

The Roots of Entrepreneurship Research

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Research in entrepreneurship has a long tradition and there is considerable knowledge within the field. However, in many instances, researchers today do not do their "ground work" sufficiently well; they do not build on existing knowledge in a convincing way. By means of a historical review, it is possible to show researchers that they can build further on the knowledge already available in the field. Furthermore, entrepreneurship is a multidisciplinary topic. It can be beneficial to borrow concepts and models from other disciplines if this is done in a conscious and critical way. At the same time, it can be questioned whether the variety within the field of entrepreneurship research is sufficient. Entrepreneurship research should display a great deal of openness towards other disciplines and other methodological approaches.

Finally, research can live with unclear definitions, even in the case of central concepts, a much more central problem has to do with what constitutes the unique character of entrepreneurship research (i.e., defining the boundaries of the field of research).

The study of entrepreneurship has become one of the fastest growing fields of research in the area of management over the last few decades. Interest has been stimulated by the fact that politicians and decision-makers have come to regard small and new businesses as the solution to unemployment and stagnation in the economy. Even if the research within the field has expanded in scope, many argue that entrepreneurship research can be regarded as a young field of research. They argue that it still suffers from a "liability of newness" with insufficient resources for basic research and difficulties in being legitimated in comparison with more well-developed research fields. However, researchers have discussed the concept of entrepreneurship for several centuries and there is a long tradition of research to fall back on. Thus, it is important to bring to light the historical basis of entrepreneurship research.

It is also important to recognize entrepreneurship as a multidisciplinary phenomenon. Entrepreneurship involves everything from the single individual to society as a whole, and many different scientific disciplines have shown interest in entrepreneurship research. This has several created problems (e.g., the research has acquired a fragmentary character, making the dialogue between researchers more difficult).

In addition, there is the lack of clear-cut definitions of "entrepreneurship." This has had an inhibiting effect on the research due to difficulties in conducting and interpreting

empirical results within different disciplines—the knowledge will not be comparable and does not contribute to the common knowledge base.

The goal of this article is to serve as a contribution to the discussion on the development of entrepreneurship research. It explores the historical basis of entrepreneurship research with a view to highlighting the tradition of the research. The article also describes the multidisciplinary nature of the research in order to point out the difficulties and opportunities created by multidisciplinary research. Finally, it discusses the boundaries of entrepreneurship research with the aim of chiseling out what is unique in entrepreneurship, thereby enabling the "core" of entrepreneurship research to stand out more clearly.

The arguments presented in this article have been mainly taken from historical surveys of the development of the field of research,¹ special volumes of journals that deal with the development of entrepreneurship research,² state-of-the-art books,³ and a survey of classical works in the field.

Early Thinking Regarding Entrepreneurship

In entrepreneurship research, Richard Cantillon and Jean Baptiste Say are often given credit for introducing the concept of entrepreneurship into the literature of economic science. Nevertheless, the concept has a considerably longer tradition.

"Entrepreneur" is derived originally from a French word. The concept first appeared 1437 in the French dictionary *Dictionnaire de la Langue Francaise*. Three definitions were given, with the most general meaning denoting a person who is active and gets things done. The word had, however, been used in the French language since the 12th century, and the concept was not uncommon among French authors during the Middle Ages. The entrepreneur in this respect was associated with violent warlike activities and was described as tough and willing to risk life and fortune.

In the early 17th century, the entrepreneur came to be regarded as a person who undertook activities associated with risk-taking. However, not everyone who took risks was regarded as an entrepreneur; the word denoted only people who were involved in large-scale undertakings. In most cases, this meant big contracts between the state and a wealthy individual involving the construction of a building, providing the army with equipment, or engaging in a similar activity. The typical entrepreneur was a person who had a contractual relationship with the state to perform some service or provide the state with some kind of good. The price in the contract was fixed, and the entrepreneur took the risk of possible profit or loss.

Entrepreneurship in an Economic Context

Entrepreneurship appeared in the literature of economic science primarily through the writings of Irish-born banker Richard Cantillon (1680–1734), whose work *Essai Sur la Nature du Commerce en Général*, published posthumously in 1755, gave the concept economic meaning and the entrepreneur a role in economic development. A basic characteristic of Cantillon's analysis was the emphasis on risk. The presumption was that the entrepreneur would buy products at a definite price, have them packaged and transported to market, and sell them at an unpredictable, uncertain price.

In the mid-18th century, changing production conditions, social relations, and a new way of thinking began to emerge. These changes also affected the intellectual and academic environment. In the realm of economic science, "classical" economic theory developed and is generally regarded to have its origins in Adam Smith's (1723–1790) *Inquiry into the Nature and Causes of the Wealth of Nations* (1776)—a work which in many ways set the trend for economic theory and in which Smith laid the foundation for the analysis of the way the market economy functions. Smith's work influenced the view taken of the entrepreneur in economic science; he did not deal with the entrepreneurial function in the economy—instead, it was the capitalist who became the central actor in Smith's analysis.

The French economist Jean Baptiste Say (1767–1832), was successful in breaking the contemporary trend. In his works, *Traité d'économie politique* (1814) and *Cours complet d'économie politique pratique* (1816), Say gave an empirical description of what the entrepreneur does as well as an analysis of the entrepreneurial function in the economy. He saw the entrepreneur as a "broker," who combines means of production with the aim of producing goods. However, Say did not take the view that the entrepreneur was only a coordinator of the means of production—he was also the one who carried out these activities on his own account (i.e., took the risk).

