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Austrian Economics and the Study of Entrepreneurship
Concepts and Contributions

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Austrian economics and the study of entrepreneurship: concepts and contributions

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Abstract

Entrepreneurship researcher's growing interest in Austrian economics has not been matched by systematic efforts to tease out and incorporate this tradition's basic ideas. To remedy this situation, this paper reviews the Austrian market-process tradition and also compares it to the equilibrium-focused neoclassical tradition. Taking this contrast as point of departure, three central questions in the field of entrepreneurship studies are reexamined: Who is an entrepreneur?, What is an opportunity?, and What is the role of planning? Based on the answers to these specific questions, the paper concludes with a broader discussion of how Austrian concepts can contribute to the theoretical and methodological development of entrepreneurship studies writ large.

Keywords: Austrian economics, entrepreneurship, opportunity discovery, planning, equilibrium, entrepreneurial action

Introduction

The Austrian school of economics is receiving increasing attention from strategy researchers (Jacobson 1992, Young, Smith and Grimm 1996, Roberts and Eisenhardt 2003), theorists of the firm (Foss and Klein 2002, Langlois forthcoming) and not least entrepreneurship scholars (Venkataraman 1997, Douhan, Eliasson, and Henrekson 2007, Chiles, Bluedorn and Gupta 2007, Klein 2008, Foss, Klein, Kor and Mahoney. 2008).

While a discussion of basic Austrian concepts is clearly of interest to multiple audiences, this paper specifically addresses potential contributions to the study of entrepreneurship. In this field, Austrian ideas are often cited but seldom fully digested and absorbed as readings are typically limited to a select few works by Hayek and especially Kirzner (i.e. Hayek 1945 and Kirzner 1973, 1997). This state of affairs is unfortunate because it leaves both fundamental insights and more subtle nuances unexplored.

Recently, a number of authors have begun to more seriously unpack parts of the Austrian tradition and explore its relevance for the study of entrepreneurship. In these efforts, Austrian ideas are invoked to highlight the negative influence of neoclassical equilibrium approaches (Shane 2000, Pittaway 2005, Miller 2007, Klein 2008) as well as to promote heterogeneity and uncertainty as central assumptions when theorizing entrepreneurship (Venkataraman 1997, Davidsson 2004). More specifically, close readings of Austrian economists have been used to argue that opportunities are neither created nor discovered but subjectively imagined and enacted (Foss, Foss, Klein, Klein. 2007, Klein 2008); to provide meta-theoretical foundations for event-driven process methodologies, as opposed to functional variance approaches, in studies of entrepreneurship (Chiles 2003, Chiles et al. 2007); and to stress the theoretical importance of entrepreneurs' subjective judgments

regarding how to value, combine and deploy capital resources (Foss et al. 2007, Foss et al. 2008).

While these and other contributions to entrepreneurship studies often refer to specific ideas from Austrian economics—e.g. concerning the heterogeneity of individuals, the subjectivity of expectations, and the processual nature of markets—the implications of these ideas, as well as their interrelationships, are seldom clarified. Stated differently, despite some praiseworthy efforts, the field still suffers from a dearth of attempts to tease out the basic concepts of Austrian economics and systematically relate these to the theoretical and methodological issues facing the study of entrepreneurship.

To remedy this situation, this paper introduces the basic ideas of Austrian economics and shows how these provide a coherent set of concepts that may contribute to the development of entrepreneurship research. During the course of this undertaking, the Austrian market-process tradition will be contrasted with the equilibrium-orientation of traditional neoclassical economics. While notoriously hard to define, the neoclassical model of the economy can broadly be seen as populated by isolated individuals who, armed with correct information and far-reaching rationality, try to maximize their unchanging utility functions and also manage to do so in a way that brings about a state of general equilibrium (Kreps 1997). While this characterization is admittedly unfair to the nuances of contemporary mainstream economics—which often acknowledges bounded rationality, transaction costs, private information etc. (Kreps 1997, Colander 2000)—this is neither here nor there.

Indeed, it matters little whether practicing neoclassical economists are themselves aware of the tradeoffs they make between realism in assumptions and generality, predictive power, modeling requirements etc. (cf. Friedman 1953) if entrepreneurship researchers who draw

on these theories for inspiration and support are not. The fact is that relatively crude assumptions about rationality and equilibrium have exerted an important influence on management theory in general (Jacobson 1992, Foss and Ishikawa 2007) and entrepreneurship studies in particular (Shane 2000, Pittaway 2005, Miller 2007). Much of the strategy literature thus focuses on how to ensure monopolistic rents in equilibrium markets either by erecting barriers to competition (Porter 1980) or by developing and protecting superior resources (Barney 1991). Similarly, the marketing tradition's focus on segmentation, targeting and positioning, rests on rational agents operating in predictable environments (Kotler 1997). In entrepreneurship studies, the most striking example of the neoclassical influence may be the long standing pursuit of extraordinary entrepreneurial qualities; an endeavor that makes perfect sense given assumptions of rationality and complete information (cf. Bianchi and Henrekson, 2005).

While the Austrian market-process tradition will be contrasted with the neoclassical equilibrium-approach, this does not mean the two are orthogonal. In fact, both traditions are 'neoclassical' in the sense that they trace their lineage to the marginalist revolution in economics (cf. Vaughn 1996). However, over the years their different development trajectories have gradually led them to methodological and theoretical positions that imply quite different conceptions of the economy in general and of entrepreneurship in particular. As mainstream economics came to embrace the precision afforded by (linear) mathematical formulae, they also gradually began to orient themselves to their own theoretical models rather than to real-world issues and processes (Barreto 1989, Boettke 1997). In particular, the substitution of real-life human action for strict utility maximizing based on stable preferences, as the micro-foundation of economic theory, made it very hard to address a

range of issues that relate to entrepreneurship and development, such as creativity, dynamic interaction and endogenous economic change. On their part, Austrian economists have always sought to avoid the constraints imposed by mathematical formalism and instead retained and cultivated the classical economists' focus on real life phenomena and processes (Vaughn 1996, Boettke 1997). Critically for entrepreneurship studies, this includes a focus on real-life human action and interaction as the micro-foundations of analyses.

Given the enduring, albeit often implicit, influence of equilibrium oriented neoclassical assumptions on entrepreneurship studies, the purpose of this paper is threefold: *first*, to review the history of Austrian economics and introduce its main principles: subjectivism, methodological individualism, and market-process; *second*, to discuss three central questions in the field of entrepreneurship studies—Who is an entrepreneur?, What is an opportunity? and What is the role of planning?—in light of both the Austrian and neoclassical traditions; *third*, to summarize the insights gleaned from these specific discussions and discuss how Austrian precepts can provide theoretical as well as methodological guidelines that may benefit entrepreneurship studies.

At this point, a caveat is in order. Abstract ideas from economic theory, be they neoclassical or Austrian, should not be uncritically used as empirical categories. To confuse theory for reality—which would inevitably mean that important aspects of reality are ignored—would be to commit the fallacy of misplaced concreteness (Whitehead 1967). Such reification has already caused a lot of conflict in the history of economics and management (Machlup 1967) and the contemporary use of Austrian ideas to study entrepreneurship appears to be no exception (cf. Klein 2008: 180, Kirzner 2009). Instead, economic ideas should be seen

as a source of ‘useful heuristics’ that may guide more empirically grounded research. In the context of entrepreneurship studies, it is argued that Austrian ideas, which are based on more realistic assumptions, can provide an interesting set of such heuristics—quite different from those of neoclassical economics—that have higher face validity and also resonate with many promising developments in the field of entrepreneurship studies.

The Austrian economic tradition

Like most ‘schools’ of thought, Austrian economics is not without internal conflicts.

However, any internal differences are minor compared to the overwhelming agreement in the Austrian critique of mainstream equilibrium economics. In what follows, the history of Austrian economics will be briefly summarized in terms of three generations of scholars: the founder Carl Menger, whose most important followers were Ludwig von Mises and Friedrich von Hayek, and more recently their students Israel Kirzner and Ludwig Lachmann.¹ Focusing on these five authors, and especially highlighting Kirzner’s often misunderstood theory of entrepreneurship, the following review briefly chronicles the theoretical evolution of the Austrian tradition before elaborating its three main theoretical building blocks: subjectivism, methodological individualism and market process. For more comprehensive treatments of the history and concepts of Austrian economics, the reader is referred to Vaughn (1996) and Boettke (1994) respectively.

