

**ECONOMIC THEORIES OF THE ENTREPRENEUR: A
SYSTEMATIC REVIEW OF THE EVIDENCE.**

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ABSTRACT

Economic theories of the entrepreneur have received more attention recently in the entrepreneurship literature. In order to better understand these theories I took a systematic approach to the literature, attempting to answer the question: What are the main themes of the economic theories of the entrepreneur?

The systematic approach identified thirty-two journal articles and four books which were analyzed and synthesized to produce a descriptive and thematic analysis. Seven main themes were found from this approach: creative destruction and innovation, uncertainty and risk, entrepreneurial opportunities, entrepreneurial discovery, entrepreneurial alertness, market disequilibrium, and the role of knowledge.

INTRODUCTION

There has been an “explosion” of entrepreneurship research over the last 20 years (Davidsson *et al.*, 2001). This includes research from business-related disciplines such as management, marketing, and strategy, as well as other fields such as education, history, political science, and psychology. Entrepreneurship has become more accepted as a valuable discipline and is now established worldwide; it is, in many ways, “succeeding beyond anyone’s past predictions” (Katz, 2003).

Despite its success, the field of entrepreneurship is characterized as having an ill-defined paradigm (Shane & Venkataraman, 2000), being highly fragmented (Gartner, 2001), and lacking theory development (Morris *et al.*, 2001, p. 36). It lacks a conceptual framework and has become “a broad label under which a hodgepodge of research is housed” (Shane & Venkataraman, 2000). It generates many theories and frameworks (Murphy *et al.*, 2006), but they do not rest on a defensible theory base (Bull and Willard, 1993).

Entrepreneurship was originally conceptualized as an economic function (Cantillon, 1755) and the entrepreneur as someone willing to bear risk to make a profit. Although economics gave the entrepreneur a function in the market, it was eventually almost entirely eliminated from mainstream economic thought (Cassis & Minoglou, 2005, p. 5). Behavioral science researchers also attempted to develop theories of the entrepreneur (Cornelius *et al.*, 2006) but, by defining the field in terms of entrepreneurial attributes,

entrepreneurship scholars “have generated incomplete definitions that do not withstand the scrutiny of other scholars” (Gartner, 1988; Shane & Venkataraman, 2000).

In the year 2000, several scholars again began to take an economics approach to the study of entrepreneurship, possibly sparked by an oft-cited note on entrepreneurship published in the *Academy of Management Review* (Shane & Venkataraman, 2000; also see Grégoire *et al.*, 2006). Analyzing the entrepreneur within an economics framework means the definition of an entrepreneur will essentially be the functional role an entrepreneur holds within the market, as opposed to attributes entrepreneurs possess, or what factors contribute to entrepreneurial success/failure. This also contrasts the entrepreneur with other, somewhat similar, functional roles, e.g., a manager, small business owner, etc.

Economic theories of the entrepreneur continue to receive more attention in the academic literature (*cf.* Endres & Woods, 2006; McMullen & Shepherd, 2006; Murphy *et al.*, 2006). However, no one has yet taken a systematic approach to identify the various themes of the economic theories of the entrepreneur. This paper analyzes and synthesizes prominent themes of economic theories of the entrepreneur in more detail. This ideally will lead to a richer comprehension of the entrepreneur within the economics *and* entrepreneurship literature.

ECONOMIC THEORIES OF THE ENTREPRENEUR

Richard Cantillon (circa 1680-1734), an Irish-born French economist, in his *Essai Sur la Nature du Commerce en General* (1755) was the first to develop an economic theory of entrepreneurship. His theory suggests that the entrepreneur is someone with foresight who takes risks to make a profit. In fact, in the English translation of the *Essai*, entrepreneur is translated as “undertaker,” as in someone who undertakes risk. An important Cantillonian insight is the notion that the entrepreneur holds an *equilibrating* function in the market (Hébert & Link, 1988). This is in contrast to later economists’ notion of the entrepreneur as a *disequilibrating* function (Schumpeter, 1934), or as neither equilibrating nor disequilibrating but as existing within an equilibrium framework (Kihlstrom & Laffont, 1979).

Anne-Robert Jacques Turgot (1727-1781) also contributed to an economic theory of the entrepreneur. Turgot’s (1766) theory held that the entrepreneur was the supplier of capital, the one who employed laborers.

Jean-Baptiste Say (1767-1832) is often regarded as a disciple of Adam Smith but, Adam Smith, in *Inquiry into the Nature and Causes of the Wealth of Nations* (1776), provided the origins for “classical” economic theory which essentially eliminated the entrepreneur from the stage. Say reintroduces the theory of the entrepreneur in his book, *A Treatise on Political Economy* (1845), which was different from Cantillon’s (1755) or Turgot’s (1766). Say (1845, p. 82, 85) sees entrepreneurs as forecasters and project appraisers, and not “merely” managers. In Say’s *Treatise* (1845), the word entrepreneur is translated into English as “adventurer.” These adventurers, according to Say (1845), use their industry to organize and direct the factors of production to achieve the “satisfaction of human wants.” In fact, Say (1845) saw entrepreneurial success as not only beneficial to the entrepreneur but as *essential* to the economy as a whole.

Although Adam Smith (1723-1790) is widely regarded as the “father of economics,” he essentially neglected the entrepreneurial function (Hébert & Link, 1988). Smith (1776) did not include the entrepreneurial decision maker with other kinds of “industrious people” in the economy.

David Ricardo (1772-1823) also never used the term entrepreneur in any of his writings. This is noteworthy considering Say’s (1845) treatment of the entrepreneur over a decade before Ricardo (1817) began to write. These “classical” economists laid the foundation for what would later become the near extinction of the entrepreneur in neoclassical economics.