The end of the 19th century heralded a transition in economic science from macroeconomic considerations towards a greater focus on microeconomic ones. This economic science was dominated by a theory of equilibrium where individuals were either producers or consumers and where the search for equilibrium dominated the analyses. In this situation, the entrepreneur was overlooked in the economic analysis. However, the European discussion of entrepreneurship found an audience in the United States, which in that period was well on the way to becoming a major industrial power. Some of the American economists who continued to develop the discussion about entrepreneurship were Francis Walker, Fredrick Hawley, and John Bates Clark. Perhaps the best-known economist in this context was Frank Knight (1885–1972). In his thesis *Risk, Uncertainty and Profit* (1916, revised 1921), Knight makes

a distinction between risk and uncertainty and takes the view that the skill of the entrepreneur lies in his ability to handle the uncertainty that exists in a given society.

At the beginning of the 20th century, there was already an extensive theoretical base around the concepts of entrepreneur and entrepreneurship. However, even if certain common ground existed when it came to the way entrepreneurship was viewed by the early authors, it is difficult to identify a consensus that would enable us to speak of a "theory." Furthermore, the entrepreneur was still regarded as being on the periphery of economic analysis.

Joseph A. Schumpeter

It was Joseph A. Schumpeter (1883–1950) who tried once again to make the entrepreneur a central figure. Schumpeter is regarded as a social scientist, and his extensive scientific production encompasses a wide field within economic theory.

Schumpeter's major work is probably *Theorie der Wirtschaftlichen Entwicklung* (1911, second edition 1926) or *Theory of Economic Development* (1934), which is the English translation of the second edition. The first and second editions are rather different. Of the two, the first edition is the more original. Nevertheless, it is the second edition, especially the English version, that is most often referred to. However, this edition is more streamlined, and in this version, Schumpeter attempted to relate his work to the mainstream of economic thinking at that time.

Schumpeter's line of thought should be familiar to everyone engaged in entrepreneurship research. Put simply, he starts from the premise that equilibrium is predominant in the economic system. The entrepreneur tends to break this equilibrium by introducing innovations into the system in the form of new products, methods of production, markets, investment goods, or organization of industrial units and branches. However, these innovations, which change the established pattern, tend not to occur evenly in the course of time but in "swarms." The fact that entrepreneurs break down barriers stimulates other individuals to follow these pioneers. The upturn in the economy brought about by these innovations has, however, qualitative effects on the economic system in the form of what Schumpeter calls "creative destruction," where the positive economic development leads to its own crisis.

This theory of entrepreneurship may, to a certain extent, be regarded as a synthesis. Schumpeter's concept of innovation was broad enough to include attributes like risk-taking and coordination—concepts that several of his predecessors had emphasized. He did not reject these attributes as irrelevant, but stressed that these attributes alone, without the capacity to innovate, are insufficient for a person to be regarded as an entrepreneur.

John Maynard Keynes (1883–1946) published his work *General Theory of Employment, Interest and Money*

(1936/1973) several years after Schumpeter's English version had appeared. Keynes, however, did not go into detail regarding entrepreneurship and did not give the entrepreneur a central role in economic development. In comparison with Schumpeter, Keynes' reasoning had a much more profound effect on the economic debate, which may be due to the fact that he was more normative and emphasized to a greater degree the state's opportunities to influence economic development. The result was that, once more, the entrepreneur had to take a backseat in economic theory.

Post-Schumpeter Development of Economic Science

Schumpeter's reasoning has remained a basic point of reference for many of his successors. Later development can be roughly divided into two categories: the Harvard tradition and the human action tradition. The Harvard tradition is a development of Schumpeter's view on entrepreneurship, whereas the human action tradition constitutes an alternative.

Harvard Tradition. These ideas were developed at the Research Center in Entrepreneurial History at Harvard University. The center was founded by Arthur H. Cole in 1948, and it was also here that Schumpeter worked until his death in 1950. Even if the researchers at Harvard had slightly different perceptions of the nature of entrepreneurship, they did agree that entrepreneurship consisted of three different dimensions:

1. changes in the economic system,
2. creation of organizations as a prerequisite for the commercialization of innovations,
3. the fact that the task of the entrepreneur was to create profits, and that this occurs through the production and distribution of goods and services (i.e., entrepreneurship was related to a certain sector in society).

Human Action Tradition. This tradition is chiefly represented by two Austrian economists: Frederick von Hayek (1906–1992) and Ludwig von Mises (1881–1973). Mises observed that people are not only calculating creatures but they are also alert to make use of opportunities, which caused him to introduce the concept of "human action" to describe this behavior. Hayek pointed out that in a market economy, knowledge is often divided among different individuals, so that no one individual possesses the same knowledge or information as another. This means that there are only a few people who know about special shortages or resources that are not used to maximum effect. This knowledge is unique since it is obtained through every individual's special situation, occupation, social network, etc.

In recent years, Israel Kirzner has stood out as the leading exponent of human action tradition. In his book

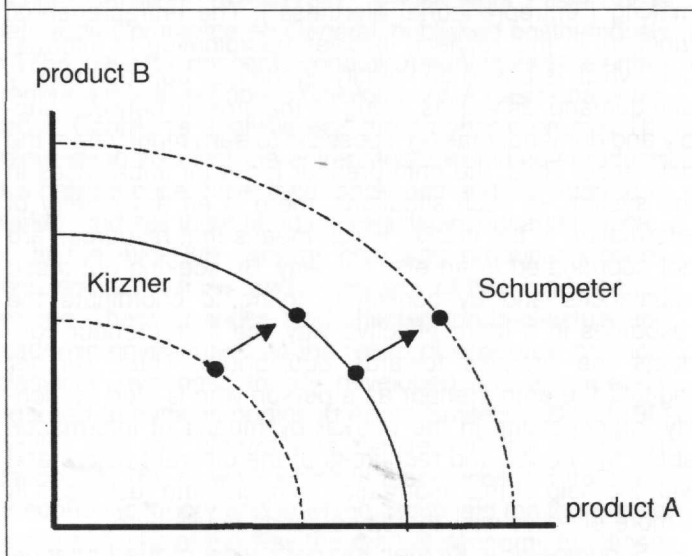
Competition and Entrepreneurship (1973), Kirzner develops arguments raised by Mises and Hayek. According to Kirzner, it is fundamental for an entrepreneur to show alertness in identifying and dealing with opportunities for profit-making ("entrepreneurial alertness"). The entrepreneurial function, in this respect, involves coordination of information, which is based on identifying the gap between supply and demand, as well as acting as the brokers between supply and demand, making it possible to earn money from the difference. Thus, the entrepreneur looks for imbalances in the system. In such situations, there is an asymmetry of information in the market which means that resources are not coordinated in an effective way. By seeking out these imbalances and by constantly trying to coordinate the resources in a more effective way, the entrepreneur conducts the process towards equilibrium. Thus, Kirzner regards the entrepreneur as a person who is alert to identify imperfections in the market by means of information about the needs and resources of the different actors and with the help of this information to coordinate resources in a more effective way, thereby creating equilibrium.

