

The Entrepreneur in Economic Theory: From an Invisible Man Toward a New Research Field

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**THE ENTREPRENEUR IN ECONOMIC THEORY:
FROM AN INVISIBLE MAN TOWARD A NEW RESEARCH FIELD ***

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Abstract

Mainstream economics had great difficulty in fitting entrepreneurship into its theory and for long time the theoretical firm remained “entrepreneurless”. However, from the early 20th century onwards, we identify strong attempts of key economists to recognize the role of the entrepreneur as an explanatory force of several economic phenomena. This paper analyzes the evolution of economic thought on entrepreneurship, and in particular the path through which the entrepreneur (re)entered into economic theory over the 20th century, leading to the new and increasingly independent research field Economics of Entrepreneurship. The analysis goes through the main Economics fields where the (re)discover of the entrepreneur figure was most remarkable - namely Labor Economics, Microeconomics and Industrial Organization, and Economic Growth and Development - searching for the rationality to include the entrepreneur figure into the analyses of particular economic phenomena. The study is enriched by a brief bibliometric analysis, which helps to set forth a chronological trace of the entrepreneurship research within Economics literature.

Keywords: Entrepreneurship, Entrepreneur, Economic Thought, Labor Economics, Industrial Organization, Economic Development and Growth

JEL Codes: B00, J01, L26, O10

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“The search for the source of dynamic entrepreneurial performance has much in common with hunting the Heffalump. The Heffalump is a large and rather important animal (...). He has been hunted by many individuals using various ingenious trapping devices, but no one so far has succeeded in capturing him. All who claim to have caught sight of him report that he is enormous, but they disagree on his particularities.”
Kilby (1971:275)

1. INTRODUCTION

Since the turn of the century, studies on entrepreneurship have been carried out within a number of other social sciences disciplines than economics – such as sociology, psychology, economic and business history and anthropology (Swedberg 2000). Most people who are not economists would probably expect that economics literature to be full of analyses of entrepreneurship, as economics is, in fact, the social science that deals most directly with contemporary economic reality. However, for long time economics literature had relatively little to say about entrepreneurship and it is often alleged that such neglect of the entrepreneur should be a source of embarrassment to economists (Cosgel 1996), as the importance of the entrepreneur in the real world became more and more difficult to ignore (Wennekers and Thurik 1999).

Mainstream economics, particularly microeconomics and the theory of the firm, had great difficulty in fitting entrepreneurship into its theory and consequently tended to ignore the existence of the entrepreneur. This has led to an entrepreneurless theoretical firm for long time (e.g., Baumol 1968). Until most recent decades, economic models, mainly those on firm behavior, were very often indifferent to the phenomenon of entrepreneurship. The theory's failure to explain entrepreneurship was a consequence of the extreme simplifying assumptions in neoclassical economics, in particular relating to

perfect competition and static market equilibrium, which assume, in turn, free and perfect information about markets and production processes (Montanye 2006). These assumptions, which reduce the economic process to clocklike mechanics, overlooked the need for specialized individuals to perform the discovery, coordination, promotion and risk-bearing functions that neoclassical economics takes for granted (Schumpeter 1911, 1934; Landström 2005). As a result, during long time, there was no possible room for the entrepreneur in economic theory.

Despite the attempts of Richard Cantillon to recognize the role of the entrepreneur to economic phenomena in the 18th century, the entrepreneur had virtually disappeared from the academic economic discussion by the late 19th century. However, from the early 20th century onwards, we identify a rebirth of this figure within economic theory. The entrepreneur has (re)entered into economics and academics started to look at the entrepreneurship phenomena through different perspectives. Almost all the branches of economic theory had something to say about the entrepreneur figure and his respective importance for some economic phenomenon. Actually, the history of economic analysis became replete with references to the entrepreneur and the essential role that he plays in the vitality of the market (Martin 1979). However, there is perhaps no other area of economic analysis where there exists less agreement than on the nature of the entrepreneurial function and the identification of the entrepreneur figure.

