



What's in a Name? On Language, Concept Formation, and the Definition Disputes in the Entrepreneurship Literature¹

Petur O. Jonsson²

Fayetteville State University, North Carolina, USA

ABSTRACT

When it comes to entrepreneurship, the conceptual framework of economics is disjointed: On the one hand almost everyone agrees that entrepreneurial initiative and creativity are critical for economic progress. On the other hand neither initiative, nor creativity, plays any role in formal models of choice and economic behavior. This creates a blind spot on the behavioral aspects of entrepreneurship. It has also spawned a dichotomy between the functional and behavioral aspects of entrepreneurial actions in the economics literature. Most importantly, it prevents economists from developing a coherent unifying theoretical framework for making sense of entrepreneurs. The problem is reinforced by the language and semiotics of economics and is reflected by the lack of behavioral research on entrepreneurs in the literature. As suggested by Baumol (1968 and 2010) initiative and creativity are the obvious defining traits of entrepreneurship. Even so, the literature has spawned a variety of different and occasionally nonsensical definitions of entrepreneurship that obscure and divert our attention away from these defining characteristics. The divergent definitions in the literature are further exacerbated by discordant conceptual structures and ideas that cannot easily be translated from one field to another. In the absence of a unifying framework, different fields have focused narrowly on entrepreneurship from dissimilar angles. The bottom line is that researchers in different fields sometimes rely on such incompatible definitions of what constitutes entrepreneurship that interdisciplinary dialogue is impossible. The end result is akin to the problem of radical translation between different languages. The paper concludes that the definition debates will not be resolved without a unifying structure that focuses on initiative and creativity as the defining attributes of entrepreneurship. This calls for some new tools and behavioral models that can explicitly account for initiative and creativity as integral aspects of human choices and actions.

JEL Classifications: B41, L26, Y90, Z1

¹ The author would like to thank John Hartley and an anonymous referee for *Cultural Science* for insightful comments that helped improve this article. Of course, all the usual disclaimers still apply.

² Petur O. Jonsson is Professor of Economics and Chair of the Department of Finance, Economics, Entrepreneurship and Marketing at Fayetteville State University in Fayetteville in North Carolina. He can be reached at pjonsson@uncfsu.edu.

What's in a Name? On Language, Concept Formation, and the Definition Disputes in the Entrepreneurship Literature

Petur O. Jonsson

Fayetteville State University, North Carolina

“When I use a word,” Humpty Dumpty said, in rather a scornful tone, “it means just what I choose it to mean—neither more nor less.”

“The question is,” said Alice, “whether you *can* make words mean so many different things.”

“The question is,” said Humpty Dumpty, “which is to be master—that's all.”

From *Through the Looking Glass* by Lewis Carroll

Introduction

The entrepreneur's job, for good or ill, is simply to “locate new ideas and put them into effect” (Baumol 1968: 65). From this perspective all actions that are based on initiative and creativity are entrepreneurial, be they productive, unproductive, or even destructive. Not all entrepreneurs specialize in production and trade; some may focus on the arts, or social climbing, or engage in political rent seeking, or fraud and plunder, or other underground activities. How entrepreneurs channel their efforts depends on culture (Hartley and Potts 2014) as well as on social sanctions and rewards (Baumol 1990). Market economies tend to reward productive innovations and most everyone agrees that the economic growth and affluence of the industrial era was brought on by creative entrepreneurs seizing arbitrage opportunities and implementing innovations in products and processes.

Even so, in theoretical models of choice and economic behaviour, the creative entrepreneur remains an elusive chimera. The formal models of mainstream economics are not yet equipped to handle initiative and creative choices as aspects of economic behaviour. But a variety of indicators suggest that the time may now be ripe for this to change. After all, economics is not just evolving; the field is going through a profound

paradigm shift (see Holt, Rosser and Colander 2011). This is reflected by a change in the focus of cutting edge research in all areas of economics. Those who study economic behaviour are no longer content with axiomatic prescriptions of what rational behaviour ought to be, they now seek a nuanced grasp of actual behaviour. Game theory has moved on to fuzzy sets, grey information, evolutionary rationality, and game interactions that can change the underlying structure of games (Fang et al. 2010). Similarly, representative agents and the naïve micro-foundations project in macroeconomics have yielded to complexity theory, etc.

Yet, it is still true that economic theory has no formal models of choice that can truly capture, explain, or account for initiative and creative actions. The important functional roles that economists ascribe to productive entrepreneurs notwithstanding, their key behavioural attributes still play no role in economic models of choice (Baumol 1968 and 2010: Chapter 1). As a result, when it comes to entrepreneurs and entrepreneurship, the conceptual framework of mainstream economics remains disjointed. This must be resolved before economists can move on and truly focus on entrepreneurial initiative and creativity in economic behaviour.

The incongruity between the functional and behavioural attributes that economists assign to entrepreneurs can be interpreted in different ways. On one hand, it is clear that economists need some new analytical tools to help them put initiative and creativity in a proper context. After all, no explanatory device is appropriate for all situations so we need a variety of tools to help us clarify and explain different things. Thus evolutionary game theory, behavioural economics, complex systems theory, etc., help economists understand different things that are not really covered by standard choice theory. On the other hand, no matter how we try to stretch it, the fact remains that so far none of the models and analytical tools that economists use for studying choice allows any explicit role for initiative or creativity in economic decisions.

The conceptual framework of mainstream economics is built on a methodology, a conceptual language, and a shared set of definitions of phenomena. This framework imposes a certain order on mainstream economists' perceptions of the world. Mainstream economists tend to be ardent epistemological rationalists. In particular, they routinely rely on formal models that are built on axioms derived from intuition and deduction, rather than from observation, to explain how the world works. They also have a rather Procrustean approach to definitions in the sense that the model often comes first and then, with the model in hand; definitions of things are expediently shaped and bent to fit the structure of the model. The advent of experimental economics notwithstanding, this has generally been how economists try to conceive and understand things: first theorize and then redefine phenomena until they fit the theory. This is of course the antithesis of Hempel's (1952) logical empiricist line of attack, according to which we should endeavour

to define and classify things based on their distinguishing attributes before we go ahead and try to figure out how the pieces all fit together.

Choice theory starts out with the intuitively appealing postulate that people will use their reasoning powers and their knowledge to advance their objectives. With this in mind, it would seem that the theory's starting points should be the nature of reason, the accumulation and the application of knowledge, and the nature and formation of preferences. But this is not how economists have approached the problem of choice. Instead, as explained by Shackle ([1972] 2009), value theory (which corresponds to choice theory) first presumes that everyone always knows and understands everything relevant to any and all of their past, current and future choices. Complications arising from problems such as incomplete preferences, asymmetric information, deception and fraud, learning from past mistakes, etc., are then used to tweak and refine the original model, not as grounds to re-examine any of its original presumptions. As Shackle ([1972] 2009: 85) saw it, this approach constrains the very scope of economic inquiry and effectively "forbids the study of the question of what men in any given situation and context can know."