Despite Cantillon’s (1755) concept of the entrepreneur’s role in the economy, later economists did not emphasize the entrepreneurial function (Cornelius *et al.*, 2006). In 1870, with the publication of Walras’s *Elements of Pure Economics*, which developed the competitive general equilibrium model, the entrepreneur was at once eliminated, being “taken for granted” (Cassis & Minoglou, 2005, p. 5). Despite

the difficulty of reconciling the entrepreneur with an equilibrium model, some neoclassical economists have made attempts (e.g., Kihlstrom and Laffont, 1979).

Equilibrium models create outcomes inconsistent with the entrepreneurial process. Eckhardt and Shane (2003) give four (problematic) characteristics of equilibrium theories:

- 1) Current prices convey all of the relevant information necessary to direct resources.
- 2) All information and expectations of market participants about the future can be reduced to current price bids for resources.
- 3) All decisions are optimal decisions because of perfect information among market participants.
- 4) No temporary disruptions exist in the price system which allow for the buying and selling of resources with the expectation of profit.

In 1911, Joseph Schumpeter (1883-1950) published his *Theory of Economic Development* and constructed a theory in which the entrepreneur is the source of all dynamic change in the market. In contrast to the equilibrium theory of neoclassical economists, Schumpeter (1911) saw the entrepreneur as a disruptive, *disequilibrating* force, using the term “creative destruction” to refer to the innovating role the entrepreneur plays in the market. Schumpeter (1934) suggested ways to identify an entrepreneurial venture by whether an entrepreneur introduces new goods or new methods of production, opens new markets or new sources of supply, or reorganizes an industry.

Schumpeter also rejected the neoclassical economists’ emphasis on a perfectly competitive market and instead emphasized the entrepreneur and dynamics of the competitive process (Schumpeter, 1942, p. 84). He considered the entrepreneur to be a leader in innovation, not just an imitator. Schumpeter did take an explicit—and sharp—break from other economists when he excluded risk from being an attribute of entrepreneurship (Schumpeter, 1961, p. 75).

Another school of economics, the Austrian school, has been mentioned often in the entrepreneurship literature (Shane & Venkataraman, 2000; Katz *et al.*, 2003; Shane, 2004). This can be seen in one of the statements made by a Task Force formed by the Entrepreneurship Division of the Academy of Management. After assessing the current state of doctoral education in entrepreneurship, they recommended:

A course providing an economics perspective [which] would address opportunity exploration, recognition and exploitation processes largely from the lens of Austrian economics. For instance, concepts such as “alertness” (Kirzner, 1973), “discovery” (Hayek, 1945) or “gap filling” (Liebenstein, 1968) might be examined relative to discovery and exploitation of opportunities (Shane & Venkataraman, 2000) . . . [and] the role of information and knowledge as a source of opportunity (Hayek, 1945). (Gartner *et al.*, 2003)

Austrian economics has played an important role in developing an economic theory of the entrepreneur. Austrians share the conviction that neoclassical approaches fail to offer a “satisfying theoretical framework for understanding what happens in market economics” (Kirzner, 1997). Austrian economists, often referred to as “Austrians,” see the entrepreneur as the *driver* of the market economy.

Carl Menger (1840-1921) is the founder of the Austrian school, although many Austrians consider Cantillon (1755), Turgot (1766), Say (1845) *et al.* to be forerunners of the school. Carl Menger (1871) saw the entrepreneur as a capitalist-owner who profited by actively seeking out the most valuable uses for his property. Menger’s (1871) entrepreneur is not merely a passive risk-bearer but a dynamic actor whose profits represent a reward for investing in risky ventures (Salerno, 1999). The entrepreneur’s most important function is anticipating future wants, estimating their relative importance, acquiring technical knowledge, and knowledge of currently available means.

Ludwig von Mises (1881-1973) is another prominent Austrian responsible for the rebirth of the school in the 20th century. In Mises’ *Human Action* (1949), he described entrepreneurship as fundamental and

inherent in every action; indeed, it “burdens every actor” (Mises, 1949: p. 253). Mises (1949) also saw the entrepreneur as a capitalist-holder and distinguished entrepreneurs from non-entrepreneurs based on who bears responsibility if losses occur. Similarly, he distinguished the successful entrepreneurs from the unsuccessful due to the successful entrepreneur’s ability to not be guided by “what was and is,” but on his own opinion—he sees the future in a different way (Mises, 1949, p. 582).

Two often-cited Austrian economists in the entrepreneurship literature are Friedrich Hayek (1945) and Israel Kirzner (1979). Hayek (1945) is responsible for pointing out that information asymmetries exist because people possess imperfect information. Since information asymmetries exist, individual market participants can act on what they perceive to be profitable opportunities.

Israel Kirzner (1973) is the most prominent Austrian who has written extensively on entrepreneurship. He was a student of both Mises and Hayek. He sees entrepreneurs as alert to perceived profit opportunities and, if they are correct, will make a profit; otherwise, they will suffer a loss (Kirzner, 1973). He points out that Austrians see the market as a *process* that may be tending toward, but never fully reaching, equilibrium.

While the Austrian school views the role of the entrepreneur as vital to its framework, there still exists debate as to exactly how entrepreneurial opportunities arise and whether the entrepreneur is also a capital-owner (*cf.* Kirzner 1979; Rothbard, 1985). The ongoing debates within the school suggest that the Austrian school’s theory of the entrepreneur is not complete, nor static.