The evolution of entrepreneurship research within Economics was, actually, strongly intensified by the different roles that were attributed to the entrepreneur figure over the time by several economists and analysts. In economic thought literature, we already find valuable interpretations of the visions of particular economists about the entrepreneur figure (see, for instance, Martin 1979, Kanbur 1980, Santarelli and Pesciarelli 1990) or even about the reasons behind the entrepreneur's disappearance from mainstream economic analysis (e.g., Cosgel 1996). However, a deeper knowledge about how the entrepreneur (re)entered into economic theory through the several Economics branches is still lacking in the literature. This paper thus aims at contributing to the current literature and economic thought debates by analyzing the path through which the entrepreneur (re)entered into economic theory over the 20th century, leading to a growing research arena around the entrepreneurship topic within Economics. More than focusing on particular visions of specific authors or confronting similar or opposing

views of different authors, this paper tries to provide a wider vision on the need that economic theory felt, over the last century, to include the entrepreneur figure as a potential explanatory agent of several economic phenomena.

The remainder of the paper is organized as follows. As a starting point, Section 2 pays particular attention to the most influential economists who helped to bring the entrepreneur back into economics over the 20th century, in order to identify and summarize the contributions of the main Heffalump hunters. Section 3 goes through the main Economics fields where the (re)discover of the entrepreneur figure was most remarkable – namely Labor Economics, Microeconomics and Industrial Organization, and Macroeconomics, more precisely Economic Growth and Development – searching for the rationality to include the entrepreneur figure into the analyses of economic phenomena. Section 4 provides some quantitative analysis based on the academic research on entrepreneurship over the last decades, supporting the evolution of this academic field – currently known as Economics of Entrepreneurship or Small Business Economics - within Economics. Section 5 concludes.

2. HUNTING THE LOST HEFFALUMP: THE 20TH CENTURY HUNTERS

The crucial roles of the entrepreneur in economic theory were first and foremost recognized by Richard Cantillon (1755, 1931), early in the 18th century, who became the progenitor of the ideas that subsequent economists explored. Cantillon recognized that discrepancies between demand and supply in a market create opportunities for buying cheaply and selling at a higher price and that this sort of arbitrage would bring equilibrium to competitive market. People who took advantage of these unrealized profit opportunities were called “entrepreneurs” (Landström 2005).

Since Cantillon, several economists such as Mill, Say and Marshall in the 19th century, in addition to Schumpeter, Knight, Kirzner and Baumol throughout the 20th century, were among the most influential contributors to the recognition of the merit of entrepreneurship and the entrepreneur himself within economic theory. In the writings

of classical economists, the entrepreneur's appearance was frequent, though he remained a shadowy entity without clearly defined form and function, so that for several times it was argued that there was no room for the entrepreneur in economic theory, particularly in the theoretical firm (Baumol 1968; Swedberg 2000). Actually, by the end of 19th century, the entrepreneur had virtually disappeared from the economic thought¹, requiring a rebirth after that (Blaug 1998). Such reincarnation of the entrepreneur within the several branches of Economics was prompted by the recognition that entrepreneurial activity was marked by uncertainty and risk (Knight 1921), though being potentially innovative and important for economic development (Schumpeter 1911).

Hébert and Link (1989) observe that the taxonomy of entrepreneurial theories can be condensed into three major intellectual traditions – Chicago, German and Austrian traditions – each one tracing its origin to Richard Cantillon. Within each of them, we emphasize the contributions of Frank Knight, Joseph Schumpeter and Israel Kirzner, respectively, in addition to other economists who have shared or opposed their opinions over time – in particular, William Baumol. We can suspect that without these contributions and confronts of ideas, entrepreneurship would have not get its deserved space within Economics.

a. Joseph Schumpeter and the Creative Destruction

In the words of Reisman (2004: 3), “Schumpeter” means “entrepreneurship”. Schumpeter, and later Frank Knight, succeeded in infusing life to the entrepreneur (Baumol 1968), who had remained as an invisible man for economists for large decades. Schumpeter strongly contributed to the understanding of entrepreneurship, mainly from a development economics lens. With his book *Theory of Economic Development* (1911, 1934), he unveiled his concept of the entrepreneur against the backdrop of economic development, defending that development is a dynamic process that involves the disturbing of the economic *status quo*, hence attributing to the entrepreneur the responsibility for disturbing that equilibrium.

¹ Actually, Cosgel (1996) advances three categories of explanations for this disappearance of the entrepreneur from economic theory: a first one related to the modern theory of the firm, a second one related to the increasing emphasis on equilibrium and a last one related to (mathematical) method of economics itself.