On the Language and Semiotics of Choice Theory

Language, broadly defined, both reflects and affects our thoughts. Thus the language of economics, which includes our formal choice-theoretic models, structures how economists think about the nature of choice. On one level, it is both indisputable and obvious that we can only interpret words and symbols in the context of what we can imagine. On another level, language focuses our thoughts and affects what we can imagine in the first place. Our use and interpretation of words and images is thus dependent on our prior understanding of things. At the same time, language also structures our interactions with others and in the process configures and frames our own understanding of the world.

Our conceptual framework and our expectations set the stage for our interpretation of words since we tend to construe their meaning in the specific context of our beliefs. Of course, for communication, we would like our words to represent real things that we understand and agree on. In this context, Rubinstein (2000, Chapter 2) suggests that language evolves to allow us to transmit information effectively and efficiently; that it evolves as we interact and jointly figure out how to get things across to one another. In a related context, Hartley and Potts (2014) suggest that language and culture co-evolve in a process that is akin to natural selection. Evolutionary pressures on language and culture then arise from social interactions and the need to elicit cooperation and coordination of group activities. Language also allows storytelling which helps in the formation of demes, or groups based on shared norms and meanings. As Hartley and Potts (2014: 80) put it: stories serve as "a distribution mechanism for *how* to think (inductive reasoning; pattern

recognition) and *what to think*". Certainly, as explained by Colander (2007), storytelling for this purpose is an important aspect of the teaching of economics and the stories that economists tell do structure their view of the world.

The bottom line is that language works best when we have the same frame of reference and agree on the nature of things, i.e., when we share a common conceptual framework. On the other hand, the fact that the meaning of words and symbols may depend on the conceptual framework in which they were spawned may complicate communication with outsiders. Certain ideas, expressed and developed in a particular framework, may have no meaning in other frameworks. The problem is akin to the one of translation between languages. Quine's (1960) radical translation argument suggests that the very structure of language affects what words *can* mean. If the meaning of a term is set by its particular conceptual framework then it may not really be possible to translate that term into a different framework. It is in this context that the linguistic relativity hypothesis suggests "the particular language we speak influences the way we think about reality" (Lucy 1997: 291).

Of course, to the extent that reason and the rules of logic remain intact, different languages should serve the same function. Natural logic that proceeds from assumptions, through rules of argumentation, to conclusions, suggests that our reasoning should, in principle, be the same in different languages. And yet, invariant orders of logic and rational relationships notwithstanding, complex reality needs to be framed and organized for us to get a handle on it. This is what the language of economics does with formal mathematical models, diagrams, etc. It focuses our attention and at the same time it conceptualizes phenomena and structures how we think about them. Our conceptual priors are thus embedded both in our language and in our corresponding mental images of how the world works. This in turn inevitably influences our sensory perceptions. Evidence contradicting our priors may then fall in a blind spot, where it is either ignored or else somehow rationalized away. Thus our conceptions limit and constrain our perceptions.

The issue is that our brains tirelessly construe relevant input in terms that are consistent with what we think we already know. As outlined by Clark (2013: 181-2), neuroscience now suggests that our brains continuously adjust and correct our sensory input, including language, by subjecting it to "a cascade of cortical processing events in which higher-level systems attempt to predict the inputs to lower-level ones on the basis of their own emerging models of the causal structure of the world." In other words, the brain balances the need for coherence based on its established understanding of the world, with the need to process new information accurately. As a result, the conceptual images that our minds create from sensory input, be it language or observation, are *theory-laden* in the sense that the brain processes raw input to make it fit our theory of the world. As noted by (Khalil 2013: 218), in the context of the balancing act of interpreting new data in the

context of experience, when it comes to our conceptual framework: “No amount of data can compel the top level hierarchy of the brain to abandon its prior. The prior here cannot be confirmed or refuted by evidence because it is not based on evidence as with perception-laden processes.”

The point here is that choice theory sets the prior for most economists. The very elegance and structure of choice theory focuses the attention of economists on fully informed menu selections and diverts their attention away from the fact that actual choices are rarely made in a context that is anything at all like the ones that it presents. We rarely face situations in which we simply choose from a complete set of fully understood alternatives. Instead, most of the time, we act either (1) on limited information on ends and means, or else (2) on routines and habit.

Following Knight ([1921] 2009) economists typically distinguish situations of risk, where we know and understand the probability distributions of possible outcomes, from situations of uncertainty, where we have no clear idea what may happen. For the most part, economists have focused far more on choices under risk than on choices under uncertainty in this sense. Here, Potts (2010) has made a further distinction between choices under uncertainty on the one hand and choices under what he calls novelty on the other. According to this distinction, under uncertainty our problem is our ignorance of how ends relate to known means, whereas under novelty our problem is one of creating new means to achieve our goals. As Potts (2010: 134) notes, novelty does not just make choice more difficult, it means that “new rules for choice need to be acquired, constructed, adapted or imagined.” The point is, when faced with new problems in unfamiliar situations, we must often find creative ways to reach our goals. This means coming up with new options which did not exist for us until after we had wrestled with the problem at hand. This is what creativity is all about: coming up with new ideas, or processes, or things that expand what is conceivable for us. As for exactly how creativity works, Earl (2003) suggests that it is about establishing connections between different mental constructs. Recent neuroscience supports this idea that creativity depends on our neural capacity to link distant ideas from different regions of the brain. Specifically, it turns out that the structural connectivity of the brain, or the size and structure of white connective brain tissue, is closely associated with our ability to come up with creative ideas and solutions to problems (Takeuchi et al. 2010).

In any case it can be argued that, given the complexity of our place in the world, there must be an aspect of novelty to all true choices. If our objectives were always perfectly defined in advance, and if the consequences of our action were always completely known, we would be reduced to automatons. As choice precedes action and action leads to consequences, the very concept of free will would become moot as all our choices and actions would be pre-determined. This is how Shackle put it:

Yet how can choice be other than amongst products of imagination and invention? We cannot choose what we are now experiencing, it is too late for that. The act that we perform has already been chosen. Choice is amongst rivals; and rivals, of their nature, must be both mutually exclusive and co-existent. This is only possible to thoughts. Choice is amongst things which do not yet exist except in thought. What must be the character of a language, a symbolism and a formal notation which can allow for the far reaching, surprising and unanticipable implications of this starting point for analysis? (Shackle [1972] 2009: 364-5)

Consider the choices we make in the face of uncertainty, not just about the consequences of our actions, but also about what actions are conceivable for us in the first place. When forced to decide without fully understanding the consequences, we often struggle with doubt about our best choices. In fact, the very act of choosing at such times tends to deplete our mental resources and make successive choices harder and harder for us (Wang et al., 2010).

