an intuited possibility and vague desire to say something new, reconciling, and constructive about opportunities. It has been expressed in several versions, each emerging from the feedback, readings, and dialogues triggered by the previous version. It is my modest attempt to leave a footprint in the market for ideas.

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