Modern Economic Theories of the Entrepreneur

Be-sanko *et al.* (2004; see also Brickley, Smith, & Zimmerman, 2004) point out that the terms “entrepreneur” and “entrepreneurship” do not appear in the indexes of leading American textbooks on the economics of organization and management. Two British surveys of economics principles textbooks (Kent, 1989; Kent & Rushing, 1999) confirmed a similar absence of the concept. The ability of economics to understand entrepreneurial behavior has been questioned by prominent entrepreneurship researchers (Gartner, 1990; Venkataraman, 1997; Alvarez & Barney, 2000). Baumol (1995), a neoclassical economist, has made attempts, but still admits, “Entrepreneurship is ‘the specter which haunts economic models.’”

However, there has recently been a return to researching themes in entrepreneurship within an economics framework, primarily by *entrepreneurship* scholars (Shane & Venkataraman, 2000; Grégoire *et al.*, 2006). The diversity of themes in entrepreneurship is reflected by the following description from the Academy of Management’s Entrepreneurship Division:

The Entrepreneurship Division's domain is the creation and management of new businesses, small businesses and family firms, as well as the characteristics and special problems of entrepreneurs. The Division's major topic areas include: (1) New venture ideas and strategies; (2) Ecological influences on venture creation and demise; (3) The acquisition and management of venture capital and venture teams; (4) Self-employment; (5) The owner-manager; (6) Management succession; (7) Corporate venturing; and (8) The Relationship between entrepreneurship and economic development. (Academy of Management, Entrepreneurship Division)

Perhaps the most comprehensive summary of economic theories of the entrepreneur comes from Hébert and Link’s *The Entrepreneur* (1988). They produce a historical review of the role of the entrepreneur as conceptualized by economists. After an analysis of economic theories of the entrepreneur, they conclude:

How far it has advanced understanding of the subject must remain problematic. . . . We hope that it has illuminated, however faintly, some of the dark corners of the subject. . . . Despite our best intentions, the entrepreneur remains an elusive figure. (1988, p. 114)

The search for the “elusive entrepreneur” continues today and, by identifying what has been done in the field, it will be easier to see the way forward, building upon previous research and contributing to the fields of economics and entrepreneurship. Since economics and entrepreneurship originated at the same time (Cantillon, 1755), how is it possible that economic theories cannot better explain entrepreneurship? The aim of the remainder of this paper is to systematically provide an answer to the question: What are the main themes of the economic theories of the entrepreneur?

METHOD

In order to answer the research question, I developed a systematic review protocol. According to Tranfield *et al.* (2003), the protocol “is a plan that helps to protect objectivity by providing explicit descriptions of the steps to be taken.” This review protocol adapts the outline of Newbert (2007) by creating “filters” to identify and select studies (see also David & Han, 2004). Newbert (2007) chose this approach because “it represents a more objective approach . . . to mitigate some of the bias [from using only] subjective criteria.”

In order to include only substantively relevant articles and arrive at a selection of core articles for synthesis and analysis, I created the following seven filters:

1. Search academic databases using the root search string *entrepre* AND economi**. Exclude articles not including both terms in their titles or abstracts.
2. Search the remaining titles and abstracts of articles using keyword search strings.
3. Identify remaining articles that are theoretical or conceptual in nature, or more generally, *not* empirical or quantitative papers. (This is essentially the opposite of the approach of Newbert (2007) where he sought to identify only articles with empirical content.)
4. Eliminate duplicate articles and book reviews.
5. Select articles that appear in journals in which multiple articles appear.
6. Read the remaining titles and abstracts for quality *and* relevance. This aims to determine whether an article meets a minimum quality level and relates to an economic theory of the entrepreneur.
7. Read the remaining full articles for substantive, theoretical/conceptual relevance, and quality.

One of the most important parts of a review protocol is the identification and selection of studies, which requires an iterative process to arrive at a final list of keywords. My keywords were generated from cross-referencing and reading relevant journal articles. I also searched titles and abstracts in ABI and EBSCO databases using the basic search string *entrepre* AND economi** (see Pittaway *et al.*, 2004 for a similar approach). This basic keyword search string was taken from the main “facets” of the research question: the entrepreneur and economics. I then broke the research question down into various sub-facets: economic schools of thought, economics terms, economics *and* entrepreneurship terms, and prominent authors in the fields. I felt I reached a high level of keyword saturation when I could not identify any new keywords by reading the keywords, titles, abstracts, and full texts of articles. The goal was to be thorough in identifying relevant keywords and to make my process explicit and open to replication—and critique (David & Han, 2004).

Using the rationale of David & Han (2003) and Newbert (2007), I chose to include only scholarly, peer-reviewed journal articles found in academic databases. This decision was based on the quality of journal articles, the systematic “searchability” of journal articles, and their symmetrical format and terminology. David & Han (2003) explain that “journal articles have been through a review process that acts as a screen for quality, allowing . . . to distil studies meeting a certain level of conceptual and methodological rigor.” Newbert (2007) further restricted his search by only including scholarly journal articles because of the rigorous peer review process articles go through prior to publication, reasoning that this usually leads to a better “technical product” (Light & Pillemer, 1984, p. 35).

Having decided upon using academic databases, the next decision involved following a method to identify which databases had the greatest coverage, particularly of entrepreneurship and economics journals, functionality, and full article access (Thorpe *et al.*, 2005). Adapting a method from Pittaway *et*

al. (2004; see also Leseure, 2004; Thorpe *et al.*, 2005), I searched six databases using the root search string *economi* AND entrepre**. I chose the two citation indexes with the most results: ABI ProQuest (3850) and EBSCO Business Source Premier (2275).