By contrast, in familiar situations, our choices tend to be based more on habit than on logic. Habits make us stick to the tried and true and conserve our mental resources. It can be dangerous to act without a full understanding of consequences. Here habits may inoculate us from the hazards of the unknown. Indeed, as evolutionary biology suggests, in all likelihood our brains have been shaped more by the imperatives of survival than by reason (Ely 2011, and Hodgson 2010). Thus we all rely on habits for most of our actions. In truth our habits define us and are critical to our identity, happiness, and well-being (Jonsson 2011).

Neither habitual nor creative choices are analogous to selections from a known menu. Habitual choices ignore the menu while creative choices rewrite the menu; suggesting that the menu is either immaterial or else incomplete. In short, the menu approach of our basic models is neither suitable for examining habits nor for examining creativity. Yet we know that habits and creativity characterize most human actions.

Similarly, the very concept of initiative is meaningless in the context of traditional choice theory. Initiative is about seizing the moment and taking charge to make things happen. Initiative is the opposite of inaction; it is about acting while others dawdle. Initiative is then something that only makes sense in the context of situations in which we might otherwise, for some reason, feel compelled to defer or avoid choice. In this specific context, Potts (2010) has discussed how a variety of behavioural biases, such as myopia and risk aversion, may prevent us from acting on creative ideas. The bottom line is that initiative is then not something we can make sense of in the context of choosing from a menu. Sure, we could make deferring choice one of the menu options, but this misses the key point. Initiative requires us to overcome inhibition and expose ourselves to discomfort and existential or social risk. It also goes hand in hand with creativity in the sense that if

creativity is about creating new alternatives then initiative is about deciding to act in the context of these new alternatives.

Our interpretation of phenomena is theory laden in the sense that how we experience and interpret things is influenced by our frame of reference and by our expectations. Thus choice theory structures and frames how mainstream economists think about choice and it has diverted their attention from the role of initiative and creativity in human actions. This framing effect of choice theory on economists' perceptions of choice goes beyond the framing effects on decisions that were identified by Tversky and Kahneman (1981). It is more akin to the so-called Einstellung effect that was described by Luchins (1942). The psychological Einstellung literature suggests that once we have successfully learned to solve problems and think about issues in a particular way, we often find it difficult to think about them in any other way. In other words, the Einstellung effect suggests that we develop deep seeded cognitive habits that are not easily discarded (Lippman 1996). These cognitive habits save us time and effort when we encounter familiar problems, but they can also blind us to new and more effective approaches and solutions. Thus, in certain cases, experts are actually less likely to come up with optimal solutions than outsiders who have never even considered the problem at hand (see Bilalić, McLeod and Gobet 2008a; 2008b; 2010 and 2014). Uninformed outsiders will, of necessity, start from scratch when considering a new problem. Conversely, experts already know the lay of the land and thus are less likely to consider the issues from the ground up. Certainly, economists who try to apply formal choice theory in its current form to issues of initiative and creativity are committing an ontological category mistake. More to the point, doing so is a blunder that an intelligent but untrained outsider, trying to get a handle on the nature of creative choices for the first time, would never even consider.

Entrepreneurship and the Economics Literature

The economics literature tends to focus far more on the functional than on the behavioural aspects of entrepreneurship. No doubt, this is in part due to the fact that initiative and creativity are alien concepts in choice theory. It is a bit ironic that even though economics is often defined as *the social science that studies choices in the face of scarcity*; economists have little to say about entrepreneurial choices beyond the basic idea that people tend to come up with creative solutions if and when that is in their best interest. Processes of creativity, as well as issues of initiative or inhibition, are out of focus for most economists. While economics produces many foundational concepts for the study of business, those who focus on entrepreneurial behaviour *per se* have of necessity had to look elsewhere.

The logical elegance and coherence of formal choice theory is based on its simplifying assumptions. Of course, most every economist understands how unrealistic some of these assumptions are. Yet it is all too easy to be seduced by the neatness and completeness of the results. When it comes to formal models, most mainstream economists favour

elegance precision, clarity and clear predictions over veracity with unclear or ambiguous results. In truth, academic economists are conditioned to rely on simplifying assumptions no matter how this affects the legitimacy of their models. If we insert initiative and creativity into choice theory then we must inevitably give up its illusion of lucidity. These issues lie at the heart of the debates about the definition of entrepreneurship. Confronting initiative and creativity head-on brings cognitive dissonance if one is fully immersed in the choice-theoretic foundations of economics. In turn, this makes it harder for us to reach consensus on the nature of entrepreneurial actions.

It is in this specific context, that we have the definition debates on the meaning of entrepreneurship. The conflicting conceptualizations and failures to agree on defining characteristics are tied to an inability to focus on initiative and creativity as aspects of economic behaviour. The problem has been further exacerbated by the unresolved issue of which field should own and dominate entrepreneurship research. Different fields provide empirical research that focuses on different features that they see as salient and this has solidified diverging conceptualizations across different fields.

Of course the formalization of choice theory is relatively recent in the history of economic thought. Obviously choice theory's blind spot on initiative and creativity could not possibly have affected earlier economists who were never exposed to it. Consider how changes in the conceptual structure of economics over the last two centuries have altered our conception of entrepreneurs³ and their actions. The classical economists of the early 18th century focused more on the process of allocation than on the outcomes of the process per se. Twentieth century general equilibrium theory, by contrast, focused strictly on ideal outcomes and largely ignored the processes of allocation that might give rise to the outcomes.

Thus, Say (1803) had an essentially dialectical view of economic adjustment (Jonsson, 2014). As Say saw it, entrepreneurs, acting in the context of radical uncertainty, responded to challenges and seized opportunities as they arose. Moreover, since every new initiative and innovation changed the status quo, new entrepreneurial ventures tended to create new opportunities and new challenges that had to be met by other entrepreneurs. Entrepreneurial responses and counter-responses would, in turn, create further opportunities and challenges to be met with further actions, etc., etc. As envisioned by Say the entrepreneurial process seems dialectical in the sense that he saw entrepreneurial actions both as responses to previous actions and also as triggers for future ones. In Say's process-driven framework, entrepreneurial initiative and creativity are at the very centre of everything that happens.

³ While much of the literature, including Webster online dictionary, suggests that the term entrepreneur was first coined by Cantillon (1755), Jonsson (2014) has demonstrated that the term was already well established in the literature by the time Cantillon's *Essai* was published.