Austrian chronology

The Austrian school of economics was founded by *Carl Menger* (1863), who is otherwise best known for having introduced the principle of marginal utility to economics (along with

¹ Some would argue that Wieser and Böhm-Bawerk constitute a fourth important generation, whereas some may miss Shackle, Rothbard, Lavoie and others. For the present purpose, as well as in the interest of brevity,

Jevons and Walras). Going beyond what would become neoclassical economics, Menger's main goal was to understand the dynamics of economic development and historical progress. To do this, he assumed that individuals had heterogeneous and subjective wants, which they gradually learned about and also sought to satisfy via interaction and trade. Menger also argued that, over time, such interactions would spontaneously bring about new institutions—including language, money and trade itself—that facilitate social interaction and help individuals as they seek to satisfy their wants. Such institutions are thus “not the result of socially teleological causes, but the unintended result of innumerable efforts of economic subjects pursuing *individual* interests” (Menger 1963: 158).

Menger's ideas were developed in somewhat different directions by Mises and Hayek (Salerno 1993). *Mises* refined Menger's subjectivism, from its original emphasis on subjective wants to a broader subjectivism in which the whole situation that an actor faces is subjectively defined. Mises further argued that in a world characterized by real time and true uncertainty, people must creatively reflect on how to best satisfy their wants and achieve their goals. This includes judging the usefulness and suitability of the different resources they have at their disposal. Since goals always pertain to the uncertain future, human action is inherently entrepreneurial, a word which in Mises' vocabulary denotes “man exclusively seen from the aspect of the uncertainty inherent in every action” (1966: 253). Mises thus defined entrepreneurship as the distinctly human quality that fuels action, and thus the economy, in the face of uncertainty.

Hayek's development of Menger focused more on the market as a mechanism for coordinating dispersed knowledge and beliefs (Hayek 1945). In doing so, Hayek did not

their inclusion is not deemed to be necessary.

view coordination primarily in terms of supply and demand of physical goods, but as a matter of mutual coordination of subjectively held beliefs and plans. Markets thus become more coordinated, or move closer to equilibrium, to the extent that knowledge is efficiently communicated so that individuals' beliefs and plans for action become more compatible with each other.

In *Kirzner's* framework, Mises' entrepreneurial quality was abstracted into an ideal typical 'alert' entrepreneur that embodies Hayek's plan coordinating tendency in society (Kirzner 1973, 1985). In entrepreneurship discourse, alertness has often been mischaracterized as a passive and responding form of agency, which consists of discovering pre-existing profit opportunities in the marketplace; an interpretation that clearly contradicts the Austrian view of entrepreneurship as action confronting uncertainty (cf. Kirzner 2009). This misunderstanding harks back to Kirzner's influential book 'Competition and Entrepreneurship' (Kirzner 1973), which focuses on simple markets within single time-periods, i.e. hypothetical situations where entrepreneurship entails buying cheap and sell dear:

“My 1973 work found it expedient to focus upon this, the essential feature of entrepreneurship, through the device of abstracting from all other aspects of the real-world exercise of entrepreneurship. This device consists in imagining how entrepreneurship might be exercised in a world in which all those other aspects are imagined to be absent – i.e., in a single-period world without production and without the uncertainty that arises from awareness of futurity. It was certainly not the intention, in deploying this analytical device, to deny that in the real world of production and (consequently) of multi-period decision making and radical uncertainty, entrepreneurship is exercised only by calling upon the entrepreneur's qualities of boldness, innovativeness and creativity” (Kirzner 1999: 11).

Besides his analytical focus on single time periods, Kirzner also acknowledges that his choice of terminology may have caused misunderstandings:

“This writer has often talked as if alertness is able to identify existing opportunities for

future profit. Purists, in both linguistic usage and philosophical consistency, may certainly be excused for expressing unhappiness with such loose or metaphorical use of language in regard to the non-existent future” (Kirzner 1992: 26 note 4).

Kirzner is thus very clear that, first of all, alertness is not a psychological category but an analytical construct used to address specific economic problems (i.e. the tendency of markets to clear) and, secondly, that real life entrepreneurial action, which is always geared toward an uncertain future, must be animated by imagination and creativity.²

Like Kirzner, *Lachmann* based his work in part on Mises and Hayek. But, pace Kirzner, he avoided analytical constructs such as alertness and instead emphasized that all economic descriptions of human action must comprise unpredictable creativity. Combining Mises’ emphasis on true uncertainty and Hayek’s notion of spatio-temporally limited and consequently heterogeneous knowledge, Lachmann emphasized that entrepreneurial action relies on continuous reinterpretations of the past that influence creative speculations about the future. Entrepreneurial action is thus driven by individuals’ situated judgments and heterogeneous expectations of what the future might become:

“The entrepreneurial interpretation of past experience finds its most interesting manifestation in the formation of expectations. Expectations, i.e. those acts of the entrepreneurial mind which constitute his ‘world’, diagnose ‘the situation’ in which action has to be taken, and logically precede the making of plans, are of crucial importance” (Lachmann 1978: 15).

As a result, the market should be regarded as a process that consists of ”a sequence of individual interactions, each denoting the encounter (and sometimes collision) of a number of plans, which, while coherent individually ... are incoherent as a group. The process would not go on otherwise.” (Lachmann 1976: 130-131).

² Not everyone believes that Kirzner changed his views on the pro-activeness and creativity of entrepreneurship when moving from single to multiple time-periods. See Vaughn (1996: 139-161), O’Driscoll (1996: xiiv-xxxiii) and Buchanan and Vanberg (1991) for discussions on this topic. While this issue deserves more careful treatment in the context of entrepreneurship studies, it is not pursued further here.

Three main themes in Austrian economics

While necessarily brief, the above chronology shows the history of Austrian economics to be quite multifaceted. Still, in spite some internal differences, all Austrian economists agree on three central assumptions; they espouse a thoroughgoing subjectivism³ and a nuanced methodological individualism, and these combine to yield a processual view of markets (Boettke 1994: 3, Vaughn 1996: 4). In what follows, these themes are outlined in some detail.

Subjectivism

Subjectivism in the Austrian tradition means that subjective values, needs and expectations are essential determinants of human action. Analytical focus should therefore be on the subjects, not the objects, of human action, and consequently “neither a ‘commodity’ or an ‘economic good’, nor ‘food’ or ‘money’, can be defined in physical terms but only in terms of views people hold about things” (Hayek 1942: 281). Neoclassical economics is also subjectivist at heart, but by postulating that individuals have stable preferences and a realistic grasp of a knowable world, economic problems are often reduced to mechanistic engineering problems (cf. Buchanan 1964). Austrian economists see this as an inadmissible reduction of what it is to be human. In the words of Lachmann “the neoclassical textbook paradigm is inadequate ... [i]ts level of abstraction is too high and, what is worse, there appears to be no way in which it could be lowered as to enable us to approach reality gradually ... [t]he ‘life-world’ in which all our empirical knowledge of social matters is embedded does not exist for it” (Lachmann 1990: 135). In the Austrian tradition, a nuanced

³ The definition of the term subjectivism in economic discourse harks back to the difference between the ‘subjectivism’ of marginalist value theory and the ‘objectivism’ of the classical labor theory of value. Subjectivism therefore highlights the importance of focusing on subjective values, beliefs and expectations – which are largely determined by the sociality of individuals – over supposedly objective qualities of objects.

appreciation of individuals and their life-worlds are regarded as central to economic theorizing. Writes Mises “[Austrian economics] deals with real actions of real men. Its theorems refer neither to ideal nor perfect men, neither to the phantom of a fabulous economic man (*homo oeconomicus*) nor to the statistical notion of an average man (*homme moyen*). Man with all his weaknesses and limitations, every man as he lives and acts, is the subject matter” (Mises 1996: 651).