As part of the review process, I selected a panel consisting of experts in the entrepreneurship and economics fields, as well as experts in carrying out a systematic review. The choice has been made and elaborated upon above to include scholarly journal articles in my systematic search. However, based on panel recommendations, I included books based on two criteria: (1) references in journal articles in which the same books were mentioned by multiple authors and/or (2) when the review panel recommended specific titles for further research. Many economists have written books that have been highly influential and which contribute to the development of economics (e.g., Cantillon, 1755) and entrepreneurship (e.g., Kirzner 1973). This process produced a comprehensive listing of core articles on which my review was based.

RESULTS

The search results from EBSCO and ABI are shown in Table 1, broken down by the seven filters. The root search string from both databases resulted in 6,125 articles which, after applying the filters, resulted in 28 core articles from my search strings. In addition, 4 articles from the initial research were added based on the initial literature review. A descriptive analysis was conducted on these 32 articles. A thematic analysis was done based on a total of 36 studies¹: 28 articles from the search results (78%), 4 articles from the initial research (11%), and 4 books identified through cross-referencing and based on panel recommendations (11%).

Table 2 lists results of the descriptive analysis by journal, field, and year. Studies were found in twenty academic journals. The journal with the highest number of core articles was *Small Business Economics* (19%), a journal in the field of entrepreneurship and small business.

Nearly half (47%) of the core articles came from economics journals, with entrepreneurship/small business journals making up the next largest field (31%). The core articles range from the years 1945-2007, with almost half from 2005 or later (48%). Two-thirds of the articles are from 2000 or later. This may be due to a recent renewed interest in the contributions of economics to entrepreneurship.

DISCUSSION

The second report is in the form of a thematic analysis which identifies key emerging themes. The thematic analysis mainly consists of themes from Schumpeter's (1934) and Kirzner's (1973, 1979, 1997) theory of the entrepreneur. These include creative destruction and innovation, uncertainty and risk, entrepreneurial opportunities, entrepreneurial discovery, entrepreneurial alertness, market disequilibrium, and the role of knowledge. The majority of the analysis will focus on these themes since they continue to be discussed in recent entrepreneurship literature (Shane & Venkataraman, 2000; McMullen *et al.*, 2007; Plummer *et al.*, 2007). However, I will briefly focus on the findings from neoclassical economists.

It is not new that many scholars have questioned the ability of neoclassical economics to explain or conceptualize entrepreneurship (Baumol, 1993; Kirzner, 1997), mainly for methodological reasons, due to the dynamic nature of the entrepreneur who eludes tractability (Bianchi & Henrekson, 2005). Kirzner (1973) has argued that, according to neoclassical models, an entrepreneurial miscalculation is essentially an error in arithmetic.

The neoclassical conception views the entrepreneur as simply another factor of production, separate from land, labor, and capital (Endres & Woods, 2006). He possesses certain attributes—indeed *all* neoclassical entrepreneurs possess these *same* attributes in the *same* quantity—such as being an “automaton maximizer” (Baumol, 1968, p. 68), using “probabilistic calculating procedures,” and possessing preference completeness (Endres & Woods, 2006). Paradoxically, they have equal access to information and the same profit-making opportunities. Neoclassical entrepreneurs know all opportunities, which are evenly distributed in the market, and which have the same value for all entrepreneurs (Endres & Woods, 2006).

Table 1. Summary of results by search criteria

Filter type	Description	EBSCO result	ABI result	Total
Substantive	All articles with <i>entrepre*</i> AND <i>economi*</i> in the title or abstract	2275	3850	6125
Substantive	At least one keyword from 5 keyword search strings must also appear in the title or abstract	541	922	1463
Methodological	At least one of 5 additional keywords must <i>not</i> appear in the title or abstract	474	715	1189
Duplicates	Deletion of duplicate articles found in both databases	269	386	655
Substantive	Article must appear in a journal that has returned more than one item from the filters above	269	386	655
Substantive	Remaining abstracts read for both substantive and theoretical or conceptual relevance	77	66	143
Substantive	Remaining full articles read for both substantive and theoretical or conceptual relevance	13	15	28

The neoclassical emphasis on equilibrium another reason the entrepreneur may not occupy a place in its models. When prices equal costs and supply equals demand, there is no room for arbitrage opportunities. Despite the difficulty of reconciling the entrepreneur with an equilibrium model, some neoclassical economists have made attempts. For example, Kihlstrom and Laffont (1979) propose a model that uses equilibrium theories to identify individuals who prefer to become entrepreneurs. This model is based on uncertainty which says people will either become entrepreneurs or employees based on their “taste” for uncertainty (Shane, 2000).

Bianchi and Henrekson (2005) provide a “systematic survey” of some neoclassical contributions to the idea of entrepreneurship. They identify three essential attributes which entrepreneurs are given in neoclassical models: (1) entrepreneurs are generally “more talented”; (2) are able to bear risk more easily than others; and (3) are innovators. However, these entrepreneurs are still only “allowed” a measurable degree of risk, and it is equally distributed to all entrepreneurs. In neoclassical models, the entrepreneur still must be “reduced” to a mathematical formula, something the Schumpeterian (1934) and Kirznerian (1973) entrepreneur shun from the beginning. This somewhat contradictory view of the entrepreneur leads to the conclusion that neoclassical economics is still essentially, despite its most valiant attempts, entrepreneurless.

The Schumpeterian Entrepreneur

Joseph Schumpeter (1934) developed a theory of economic development, different from the neoclassical theory, in which the entrepreneur plays a central role. The Schumpeterian entrepreneur is responsible for economic change. The entrepreneur promotes new combinations or innovations which, in his theory, disrupt equilibrium. This entrepreneur promotes disequilibrium, changing an existing situation (Cheah, 1990). This he termed “creative destruction,” performed through “new combinations,” or innovating activities.