Contrast this with the sendup of entrepreneurial actions in the conceptual structure of today's post-general-equilibrium economics. To get a better handle on economic behaviour, we tend to reduce its logic to its bare bones. Real-world economic processes can be impenetrably complex and even chaotic. Sometimes they are based on intertwined and mutable phenomena that are hard to identify and even harder to nail down for closer scrutiny. So, economists tend to focus on logical choices in streamlined and comprehensible situations instead. They focus on the actions of well-informed rational agents, who know the rules of each game, and who fully understand all means and ends. In short, they proceed by reframing the issues in simpler, more coherent, and more explicable terms. Thus, as discussed in the previous section, choice theory typically presents the problem of choice as one of selecting from a menu of known, easily ranked, and fully understood alternatives. This simplifies the decisions of consumers and producers and helps us to see the forest for the trees. Then, to get a better handle on the logic of allocation across the economy, economists rely on general equilibrium theory which abstracts from the messiness of trade and focuses instead on ideal outcomes after all trades have been completed. As outlined by Weintraub (1993), general equilibrium based choice theory has long framed how most economists think about economic behaviour and trade. Perhaps it has framed the issues all too well, to the point where some important things that were excised in the process of abstraction are now outside the frame of reference for most economists. After all, in general equilibrium everyone is already optimizing and there is no need for further trades to improve the situation. Both innovation and process of trade issues have thus been abstracted away, to the point that they are out of focus. This is correspondingly reflected by the absence of these issues from the economics literature.

The literature may discount innovation as an integral aspect of choice and it may gloss over the importance of process of trade details, but this does not mean that we can avoid running into issues and problems that are based on these. Moreover, since economists do not have a coherent framework for thinking about these things, they are all too easily led astray when these issues pop up. This is one of the key reasons why economists have quarrelled about the definitions of both money and entrepreneurship: neither really fits the conceptual structure of their formal models. Since there is no need for media of exchange in general equilibrium, some monetary economists pay little heed to this aspect of money and instead just focus on it just as an asset in a portfolio of assets. Similarly, since initiative and innovation are not really a part of choice theory, the entrepreneurship literature is replete with definitions that focus on some other supposed aspects of entrepreneurship. In both cases, the problem is that the conceptual structure of economic models does not lend itself to hash out the critical and defining characteristics of the phenomena at hand.

Choice theory represents the foundational core of economics. The fact that choice theory omits and ignores the possibility of initiative and creative actions must inevitably sway

how economists conceive and treat creativity. It is not so much that economists do not discuss creative entrepreneurship. Many do, albeit their focus is almost exclusively on the functional rather than the behavioural aspects of it. Different economists have asked different questions, used different approaches, and focused on different functions of entrepreneurship. Some have focused on the role of entrepreneurs in improving efficiency by coordinating activities, minimizing waste, and seizing arbitrage opportunities (Kirzner, 1997). Others have focused on the disruptive effects of creative destruction (Schumpeter, 1942), the effects of financial innovation on economic crisis (Minsky, 1977 and 1980), or even the effects of entrepreneurial rent seeking on crime (Baumol, 1990). But the thing is, since the economics literature on the functional role of entrepreneurship has of necessity had to sidestep the choice-theoretic foundations of the discipline, it exists to the side of, rather than within, the mainstream of economics. As a result, entrepreneurship occupies a rather peculiar and estranged place in economic thought.

Consider how this is reflected by the treatment of entrepreneurship in most principles of economics texts. The typical text presents entrepreneurship as *the* critical factor of production in that it brings labour, land, and capital, to productive use. Yet, after the point about the importance of entrepreneurship has been made, most texts are done with it. Once entrepreneurship has been introduced in the early chapters, it is rarely mentioned again.

The alienation of entrepreneurship in economic thought is also reflected by its place in the JEL taxonomy of economic literature (JEL Guide n.d.). Entrepreneurship barely appears in the JEL code system. Contrast this with how the JEL code treats the other three fundamental factors: labour, land and capital. *Labour economics* has its own full category, *J*, which includes 89 different subcategories; and labour issues also appear under a number of other categories as well, such as personnel policies under business economics, etc. Similarly, land issues, in the guise of *Agricultural and Resource Economics*, have their own category, *Q*, with 59 subcategories. Granted, capital does not have its own full category, but it still pops up in a number of different sub-categories under micro, macro and financial economics, etc. Contrast this with entrepreneurship, which appears only as a single subcategory: “*L26 – Entrepreneurship*”, one of the ninety-nine different sub-categories that are listed under *Industrial Organization (L)*. As for initiative or creativity, we have “*O31 - Innovation and Invention: Processes and Incentives*” listed as one of the 57 sub-categories under Economic Development, but there is simply no way to classify innovation and creativity as *behaviours* in the JEL system, except, of course, under some of the ‘other’ categories that are sprinkled around the system to capture a variety of largely irrelevant oddities.

On Language, the Context of Definitions, and Definition Disputes

When phenomena fit neatly into our shared conceptual framework we find it easy to agree on labels and definitions. Conversely, it is when we disagree about the underlying

issues that we are most likely to quarrel about the meaning of words. By the same token, if and when we see things in a different light at different times, under dissimilar circumstances, or in distinct contexts the meaning of words tends to drift. It is also no doubt harder to reach consensus on definitions of oblique, ambiguous, and ephemeral things than on things that are viscerally obvious and experienced the same way by everyone. For example, people caught in a snowstorm are hardly likely to bicker about the definition of snow. The fact that snow is atmospheric water vapour that has frozen and condensed to form intricate ice crystals is almost beside the point, as the shared visceral experience alone is enough to fix our frame of reference.

Of course, the more we experience snow in different forms, the more this might be reflected in our language. After all, a nuanced and precise vocabulary should be concomitant to sophisticated reasoning. To those who regularly deal with falling snow, or snow on the ground, the exact form of it matters. Thus an intuitively appealing and often cited and yet bogus example suggests that Eskimo languages have unusually many words for snow. The idea is that Eskimos, since they must deal so much with snow, should have a detailed vocabulary to describe it in all its forms. And they do, but then again, so do English speakers. It is just that the Inuit languages tend to be polysynthetic in the sense that you can create new words (a.k.a. morphemes) by adding almost any descriptor to any given word root. If English allowed this then we might coin new morphemes like 'funsnow', 'shinysnow' and 'dirtysnow' on the fly. The fable of the copious Eskimo words for snow is based on this. Alas, if you do not count morphemes, it turns out English has just as many words and ways to describe snow as the Inuit languages do (Martin, 1986).

For some people snow is just snow. On the other hand, competitive cross-country skiers do make clear distinctions between powder, packed powder, crud, crust, corn snow, and slush and between the loose, wet and frozen forms of granular snow. Numerous forms of snow notwithstanding, neither Eskimos nor skiers are likely to bicker over the various terms and definitions at hand. For them the phenomena of snow in all its forms is viscerally clear. There are no cognitive dissonance problems to overcome. There are also no status issues or funding sources that hinge on the definition of snow. Perhaps, if this was also true of entrepreneurship, we might not argue about its definition either.