Subjectivism is so central to Austrian economists that Hayek famously proclaimed that “every important advance in economic theory during the last hundred years was a further step in the consistent application of subjectivism” (Hayek 1952: 31). Indeed, Austrian subjectivism has over the years come to encompass more and more aspects of human action. Menger started by emphasizing the subjective nature of wants, a position that was developed by Mises, Hayek and others to include subjective knowledge more generally. While Hayek and Mises were both clear that subjectivism had to entail subjective judgments about the uncertain future, they did not stress expectations in their analyses. Kirzner did so, but mainly through the abstract concept of alertness. Instead it was Lachmann who explicitly extended subjectivism to also include imaginative expectations about the future, captured in his notion of ‘the plan’. Plans are not automatic reflections of past experiences and spatio-temporally perceived conditions. Plans are infused with creativity, and Lachmann consequently calls his “the subjectivism of active minds” (Lachmann 1990: 37). By emphasizing creativity and imagination, Lachmann reconnects with the hermeneutic heritage of the Austrian tradition (cf. Kurrild-Klittgaard 2001) which explicitly regards entrepreneurs as culturally embedded agents whose creative expectations develop against the backdrop of both their life history and the institutional and cultural contexts in which they operate (Lachmann 1990, Lavoie

1991). It is thus clear that subjectivism, in the Austrian context, should not be interpreted as atomism or solipsism. Instead, subjectivism here implies a socially embedded interpretivism (Hayek 1948a: 13, Lachmann 1990: 135).

Methodological individualism

The second fundamental tenet of Austrian economics is methodological individualism; the idea that only people act and that the primary focus of analyses should always be individuals and their interactions, not collectives or other supra-individual entities. Again, neoclassical economists espouse methodological individualism but, since they reject the rich subjectivism of the Austrian tradition, theirs is more atomistic (Udehn 2002). They also tend to downplay the importance of individual heterogeneity, creativity and learning in order to enable modeling. As a result, individual actions in neoclassical theories are seen as determined by a combination of stable preferences and environmental constraints, and individuals are often lumped together in ‘representative agents’, which embody the aggregate or average actions of larger groups (Kirman 1992). The most common representative agents are consumers and producers, but also entrepreneurs tend to be treated as homogeneous (Bianchi and Henrekson, 2005).

Austrian economists strongly reject such stable, homogenous and undersocialized versions of methodological individualism. Mises, for instance, asserted that goals and aspirations “differ with various people and with the same people at various moments in their lives” (Mises 1996: 95). Consequently, economic theory must be based on more ‘full bodied’ and evolving individuals than is the case in the neoclassical tradition. Hayek, in his essay ‘Individualism: True and False’ (Hayek 1948a), thus argued that false (read orthodox neoclassical) individualism “postulates the existence of isolated or self-contained individuals

instead of starting from men whose whole nature and character is determined by their existence in society” (Ibid: 6). True (read Austrian) individualism therefore requires researchers to “attempt to understand the forces which determine the social life of man” (Ibid: 6). Clearly, the Austrian view of methodological individualism follows directly from the notion of subjectivism, with its emphasis on heterogeneity and social embeddedness.⁴ As is hopefully apparent, the concepts of subjectivism and methodological individualism do not restrict investigations to individuals and their interactions *per se*. Instead, these concepts provide the fundamental points of departure that make it possible to comprehend the dynamic processes of historical progress and economic development; to view the market as a process.

Market process

As described above, neoclassical economics employs a quite thin version of subjectivism and an atomistic methodological individualism, which come together in a static equilibrium view of markets. While all theories must abstract from reality, Austrians do not regard such abstractions to be acceptable simplifications, but rather gross perversions of reality. Indeed, such simplification ignores that which Austrians ever since Menger have seen as the main task of economics to explain; namely how social and economic phenomena—including products, organizations and institutions—emerge and disappear as the, often unintended, result of heterogeneous individuals interacting based on their subjective beliefs and desires (Hayek 1937, Lachmann 1971). Austrians sometimes call theirs the ‘genetic-causal’ approach, precisely because it traces the evolution of the market process to the originative

⁴ At the risk of pointing out the obvious, it should be noted that methodological individualism in no way implies ontological individualism.

actions of individuals.⁵

In the neoclassical tradition there is no real uncertainty. The market is populated by rational actors with stable preferences who possess correct information. Since the market is essentially conceived as a given price-quantity configuration, its inevitable equilibrium state—in which prices have been competed down to marginal cost yielding zero profits—is in principle knowable. Neoclassical analyses mainly focus on this ‘perfectly competitive’ end-state rather than on process issues. In the words of Mises “[s]uch a rigid system is not peopled with living men making choices and liable to error; it is a world of soulless unthinking automatons; it is not a human society, it is an ant hill” (Mises 1996: 248). In contrast, Austrian analyses of market processes highlight the heterogeneity of individuals and the creativity of their plans, thus constantly grounding competition in qualitatively different offers and making profits (and losses) a natural occurrence. Writes Hayek: “competition is important *only* because and insofar as its outcomes are unpredictable and on the whole different from those that anyone would have been able to consciously strive for; and ... its salutary effects must manifest themselves by frustrating certain intentions and disappointing certain expectations” (Hayek 2002: 10).

In sum, the benefit of the market, argue the Austrians, lies not in its ability to efficiently reach a state of Pareto optimal ‘perfect competition’ among rational agents with fixed preferences in a given environment. Rather, the benefits are found in the dynamic way that the market *qua* process allows blood-filled, evolving individuals to test and refine their creative plans through competitive interaction. In this sense, the market is a dynamic process

⁵ Genetic in the phrase ‘genetic-causal’ does not refer to genes; instead it refers to the fact that social processes are driven by, or have their genesis in, origins that cause outcomes. This can be contrasted with more mechanistic approaches, which downplay causality and focus primarily on stable cause-effect relationships and consistent co-occurrences (Cowan and Rizzo 1996). More on the methodological

of both competition *and* coordination. It facilitates aggressive rivalry which results in the continuous development of competing products, services, modes of production etc. But it also facilitates coordination by articulating and spreading information about different such offers, not least through the profits they yield. In the words of Hayek: “competition is by its nature a dynamic process whose essential characteristics are assumed away by the assumptions underlying static analysis” (Hayek 1948b: 94).

Austrian lessons for entrepreneurship researchers

As mentioned in the introduction, it would be a mistake to transfer concepts directly from economic theory to entrepreneurship research. Still, given their pervasive influence in entrepreneurship studies (Minniti and Lévesque 2008), economic concepts must be critically engaged so as to better understand their relation to more specific investigations and concepts. The present representation of neoclassical economics is admittedly crude. However, this is arguably appropriate since the influence of neoclassical economics on the field of entrepreneurship studies has mainly occurred on the level of general ideas, e.g. rational choice, markets in equilibrium and entrepreneurs as extraordinary (cf. Shane 2000). It also is in this spirit that the ideas and concepts of the Austrian tradition are presented; as a set of useful heuristics—alternative to those of neoclassical economics—that may aid entrepreneurship researchers as they address more specific research questions. In line with this ambition, the concepts and ideas described above are used to elaborate three related questions that are generally seen as central to the field of entrepreneurship studies: 1) Who is an entrepreneur? 2) What is an opportunity? and 3) What is the role of planning? (cf. Stevenson and Jarillo 1990, Shane and Venkataraman 2000, Sarasvathy 2004b). For each

implications of Austrian economics in the concluding discussion.

question, the position of the neoclassical paradigm is briefly outlined, followed by studies in the entrepreneurship field that take a similar view. Thereafter, the Austrian position is elaborated in some detail, followed by corresponding contributions in the entrepreneurship field (see also Table 1). Finally, it should be noted that, while the cited studies from the entrepreneurship field do correspond with the two economic traditions, not all of them are explicitly inspired by them (cf. Klein 2008: 176).

Who is an entrepreneur?

The Neoclassical position

The neoclassical tradition has had an almost embarrassingly hard time making theoretical sense of entrepreneurship (Barreto 1989, Bianchi and Henrekson, 2005). It has even been argued that innovative entrepreneurship may be impossible to fit into the neoclassical framework (Baumol 1968). When considered, entrepreneurs are typically defined in terms of occupational role, e.g. managers or self-employed as opposed to workers or employees. Who becomes an entrepreneur is then explained through some specific quality that only they have, or that they have more of than others. This is a perfectly natural conclusion given assumptions of equilibrium markets and complete information; assumptions under which entrepreneurs must be seen either as lucky (Demsetz 1983) or as differing from the remaining population through special talents (Lucas 1978), breadth of skill set (Lazear 2005), an excessive propensity to bear risk (Kihlstrom and Laffont 1979)⁶ or some other quality (cf. Bianchi and Henrekson 2005).