Schumpeter v. Kirzner. Kirzner's view of the entrepreneur is diametrically opposed to Schumpeter's. Schumpeter saw the entrepreneur as a creator of imperfections in the market by generating new innovations. Kirzner, on the other hand, saw the entrepreneur as a seeker of imbalances and the entrepreneur's activities as designed to remove these imperfections. In terms of the so-called production possibility curve (see Exhibit 1), according to Schumpeter's view, we stand on the edge of the curve and the entrepreneur shifts the curve outwards. This differs from the view taken by Kirzner, who argues that we are within the curve and the entrepreneur helps us to reach the edge—the entrepreneur is a person who takes the economy towards the edge of the production possibility curve. Kirzner's entrepreneur does not create anything new, whereas Schumpeter's does. According to Kirzner, the entrepreneur is a sort of intermediary who sees and exploits what is already there, but which others do not see. By this means, we can use existing resources better, and we can reach the edge of the production possibility curve.

Entrepreneurship in Today's Economic Science

Schumpeter's theory indicates a form of conceptual stagnation with regards to entrepreneurship research in the field of economics. Even if the concept seems to have attracted several prominent economists, no one has succeeded in advancing the front line of research to any appreciable extent. However, one exception is Mark Casson, who in his book *The Entrepreneur—An Economic Theory* (1982) highlights the entrepreneur and argues for an additional entrepreneurial function, namely the entrepreneur as a "coordinator" of limited resources.⁴ Casson attempts to unite two lines of thought: ideas both from

Exhibit 1
Production Possibility Curve in
Accordance with Schumpeter and Kirzner



neo-classical economic theory and from the human action tradition. His premise is that an imbalance exists in the market, and the entrepreneur sees opportunities to coordinate resources in a more effective way, which will bring the market towards equilibrium. Like Kirzner, Casson emphasizes the importance of information and takes the view that the entrepreneur has the capacity to combine information in a way that creates opportunities for profit. The entrepreneur functions as a coordinator of limited resources and has the capacity to deal with the transaction costs that arise. This is done via different mechanisms, such as the ability to negotiate successfully, internalizing entrepreneurial activities, etc.

Entrepreneurship in an Economic Context:
Summary

Economics has posed the question: What happens when the entrepreneur acts?⁵ In other words, interest has been focused on the effects of entrepreneurship and the entrepreneur's role in the development of the economic system. Entrepreneurship has a long tradition within economics. Even if many researchers have contributed to the development of the field, economics has for a long time been dominated by an equilibrium ideal, which has hampered the development of entrepreneurship research within the field.

It is difficult to identify any uniformity among researchers in economics. However, the differences among researchers seem rather obvious considering that the theories have been developed during different time periods and social structures. On the whole, five entrepreneurial roles can be identified:⁶

1. The entrepreneur as risk-taker/risk-manager: A view on the entrepreneur that seems to be fundamental and can be traced back to the early authors within the field.
2. The entrepreneur as capitalist: During the 18th and 19th centuries, entrepreneurial activities were usually linked to individuals with a lot of money, which made it natural to relate entrepreneurship to the activities of the capitalist.
3. The entrepreneur as innovator: A view represented mainly by Schumpeter and founded in the industrial changes during the 19th century.
4. The entrepreneur as alert seeker of opportunities: A view represented by Hayek, Mises, and Kirzner.
5. The entrepreneur as coordinator of limited resources: A view represented by, among others, Casson.

Entrepreneurship: From an Economic Science to a Behavioral Science

In the course of the last half century, it seems that entrepreneurship has more or less been overlooked in the economic science models, with a few exceptions (e.g., Kirzner and Casson). An intra-scientific explanation is that economic science has focused more and more strongly on equilibrium models—which constitute the dominant paradigm in the field, and in which there does not seem to be any room for the entrepreneur. Another more extra-scientific explanation may be that, after Schumpeter, attention in society has moved further away from trying to explain entrepreneurship towards developing entrepreneurship. For example, in the 1950s, the availability of entrepreneurial ability was considered a vital factor in economic development. After World War II, it was important to stimulate individuals to start businesses and get development in society under way. In order to do this, it was important to identify the individuals who had entrepreneurial skills. However, economists could not play a useful role in identifying and developing this ability. Instead, behavioral science researchers saw an open field and increasingly took on the responsibility for continuing the theoretical development.

Who Is an Entrepreneur?