To the extent that our thinking about entrepreneurs is as nuanced as our thinking about snow, we might expect to see distinct terms for different kinds of entrepreneurs. Before the word entrepreneur was first adopted into English, the literature used a variety of different words stressing different entrepreneurial roles, such as undertaker, adventurer, enterpriser, speculator and master (Jonsson 2014). Of course, English still has a number of synonyms for entrepreneur, but these are rarely used in the entrepreneurship literature.

Rather than agreeing on different terms, what we have instead is a variety of different definitions for the same term. With some variations, the dictionaries tell us that an entrepreneur is someone who initiates, organizes, manages, and assumes the risks of an

enterprise and that entrepreneurship is the act of being an entrepreneur (see for example Webster's Online Dictionary (n.d.) and Free Dictionary (n.d.)). Being entrepreneurial also suggests an enterprising quality that is marked by initiative and innovation in setting up new ventures. Obviously this covers a lot of ground. As a result, a number of researchers use their own narrower proprietary definitions.

Research on entrepreneurship comes from a number of different disciplines including economics, management and psychology. Each field tends to focus on different aspects of entrepreneurship and, the dictionary definition notwithstanding, the term is fraught with different meanings in different contexts. As Fairclough (1989: 94) put it, our vocabulary is not made up of "an unordered list of isolated words each with its own meaning, it consists of clusters of words associated with *meaning systems*." Different contexts yield their own spin on the meaning of entrepreneurship. In economics, research on entrepreneurship tends to fall into one of two broad categories: one functional and the other behavioural. The functional segment of the literature focuses on the role of entrepreneurs in things like arbitrage, organization, allocation of risk, creative destruction, or economic growth. The behavioural literature on the other hand looks at the decisions entrepreneurs make in the face of given incentives and circumstances rather at the roles of initiative and creativity in choice per se. The behavioural questions considered include: When are people most likely to start new businesses? Do certain attributes or skills correlate with successful business starts? How does market structure affect entrepreneurial strategies? Etc. By contrast, the management literature tends to stress entrepreneurial processes and focus on questions such as, how to act as an entrepreneur, and how to incorporate entrepreneurial activities and perspectives in organizations. The psychological literature has then looked at the roles of self-confidence, ambiguity and risk tolerance as well as the importance of autonomy and initiative for entrepreneurs.

The different subfields of the literature on entrepreneurship can evoke the parable of the blind men and the elephant. Some writers focus only on a single aspect of entrepreneurship and then describe it strictly in terms of that aspect. This makes communication across fields difficult. Different researchers have also adopted widely different and flat-out incompatible definitions of the term entrepreneurship. The resulting squabbles have spawned a sizable literature making the case for various definitions. Carland et al. (1984), Gartner (1989), Shane and Venkataraman (2000), Iversen et al. (2008) and Peneder (2009) all provide informative summaries of this literature. Rather than rehash the definition disputes, just consider a few rather silly and yet widely parroted definitions:

Gartner (1989) argued that entrepreneurship should be defined strictly in terms of the creation of new organizations. This suggests that innovative activities that do not yield new organizations should not be considered entrepreneurial. So, a self-employed sole

proprietor who does not hire others, no matter how innovative, should not be considered an entrepreneur according to this definition.

Carland et al. (1984) argued that entrepreneurship should be defined by successful growth. Any enterprise that fails to grow successfully would then, by definition, not be considered entrepreneurial. Indeed, according to this definition, none of the people who lost money by starting ventures that eventually failed were entrepreneurs in the first place. Thus entrepreneurship doth ever prosper; else none should dare call it entrepreneurship.

Stevenson and Jarillo (1990: 23) defined entrepreneurship as pursuit of “opportunities without regard to the resources” one can muster. In other words, if you consider your skills, abilities and available start-up funds before you commit to a new venture then, by definition, that venture is not entrepreneurial and you are not an entrepreneur.

To paraphrase Humpty Dumpty: when these writers use the word entrepreneurship, it means exactly what they mean it to mean, no more and no less. Of course, when different writers use the same word for dissimilar concepts, this invites confusion and misinterpretations. But then, this might actually be the whole point. To some extent, if you control the language you control the debate. If you can successfully discredit the definitions used by your rivals, you are well on your way to defeating their arguments. For example, Ahiakpor (2001) has shown that Keynes successfully changed the definition of the word “saving” in order to help him discredit the arguments of the classical economists and that this was critical for the eventual success of his ideas. Similarly, Gaffney (1994) demonstrated that the language and structure of neo-classical economic arguments were shaped by an effort to discredit Henry George. In his day George was the most famous economist the world had ever seen. His writings were more widely read and debated than those of Adam Smith, John Stuart Mill and Karl Marx combined. Then the leading academic economists of George's time went out of their way to rewrite their own arguments in a manner that was incompatible with George's reasoning. This effort was so successful that we hardly even remember George today (Jonsson, 1997).

Perhaps the dissimilar definitions of entrepreneurship are based on an effort to muddle the issues and gain control of the debate. Conceivably some of these definitions are being promoted by sub-sections of the literature with imperialistic ambitions. Be that as it may, rather than joining the fray over the exact definition of the terms entrepreneur and entrepreneurship directly, let us instead briefly consider the issues at hand: People do act creatively in a variety of different ways. They figure out both new ways to do things and also new things to do. They change what they produce and what they consume in innovative ways. They also change how they interact with one another: formally and informally, through new technologies, and in terms of both explicit and implicit contracts. In turn, creative behaviour yields new products, processes, institutions and organizations. Here, some researchers want to pin the entrepreneurship label on some

very specific behaviours while others want it attached to some specific result of those behaviours.

On the Logic of Definitions and the Defining Characteristics of Entrepreneurship

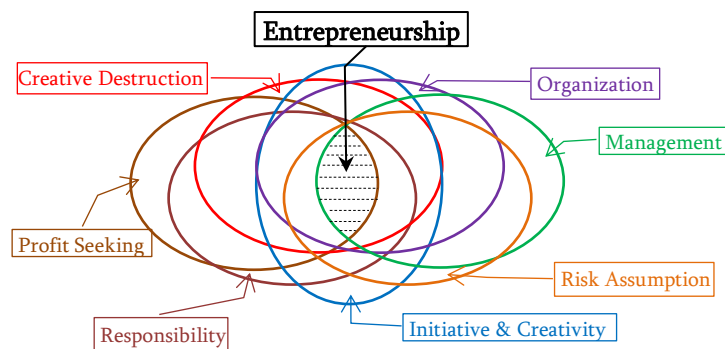
Hempel's (1952) ground-breaking analysis of concept formation for empirical research suggests that our concepts should be drawn from definitions that classify phenomena based on their distinguishing, or defining, characteristics. Garbage in yields garbage out; so sloppy definitions tend to yield useless or even nonsensical results. Even so, work based on flawed definitions can provide insight. It might focus our attention, it might force us to step back and reconsider our ideas, etc. Thus the failures of the past often inform the definitions and concepts of the present. Yet, history also suggests that proper definitions are neither necessary nor sufficient for success in the battle of ideas.