⁶ Kihlstrom and Laffont (1979), too, argue that entrepreneurial success is purely determined by luck. However, entrepreneurs, by dint of being less risk averse, are the ones willing to bear residual risks in both

Corresponding Entrepreneurship Research

Following the neoclassical view, most early entrepreneurship research regarded the entrepreneur as an extra-ordinary character, distinguished by certain character traits.⁷ In the words of Shook, Priem and McGee (2003: 382): “neoclassical economic theories explain entrepreneurship by identifying those individuals who prefer to become entrepreneurs. Accordingly, work investigating the individual and entrepreneurship focused on psychological variables that may distinguish entrepreneurs from non-entrepreneurs” (cf. also Shane 2000: 449, Shane and Venkataraman 2000: 218). As a result, the entrepreneur was alternatively described as a risk taker, as extremely achievement motivated, as experiencing an internal locus of control, as being unusually tolerant of ambiguity, as over-optimistic, as craving autonomy etc (cf. Delmar 2000, Shook et al. 2003).

For a long time, the use of cross-sectional survey methods, which examine individuals at one point in time and typically sample on the dependent variable, reinforced the traits view (Carroll and Mosakowski, 1987). When empirical evidence suggested that personality traits did not single out entrepreneurs, e.g. when compared to managers (Gartner 1988), many researchers instead began to focus on more proximate factors that compared entrepreneurs and others along specific cognitive dimensions. The underlying intuition was still that “[t]here must be something quite unique about the entrepreneurial individual” (McCline 2000: 81). And, while far from all entrepreneurial cognition researchers adhere to this view of the entrepreneur, many still subscribe to “the fundamental idea that entrepreneurs are members of a homogeneous group that is somehow unique” (Mitchell, Busenitz, Lant,

successful and unsuccessful cases.

⁷ The theoretical focus on unique individuals has also been linked to Schumpeter's notion of the heroic entrepreneur as the agent of change in his punctuated equilibrium theory of economic development (cf. Gick 2002).

McDougall, Morse, and Smith 2002: 95).

In recent years, a number of attempts at singling out entrepreneurs have emphasized genetic make-up. White, Thornhill and Hampson (2006) thus link new venture creation to high testosterone levels, whereas Nicolaou and colleagues (Nicolaou, Shane, Hunkin, Cherkas, Spector 2008, Nicolaou and Shane 2009) studied monozygotic and dizygotic twins to more broadly make the case that who is and who is not an entrepreneur is largely a matter of genetic disposition.

The Austrian position

In the Austrian tradition, entrepreneurship is defined as judgmental action in the face of uncertainty. Entrepreneurship is therefore not seen as an extraordinary activity, nor are entrepreneurs considered a special class of people. Instead, entrepreneurship is seen as an aspect all human action, to the extent that it faces uncertainty.⁸ This constitutes a very different answer to the question ‘who is an entrepreneur?’. To make this point clear it is worth quoting Mises at length:

“In the imaginary construction of an evenly rotating system [i.e. a neoclassical economy with no uncertainty] nobody is an entrepreneur and speculator. In any real and living economy every actor is always an entrepreneur and speculator. ... Economics, in speaking of entrepreneurs, has in view not men, but a definite function. This function is not the particular feature of a special group or class of men; it is inherent in every action and burdens every actor. In embodying this function in an imaginary figure, we resort to a methodological makeshift. The term entrepreneur as used by [Austrian economics] means: acting man exclusively seen from the aspect of the uncertainty inherent in every action. In using this term one must never forget that every action is embedded in the flux of time and therefore involves a speculation” (Mises 1996: 252-253).

As mentioned, many entrepreneurship researchers invoke Kirzner who in his analyses often makes use of “the device of the *pure entrepreneur*, that is, a decision-maker whose entire

⁸ Following Klein (2008: 178) I acknowledge that this broad definition of entrepreneurship is not always

role arises out of his alertness to hitherto unnoticed opportunities” (Kirzner 1973: 39).

However, as Kirzner makes very clear, the alert entrepreneur is an example of precisely the kind of ‘methodological makeshift’ that Mises is speaking about (Kirzner 2009, cf. Klein 2008: 180). Consequently, in real life, every actor “can be seen to exercise the element of entrepreneurship as soon as we place him in a setting of imperfect knowledge” (Kirzner 1973: 39).

Corresponding Entrepreneurship Research

The general idea that entrepreneurship entails action in the face of uncertainty is clearly echoed by a growing number of entrepreneurship scholars who argue that attempts to single out entrepreneurs are fundamentally misguided (Gartner 1988, McMullen and Shepherd 2006, Dimov 2007). Without disputing the existence of significant individual differences—which echoes the Austrian focus on heterogeneity—these authors choose to focus less on describing individuals’ qualities in favor of investigations of how people act and think in the face of uncertainty, including how seemingly mundane everyday activities can have entrepreneurial potential.⁹ A key argument is that distinctly entrepreneurial traits, cognitions or genes are not only difficult to establish empirically, they are also of questionable theoretical use and of limited practical value. In a paper succinctly entitled ‘Who is an entrepreneur? is the wrong question’, Gartner argues that “the attempt to answer the question who is an entrepreneur, which focuses on the traits and personality characteristics of entrepreneurs, will neither lead us to a definition of the entrepreneur nor help us to

practically or empirically useful. However, for the present purpose it is also important to acknowledge the ubiquity of entrepreneurial qualities in all human action.

⁹ By arguing that everyone is an entrepreneur, it is not logical to speak of entrepreneurial action in terms of ‘what entrepreneurs do’, ‘how entrepreneurs think’. The proper phrases should be ‘what people do when they act in the face uncertainty’ and ‘the people think when facing uncertainty’. I will, however, keep this terminology in the hope that the intended meaning is made clear by the context.

understand the phenomenon of entrepreneurship” (Gartner 1988: 12). The implication is that researchers are better served focusing on what entrepreneurs do, including the thought styles and the contextual embeddings that allow individuals to take constructive action in the face of uncertainty.

One attempt in this direction is the panel study of entrepreneurial dynamics which tracks the activities of large groups of ‘nascent entrepreneurs’ over time (e.g. Gartner, Shaver, Carter, Reynolds 2004). Here focus is not on the individuals per se, but on the decisions made and activities undertaken as a venture is conceived and developed. While the authors in this tradition argue that entrepreneurship is “inherently, an individual level phenomenon” in which “individual behaviors are the principal necessary ingredients” (Gartner and Carter, 2003: 197), they carefully avoid “suggesting that entrepreneurs ... are inherently unique, per se, compared to individuals undertaking other kinds of activities” (Ibid). Instead, the authors argue that genetics, character traits and the like may matter ”in that they are likely to be associated with differences in individual behaviors. But, it is the behaviors, themselves, that produce organizations” (Ibid).

Another stream of research focuses on cognitive heuristics and biases to explain how individuals are able to act in the face of uncertainty. Generally speaking, the unlimited options of an uncertain future make goal-rational utility-maximizing behavior impossible. Building on Simon’s (1976) notion of procedural rationality, Sarasvathy (2001, 2007) has instead suggested that expert-entrepreneurs rely on a range design-heuristics that are functional in the face of uncertainty (e.g. Sarasvathy 2001, 2007). Others explain entrepreneurial action in terms of ‘irrational’ cognitive biases such as overconfidence or hubris (Hayward, Shepherd, Griffin 2006), willingness to generalize from small samples

(Busenitz and Barney 1997) or the illusion of control (Simon, Houghton and Aquino 2000).

As mentioned, some researchers see entrepreneurial cognitions as a way to single out entrepreneurs (cf. Mitchell et al. 2002). However, many instead acknowledge that such heuristics and biases are employed by “all human beings, [but that] they seem to have special relevance to entrepreneurs” (Baron 1998: 278), given the uncertainty, time pressures, information overload and emotional nature that characterizes the typical entrepreneurial decision environment.