David McClelland (1917–1998) was the first to present empirical studies in the field of entrepreneurship that were based on behavioral science theory. In his pioneering work *The Achieving Society* (1961), McClelland discussed the question: Why do certain societies develop more dynamically than others?⁷ Here McClelland builds further on Max Weber's reasoning in *The Protestant Ethic and the Spirit of Capitalism* (1904/1930), where Weber made an analysis covering the interplay between culture and the economic

development of a society. Weber's argument is that certain puritanical traits in the Protestant moral code resulted in a combination of thrift, a sense of duty, industriousness and self-denial, and that these characteristic traits made the development of capitalism possible. For McClelland, the premise is that the norms and values which prevail in a given society, particularly with regard to the need for achievement (nACH), are of vital importance for the development of that society.

By means of a large number of experimentally constructed studies, McClelland demonstrated the link between a country's need for achievement and its economic development. He concluded that countries that are economically better developed are characterized by a lesser focus on institutional norms and a greater focus on openness towards other people and their values, as well as communication between people. It is in this context that entrepreneurs become the important driving force in the development of a country. In other words, a country's achievement level is transformed into economic growth through the medium of the entrepreneurs. If the level of need for achievement in a country is high, there will probably be individuals who behave as entrepreneurs. Entrepreneurs are, in this connection, people who have a high need for achievement, strong self-confidence, independent problem-solving skills, and who prefer situations that are characterized by moderate risk, follow-ups of results and feedback, and acceptance of individual responsibility.

McClelland's contribution meant that the personal qualities of the entrepreneur occupied a prominent position in entrepreneurship research within the field of behavioral science during the 1960s and 1970s. On the basis of the research tradition that the studies build on, it is possible to divide the research into two areas: analytically oriented research and psychoanalytically oriented research. Even if the research builds upon different research traditions, it aims in both cases at answering the question: Who is the entrepreneur?

Analytically Oriented Research. There are a large number of studies in this research tradition, all of which try to identify the particular qualities of the entrepreneur. One of the entrepreneurial traits that has received the largest interest, besides the entrepreneur's need for achievement, has been the concept of "locus of control,"⁸ which has to do with the entrepreneur's perception of the individual's control of his or her situation. The number of traits identified in research has gradually been enlarged to include traits such as moderate risk-taking, a search for independence, a results-orientation, etc. Interest has also been directed to the entrepreneur's values and attitudes, and studies have shown, for example, that entrepreneurs seem to show higher aesthetical feelings and artistic qualities than people in general. Filion summarizes some of the results

obtained in the research, which describe the qualities of the entrepreneur (see Exhibit 2).

Psychoanalytically Oriented Research. Just like analytical oriented researchers, the researchers within the psychoanalytical oriented tradition assume that the behavior of the individual is best understood by a number of intrinsic qualities. The basis for these qualities is laid early in life. The main exponent of this research tradition is perhaps Ketz de Vries, who in his work *The Entrepreneurial Personality* (1977) takes the view that entrepreneurial behavior is the result of experiences in early youth, characterized by an unhappy family background with various kinds of psycho-social problems.¹⁰ Because of this, the individual acquires a deviant personality, does not function in a structured social environment, and has difficulty accepting authority and working together with others.

Different Categories of Entrepreneur. For behavioral science researchers, it was not only of interest to define who the entrepreneur was, but also to show how the entrepreneurs differed from other groups of leaders. Entrepreneurs constituted a fairly heterogeneous group of people, which meant that it was essential to classify them in comparison with other groups of leaders as well as within the group of entrepreneurs. Several researchers have discussed these differences. Among the pioneers in this field are Collins, Moore and Unwalla, who examined the differences between managers in large businesses and entrepreneurs, and Smith, who identified different types of entrepreneurs. Collins et al., for example, found differences between managers and entrepreneurs in terms of their view on authority and their insight into the need for social skills.¹¹ The manager fits into the system and sees a natural way to make a career in the hierarchy, whereas the entrepreneur feels that he or she is a prisoner of the system and wants to break free. Smith made a classification of different types of entrepreneur, distinguishing between the "craftsman entrepreneur" and the "opportunistic entrepreneur."¹² Both of these types are each other's mirror images, where the craftsman is described as a person who is qualified in a limited field, not very flexible, and who focuses on the past and present. Smith's use of typology has since been followed in a number of different studies.¹³

Entrepreneurship in Contemporary Behavioral Science

What has interested behaviorists most is what prompts people to start businesses. The earlier research has been severely criticized both from a conceptual and methodological point of view.¹⁴ In spite of this, a large number of studies have been carried out in recent years with the focus on the entrepreneur as an individual. Shaver and Scott summarized this research in three themes.¹⁵

Exhibit 2
Characteristics Most Often Attributed to Entrepreneurs by Behaviorists

Innovators	Tenacious	Need for achievement	Learning
Leaders	Original	Self-awareness	Use of resources
Moderate risk-takers	Optimistic	Self-confidence	Sensitivity to others
Independent	Results-oriented	Long-term involvement	Aggressive
Creators	Flexible	Tolerance of ambiguity	Tendency to trust people
Energetic	Resourceful	Initiative	Money as a measure

Source: Fillion, 1997.

1. Focus on the individual: This research presents much of the earlier behavioral entrepreneurship research—discovering the characteristics of the entrepreneur. However, since this research has been subjected to severe criticism, psychological researchers have focused, to an increasing degree, on variables outside the individual.
2. Focus on the process (i.e., the relation between the environment and the behavior of the individual): This covers, for example, how information from the various role models is received and dealt with. We know, for instance, that individuals with entrepreneurial parents tend to go in for entrepreneurial careers themselves to a larger extent than others, which can be explained with the help of social learning models.¹⁶
3. Focus on the individual's freedom of choice: New businesses are not started by role models or by a benevolent network, but by individuals choosing to start them. This has meant that the psychologically oriented entrepreneurship research has also taken an interest in the individual's intentions and choices when starting businesses.¹⁷

Entrepreneurship: From an Economic to a Behavioral Science: Summary

After World War II, behavioral scientists came to dominate the research field. The point of departure for this research was: Why do some individuals tend to start their own business, whereas others do not? The answer: It depends on the fact that some individuals have certain qualities which others do not have. Thus, in an attempt to understand the entrepreneur as an individual, behavioral science

researchers have mainly asked the questions: Who is the entrepreneur? Why does the entrepreneur act?¹⁸ The view of entrepreneurship in economics as a function of the market has shifted to the entrepreneur as an individual, where the definitions were particularly focused on the entrepreneur's personal traits.