The history of economic thought is replete with influential ideas and models that were to some extent based on flawed definitions and concepts. Consider, for example, the empirical concept of money in early monetarist writings (Friedman and Schwartz 1963). The defining characteristic of *money* is, of course, that it serves as a medium of exchange. While the textbooks may list various other attributes that money is supposed to have, such as serving as a store of value, or providing standards of accounts, etc., it is easily demonstrated that these other attributes are either implied by, or else derived from, acceptability in exchange (Mason 1976). If money is not perceived as a store of value then nobody would accept it in exchange for value. Thus insisting on a store of value attribute of money separate from its exchangeability is both redundant and illogical. And, as for money providing standards of accounts, it is most natural to measure the exchange value of things in terms of whatever we can trade them for. So we measure the value of things in dollars because we trade them for dollars. In other words the exchange role of money, by itself, also explains why its face value represents our unit of account. Hence our definition of money should be pretty clear-cut: money consists of generally acceptable media of exchange. Yet, as was explained by Clower (1967) in his classic critique of the literature, there is no clear role for a medium of exchange in our models. The very notion of a medium of exchange is a round peg in a square hole both in general equilibrium and in portfolio choice models. Money-in-advance-models notwithstanding, most economists think of money as just another asset in our portfolios of assets. Therefore it is not really surprising that the literature has waffled on exactly how to define and portray money.

The definition of money seems a lot clearer and less contentious than the definition of entrepreneurship. Yet, the conceptual problems posed by modelling a true role for media of exchange are akin to the problems of modelling entrepreneurial behaviour. As outlined by Baumol (1968 and 2010), there is no real place for entrepreneurial initiative and creativity in our behavioural models. Yet, as Baumol sees it these are still the true defining attributes of entrepreneurial behaviour. Of course, as we have seen, the dictionaries tend to have a wider definition of entrepreneurship than that: They tell us that

entrepreneurship is defined by several different attributes, actions, motives and results: initiating, organizing, managing, implementing innovations and taking responsibility and assuming risk of enterprises, in the hopes of reaping profits or some other reward and in the process generating creative destruction.

If entrepreneurship is really the locus of all of these attributes then perhaps we might try to present it in a Venn diagram, but this would look pretty messy:



No doubt, we could find other attributes and categories and come up with additional things that characterize entrepreneurs. For example, in order to engage others in ventures or in trade, entrepreneurs may need the ability to inspire trust and confidence. We could also focus on other motives than profit seeking, such as the desire for independence or achievement; or we could focus on other consequences of entrepreneurial actions such as economic growth. Our Venn diagram might then become even more wide-ranging and convoluted. In addition, to the extent that entrepreneurs must act with and amongst others in a social context, entrepreneurship may have inter-subjective qualities. Finally, since the economy can be considered as a complex system, we might even consider entrepreneurship to be an emergent property of the system.

But the convolutions of this Venn diagram approach may not be necessary. To the extent that we can identify defining attributes, we can narrow our focus by discarding redundant ones. In other words, we want to find attributes of entrepreneurship that are defining in the same way as being a medium of exchange is defining for money. Baumol (1968; 2010) focused on initiative and creativity. This gives us a definition that is clearly a lot thinner and sharper than the dictionary definitions.

Of course, as we have seen, the disputes over definitions in the literature are mostly about coming up with a narrow definition that focuses on other things in some particular exclusive or proprietary way. In that context, if we want to focus on different things, the simplest and most obvious way to settle the definition disputes would be for us to adopt different terms for different concepts. And yet, the literature seems set on the terms, entrepreneur and entrepreneurship, even as different writers keep quibbling over their meaning. No camp will relinquish these terms to another. After all, the term entrepreneur

seems to evoke a certain romantic aura and some writers see the entrepreneur as the hero of our times (Lee and Allen 1996; Williams and Nadin 2013). So, what's in a name? In the case of entrepreneurship, even as we quibble about how to define it, the very term still seems to evoke good and admirable things.

The bottom line is then that we are stuck with the terms entrepreneur and entrepreneurship. And with different factions making the case for different meanings of these terms, it seems unlikely that the definition disputes will be settled any time soon. Of course, this makes interdisciplinary conversations difficult and this in turn solidifies the ongoing balkanization of the literature. Clarity and precision in communication would be improved if we used different words for different entrepreneurial motives and actions rather than just blurring them together under the same umbrella. But with the option of adopting different words for different concepts off the table, we need to reaffirm Baumol's (1968 and 2010) focus on initiative and creativity as the defining attributes of entrepreneurship. To see this let us consider the supposed attributes of entrepreneurship a bit further.

First let us consider whether it makes sense to lump initiative and creativity together. Note that by definition all initiative is in some respect new. Even imitative actions can be innovative when they are applied in a different context and in a different space and time. After all, all our actions are informed by what we have seen, learned, and experienced. Actions that may seem revolutionary in hindsight are usually informed by what came before. At the same time, anyone who starts a business must be creative, at least in the sense that they are doing something that is in some respect different from what others are doing. On the other hand, without initiative, creative ideas are not implemented. In short, when it comes to entrepreneurship, initiative and creativity go hand in hand.

As for organization and management, they are generally concomitants of initiative in setting up new ventures. Still, entrepreneurs with the proper means, after deciding what initiatives to pursue, can hire professional managers to help set up, organize, and run things. Sometimes entrepreneurs delegate management details right from the start or they might hand off their new ventures as soon as they are off the ground. Organization and management are of course critical to the success of new enterprises, but they are not defining attributes of entrepreneurship per se.

Responsibility and risk assumption do play some role, at least in the sense that when you initiate something new, you rarely know with perfect certainty how it will turn out. Some entrepreneurs are clearly risk arbitrageurs. Hiring workers at guaranteed wages based on expectations of profits is about assuming risk. On the other hand, some entrepreneurs hedge and innovate in a manner that transfers risk to others. Besides, different kinds of entrepreneurs deal with risk in different ways. In short, while some responsibility and risk assumption is implied by initiative, identifying these as separate attributes of entrepreneurship seems redundant.

Profit seeking, or goal seeking in general, is associated with most human action. Yet, in most cases, intentions are not directly observable. So, while it is in some cases possible to infer what someone's intentions are or were, it is not really feasible to try to classify ventures into entrepreneurial vs. non-entrepreneurial based on ultimate intentions.

Finally, creative destruction is a consequence of some, but not necessarily all, entrepreneurial actions. Some innovations, especially in finding new uses for existing products, etc., may well increase value of past investment in plant and equipment. In some cases innovation complements the existing capital infrastructure.

In short, as suggested by Baumol (1968 and 2010) initiative and creativity are defining characteristics of entrepreneurship in the sense that the other attributes of our Venn diagram above are either implied or else immaterial and thus not necessary.