Creative Destruction and Innovation

In Schumpeter’s (1934) theory of economic development, the main actor, the entrepreneur, breaks away from the typical routine, or the state of equilibrium. Equilibrium in Schumpeter’s model is similar to that of the neoclassical economists’. It consists of unchanging conditions in consumers’ preferences and buying behavior. This also means demand and supply would not change, nor would prices. Schumpeter (1934) refers to this equilibrium as the “circular flow of economic life,” where there is no change in the *status quo* (Hébert & Link, 2006). However, overall, Schumpeter (1934) sees the market as *dynamic*, compared with the *static* approach of the neoclassical models.

Table 2. Results by journal, field, and year

Results by:	# Articles	% Total articles
<i>Journal</i>		
Small Business Economics	6	19%
Journal of Business Venturing	3	9%
Review of Austrian Economics	3	9%
Academy of Management Review	2	6%
Journal of Economic Behavior & Organization	2	6%
Journal of Economic Studies	2	6%
American Economic Review	1	3%
American Journal of Small Business	1	3%
Economica	1	3%
Journal of Economic Education	1	3%
Journal of Economic Issues	1	3%
Journal of Economic Literature	1	3%
Journal of Evolutionary Economics	1	3%
Journal of the History of Economic Thought	1	3%
Journal of Management History	1	3%
Journal of Technology Transfer	1	3%
Kyklos	1	3%
Management Decision	1	3%
Review of Political Economy	1	3%
The Independent Review	1	3%
Total	32	100%
<i>Field</i>		
Economics	15	47%
Entrepreneurship/Small business	10	31%
General management	4	13%
Economic history	1	3%
Business history	1	3%
Political economy	1	3%
Total	32	100%
<i>Year</i>		
2007	5	16%
2006	5	16%
2005	5	16%
2004	1	3%
2003	2	6%
2002	1	3%
2001	1	3%
2000	1	3%
1998	1	3%
1997	1	3%
1994	1	3%
1993	1	3%
1990	2	6%
1989	1	3%
1987	1	3%
1983	1	3%
1971	1	3%
1945	1	3%
Total	32	100%

The entrepreneur, the main force in economic development, then creates change endogenously (Adaman & Devine, 2002). He breaks away from the routine; the circular flow of economic life is broken. This “destructs” the current state of equilibrium. The economy will never return to its *previous* state of equilibrium. However, it will eventually return to a *different* state of equilibrium. This is due to entrepreneurial profits, i.e., a surplus over costs, generated by entrepreneurs’ innovating activities. These entrepreneurial profits begin to disappear as competitors imitate the new combinations, eventually returning the economy to a state of rest. It is worth noting that Schumpeter (1934) does not view these “imitators” as engaging in entrepreneurial activity since the combinations are no longer “new” (Adaman & Devine, 2002).

This kind of destruction is creative in the sense that it is “responsible for the recurrent ‘prosperities’ that revolutionize the economics organism and the recurrent ‘recessions’ that are due to the disequilibrating impact of the new products or methods” (Schumpeter, 1934; see also Cheah, 1990). This creative destruction does not occur in consumption of goods, but rather in industrial and commercial life (Hébert & Link, 2006).

Schumpeter’s (1934) creative destruction comes to pass through the innovating activities of entrepreneurs, referred to as “new combinations.” He mentions five types of combinations: (1) the introduction of a new good; (2) the introduction of a new method of production, not yet tested by experience; (3) the opening up of a new market; (4) the conquest of a new source of supply of raw materials or semi-manufactured goods; and (5) the implementation of a new organization of industry (Schumpeter, 1934; as quoted in Adaman & Devine, 2002).

Carrying out these new combinations requires that the entrepreneur need not be “merely” a manager, capitalist, land-owner, laborer, or inventor (Hébert & Link, 2006). While the entrepreneur may, and often does, hold some or all of these roles, they are not central to his economic function: the innovating entrepreneur who carries out new combinations (Schumpeter, 1934).

The term “entrepreneur” can be applied *only* when he is carrying out new combinations. For example, in Schumpeter’s (1934) terminology, if someone creatively destructs the circular flow of economic life through the carrying out of new combinations, and then builds up a business, he loses the entrepreneurial aspect/function once the new combinations have been carried out (Hébert & Link, 2006).

Schumpeter’s (1934) theory of economic development has been extremely influential in the economics, entrepreneurship, and strategy literature. It is partly due to its extension—rather than replacement—of earlier theories. It is also due to its power and simplicity in explaining economic events (Hébert & Link, 2006).

The Kirznerian Entrepreneur

The Kirznerian (1973) entrepreneur, along with the Schumpeterian (1934) entrepreneur, was the most recurring theme within the core articles. A common contrast between the two theories is the approach toward equilibrium. Schumpeter (1934) sees the market in a state of equilibrium *until* the entrepreneur comes along and “disrupts” the equilibrium through what Schumpeter (1934) termed “creative destruction.” The Kirznerian (1973) entrepreneur operates in a *continual* state of *disequilibrium* but, to the degree that his calculations are correct (i.e., profitable), the market moves *toward*, but never actually *reaches*, a state of equilibrium.

Most of the current research in entrepreneurship is based on or around concepts from Kirzner’s influential book, *Competition and Entrepreneurship* (1973). These include viewing the market as a process of discovery and the “alertness” of individuals to identify and exploit entrepreneurial opportunities. He also uses a framework based on disequilibrium which, while not common in mainstream economics literature, appears to have significantly influenced the entrepreneurship literature (e.g., Shane & Venkataraman, 2000).