Clearly, studies of cognitions and behaviors can illuminate many important aspects of entrepreneurial action. However, by focusing on behaviors or cognitions in isolation they also tend to overlook many contextual and subtle nuances of the entrepreneurial ‘life-world’ (Lachmann 1990: 135); factors that arguably become more important as cues for action in the absence of reliable decision criteria. A growing number of researchers have therefore begun to explore how mundane (Hjort, Johannisson and Steyaert. 2003, Steyaert 2004) and ostensibly non-economic (Steyaert and Katz 2004, Rehn and Taalas 2004) activities inform entrepreneurial behavior, especially during early phases. Echoing the Austrian tradition, this stream of research emphasizes the practical and theoretical importance of treating entrepreneurs as “complete human beings” (Johannisson 1989: 105) whose entrepreneurially relevant actions are made possible by family ties and other social networks that have often been built up for reasons quite other than their potential economic value (e.g. Jack and Anderson 2002, Johannisson and Mönsted 1997).

What is an opportunity?

The Neoclassical position

Neoclassical models primarily deal with markets in states of equilibrium; when all sources of change and all gains from trade have been exhausted. To accommodate real world dynamisms, some authors propose punctuated equilibrium models, where profit opportunities are periodically introduced from outside the economic sphere in the form of new resources, improved technologies, expanding markets etc. (Schumpeter 1961, Schultz 1980). Others, often inspired by Hayek, argue that individuals' information about the market and its profit opportunities is unevenly distributed (cf. Grossman and Stiglitz 1976, 1980). However, both punctuated equilibrium models and alternatives based on information economics retain a view of markets as essentially static frameworks that are available for rational individuals to try to exploit. Opportunities are thus seen to exist objectively and only to the extent that markets have not yet reached their equilibrium state.

Corresponding Entrepreneurship Studies

The idea that opportunities exist objectively before being discovered by skillful or fortunate entrepreneurs is deeply ingrained in entrepreneurship studies. In a well known taxonomy, Drucker (1985) traced entrepreneurial opportunities to seven broad sources of disequilibrium: unexpected occurrences, perception-reality incongruities, unmet process needs, changes in industry structures or markets, demographic changes, changes in public priorities, and new scientific knowledge. Shane (2003) invokes Schumpeter to develop a similar taxonomy, in which opportunities are produced by three sources of change exogenous to the market: technological; political and regulatory; and social and demographic.

The idea that opportunities have objective existence is most clearly expressed by Shane and Venkataraman:

“To have entrepreneurship, you must first have entrepreneurial opportunities. Entrepreneurial opportunities are those situations in which new goods, services, raw materials, and organization methods *can be introduced and sold* at greater than their cost of production. Although recognition of opportunities is a subjective process, *the opportunities themselves are objective phenomena that are not known to all parties at all times.*” (Shane and Venkataraman, 2000: 220 emphases added).

Since this is a very influential paper that invokes both neoclassical and Austrian¹⁰ ideas and ends up espousing a view of opportunities as objectively existing, its arguments will be examined in some detail.

The above definition of opportunities leaves no room for imagination or for the creation of new goods, services etc. This is because it ignores the passage of time, in particular the time consuming production process, which makes all real world entrepreneurship a matter of speculative conjecture and action, not of absolute discovery and exploitation (cf. Kirzner 1999: 11). As the highlighted sections of the quote make quite clear, specific profit opportunities are assumed to exist objectively and to be recognized in pre-packaged form (cf. Dimov 2007, Klein 2008).

The authors then go on to ask “Why do some people and not others discover particular opportunities?” (Shane and Venkataraman 2000: 221). After rejecting the null-hypothesis that opportunity discovery is a matter of blind luck, the authors suggest that this depends on “1) the possession of the prior information necessary to identify *an opportunity* and 2) the cognitive properties necessary to value *it*” (Ibid: 222 emphases added). The authors are thus very clear that not all individuals can notice all opportunities. They are also very clear that, because of their prior information and spatio-temporal location, specific individuals can discover some specific opportunities. Entrepreneurship thus follows more or less

¹⁰ Note, however, that these Austrian ideas are mainly from Kirzner (1973, 1997) during his ‘single time-period’ phase. This often misunderstood body of work is sometimes described by other Austrians as “Austrian-economics-as-supplement-to-neoclassical-economics” (Vaughn 1996: 166, cf. Rizzo 1996: xiv).

automatically whenever there is a fit between certain individuals and certain opportunities (whose values exceeds the opportunity cost of those individuals), i.e. if a proper ‘individual opportunity nexus’ obtains. Opportunities are thus automatically discovered to the extent that individuals possess the necessary information and cognitive properties needed to spot and act on them. In a related paper, it is also argued that researchers need to know “the magnitude of the force exerted by the opportunities themselves” (Shane, Locke and Collins 2003: 269) in order to properly understand the relevance of individual qualities, e.g. motivation, as a cause of entrepreneurial behavior.

Shane and Venkataraman’s reasoning is quite consistent with interpretations of Hayek made by neoclassical economists of information (e.g. Grossman and Stiglitz 1976, 1980, cf. Thomsen 1992: 31ff, Kirzner 1992: 147-149, Boettke 1997). This tradition also rejects the null-hypothesis of randomly distributed opportunities, and the essential role of entrepreneurs is to equilibrate markets by discovering and exploiting objectively existing opportunities revealed by price signals. Of course, prices in the neoclassical equilibrium setting reflect correct market information and consequently indicate the existence of opportunities. While not merely speaking of prices, Shane and Venkataraman appear to endorse a similar view of information more generally:

“Because information is imperfectly distributed, all economic actors do not receive new information at the same time. Consequently, some people obtain information before others about resources lying fallow, new discoveries being made, or new markets opening up. If economic actors obtain new information before others, they *can purchase resources at below their equilibrium value* and earn an entrepreneurial profit by recombining the resources and then selling them” (Shane and Venkataraman 2000: 221 emphases added).

However, pace the neoclassical tradition, the role of prices and information in the Austrian tradition is emphatically *not* only to communicate a correct image of an objectively existing

world. Indeed, since the future is unknowable, there can be no correct information about it (Lachmann 1978). This means that prices and other pieces of information should not be theorized as mirroring reality and revealing specific opportunities. Rather, in the context of entrepreneurship, prices and other pieces of information provide crude signals of general opportunity that allow entrepreneurs to focus their attention and creative faculties in a general direction that is potentially profitable. To make this point clear, Kirzner argues that while the ability of prices to communicate economic knowledge is of unquestionable value in market economies “this insight into the relationship between prices and knowledge ignores the far more important truth that it is the very *inadequacies* that cloud the manner in which these price-summaries express existing knowledge, that create the market incentives for their modification. The profit opportunities embedded in existing prices are thus extraordinarily effective communicators of knowledge (in a sense quite different from that in which prices summarizes knowledge)” (Kirzner 1992: 149). This ‘quite different sense’ is that prices—rather than revealing specific opportunities—indicate the existence of potential profit opportunity in a general sense, thereby encouraging entrepreneurs to “conjecture (and to try out!) hunches that may in fact be closer to the truth (than the information that the prices themselves reflect)” (Kirzner 1992: 148).

The Austrian position

As already discussed in some detail above, the neoclassical position assumes agents who are more or less well informed in the sense that their expectations are based on knowledge of the future as it will develop. This is very different from the Austrian view where the external world and especially the future—including any opportunities it may *ex post* be said to have held—is always understood through an act of interpretation; through a creative

accomplishment of the human mind (Hayek 1942). Kirzner thus writes that: “[t]he future does not now exist, but we endeavour to grasp that future somehow in our imaginations” (Kirzner 1992: 26) and consequently “what directly inspire and shape entrepreneurial actions are *imaginations* (of future realities) rather than these realities themselves” (Ibid: 27). In an explicit contrast to the neoclassical view, Kirzner drives his point home:

“what an individual decides to do is the outcome—not necessarily of his given preferences and the array of market baskets marked out by prices and budget constraints—but of what the individual *believes* to be the set of available opportunities” (Kirzner 1989: 12).