For Schumpeter, the economic system was regarded as a closed circular flow, being in a state of equilibrium through a continuous reiteration of the flows between buyers and sellers. However, this did not mean that changes could not occur, but rather that all actors involved should adapt to the new situation as soon as the changes were detected. He rather defended the so-called called “creative destruction” of stationary equilibrium. In other words, development was viewed as the disturbance of the circular flow and it was attributed to the entrepreneur, who played a fundamental role as innovator (Hébert and Link 2006), by introducing innovations in the form of new products, markets or methods of production.

Entrepreneurship, under Schumpeter, is thus the expression of the human impulse to be creative (Khalil 2007) and the role of the entrepreneur in the growth economy is argued to be direct and unambiguous. Schumpeter’s basic realization was that economic growth resulted not from capital accumulation, but from innovations and “new combinations” (Landström 2005). Precisely, Schumpeter has declared that “the carrying out of new combinations we call ‘enterprise’; the individual whose function is to carry them out we call ‘entrepreneurs’” (1934: 74).

In summary, Schumpeter argued that entrepreneurial rewards (or profits, according to Knight (1921)) flow from the temporary monopoly rents that arise when the entrepreneur successfully carries out those “new combinations” of ideas and resources. Innovating, improving existing goods and services, creating or expanding markets, and improving production processes and organizational structures were some of the functions that Schumpeter attributed to the entrepreneur (Montanye 2006). Moreover, the Schumpeterian entrepreneur, by being responsible for the disturbance of the equilibrium, was seen as the source of crises, by pushing the economy away from the equilibrium through the introduction of his innovations. However, Schumpeter’s ideas about the role of the entrepreneur changed considerable over time and this enthusiastic view of the entrepreneur corresponded mainly to his most youth phase. Later, in a more mature phase, Schumpeter became much more reserved on his writings about entrepreneurship, predicting a decline in the economic importance of the entrepreneur (see, for instance, Santerelli and Pesciarelli 1990, Ebner 2006).

b. Frank Knight and the Uncertainty Concept

After Schumpeter, Frank Knight (1921) prompted one of the pioneer economic approaches of entrepreneurship in the 20th century, with his thesis *Risk, Uncertainty and Profit*. Knight, strongly inspired by Cantillon (Hébert and Link 2006), stressed the distinction between risk and uncertainty: *risk* exists when outcomes are uncertain but can be predicted with some probability, being insurable; *uncertainty* arises when the probability of outcomes cannot be calculated; and *true uncertainty* occurs when the future is not only unknown, but also unknowable with unclassifiable instances and a non-existent distribution of outcomes. Knightian uncertainty bedeviled many economists in their analyses of entrepreneurship (Schultz 1980) by suggesting that entrepreneurship is mainly characterized by action under *true uncertainty*. Additionally, Knight argued that it was such uncertainty that gives rise to the “pure profit”, which in turn is the entrepreneurship’s life blood (e.g., Montanye 2006).

Cantillon had already argued that the origin of entrepreneurship lies in the lack of perfect foresight, as individuals cannot know the future and/or its impact on economic life. Knight extended Cantillon’s ideas and devoted his attention to the function of entrepreneurs in a dynamic market economy, where the uncertainty about the success of one’s enterprise is a central feature in the decision to switch between being an employee and entering self-employment and thus becoming an entrepreneur (Parker, 1996). Entrepreneurs were hence held responsible for economic progress, through for instance improvements in technology and business organization, but becoming an entrepreneur was known to involve risk and uncertainty.

In summary, the Knightian entrepreneur assumes the uninsurable business hazard (van Praag 1999). This was clearly opposite to the Schumpeterian entrepreneur, who was never the risk bearer (Schumpeter 1934: 137). For Schumpeter, risk-taking is no case an element of the entrepreneurial function, and even though entrepreneurs may risk their reputation, the direct responsibility of failure never falls on them (Kanbur 1980). In few words, while the Schumpeterian entrepreneur was the dynamic innovator, the Knightian entrepreneur was the residual uncertainty-bearer (Martin 1979).

c. Israel Kirzner and the Austrian School

Since von Mises (1949) and Menger (1950), and later extensions by Kirzner (1979, 1997), modern Austrian explanations have been sharply differentiated from the neoclassical approach. Von Mises's views on entrepreneurship were clearly preceded by Knight's influential insights, being centered on the role of uncertainty. Von Mises argued that the entrepreneur's "success or failure depends on the correctness of his anticipation of uncertain events. If he fails in his understanding of things to come, he is doomed. The only source from which an entrepreneur's profits stem is his ability to anticipate better than other people the future demand of consumers" (1949: 290).