Kirzner’s (1973) theory of the entrepreneur is explained at a high level of abstraction (Douhan *et al.*, 2007). He sees, as did von Mises (1949), the entrepreneurial element as present in all human action: *all* humans make choices about the future, given a degree of uncertainty. Each decision is based on imperfect

knowledge distributed imperfectly among individuals. This can be contrasted with Schumpeter's (1934) theory in which the entrepreneur is unique and "rarely found . . . [with a] peculiar personality and motivation (Adaman & Devine, 2002), i.e., the "talented few" (Hébert & Link, 2006). Kirzner's (1973, 1997) theory of the entrepreneur is discussed below through the main themes identified in the core articles.

Uncertainty and Risk

The Kirznerian entrepreneur always acts under conditions of (genuine) uncertainty (Douhan *et al.*, 2007), which is distinct from calculable risk (Knight, 1921). This uncertainty is different from an entrepreneur engaged in a "systematic search" for opportunities (Kirzner, 1997). It is because of uncertainty about the future that the scope for entrepreneurship exists (Kirzner, 1985). It can be seen as the "subjective" future as the entrepreneur envisages it, or the "objective" future as it will in fact unfold. It is because of this uncertainty about the future that, according to Kirzner (1973), the entrepreneur must act with boldness and imagination, with a "kind of vision," as compared to confidence and courage (Douhan *et al.*, 2007).

Even with these attributes, given that the future is uncertain, the entrepreneur faces risk—risk of an entrepreneurial loss, or market "confirmation" that the entrepreneur was mistaken. While both uncertainty and risk can be minimized or managed, they are nonetheless immutable.

Entrepreneurial Opportunities

Recent entrepreneurship literature has become focussed on better understanding and explaining what constitutes an "entrepreneurial opportunity" (McMullen *et al.*, 2007; Plummer *et al.*, 2007). In Shane and Venkataraman's (2000) influential article, they define the field of entrepreneurship as the study of "how, by whom, and with what effects opportunities to create future goods and services are discovered, evaluated, and exploited." They define entrepreneurial opportunities as "those situations in which new goods, services, raw materials, and organizing methods can be introduced and sold at greater than their costs of production" (Shane & Venkataraman, 2000). This is similar to the view, using an economics lens, taken by Casson and Wadeson (2007), where entrepreneurial opportunities can be manifested through the generation of products and services.

Some of the questions about entrepreneurial opportunities include whether these opportunities are subjective, selected by the entrepreneur due to the self-interest motive (Yu, 2001), or objective, separating the opportunity from the individual (McMullen *et al.*, 2007). An objective opportunity implies that anyone can be alert to the *same* opportunity in the marketplace.

However, it is also possible to see subjective opportunities as potential objective opportunities. McMullen *et al.* (2006) explain a similar process: opportunities can be objective if they are generalizable, accurate, and/or timeless. Generalizability makes an opportunity objective if (1) more individuals share similar (subjective) goals; and (2) if the opportunity advances a wider variety of goals.

Accuracy leads to objectivity if the entrepreneur is "correct" by realizing an entrepreneurial profit (and not an entrepreneurial loss). What may have been initially a subjective goal becomes objective by the "correctness" of the entrepreneur's estimates, given an uncertain future.

Opportunities are also more objective if they can be considered as timeless, i.e., whether they are based on physical laws of nature (cause and effect), or on fleeting societal patterns. An example of a timeless opportunity is when there is an improvement in productivity through a "revelation of natural laws" (McMullen *et al.*, 2007). An opportunity lacking timelessness would be the fleeting fads of a specific era (or temporality).

Kirzner (1973) sees entrepreneurial opportunities as objective due to the price system. It becomes a matter of exploiting various opportunities, i.e., arbitrage opportunities. However, Kirzner (1973) also views the recognition and exploitation of *objective* opportunities as a subjective process. This is reflected by Kirzner's (1973) view of the market process as that of discovery instead of creation, i.e., the entrepreneur discovers objective entrepreneurial opportunities. It is as if there is a \$10 bill in one's hand,

and the alert entrepreneur discovers it is “available for the grasping” (Kirzner, 1973). Another example of an objective opportunity is the discovery of the telephone, which created new opportunities for communication, whether or not people discovered these opportunities (Shane & Venkataraman, 2000).

Defining the origins of entrepreneurial opportunities can be very difficult due to the ontological and epistemological intricacies involved which “attempt to catalogue and describe the sources of opportunity” (Plummer *et al.*, 2007). McMullen *et al.* (2007) have proposed that for any debate on the origins of opportunity to be productive it must “avoid the slippery slope of ‘infinite regression,’ in which the origins of the origins (of the origins) are endlessly identified, characterized, and debated.”

Scholars have identified the origins of entrepreneurial opportunities due to various reasons (see Plummer *et al.*, 2007), including: (1) information asymmetry (Kirzner, 1973); (2) exogenous shocks (Schumpeter, 1934); (3) changes in supply (Schumpeter, 1934); (4) changes in demand (Kirzner, 1979; Schumpeter, 1934); (5) factors that disequilibrate the markets (Holcombe, 2003); (6) factors that enhance production possibilities (Holcombe, 2003); and (7) prior entrepreneurial activity (Holcombe, 2003).

Opportunities arising from prior entrepreneurial activity, particularly when such opportunities are seen as objective, may seem counterintuitive—as if they are “used up” once exploited. One way to understand this idea is through the continued alertness of entrepreneurs to select how to best choose the means to pursue his desired ends. It is this means-ends framework that creates additional entrepreneurial opportunities (Plummer *et al.*, 2007).