A Multidisciplinary Field of Research

Until the early 1970s, few asked the question: How does entrepreneurship develop? This can be linked to more normatively oriented questions such as: What does the entrepreneur do? How are new businesses created? These questions primarily attracted the interest of researchers in the field of "management studies," and today there are many handbooks on how to start businesses, as well as an extensive scientific production. This research has been interested primarily in exploring the characteristics of the venture creation process, but there is also a large interest in growth of small firms or "continued entrepreneurship," as well as in understanding the economic effects of new and small firms.

Researchers in management studies have always showed an interest in trying to understand the start-up process of new firms. Usually, the process has been described as a number of activities which together constitute different phases. Today, there is an abundance of models which, from different perspectives, try to give a picture of the start-up process.¹⁹ In many cases, the development of biological systems has been regarded as an intellectual model to describe the development of new firms. However, in doing so, there is a risk that entrepreneurship is given a too deterministic character. In contrast, Bygrave and Hofer pointed out that the entrepreneurial process shows certain

unique qualities, for example, by (1) involving a change of state and a discontinuity, (2) being a holistic and dynamic process, (3) being unique, (4) involving numerous antecedent variables, and (5) its outcomes being extremely sensitive to the initial conditions of these variables.²⁰

The growth of small firms has received a large and increasing interest in the last few years from researchers as well as politicians and decision-makers. The dilemma for politicians is that a very small number of the population of small firms contributes to the growth of employment in society.²¹ Most firms start small and remain small. Research designed to help us understand growth in small firms can be classified according to the theoretical framework on which the studies are based.²² First, from a resource-based perspective,²³ the focus is on the firm's internal strengths, which may help us understand the importance of the internal resources of the firm for its capacity to achieve growth and on how growing firms can utilize different resources in their strategies. Second, a strategic adaptation perspective²⁴ emphasizes that the fit between environmental demands and strategy has performance implications. It is the environment and its changes that create the opportunities that small firms can pursue—provided they have the ability to perceive environmental changes as opportunities and be able to take advantage of them. Finally, from a motivation perspective,²⁵ focus on the individual's motivation to perform different tasks helps us understand why individuals act as they do. Studies based on this perspective give insights into the reasons why some small business managers take certain actions—pursue growth—while others do not.

During the last decade, considerable progress has also been achieved in order to understand the economic effects of new and small firms in job creation and innovation.²⁶ At the macro level (i.e., regarding the study of start-ups, survival, growth, failure, and job creation), many studies have been initiated and new knowledge generated. This progress is due to the improved availability of databases and the applications of new theoretical tools (e.g., population ecology models)²⁷ for analyzing the data.

As a result of the increased interest in entrepreneurship in the realm of management studies, several authors have offered alternative definitions of entrepreneurship. Bygrave and Hofer suggest, for example, a redirection of the focus of research from trying to define the entrepreneur as an individual to a focus on the entrepreneurial process. In this context, the entrepreneurial process can be defined as involving "all the functions, activities, and actions associated with the perceiving of opportunities and the creation of organizations to pursue them."²⁸

Entrepreneurship within Different Disciplines

In recent years, a broadening of entrepreneurship research has taken place, and has interested researchers in more

and more disciplines. In view of the field's multidisciplinary character, it is, of course, impossible to give a complete and detailed survey of the treatment of entrepreneurship by all the different disciplines. However, different disciplines' level of analysis, focus, and questions dealt with in the research are shown in Exhibit 3.

Consequences of the Multidisciplinary Character

It is evident from Exhibit 3 that entrepreneurship research can be regarded as a multidisciplinary field of research. Research is carried out in the framework of a series of different scientific disciplines, and the results are presented in many different forums. Today, there is a considerable amount of research within the field, and the volume of articles, working papers, journals, and conferences has increased almost exponentially. The multidisciplinary nature of the research field has made the field "richer," but also caused some problems. For example, there is a risk that it is becoming more difficult to form an overall picture of the field, which means that researchers in one discipline tend to ignore studies in other disciplines. As a result, dialogue between researchers is made more difficult, and the accumulation of knowledge in the field is inhibited.

The multidisciplinary nature of the research also means that there is a risk that the thinking in the field is steered by other disciplines that do not reflect the character of entrepreneurship very well.²⁹ This is partly due to the fact that the basic assumptions and conditions for the concepts and models do not match the characteristics of entrepreneurship, or that there is a lack of awareness on the part of entrepreneurship researchers regarding the origins and limitations of the various concepts and models. There is also a risk that researchers tend to fall back on the discipline from which they have borrowed their concepts and models, which means that these "temporary" researchers will contribute less to the development of the field. The multidisciplinary nature of the field must therefore be treated with a high degree of caution and awareness.

While many different disciplines have taken an interest in entrepreneurship, it appears that each discipline has its own view on entrepreneurship and that these views are relatively uninfluenced by other disciplines' ways of looking at entrepreneurship. Thus, there may be many "unidisciplinary" approaches towards entrepreneurship, rather than an "interdisciplinary" approach.³⁰ This unidisciplinary character results, of course, in the subject manifesting great variety, while at the same time little has been done to integrate this variety.