Later, Kirzner (1973, 1997) introduced the key concepts of "spontaneous learning", "alertness" and "entrepreneurial discovery". According to the Austrian approach, imperfect information involves an element which cannot be fitted at all into neoclassical models, that of "sheer" (i.e., unknown) ignorance (Kirzner 1997). Entrepreneurial discovery thus plays a role, as it is seen as gradually pushing back the boundaries of sheer ignorance, by increasing mutual awareness among market participants and thus, in turn, driving prices, output and input quantities and qualities toward the values consistent with equilibrium (which corresponds to the complete absence of sheer ignorance). In other words, and contrasting the Schumpeterian view, the dynamic competitive process of entrepreneurial discovery (which is the driving element of the Austrian approach on entrepreneurship) is seen as tending systematically toward, rather than away from, the path to equilibrium.

Kirzner's view of entrepreneurship is based on what he called "spontaneous learning", by comparing the entrepreneur to Robinson Crusoe (Kirzner 1979; Cosgel 1996). In particular, as Crusoe gradually becomes aware of his entrepreneurial vision, he learns, and the state of mind that enables spontaneous learning to occur is "alertness". It is alertness that allows entrepreneurs to identify profitable exchange (or in other words, arbitrage) opportunities, corroborating the importance of the entrepreneur's "information-transforming" function already defended by Hayek (1948).

Hence, for Kirzner, the market process is said to be driven by entrepreneurs "alertness" to unnoticed, unexploited gains from exchange. Alertness thus refers to an attitude of receptiveness or preparedness to recognize existing, overlooked opportunities and,

consequently, the attainment of market equilibrium requires entrepreneurial action (Casson 2005; Endres and Woods 2006). In summary, for the Austrian School, in opposition to the German Tradition of Schumpeter, only in disequilibrium are there opportunities for entrepreneurial profit. Austrians, and Kirzner in particular, rediscovered the entrepreneur as the equilibrating force in the economic system. His role is created by the state of disequilibrium in the economy and his activities ensure a tendency towards equilibrium (Kirzner 1971: 199-200; Hébert and Link 1989; Khalil 2007).

d. William Baumol and the role of incentives

In a now classic paper lamenting the elusiveness of the entrepreneur in formal economic analysis, Baumol (1968: 64) was convinced that economic “theory...fails to provide a rigorous analysis of the behavior of the entrepreneur”. In this article, he stated that in “neoclassical models” the “theoretical firm is entrepreneurless”. The entrepreneur had “virtually disappeared” from mainstream economics, as his presence was inconsistent with the conditions satisfied in the equilibrium state (see Baumol 1993, ch.1). This was a little like a performance of Hamlet with the Danish prince missing (Baumol 1968: 64).

Baumol’s position was motivated by the neoclassical conception of the entrepreneur as a functionary and as another factor of production separate from the standard triumvirate: land, labor and capital. The traditional production function describes an engineering relationship between inputs and outputs rather than a behavioral phenomenon. Entrepreneurship, like other inputs, is a deployable scarce resource (Endres and Woods 2006). This has led to the never escaping Baumol’s (1968: 68) original observation that neoclassical entrepreneurs are “automaton maximizers” and automaton maximizers they have remained.

Baumol’s work on entrepreneurship pays homage to the insights of Schumpeter, namely on his ideas about the entrepreneur as an innovator and as the potential source of equilibrium destruction. Throughout his career, Baumol has urged the profession to pay attention to the instrumental role of entrepreneurship in economic renewal and growth (Elliasson and Henrekson 2004). In this respect, he argued that entrepreneurship can be found in many societies throughout history, but while it is productive in some, it is

unproductive and even destructive in others. In other words, entrepreneurial activities may have negative consequences in terms of decreased social income and welfare, particularly when the entrepreneur earns money at the expense of other citizens in society. Baumol's (1990; 1993) basic thesis says that the supply of entrepreneurs in a society is constant, but that the societal value of their self-interest varies according to the rewards available.