Conclusions and Suggestions for Future Research

Economics seeks to explain people's choices and actions. Yet the theory-laden language of economics obscures the fact that initiative and creativity are critical and inalienable aspects of real economic behavior. Simplifications, that were intended to cut through the clutter to help us see the forest for the trees, instead form a blind spot on the intrinsic creativity of our deliberative choices. Much as the fact that there is no role for money in general equilibrium creates confusion about the nature of money, so the fact that there is no role for creativity in choice theory creates confusion about the nature of entrepreneurship.

Human actions must be considered in their full context. When choice theory foists its peculiarly ordered logic on people's actions, it also removes something essential from the framework of choice. The complexities and perils of the real world, along with limits to human knowledge and cognition, mean that our choices subject us to existential uncertainty. It is in this context that our choices tend to be either creative as we establish what works, or else habitual as we continue doing whatever worked for us in the past. Presenting human choices as optimized selections from a menu is overlooking these critical facts about the nature of the choices we must make. Also, as explained by Potts (2010), initiative is about overcoming a variety of inhibitions and behavioural biases. Since this is a critical aspect of entrepreneurship we need a better understanding of how initiative works and how it is promoted or repressed. Why do some people act and take advantage of the moment while others dawdle and let opportunities pass them by?

While initiative and creativity are not equally distributed, all people have the capacity to be entrepreneurial. Yet, as Baumol (1990) explained, how they express this depends on their social and economic circumstances. Whether people apply their creativity in rent seeking or crime, or in improving their consumption technology (Becker 1965; Jonsson 1996), or in the creation of exchangeable value, depends on their perceptions of

opportunities as well as costs and benefits. This is the point of Baumol's (2010) call for a micro-theory of innovative entrepreneurship. To fully assimilate entrepreneurial initiative and creativity into economics we first need to expand the language of economics. We need a language that embodies a new and different conceptual approach to choice. This calls for an interdisciplinary perspective as well as new tools and behavioural models. For one thing, as explained by Jonsson (2011), we must recognize that the formation of preferences is an integral part of the consumer's optimization problem. In other words, people figure out what they want as they make their choices. After all, people's choices are not just about the maximization of utility based on pre-existing preferences. Our choices define us; they both reflect who we are and over time our identity is built by our habits and by the choices we have made. Our choices are thus tied to our character and aspirations, our relationships and role models and even our ethical commitments and religion.

The confusion about the nature of entrepreneurship is not likely to be resolved without a unifying conceptual structure that admits the complex nature of human choices. We need behavioural models that allow us to focus directly on the initiative and creativity of entrepreneurs. Achieving this is of course easier said than done. For one thing, individual creativity and initiative may be innate, but we are social creatures and thus opportunities as well as incentives for innovation must inevitably be social. Baumol (1990 and 2010) suggested that the individual supply of creative effort, for good or ill, is relatively stable across place and time, but that institutions and the rules of the game determine to what extent this effort is productive or destructive. Hartley and Potts (2014) tell a more nuanced and complex story that focuses on the role of culture. As they see it culture can be "viewed as a species of economics-via-language-and-stories, 'we'-group formation and meaningfulness." (Hartley and Potts 2014: 237) As such, culture is also a mechanism for preservation and creation of social knowledge; while individual choices and opportunities for creative actions are made in a cultural context. Culture in turn evolves through cooperation and conflict within and between demes (or cultural groups). Over time as the costs of communication and interactions between demes falls, and as it becomes easier for individuals to be part of multiple demes this affects their ability to act creatively. After all, if creativity is about making connections between different ideas, the more ideas we are exposed to the more connections are possible for us. The role of culture thus should be fertile ground for future research on creative entrepreneurship.

As mentioned earlier, some of the sharper and thinner proprietary definitions of entrepreneurship may have been deliberately designed to muddle rather than clarify the issues. Be that as it may, it is not easy to expose the true intentions of any writer. What we can do is take a closer look at the distribution of grant money available from both public and private sources for research in entrepreneurship. Future research might thus take a closer look at the distribution of, as well as the financial incentives associated with, these grants.

References

- Ahiakpor, J. C. W. (2001) On the mythology of the Keynesian multiplier: Unmasking the myth and the inadequacies of some earlier criticisms. *American Journal of Economics and Sociology* 60 (4): 745-773.
- Baumol, W. J. (1968) Entrepreneurship in economic theory. *American Economic Review* 58 (2): 64-71.
- Baumol, W. J. (1990) Entrepreneurship: productive, unproductive and destructive. *Journal of Political Economy* 98 (5): 893-921.
- Baumol, W. J. (2010) *The Microtheory of Innovative Entrepreneurship*. Kauffman Foundation Series on Innovation and Entrepreneurship.
- Becker, G. S. (1965) A theory of the allocation of time. *Economic journal* 75 (299): 493-517.
- Bilalić, M., McLeod, P. & Gobet, F. (2008a) Inflexibility of experts—Reality or myth? Quantifying the Einstellung effect in chess masters. *Cognitive Psychology* 56 (2): 73-102.
- Bilalić, M., McLeod, P. & Gobet, F. (2008b) Why good thoughts block better ones: The mechanism of the pernicious Einstellung (set) effect. *Cognition* 108 (3): 652-661.
- Bilalić, M., McLeod, P. & Gobet, F. (2010) The mechanism of the Einstellung (set) effect: A pervasive source of cognitive bias. *Current Directions in Psychological Science* 19 (2): 111-115.
- Bilalić, M., McLeod, P. & Gobet, F. (2014) Why good thoughts block better ones. *Scientific American* 310 (3): 74-79.
- Cantillon, R. (1755) *Essai sur la nature du commerce en général*. London: F. Gyles, *The Making of the Modern World*. Web. 17 July 2012.
- Carland, J. W., Hoy, F., Boulton, W. R. & Carland, J. C. (1984), Differentiating entrepreneurs from small business owners: A conceptualization. *Academy of Management Review* 9 (3) 354-359.
- Clark, A. (2013) Whatever next? Predictive brains, situated agents, and the future of cognitive science. *The Behavioral and Brain Sciences* 36 (3): 181-204.
- Clower, R. (1967) A reconsideration of the microfoundations of monetary theory. *Economic Inquiry* 6 (1): 1-8.
- Colander, D. (2007) *The Stories Economists Tell: Essays on the Art of Teaching Economics*. New York: McGraw Hill Publishers.
- Earl, P. E. (2003). The entrepreneur as a constructor of connections. In R. Koppl (Ed.) *Advances in Austrian Economics* 6: 113-130
- Ely, J. C. (2011) Kludged. *American Economic Journal: Microeconomics* 3 (3): 210-231.
- Fairclough, N. (1989) *Language and Power*. Essex, UK: Longman Group.
- Fang, Z., Liu, S., Shi, H. & Lin, Y. *Grey Game Theory and its Applications in Economic Decision-making*. CRC Press, 2010.
- Free Dictionary (n .d) <http://www.thefreedictionary.com/entrepreneurship>
- Friedman, M. & Schwartz, A. J. (1963) *A Monetary History of the United States, 1867-1960*. NBER Books.