Even mainstream disciplines should be enriched by entrepreneurship research, and the incorporation in other disciplines may perhaps be seen as the final goal of entrepreneurship research. However, until now it seems that entrepreneurship research has not succeeded very well in

Figure 3
Entrepreneurship within Different Disciplines

<i>Discipline</i>	<i>Level of analysis</i>	<i>Focus</i>	<i>Example of questions</i>
Psychology	Individual	Entrepreneur	What characterizes the entrepreneur? Who becomes an entrepreneur? What driving forces lie behind entrepreneurship?
Organizational behavior	Individual/Firm	Entrepreneurship	How are new operations established? Which factors are influential? How does the entrepreneur influence others?
Business administration	Firm	Entrepreneurial ventures	How are limited resources managed with the view to creating and running new ventures? How are the new ventures managed and controlled?
Interorganization theory	Relations between the firm and environment	Network	How does the entrepreneur use his personal network in order to organize resources?
Population ecology theory	Industry	Evolutionary processes of populations of firms	What characterizes the survival, development and mortality of a population of new firms? What strategies may be used in order to survive? What environmental factors determine the survival changes of new firms?
Sociology	Society	The social system	How is value growth created in society? What role does the entrepreneur play? What role does the social context play in the individual's entrepreneurial decision?
Social anthropology	Society	The cultural system	What role has the entrepreneur in a society? How is knowledge/information/ entrepreneurship transferred in society?
Economics	Society	The economic system	What happens on the market when the entrepreneur acts?

its attempt to enrich the lines of thinking in other disciplines. One piece of evidence of this is the extensive flora of new scientific journals that have been established in the field of entrepreneurship. This should perhaps be seen as a consequence of the difficulties encountered in getting results published in more accepted scientific journals in mainstream disciplines.

The Future of Entrepreneurship Research

The problems of defining entrepreneurship research have been the subject of a lively debate in recent years.³¹ The absence of clear-cut definitions makes it more difficult to

compare studies and thereby accumulate knowledge. This can be regarded as an inhibiting factor in the development of the field of research as a whole. On the other hand, the field of research can probably live with unclear definitions, and there are a number of arguments supporting this view. First, we live in a changing world, and the expression of entrepreneurship is changing, which indicates a need for definitions that allow some flexibility. Second, many of the definitions in the literature are complementary rather than contradictory; they attempt to focus interest on different aspects of entrepreneurship.³² In this respect, it seems reasonable that two researchers who focus on different

aspects of entrepreneurship.³² In this respect, it seems reasonable that two researchers who focus on different aspects of entrepreneurship also find it appropriate to define concepts in slightly different ways. Third, even more well-established fields of research wrestle with the same difficulties when trying to define the central concepts in their respective fields of research, but here the researchers have tended to learn to live with the problem.³³

The discussions of definition in entrepreneurship research are in many ways exaggerated and perhaps rather an expression of the inferiority complex of a young field of research. The problem with entrepreneurship research is not the unclear definitions, but rather the determination as to where the boundaries of entrepreneurship research are to be drawn. What is unique about it that cannot be understood within the framework of existing scientific disciplines? What is the contribution of entrepreneurship research? These are questions which lie at the core of entrepreneurship research. And as long as they remain unanswered, the legitimacy of the research is under considerable threat.

The Core of Entrepreneurship Research

The most important issue for the continued development of entrepreneurship research is to define the boundaries and unique contributions of the field of research. True, it is not the simplest matter to define the core of a field of research. Many attempts have been made, often based on the entrepreneur as an individual. However, Venkataraman points out that in the same way that other fields of research do not define their subject via the object of study, it is just as inappropriate to define the subject of entrepreneurship by defining the "entrepreneur."³⁴ Instead, Venkataraman takes the view that the field of research can be defined through the questions that are central and unique to the subject. His view is that entrepreneurship as a field of research is a matter of understanding "how opportunities to bring into existence 'future' goods and services are discovered, created, and exploited, by whom, and with what consequences."³⁵ It seems reasonable to say that entrepreneurship is about discovering, organizing, and exploiting opportunities.

This demarcation of entrepreneurship research permits consideration of contextual differences of entrepreneurship as a phenomenon. Entrepreneurship not only constitutes the development of business activities by organizing new firms, but also includes growth in existing businesses. Furthermore, it also means that Schumpeter's view on entrepreneurship as an innovative and pattern-breaking activity is not a necessary condition for entrepreneurship. Entrepreneurship can be regarded as discovering, organizing, and exploiting more "traditional" business activities—where imperfections on the markets are identified and used, and lead to an equilibrium on the market, as well as activities with strong innovative elements—where changes on the market are created.

A Future Research Strategy

This article has attempted to bring to the fore the long tradition of entrepreneurship research as well as the multidisciplinary nature of the subject. With a view to developing the field, it may be successful to build on existing knowledge to a greater extent than has been done previously, and to reinforce the premise that entrepreneurship is a multidisciplinary phenomenon.

Building on Existing Knowledge. Entrepreneurship research has developed very positively in recent years, and today there is an extensive body of research within the field. However, in many cases, the research has focused on empirical studies with a regional or national base with the aim of giving advice to politicians and policy-makers. However, these studies have a tendency neither to build on nor contribute very much to the body of knowledge within entrepreneurship research. The research carried out in the field must become more firmly rooted in established concepts, models, and theories.

The historical review in this article indicates that there are excellent opportunities to relate to existing knowledge. It is not necessary to identify new research territory of one's own all the time; it is also important to develop what already exists. There are tendencies in this direction today. For example, there are increasing:

- Tendencies among entrepreneurship researchers to seek the roots of the subject. This is expressed, for example, by the fact that references are made to "classical works" in the field or to scientific journals in the field of entrepreneurship.
- Numbers of replication studies being carried out, where existing concepts and models are used on different samples, which creates a more robust body of knowledge.
- Specialization of the research, where groups of researchers specialize in certain questions. This makes it possible for an improvement in quality, in that the concepts will be more nuanced, and the methods and models used can be refined.