To invoke Austrian precepts to postulate the existence of specific opportunities is clearly a *non sequitur* that neglects that which defines entrepreneurship; the capacity to take judgmental action under uncertainty (Mises 1996). Opportunities can only be said to exist as subjectively imagined visions of the future—loosely related to prices and other sources of information—that drive human action. Lachmann expands further on the loosely coupled relationship between supposedly objective situations and prior experiences, and individual expectations:

“The absence of a uniform relationship between a set of observable events which might be described as a *situation* on the one hand, and expectations on the other hand, is thus seen to be the crux of the matter. Expectations, it is true, are largely a response to events experienced in the past, but the *modus operandi* if the response is not the same in all cases even of the same experience. This experience, before being transformed into expectations, has, so to speak, to pass through a ‘filter’ in the human mind, and the undefinable character of this process makes the outcome of it unpredictable” (Lachmann 1943: 14).

Corresponding Entrepreneurship Studies

The idea that opportunities exist independently of entrepreneurial action is becoming more and more challenged by authors who argue that opportunities should be thought of in the context of individuals acting to create the future in a world which fundamentally depends on such imagination and action for its development (Alvarez and Barney 2007, Klein 2008).

Berglund thus argues that “entrepreneurial opportunities should be thought of in relation to entrepreneurial action. From this perspective, their ontological status, i.e. whether they exist or not, is of lesser importance as the opportunity perceptions themselves provide cognitive and practical drivers or ‘points of orientation’ that more or less temporarily guide entrepreneurial actions.” (Berglund 2007: 245). Sarasvathy agrees, stating that “entrepreneurial opportunities are predominately the result of people acting in entrepreneurial ways, some of which includes acting on perceived opportunities” (Sarasvathy 2004a: 300).

Klein explicitly invokes the Austrian tradition to make the same point: “profit opportunities do not exist, objectively, when decisions are made, because the result of action cannot be known with certainty. Opportunities are essentially subjective phenomena. As such, opportunities are neither ‘discovered’ nor ‘created’ but imagined [and should be] treated as a latent concept underlying the real phenomenon of interest, namely entrepreneurial action” (Klein 2008: 176, cf. Foss et al. 2008).

Clearly, much confusion regarding opportunities arises due to ambiguous terminology.

Davidsson (2003) seeks to move the discourse forward and suggests that the term opportunities—which is taken to imply objective certainty with regard to outcomes—should be abandoned, or at least clearly separated from ‘general opportunity’ and individuals’ tentative and subjectively perceived ‘venture ideas’:

“Opportunity exists out there, independently of particular actors. However, opportunities do not exist as complete, individual entities. Rather, opportunity exists as an uncountable in the form of technological possibilities, knowledge, and unfulfilled human needs backed with purchasing power. *Venture ideas* are the creations of individuals’ minds. They are specific (but changeable and more or less elaborate) entities that are acted upon.” (Davidsson 2003: 338-339).

Echoing the Austrian emphasis on subjective interpretations, these researchers all stress the

subjective nature of opportunity perceptions and also urge researchers to tie the discussion of opportunities to ongoing entrepreneurial action. While this distinction may appear trivial in its own right, it becomes critical in terms of conceptualizing the role of planning in entrepreneurial processes, a question to which we turn next.

What is the role of planning?

The Neoclassical position

In the neoclassical world there is no uncertainty; either markets are in equilibrium or all actors know how they, as individuals, should act in order for the market to approach its inevitable equilibrium state. As a result, individuals develop their plans for action through rational calculations that combine stable preferences and known environmental circumstances. As mentioned, entrepreneurs are typically characterized as extraordinarily capable (Lucas 1978) or risk-prone (Kihlstrom and Laffont 1979) when optimizing the given equilibrium framework. However, regardless of such individual differences, entrepreneurs are just as rational and analytical in planning their actions as everyone else.

Corresponding entrepreneurship studies

The emphasis on systematic planning by isolated individuals permeates much of the practitioner-oriented literature on venture development (e.g. Bangs 1995). It is also echoed by researchers who claim that rigorous planning is the essential activity of entrepreneurship because it enables evaluation of conjectures about future events, focuses attention on important bottlenecks and additional resource requirements, clarifies goals and objectives etc. (Delmar and Shane, 2003).

Inspired by neoclassical ideas, many researchers also describe the decision to become an

entrepreneur (defined as self-employed) as a rational utility maximizing choice given knowledge of individual ability and potential income, combined with attitudes to risk, work effort and independence (cf. Douglas and Shepherd 2000, Lévesque, Shepherd and Douglas 2002). When the perceived utility from entrepreneurship outweighs that of employment, the rational individual plans to become an entrepreneur.

Fiet and colleagues have developed a similar model of Bayesian learning, in which individuals plan and search systematically for pre-existing opportunities by restricting themselves to a limited domain of inquiry, and within that domain make optimal investments in new information (Fiet 1996, 2002). By using this approach, entrepreneurs are able to “estimate a search budget with a given level of confidence of discovering an exploitable venture idea.” (Fiet, Piskounov and Patel 2005: 501). Besides being of practical value, this rational approach is said to provide theoretical underpinnings that describe and even usher in “the greater routinization of the discovery process that Schumpeter anticipated” (Ibid: 502).¹¹

The Austrian position

Austrian economics paints a picture of the future as fundamentally uncertain because of subjective and fallible knowledge of both the present (Hayek 1945), but also of the past and especially of the future (Lachmann 1943, 1990). Because of this uncertainty, individuals’ plans for action are always based on a measure of creative speculation, making entrepreneurs ‘history makers’ on however small a scale. Still, while the future is essentially

¹¹ Schumpeter’s ideas of objectively existing opportunities and routinized innovation were of course rebutted a long time ago by Hayek, who claimed to be startled that: “an economist of Professor Schumpeter’s standing should thus have fallen into a trap which the ambiguity of the term ‘datum’ sets to the unwary”, because like any approach: “which in effect starts from the assumption that people’s *knowledge* corresponds with the objective *facts* of the situation, [it] systematically leaves out what is our main task to explain” (Hayek 1945: 530).

unknowable it is not beyond conjecture (Lachmann 1978). Quite to the contrary, it is the capacity to formulate a plan and take action despite great uncertainty that defines the entrepreneurial element in human action (Mises 1996).

However, because individuals and their plans differ in unpredictable ways, it is also critical to consider how plans are coordinated. While each individual may believe, often strongly, that their perceived opportunity is real and their plan for action reasonable, the true development of the future is neither determined by nor envisioned in any single plan; the future instead emerges in the creative interaction of many plans. Consequently, plan-interaction becomes critical in the Austrian market-process tradition, whereas it is a relatively simple matter in the equilibrium oriented neoclassical tradition.

Planning, in both the neoclassical and Austrian traditions, is closely related to equilibrium. Therefore, it is important to realize that the Austrian notion of equilibrium is subjectively defined; it refers to individuals' plans for action. Consequently, 'individual equilibrium' is the same as rational action; it obtains to the extent that an individual's series of actions "can be understood as part of one plan" (Hayek 1937: 36). Equilibrium in a collective setting is not nearly as simple to achieve; it obtains to the extent that "compatibility exists between the different plans which the individuals composing it [i.e. the collective setting considered] have made for action in time" (Ibid: 41). Again, this distinction between individual and collective equilibrium is not very problematic to the neoclassical tradition. Here, the activities of rational agents with unchanging utility functions are simply lumped together or 'added up' to calculate the collective equilibrium. However, since Austrians view individuals as creative actors with mutable preferences, it is impossible to glean a collective equilibrium *ex ante*. Collective equilibrium can therefore not be calculated; it must be

defined in terms of the process of its emergence. Writes Hayek:

“I have long felt that the concept of equilibrium itself [has] a clear meaning only when confined to the analysis of the action of a single person and that we are really passing into a different sphere and silently introducing a new element of altogether different character when we apply it to the explanation of the interactions of a number of different individuals” (Ibid: 35).