For example, an entrepreneur sees the opportunity to create a new car due to changing consumer demand and preferences. He decides to exploit the opportunity and ultimately “create” a new model of car (a new consumer’s good). However, the means required to achieve the desired end could include the opportunity of finding the least expensive components, or using materials in a way not done previously. When demand increases (through the creator of the new car purchasing materials from a materials producer), this also signals to materials owners a potential change in the pricing of their materials, thus raising their price. This constitutes a new opportunity based on a change in demand. In addition, a “poorly exploited” entrepreneurial opportunity can create new entrepreneurial opportunities. Some questions concerning the means-ends-opportunity “framework” could be where to acquire materials, where the car should be sold, and how many cars need to be manufactured. These may all provide further entrepreneurial opportunities.

The importance of defining what authors mean by “opportunity” or “entrepreneurial opportunity” cannot be underestimated. As has been the case with the term “entrepreneur,” different authors define it in different ways, and are usually not explicit in their definitions (Gartner, 1990). This creates confusion where authors are using the same term but with different meaning. McMullen *et al.* (2007) call this “the *most* important step,” recommending that authors define “what they mean by the words ‘entrepreneurial opportunity’ . . . [beginning] the march toward clarifying the issues and away from obstacles that are attributed to ambiguity in language or philosophically intractable differences.”

Entrepreneurial Discovery

Entrepreneurial discovery is a central component of the Austrian market process (Kirzner, 1997). In 1945, Hayek pioneered this approach and interpreted the market process as equilibrative, a process of mutual discovery. This discovery process essentially consists of individuals becoming better informed of the plans being made by other participants. As some plans fail or where entrepreneurs make incorrect judgments, over time the judgments tend to become eliminated (Kirzner, 1997). Thus, misjudgements tend to become “corrected” through alert individuals discovering opportunities.

Kirzner (1997) distinguishes discovery from a systematic “search” for opportunities. Instead of searching for opportunities, entrepreneurs discover what they had previously unknown—an “it was under my very own nose!” moment (Kirzner, 1997), accompanied by an element of *surprise*. This surprise is not mere chance, but comes from discovery through a “natural alertness to possible opportunities” (Kirzner, 1997).

Alert individuals are those that “resist” the routine behaviors of others. These entrepreneurs are then able to discover and grasp opportunities. If this discovery turns out to be an entrepreneurial error, it may be due to an earlier error in the entrepreneur’s view of the world (Kirzner, 1997).

Discovery is an important part of the market process, as it is essentially an equilibrating activity. This still takes into account the possibility of entrepreneurial errors (and losses) but, through discovery, other entrepreneurs will become more (or better) aware of entrepreneurial opportunities. It is this “continual discovery and exploitation of pure profit opportunities [that] nudge the market in the equilibrative direction” (Kirzner, 1997).

Entrepreneurial Alertness

The key attribute of the Kirznerian entrepreneur is “alertness” (Kirzner, 1973; Douhan *et al.*, 2007). The entrepreneur is alert to previously unnoticed profit-making opportunities. Without alertness, Kirzner (1973) says it is only “sheer chance” that is responsible for successful (entrepreneurial) action (Douhan *et al.*, 2007).

This does not mean the entrepreneur does not make mistakes. Being alert simply means lifting oneself above a “veil of ignorance” to move toward a desirable outcome (Douhan *et al.*, 2007). Overcoming this veil of ignorance comes from a preparedness (i.e., alertness) to recognize currently overlooked profit-making opportunities.

According to Endres and Woods (2006), “alertness is part of the very core structure of Austrian theory.” They suggest alertness pertains to individuals who possess a “gift” (Kirzner, 1979, p. 148) and to those who do not overlook entrepreneurial opportunities.

A key activation of alertness comes from price signals in the market (Endres & Woods, 2006). These price signals act as road signs to tell the entrepreneur where to go. It is almost as if the entrepreneur stands on higher ground and has a better “view” of the signals. The price signals are not at the macro level, but in a given temporal and spatial context (Mises, 1949). Based on these signals, entrepreneurs are able to “see” where they can “buy low” and “sell high” (Kirzner, 1973). This necessarily implies a disequilibrium framework in which opportunities exist for alert individuals to exploit.

It is important to recognize alertness as an entrepreneurial trait as this signifies that an entrepreneur can be someone in an existing, profitable business who continues to look for opportunities (Yu, 2001). This person possesses boldness and imagination as part of this alertness, living in a world of uncertainty. However, according to Kirzner (1997), these characteristics of alertness can, in contrast to entrepreneurial profit, lead to entrepreneurial losses, meaning entrepreneurs may have “misread” the market (Kirzner, 1997).

Kirzner (1980) also points out what Adam Smith (1776) terms “self-interest.” In other words, humans “tend to notice that which is in their interest to notice” (Yu, 2001). Thus Kirzner argues (1979, p. 148) that “the free market system is most conducive to entrepreneurial alertness for it permits agents to reap gains from their discoveries” (Yu, 2001).

Market Disequilibrium

One of the significant distinguishing factors between neoclassical and Austrian economics is the approach to the market in equilibrium *vis-à-vis* disequilibrium. In the entrepreneurship literature, it appears that the disequilibrium approach has “won out” (e.g., Shane & Venkataraman, 2000).

Disequilibrium means the economy operates in a state of constantly changing consumer preferences, tastes, and demands (Kirzner, 1997). Prices fluctuate as does supply. According to Austrians, which may be termed extreme methodological individualists, groups do not make decisions—individuals do. Individuals make decisions based on their changing tastes and subjective value scales, which are influenced by spatial and temporal factors (Mises, 1949). For example, individuals do not choose between bread and water, but between a certain quantity of bread and water at a specific time and in a specific

context. This creates a market of disequilibrium. When consumer demand and supply become more aligned, the economy has moved closer, but never fully reached, equilibrium.