The Multidisciplinary Nature of the Field of Research. Entrepreneurship is a complex and many-faceted phenomenon. Thus, we cannot expect one single discipline to be able to provide a complete understanding of all aspects of entrepreneurship. To comprehend the complexity of the phenomenon, a variety of disciplinary perspectives is essential where the different disciplines complement each other. As shown in this article, there are a great number of concepts and models used within other areas that may be useful in the entrepreneurship situation. Thus, it appears to

be a fruitful strategy to borrow concepts and models from other subjects. At the same time, it is important to be aware of the fact that these "loans" have their limitations and difficulties. Entrepreneurship researchers must make efforts to do solid groundwork and not apply concepts and models from other scientific disciplines uncritically.

Today, entrepreneurship research is dominated by researchers who have their theoretical background in what can be regarded as management studies. There is also a tendency for researchers to concentrate on relatively stat-

istic methodological approaches such as survey methods and statistical data. There is a need to bring in other disciplines and methodological approaches (i.e., entrepreneurship research should display a great deal of openness towards both other disciplines and other methodological approaches). It is debatable whether the variety within the field of entrepreneurship research is sufficient. In this respect, there are concepts and models, as well as many promising research approaches in disciplines like pedagogy, journalism, art, etc., which could be developed.

Endnotes

1. See for example, F. Redlich, "On the Origin of the Concepts of 'Entrepreneur' and 'Creative Entrepreneur,'" *Explorations in Entrepreneurial History* 1, no. 2 (1949), pp. 1–7; B. F. Hoselitz, "The Early History of Entrepreneurial Theory," *Explorations in Entrepreneurial History* 3, no. 4 (1951), pp. 193–220; R. F. Hebert and A. N. Link, *The Entrepreneur*. New York: Praeger, 1982; and K. Gopakumar, "The Entrepreneur in Economic Thought: A Thematic Overview," *Journal of Entrepreneurship* 4, no. 1 (1995), pp. 1–17.
2. See for example, Special Theoretical Issue, *Journal of Business Venturing* 8, no. 3 (1993); Special Theoretical Issue, *Entrepreneurship Theory and Practice* 16, no. 2 (1991); and Special Theoretical Issue, *Entrepreneurship Theory and Practice* 16, no. 3, (1992).
3. For example, C. Kent, D. Sexton, and K. Vesper, K., eds., *The Encyclopedia of Entrepreneurship*. Englewood-Cliffs, NJ: Prentice-Hall, 1982; D. Sexton and R. Smilor, *The Art and Science of Entrepreneurship*. Cambridge, MA: Ballinger, 1986; D. Sexton and R. Smilor, *Entrepreneurship 2000*. Chicago, IL: Upstart Publishers, 1997; D. L. Sexton and J. D. Kasarda, eds., *The State of the Art of Entrepreneurship*. Boston, MA: PWS-Kent Publishers, 1992; J. A. Katz and R. H. Brockhaus, eds., *Advances in Entrepreneurship, Firm Emergence, and Growth*, Vol. 1. Greenwich, CT: JAI Press, 1993; J. A. Katz and R. H. Brockhaus, eds., *Advances in Entrepreneurship, Firm Emergence, and Growth*, Vol. 2. Greenwich, CT: JAI Press, 1993; I. Bull, H. Thomas, and G. Willard, eds., *Entrepreneurship—Perspectives on Theory Building*. Oxford: Pergamon, 1995; J. A. Katz, ed., *Advances in Entrepreneurship, Firm Emergence, and Growth*, Vol. 3, Greenwich, CT: JAI Press, 1997; and H. Landström, H. Frank, and J. M. Veciana, eds., *Entrepreneurship and Small Business Research in Europe*. Aldershot, UK: Avebury, 1997.
4. M. Casson, *The Entrepreneur—An Economic Theory*. Oxford: Martin Robertson, 1982.
5. H. H. Stevenson and J. C. Jarillo, "A Paradigm of Entrepreneurship: Entrepreneurial Management," *Strategic Management Journal* 11 (1990), pp. 17–27.
6. See also Hebert and Link, *The Entrepreneur*.
7. D. C. McClelland, *The Achieving Society*. Princeton, NJ: Van Nostrand, 1961.
8. J. B. Rotter, "Generalized Expectancies for Internal versus External Control of Reinforcement," *Psychological Monographs* 80, 1 (1966), pp. 1–28.
9. L. J. Fillion, "From Entrepreneurship to Entreprenology." Paper presented at the 42nd ICSB World Conference, San Francisco, June 1997.
10. M. F. R. Ketz de Vries, "The Entrepreneurial Personality," *Journal of Management Studies* 14 (1997), pp. 34–57.
11. O. Collins, D. Moore, and D. B. Unwalla, *The Enterprising Man*. East Lansing: Michigan State University, 1964.
12. N. R. Smith, *The Entrepreneur and His Firm*. East Lansing: Michigan State University, 1967.
13. See for example, M. J. Stanworth and J. Curran, *Management Motivation in the Smaller Business*. Epping, Essex: Gower Press, 1973; and J. Deeks, *The Small Firm Owner-Manager*. New York: Praeger, 1976.
14. For example, R. H. Brockhaus, "The Psychology of the Entrepreneur," in C. A. Kent, D. L. Sexton, and K. H. Vesper, *Encyclopedia of Entrepreneurship*. Englewood Cliffs, NJ: Prentice-Hall, 1982.