To regard individual planning as, more or less correctly, geared toward future equilibrium states and the objective profit opportunities they supposedly contain, would thus not only drastically overstate individuals’ cognitive abilities to plan, which has been the traditional critique (cf. Simon 1955). Much more importantly, it would radically mischaracterize the causal role played by the creative and fallible individuals who engage in the competitive market process; a process which “must be conceived as an interpersonal process in which anyone’s contribution is tested and corrected by the others.” (Hayek 1948: 15). In particular, such a view cannot appreciate how new products and organizations—as well as prices and larger institutions such as trade, money and language—often evolve as the unintended by-product of creative and purposeful human interaction (Menger 1963, Lachmann 1971). In the words of Lachmann:

“In reality men make plans to achieve their purposes and later attempt to carry them out. ... They may collide with those of others or may turn out to be unachievable for other reasons ... But whatever happens, observable economic phenomena—such as prices or quantities produced or exchanged—are the outcomes of the interaction of plans. Action guided by plans causes economic phenomena. We might say that economic phenomena are the outward manifestation of action caused by plans” (Lachmann 1990: 135-136).

Corresponding Entrepreneurship Studies

The Austrian focus on plan uncertainty and the consequent prominence given to plan interaction dovetail nicely with efforts in entrepreneurship studies that emphasize social interaction, not just as an important cause of uncertainty but also as a powerful means of overcoming the limitations uncertainty places on individual reason and centralized planning.

Koppl builds explicitly on Austrian micro-foundations to refute those who seek to substitute centralized policy plans for distributed entrepreneurial market processes:

“The entrepreneurial market process consists of the daily decision making of many independently acting entrepreneurs, each striving to establish, maintain, or develop an enterprise. [...] The process is decentralized and therefore unplanned, even though each individual entrepreneur plans. Some entrepreneurs plan more carefully, others less. Each entrepreneur makes a computation of prospective profit, whether the computation is explicit, precise, and sophisticated, or implicit and approximate. Thus, the entrepreneurial market process involves plenty of planning and computation. But the overall process itself is not planned” (Koppl 2008: 919-920).

Similarly, Garud and Karnøe argue that the development of new products and ventures, as well as whole industries, can be understood as a process of ‘interactive emergence’ (Garud and Karnoe 2004) driven by a shifting coalition of actors each with different expectations and plans, and with varying levels of involvement in the process. On this view, entrepreneurship entails “not just an act of discovery by alert individuals or speculation on the future, but also the creation of a new path through the distributed efforts of many” (Garud and Karnøe 2003: 296).

Along the same lines, Sarasvathy and Dew explicitly argue that novel artifacts—including products, firms and markets—often evolve through interaction processes driven by “willful agents with complex motivations who recognize that they are among other intentional beings with whom they can work together to construct, as well as, select new possibilities” (Sarasvathy and Dew 2005: 538). A developing venture can thus be described as an organically expanding network of individuals who, over time, self-select for participation the extent that they are willing and able to contribute resources in the form of money, knowledge, ideas, contacts or other things. As a result of this process, both the general characteristics and specific offerings of a new venture emerge as a result of the contributions made by the stakeholders involved. The process is thus determined by the actors partaking in

it, including who they are, what they contribute, and also in what order they come onboard (Dew and Sarasvathy 2007).

Drawing on complexity theory, Lane and Maxfield (1996, 2005) have long argued that in uncertain and complex situations outcomes emerge through creative and open-ended interactions among stakeholders who jointly establish what they, as a group, deem to be meaningful values and goals, as well as valuable products and services. In a stable and predictable world, extensive strategic planning may be a feasible strategy because it is, in principle, possible for a single actor to “anticipate all the consequences of any possible course of action, including the responses of all other relevant agents, and to chart out a best course that takes account of all possible contingencies” (Lane and Maxfield 1996: 226). However, in situations marked by uncertainty and complexity—where control over the process is effectively exercised by a myriad of creative actors—it is no longer feasible to entertain such a notion of planning. On the contrary, in such situations “the everyday way of talking about strategy can be very misleading. For example, people usually talk about strategy as something that is ‘set’ by strategists. When control is distributed, it is more appropriate to think of it as something that *emerges* from agent interactions“ (Ibid).

Summary

To recapitulate, both the Austrian and neoclassical economic traditions provide answers to the three questions: Who is an entrepreneur? What is an opportunity? and What is the role of planning? These answers also differ in ways that correspond to quite different contributions in the field of entrepreneurship studies.

The neoclassical tradition has always had trouble finding a place for entrepreneurship. Its

emphasis on rationality, equilibrium and complete information leaves little room for creativity and endogenous change. Instead, when considered, entrepreneurs are usually defined in terms of some occupational role that they end up in because they possess extraordinary qualities. Opportunities can only be said to exist as long as markets have not cleared, and until this happens they are pursued in a rational utility maximizing manner. Thus, the neoclassical tradition provides a limited and somewhat incoherent set of answers to the three questions; answers that correspond well to the traits view of the entrepreneur, the view that opportunities have objective existence, and the idea that rigorous planning is the essential task of entrepreneurs.

The Austrian tradition, on the other hand, regards entrepreneurship as central to understanding the economy as well as historical progress more generally. Its emphasis on subjectivism, methodological individualism, and market process implies that everyone is an entrepreneur and that economic outcomes emerge through competition and coordination of heterogeneous plans, in pursuit of subjectively perceived opportunities. The Austrian micro-foundations, arguably, have higher face validity and their answers to the three questions also dovetail with more recent advances in the field of entrepreneurship studies viz.: the focus on entrepreneurial action rather than individual qualities, the view that opportunities are imagined action-drivers rather than objective entities, and the emphasis on emergence through the interaction of heterogeneous plans. These main differences of are summarized in Table 1.

Insert Table 1 here

Discussion

In light of growing interest in Austrian economics, this paper has introduced and discussed concepts from Austrian economics in order to examine their potential contributions to entrepreneurship studies. As part of this general ambition, Austrian ideas were also contrasted with the neoclassical orthodoxy; a comparison that appears topical as more and more researchers are warning that the liveliness of entrepreneurship studies: “could easily be suffocated if the calloused heel of homo economicus is allowed to stand too heavily upon entrepreneurship’s throat” (Baker and Pollock 2007: 306).

Teasing out some specific contributions, there are at least four ways in which a better understanding of Austrian ideas can contribute to the development of entrepreneurship studies. First, it can be used to revisit and revise existing research that is based on an incomplete understanding of the Austrian tradition. Second, as discussed above, it can contribute new ideas for how to address specific questions plaguing the field. Third, it is can provide the foundations for more focused entrepreneurship research programmes. Finally, the Austrian position also implies methodological guidelines that are well suited to the needs of entrepreneurship studies.

Complementing existing research

A sounder understanding of the Austrian tradition as a whole will afford more subtle appreciation of its specific concepts and theories. Such an understanding should make

researchers more nuanced when borrowing theoretical frameworks and also more careful when attempting to operationalize specific concepts in empirical research. As the above discussion of opportunity discovery shows, it would be a mistake to use the Austrian market process tradition as a backdrop for promoting the view that specific opportunities for future profit exist objectively (Shane and Venkataraman 2000). Similarly, attempts to operationalize Kirzner's notion of alertness as a cognitive capacity possessed by certain individuals (e.g. Gaglio and Katz 2001) often commit the fallacy of misplaced concreteness by confusing Kirzner's 'theoretical makeshift' for empirical reality (Kirzner 2009). This is not to say that economic concepts such as alertness, or for that matter rational choice, have no basis in reality what so ever. And it certainly does not mean that economic concepts, such as alertness, cannot function as useful heuristics guiding empirical research. It does, however, suggest that the transition from economic theory to real life phenomena is more problematic than is often understood, and that such connections must be made with care (cf. Yu 2001, McMullen and Shepherd 2003, Klein 2008).

Addressing specific questions

As discussed in some detail above, Austrian ideas can also be used to shed new light on specific issues in the field. In answering the question 'Who is an entrepreneur?', entrepreneurial cognition researchers were urged to abandon the idea that entrepreneurs are part of a homogenous and unique group, while continuing to examine cognitive heuristics and biases as one way of illuminating the 'whys' and 'hows' of entrepreneurship *qua* action under uncertainty. In this context it is important to recall that methodological individualism, in the Austrian tradition by no means necessitates an ontological focus on isolated individuals (Hayek 1948a), but explicitly invites explanations of entrepreneurial action that

invoke social and cultural factors (cf. Foss et al. 2008). In answering the question ‘What is an opportunity?’, most researchers focus their efforts on the discovery and exploitation of objectively existing opportunities. From an Austrian perspective such a framing is fundamentally flawed since the future is inherently uncertain. More importantly, the focus on opportunities takes focus away from the real issues at hand, namely the actions and processes by which entrepreneurs come up with and develop their opportunity perceptions or ‘venture ideas’. In addressing the related question ‘What is the role of planning?’, it is important not to over-privilege individual plans and planning, to the detriment of dynamic plan interaction (cf. Lachmann 1976). Theories of individual planning should always be tempered by the recognition that market processes are inherently social and open-ended. Thus, while it is true that individual plans are critical to enable assertive action, it is important to keep this analytically separate from ideas of central plannability and collective teleology.