- Gaffney, M. (1994) Neo-classical economics as a stratagem against Henry George. In *The Corruption of Economics*. Edited by M. Gaffney and F. Harrison. London: Shephard-Walwyn.
- Gartner, W. B. (1989) 'Who is an entrepreneur?' is the wrong question. *Entrepreneurship Theory and Practice* 13(4): 47–68.
- Hartley, J. (2013) A Trojan horse in the citadel of stories? *Cultural Science* 6(1): 71-105.
- Hartley, J. A. & Potts, J. (2014) *Cultural Science: A Natural History of Stories, Demes, Knowledge and Innovation*. (Manuscript) Forthcoming London: Bloomsbury Academic Press.
- Hempel, C. G. (1952) *Fundamentals of Concept Formation in Empirical Science*. Chicago: University of Chicago Press.
- Hodgson, G. M. (2010) Choice, habit and evolution. *Journal of Evolutionary Economics* 20 (1): 1-18.
- Holt, R. P. F., Rosser, J. B., Jr. & Colander, D. (2011) The complexity era in economics. *Review of Political Economy* 23 (3): 357-369.
- Iversen, J., Jørgensen, R. & Malchow-Møller, N. (2008) Defining and measuring entrepreneurship. *Foundations and Trends in Entrepreneurship* 4 (1): 1-63.
- JEL Guide (n.d.) <http://www.aeaweb.org/jel/guide/jel.php>
- Jonsson, P. O. (1996) Choice, uncertainty, and innovation: A new look at consumer entrepreneurs. *Journal of Private Enterprise* 11 (2): 92-106.
- Jonsson, P. O. (1997) On Henry George, the Austrians, and neoclassical choice theory: A new look at the similarities between George and the Austrians. *The American Journal of Economics and Sociology* 56 (4): 577-594.
- Jonsson, P. O. (2011) On utilitarianism vs. virtue ethics as foundations of economic choice theory. *Humanomics* 27 (1): 24 – 40.
- Jonsson, P. O. (2014) On Entrepreneurs in Pre-Classical and Classical Economic Thought. *Working Paper*
- Khalil, E. L. (2013) Two kinds of theory-laden cognitive processes: distinguishing intransigence from dogmatism. *The Behavioral and Brain Sciences* 36 (3): 218-219.
- Knight, F. H. ([1921] 2009). *Risk, uncertainty and profit*. Courier Dover Publications.
- Kirzner, I. M. (1997) Entrepreneurial discovery and the competitive market process: An Austrian approach. *Journal of Economic Literature* 35 (1): 60-85.
- Lee, D. R. & Allen, C. A. (1996) The entrepreneur as hero. *Journal of Private Enterprise* 12 (1): 1-15.
- Lippman, L. G. (1996) A short report concerning the Einstellung effect. *Journal of General Psychology* 123 (3): 233-235.
- Luchins, A. S. (1942). Mechanization in problem solving – The effect of Einstellung. *Psychological Monographs*, 54 (6): i-95.
- Lucy, J. A. (1997) Linguistic relativity. *Annual review of anthropology* (1997): 291-312.
- Martin, L. (1986) Eskimo words for snow: A case study in the genesis and decay of an anthropological example. *American Anthropologist* 88(2):418
- Martin, R. & Sunley, P. (2007) Complexity thinking and evolutionary economic geography. *Journal of Economic Geography* 7 (5): 573-601.
- Mason, W. E. (1976) The empirical definition of money: A critique. *Economic Inquiry* 14 (4): 525-538.

- Minsky, H. P. (1977) The financial instability hypothesis: An interpretation of Keynes and an alternative to 'standard' theory. *Nebraska Journal of Economics and Business* 16 (1): 5-16
- Minsky, H. P. (1980) Capitalist financial processes and the instability of capitalism. *Journal of Economic Issues* 14 (2): 505-523.
- Peneder, M. (2009) The meaning of entrepreneurship: A modular concept. *Journal of Industry, Competition and Trade* 9 (2): 77-99.
- Potts, J. (2010) Can behavioural biases in choice under novelty explain innovation failures? *Prometheus* 28(2): 133-148.
- Potts, J., Cunningham, S., Hartley, J., & Ormerod, P. (2008) Social network markets: A new definition of the creative industries. *Journal of Cultural Economics* 32(3): 167-185.
- Quine, W. V. O. (1960) *Word and Object*. Cambridge, MA: MIT Press
- Rubinstein, A. (2000) *Economics and Language: Five essays*. New York: Cambridge University Press.
- Say, J.-B. (1803) *Traité d'économie politique; ou, Simple exposition de la manière dont se forment, se distribuent et se consomment les richesses (2 volumes)*. Paris, *The Making of the Modern World*. Web. 24 May 2011.
- Schumpeter, J. A. (1942) *Capitalism, Socialism and Democracy*. New York: Harper Brothers.
- Schumpeter, J. A. (1947) The Creative Response in Economic History. *Journal of Economic History* 7(2): 149-159
- Shackle, G. L. S. ([1972] 2009) *Epistemics and economics*. New Brunswick: Transaction Publishers.
- Shane, S. & Venkataraman, S. (2000) The promise of entrepreneurship as a field of research. *Academy of Management Review* 25 (1): 217-226.
- Stevenson, H. H., and Jarillo, J. C. (1990) A paradigm of entrepreneurship: entrepreneurial management. *Strategic Management Journal* 11 (Special Issue): 17-27.
- Takeuchi, H., Taki, Y., Sassa, Y., Hashizume, H., Sekiguchi, A., Fukushima, A., & Kawashima, R. (2010). White matter structures associated with creativity: evidence from diffusion tensor imaging. *Neuroimage*, 51(1), 11-18.
- Tversky, A. & Kahneman, D. (1981). The framing of decisions and the psychology of choice. *Science* 211 (4481): 453-458
- Wang, J., Novemsky, N., Dhar, R., & Baumeister, R. F. (2010). Trade-offs and depletion in choice. *Journal of Marketing Research* 47 (5): 910-919.
- Webster Online Dictionary (n.d.)
<http://www.websters-online-dictionary.org/definitions/entrepreneur>
- Weintraub, E. R. (1993) *General Equilibrium Analysis: Studies in Appraisal*. Ann Arbor: University of Michigan Press.
- Williams, C. C. & Nadin, S. J. (2013). Beyond the entrepreneur as a heroic figurehead of capitalism: re-representing the lived practices of entrepreneurs. *Entrepreneurship & Regional Development* 25(7-8): 552-568.