The approach taken to entrepreneurship by Shane and Venkataraman's (2000) influential article is that of disequilibrium. They explain that "in equilibrium models, entrepreneurial opportunities either do not exist or are assumed to be randomly distributed across the population . . . [which means entrepreneurs] cannot discover opportunities that differ in value from those discovered by others." In equilibrium models, entrepreneurs vary according to their attributes, which may be responsible for the previous literature on psychological traits of entrepreneurs. When taking a disequilibrium approach, arguing that entrepreneurship is transitory, it is "improbable that entrepreneurship can be explained *solely* by reference to a characteristic of certain people independent of the situations in which they find themselves" (Shane & Venkataraman, 2000). Equilibrium models may be useful in some ways (Kirzner, 1997; Shane & Venkataraman, 2000) but these models are necessarily incomplete when it comes to explaining entrepreneurship.

Knowledge

The importance of knowledge in the economic theory of the entrepreneur can be mainly attributed to Austrian economist, Friedrich Hayek (1945). His 1945 article, "The use of knowledge in society," is one of the most cited articles on economics and entrepreneurship (XX ref).

Essentially, Hayek (1945) says knowledge (or information) is unevenly dispersed among individuals, i.e., it never exists in a complete, concentrated, or integrated form. Some bits of this knowledge are even frequently "contradictory," meaning separate individuals hold different ideas about similar issues (Hayek, 1945).

While Hayek (1945) was mainly pointing out the impossibility of central planning due to the impossibility of "the utilization of knowledge which is not given to anyone in its totality," this has been adopted into the Kirznerian (1973) theory of the entrepreneur. It is precisely because of this unevenly dispersed, imperfect knowledge that alert entrepreneurs are able to discover opportunities in conditions of uncertainty (Kirzner, 1997).

It is because people hold different beliefs about the value of resources that entrepreneurship is possible (Shane & Venkataraman, 2000). This also indicates that not everyone is "alert" to the same entrepreneurial opportunities all the time (Hayek, 1945). This is also due to a degree of specialization or division of labor among individuals in the market. Those with more knowledge of a particular area may be more alert to entrepreneurial opportunities due to combining prior knowledge with the new knowledge of the opportunity (Shane & Venkataraman, 2000). This imperfect knowledge is also a key aspect of a market in disequilibrium with profit-making opportunities due to asymmetrical information.

In short, knowledge exists at certain times and locations, and is specific to individual actors which may not always be directly communicable to others (Endres & Woods, 2006). Even individuals possessing the same, or similar, knowledge may interpret it differently—or may not be alert to the entrepreneurial opportunity that comes from such knowledge.

SUGGESTIONS FOR FUTURE RESEARCH

This process has shown an evolution of research on entrepreneurship from an economics lens that has built upon previous research. Authors seem to be communicating with one another, and there is a somewhat delineated stream of research. It appears that, while Schumpeter (1934) continues to be influential to the field of entrepreneurship and economics, the focus is shifting to Kirzner's (1973, 1997) theory of the entrepreneur. Disequilibrium is the more common approach to entrepreneurship (Shane & Venkataraman, 2000), even though it is given very little attention in neoclassical economics, which builds its mathematical models around the concept of equilibrium. The disequilibrium approach may best be understood in relation to other concepts in Austrian economics (e.g., the temporal and spatial decisions involved in human actions, the subjective theory of value, the Austrian business cycle).

Austrian economists view economics as a science based on theoretical, as opposed to mathematical, models. For entrepreneurship to develop as a science, it must have a sound theoretical base (Bull and Willard, 1993). This can be based on a general theory of human action as developed by Mises (1949). This would most likely lead to an increased interest in other members of the Austrian school: Carl Menger, Ludwig von Mises, and Murray Rothbard. Israel Kirzner (1973) studied under von Mises and has taken many of Mises' ideas into a more elaborate framework of the entrepreneur. A better understanding of Mises' (1949) treatise on *Human Action* would help to better understand this framework. This would include the view that everyone possesses entrepreneurial attributes to *some* degree. Kirzner (1973) has discussed this view but more research can be done in this area. For example, there is an opportunity for scholars to undertake the daunting task of synthesizing the Austrian economics literature, in addition to the oft-cited Kirzner (1973) and Hayek (1945), to contribute to entrepreneurship scholarship.

In addition, more opportunities exist for carrying out systematic reviews based on any of the seven major themes of the economic theories of the entrepreneur. For example, the market in a constant state of disequilibrium, while at times moving toward equilibrium, could be described and better understood through a synthesis of the literature.

CONCLUSION

I am confident we can now say with little hesitation that we have identified *some* characteristics of the *economic functions* of the entrepreneur. We have found the entrepreneur possesses alertness to entrepreneurial opportunities in a market process of disequilibrium. The entrepreneur acts based on limited knowledge and imperfect information in a world of uncertainty, facing various risks. This market is *dynamic* and the entrepreneur's *subjective* view of what constitutes an entrepreneurial opportunity may be shown to be *objective* based on whether the market accepts or rejects the creation of goods or services, resulting in an entrepreneurial profit or loss.

Gartner (2002) analogizes the entrepreneur to a story of six blind men feeling an elephant and attempting to determine what it is they are touching. The first young man runs into the side of the elephant, feels its skin, and determines it is like a great wall. He runs back to the city and tells everyone. Another touches its feet and decides it is like a tree trunk. The third feels its tusk, listens as it scrapes through the sand and exclaims, "the elephant is hard and sharp like a spear, and yet it makes noises and smells like an animal!" And so on. Using this analogy, I think we have identified the trunk, feet, side and other parts of the "elephant" with a greater degree of description, discovered their relationship to one another, and know that they *are* connected to the same being: the entrepreneur.

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¹ The 36 studies can be found in the reference list preceded by an asterisk.