Foundations for research programs

Trough these and other examples, this paper has also hinted at a more ambitious role for Austrian economics; that of providing foundations for more comprehensive entrepreneurship research programs. A few such efforts are already underway. One attempt is the expanding literature on an ‘Austrian theory of the firm’, which largely centers on entrepreneurs’ subjective judgments about how to value, recombine and use heterogeneous capital resources (Foss and Klein 2002, Foss et al. 2007, Langlois forthcoming). Another is the ‘radical Austrian approach to entrepreneurship studies’ outlined by Chiles and colleagues. In it, “neoclassical economics’ equilibrium models” are rejected in favor of a framework based on: “entrepreneurs’ action and interaction in time, market participants’

limited and ever-changing knowledge, and the dynamics of disequilibrium processes embedded in institutional contexts” (Chiles et al. 2007: 468).¹²

Research programs such as these draw more explicitly on a number of additional Austrian themes such as the recursive relationship between entrepreneurial action and institutional emergence and decline (Lachmann 1970) and the subjectivist theory of capital (Kirzner 1966, Lachmann 1978). Still, both remain firmly within the Austrian tradition, as outlined here, in the sense that they are based on the ‘hard core principles’ (Lakatos 1978) of subjectivism, methodological individualism and market process.¹³

A third option is to adopt entrepreneurial action as the focal concept in the field of entrepreneurship studies (cf. Berglund 2007, Klein 2008). Taking a cue from the three questions discussed above, a focus on entrepreneurial action—as opposed to individual qualities, entrepreneurial opportunities and rational planning—avoids a number of meta-theoretical problems while focusing the field on an issue that is also congenial to calls for more practitioner oriented entrepreneurship research.

Methodology

Finally, there are important methodological lessons to be learned from the Austrian tradition. The precepts of subjectivism and methodological individualism imply that economic processes are effectively caused by creative and mutable individuals’ actions and

¹² These authors distinguish between an ‘Austrian’ tradition, mainly represented by Kirzner, and a ‘radical Austrian’ tradition, primarily developed by Lachmann and Shackle.

¹³ Lakatos’ (1978) description of research programmes also comprises negative and positive heuristics, i.e. guidelines that indicate which paths of research to avoid and pursue. In the negative sense, the central Austrian notions of subjectivism, methodological individualism and market process, indicate that certain lines of inquiry are unlikely to bear fruit and should therefore be avoided. In this capacity, Austrian ideas may be especially important in terms of countering the enduring influence of neoclassical equilibrium ideas, e.g. the pursuit of the extra-ordinary entrepreneur or the exclusive focus on individual and rational planning. In the positive sense, Austrian ideas point to issues like the heterogeneity of individual goals and expectations, an insight that is critical to theorizing team entrepreneurship and dynamic interaction (Venkataraman 1997).

interactions. Specific economic phenomena and processes must therefore be explained by reconstructing, at least in principle, the causal chain of events that underlie them. In debating more macro-oriented economists, Austrians therefore tend to distinguish between ‘causal-genetic’ methodologies for analyzing market processes, and the kinds of statistical econometric approaches that downplay such micro-foundational understanding in favor of predictive capacity (Hayek 1942, Cowan and Rizzo 1996).

While economists often feel free to trade off micro-foundational accuracy for modeling requirements and predictability (cf. Friedman 1953), most management researchers feel compelled to tell a plausible story of how the kinds of processes they study actually come about. Unfortunately, this is not reflected in methodological priorities. Nevertheless, in the entrepreneurship field, the notion of ‘process’ is conceptualized in two quite different ways that recall the Austrian-econometric debate (Poole, Van de Ven, Dooley and Holmes 2000, Van de Ven and Engleman 2004). Van de Ven and Engleman (2004) thus discuss how entrepreneurship researchers employing ‘variance’ and ‘process’ methods conceptualize subjects, causality, process dynamics and the issue generalizability quite differently, and also warn of using ‘variance methods’, which are modeled on the natural sciences, since this presupposes assumptions that are incompatible with the nature of social processes involving creative and mutable individuals (cf. Carrol and Mosakowski 1997).

This critique clearly echoes Hayek warning to social scientists not to engage in what he termed ‘scientism’: the “ambition to imitate Science in its methods rather than its spirit” (Hayek 1942: 268). According to Hayek, staying true to the spirit of Science, when seeking to explain dynamic and complex social processes, means that the goal should not be precise natural science type explanations that allow for specific predictions. Instead, social

scientists should aim for theoretical ‘explanations of the principle’ that seek to outline the principles on which the processes in question operate. While such explanations do not enable specific or even probabilistic predictions of specific outcomes, they do allow for more qualitative predictions based on a thorough understanding of the general workings of the process. While statistical studies are clearly of value also to such a project, it is important to make sure that theory development is not limited by what is possible to test using independent and dependent variables tractable to numerical measurement. Such a focus runs the risk of ignoring the richness and subtle dynamism of the causal processes underlying these relationships. Hopefully, a more widespread appreciation of the Austrian traditions’ basic precepts can buttress the ongoing efforts (e.g. Poole et al. 2000, Van de Ven and Engleman 2004, Langley 2009) to promote sound methods for entrepreneurship process studies, and in doing so help counter the tendency to view correlations, rather than ‘explanations of the principle’, as the end-all of scientific research in the field of entrepreneurship studies.

To conclude, Austrian ideas have often been used to critique as well as develop entrepreneurship studies. Still, the full extent of its potential contributions has yet to be seen. While the specific gains from trade between the two are quite unknowable, the potential benefits are not beyond conjecture. The Austrian tradition provides a well developed, albeit abstract, theoretical and methodological edifice that is specifically targeting entrepreneurially driven market processes. Entrepreneurship studies on the other hand have begun to build up an extensive, albeit incoherent and sometimes contradictory, set of empirical observations about precisely such processes. While theoretical coherence *per se* is certainly not a virtue in social science, future interaction between the two could

end up offering at least one progressive research program that combines broad theoretical coherence and methodological adequacy with useful and empirically grounded theories. A potential scenario for interaction would then have entrepreneurship researchers looking to Austrian economics for cues on methodology and useful heuristics for theorizing, with the resulting empirical insights feeding back into to the development of Austrian economics proper.

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Tables

	Who is an entrepreneur?	What is an opportunity?	What is the role of planning?
<i>Neoclassical economics</i>	When considered, entrepreneurs are modeled as a natural kind of especially lucky, talented or risk-prone individual.	When considered, profit opportunities exist objectively to the extent that equilibrium has not yet been reached.	Entrepreneurs, like everyone else, develop their plans for action through a rational process grounded in known circumstances.
<i>NE parallels in entrepreneurship studies</i>	Character traits or genetic make-up distinguish entrepreneurs from non-entrepreneurs.	Opportunities exist objectively, even if they are not known by everyone all the time.	Thorough planning is the essential entrepreneurial activity.
<i>Austrian economics</i>	All people are entrepreneurs, to the extent that they take action in the face of uncertainty.	Since the future is unknowable, entrepreneurial opportunities are always subjective and conjectural.	Individuals' heterogeneous and subjective plans interact, thereby driving the essentially unplannable market process.
<i>AE parallels in entrepreneurship studies</i>	Focus should be on how entrepreneurs act under conditions of uncertainty, not on who they are.	Opportunities are imagined and should only be theorized in the context of entrepreneurial action.	Planning is important but since plans are unreliable focus should also be on how outcomes emerge as plans interact.

Table 1. A summary of Austrian and Neoclassical answers to three questions in the entrepreneurship field.