15. K. G. Shaver and L. R. Scott, "Person, Process, Choice: The Psychology of New Venture Creation," *Entrepreneurship Theory & Practice* 16, no. 2 (1991), pp. 23–45.
16. A. Bandura, *Social Learning Theory*. Englewood Cliffs, NJ: Prentice Hall, 1977; and A. Bandura, *Social Foundations of Thought and Action*. Englewood Cliffs, NJ: Prentice Hall, 1986.
17. A. C. Fishbein and I. Ajzen, *Belief, Attitude, Intention and Behavior*. Reading, MA: Addison-Wesley, 1975; and N. F. Krueger and A. L. Carsrud, "Entrepreneurial Intentions: Applying the Theory of Planned Behaviour," *Entrepreneurship and Regional Development* 5 (1993), pp. 315–330.
18. Stevenson and Jarillo, "A Paradigm of Entrepreneurship: Entrepreneurial Management."
19. See for example, W. B. Gartner, "A Conceptual Framework for Describing the Phenomenon of New Venture Creation," *Academy of Management Review* 10, no. 4 (1985), pp. 696–706; W. B. Gartner, "Words Lead to Deeds: Towards and Organizational Emergence Vocabulary," *Journal of Business Venturing* 8 (1993), pp. 231–239; and P. Reynolds and B. Miller, "New Firm Gestation: Conception, Birth, and Implication for Research," *Journal of Business Venturing* 7 (1992), pp. 405–417.
20. W. D. Bygrave and C. W. Hofer, "Theorizing about Entrepreneurship," *Entrepreneurship Theory & Practice* Winter (1991), pp. 13–22.
21. D. Storey, *Understanding the Small Business Sector*. London: Routledge, 1991.
22. P. Davidsson and J. Wiklund, J., "Theoretical and Methodological Issues in the Study of Firm Growth," in D. Sexton, D. and H. Landström, eds., *The Blackwell Handbook of Entrepreneurship*. Oxford: Blackwell (forthcoming 1999).
23. For example, E. Penrose, *The Theory of the Growth of the Firm*. Oxford: Oxford University Press, 1959; B. Wernerfelt, "A Resource-based View of the Firm," *Strategic Management Journal* 5 (1984), pp. 171–180; and J. Barney, "Firm Resources and Sustained Competitive Advantage," *Journal of Management* 17, no. 1 (1991), pp. 99–119.
24. J. Child, "Organizational Structure, Environment and Performance," *Sociology* 6 (1972), pp. 1–22; D. Miller and P. H. Friesen, *Organizations—A Quantum View*. Englewood Cliffs, NJ: Prentice Hall, 1984; and M. Tushman and E. Romanelli, "Organization Evolution," in B. M. Staw and L. L. Cummings, eds., *Research in Organization Behavior* 7 (1985), pp. 171–232.
25. P. Davidsson, *Continued Entrepreneurship and Small Firm Growth*. Stockholm: EFI Stockholm School of Economics, 1989; F. Delmar, *Entrepreneurial Behavior and Business Performance*. Stockholm: EFI Stockholm School of Economics, 1996; and J. Wiklund, *Small Firm Growth and Performance. Entrepreneurship and Beyond*. Jönköping, Sweden: Jonkoping International Business School, 1998.
26. D. L. Birch, *The Job Generation Process*. Cambridge, MA: MIT Program on Neighborhood and Regional Change, 1979; D. B. Audretsch and Z. J. Acs, "New-firm Start-ups, Technology, and Macroeconomic Fluctuations," *Small Business Economics* 6 (1994), pp. 439–449; and B. A. Kirchoff, *Entrepreneurship and Dynamic Capitalism*. Westport, CT: Praeger, 1994.
27. M. T. Hannan and J. H. Freeman, "The Population Ecology of Organizations," *American Journal of Sociology* 35, no. 4 (1977), pp. 519–530; H. E. Aldrich, *Organizations and Environments*. Englewood Cliffs, NJ: Prentice Hall, 1979; and H. E. Aldrich, "Using an Ecological Perspective on Study Organizational Founding Rates," *Entrepreneurship Theory & Practice* 14, no. 3 (1990), pp. 7–24.
28. Storey, *Understanding the Small Business Sector*, p. 14.
29. A. L. Carsrud and N. F. Kreuger, "Entrepreneurship and Social Psychology," in J. A. Katz and R. H. Brockhaus, eds., *Advances in Entrepreneurship, Firm Emergence, and Growth*, Vol. 2. Greenwich, CT: JAI Press, 1995; and P. B. Robinson and K. G. Shaver, "Metatheory and Entrepreneurship Research," in J. A. Katz and R. H. Brockhaus, eds., *Advances in Entrepreneurship, Firm Emergence, and Growth*, Vol. 2. Greenwich, CT: JAI Press, 1995.
30. L. Herron, H. Sapienza, and D. Smith-Cook, "Entrepreneurship Theory from an Interdisciplinary Perspective," *Entrepreneurship Theory and Practice* 16, no. 3 (1992), pp. 5–11.
31. See for example, W. D. Bygrave, "The Entrepreneurship Paradigm (I)," *Entrepreneurship Theory and Practice* (Fall 1989), pp. 7–26; and Bull, Thomas, and Willard, eds., *Entrepreneurship—Perspectives on Theory Building*.
32. W. J. Baumol, "Formal Entrepreneurship Theory in Economics," in I. Bull, H. Thomas, and G. Willard, eds., *Entrepreneurship—Perspectives on Theory Building*. Oxford: Pergamon, 1995.
33. W. B. Gartner, B. J. Bird, and J. A. Starr, "Acting As If: Differentiating Entrepreneurial From Organizational Behavior," *Entrepreneurship Theory and Practice* (Spring 1992), pp. 13–31.

34. S. Venkataraman, "The Distinctive Domain of Entrepreneurship Research," in J. A. Katz, ed., *Advances in Entrepreneurship, Firm Emergence, and Growth*, Vol. 3. Greenwich, CT: JAI Press, 1997.
35. Ibid, p. 120.



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