This has led Baumol to defend new ideas on the need for the right incentives to promote entrepreneurship. Defending that growth cannot be explained by the simple accumulation of various factors of production *per se*, Baumol argued that human creativity and productive entrepreneurship are needed to combine the inputs in profitable ways. As a result, an institutional environment that encourages productive entrepreneurship and human experimentation becomes the ultimate determinant of economic growth. Accordingly, in order to encourage creative entrepreneurship, it is necessary to create conditions that allow the entrepreneurial pursuit of self-interest to accord with social wealth creation.

Baumol has been working for years to create more space for entrepreneurship and innovation in economic theory². His most recent work has been focusing on the incentives under which judgmental decision-making takes place, with special reference to the issue of how far "rent-seeking" dominates entrepreneurial motivation under perverse incentive systems (Casson 2005). Baumol's more recent efforts have also been related to the development of a microtheory of the entrepreneur, highlighting the distinction between innovative and replicative entrepreneurs, as well as the importance of entrepreneurship to economic growth and development (Baumol 2010). Currently, his work on entrepreneurship is recognized as being highly influential, having documented the central role of the entrepreneur in long-term economic development and welfare through his human creativity. His decades of work have thus highlighted that a significant body of economic theory had been failing to deal with what is likely to be the most important factor for growth and renewal – individuals pursuing entrepreneurial opportunities (Eliasson and Henrekson 2004).

² In 2003, Baumol was rewarded with the Global Award for Entrepreneurship Research (Eliasson and Henrekson 2004) for his persistent effort to give the entrepreneur a key role in mainstream economic theory and for his studies on the importance of institutions and incentives for the allocation of entrepreneurship.

3. (RE)DISCOVERING THE INVISIBLE MAN IN THE SEVERAL FIELDS OF ECONOMIC THEORY

3.1.Labor Economics

After Knight, Schumpeter, Kirzner and Baumol, among many other economists, economic theory started to pay an increasing attention to the entrepreneur, before treated as an invisible man in the economy, particularly in the firm. It was mainly from the late 1970s onwards that economics literature rediscovered the entrepreneur and started to include him formally in economic models, mainly through models of occupational choice between entrepreneurship and paid employment (Parker 2009: 31). By that time, and from the entrepreneur perspective, entrepreneurship was considered an activity where individuals work for themselves and trade off risk and returns, rather than opting for safe returns in a different occupation – typically, paid employment.

It was surely Frank Knight who motivated economists' attention to the problem of the entrepreneur: to be or not to be entrepreneur, attending that every entrepreneurial decision entails risk and that individuals must respond to the risk-adjusted relative earnings opportunities associated with employment and self-employment (e.g., Evans 1949). First economic models trying to formalize the entrepreneurship phenomenon focused the attention on the individual, the potential entrepreneur deciding between remaining employed (or leaving unemployment) and becoming self-employed. Economic theory, particularly that closer to labor economics, started to develop occupational choice models of entrepreneurship in which agents were first treated as homogeneous, to then extend the approach in order to account for individuals' heterogeneity in terms of, for instance, entrepreneurial ability or risk attitudes. The idea of occupational choice had, however, some roots in Roy's (1951) work, which already postulated a model of sectoral choice according to which people predict the earnings on two sectors and choose the one that provides a higher utility.

This branch of economic theory took as starting point the Knightian premise that individuals do not have to be entrepreneurs. Instead, they can choose between entrepreneurship and some outside option (usually assumed to be paid employment), following a utility maximization framework (Parker 2005; 2009: 36). Some classic

occupational choice models form the foundations of entrepreneurship as an occupational choice problem in economic theory, particularly in labor economics: Lucas (1978), Kihlstrom and Laffont (1979) and Holmes and Schmitz (1990).

Lucas's (1978) seminal paper motivated subsequent models in occupational choice on the basis of a continuous distribution of entrepreneurial talent among the workforce. He defended that individuals differ in terms of their innate entrepreneurial ability, so skills are the source of individuals' heterogeneity in the model. Agents choose the occupation that gives them the higher expected utility, such that the less talented individuals (those who share common skills) remain as employees, while the most able (positioned above a certain ability threshold level) become entrepreneurs. The "marginal entrepreneur" thus has an ability that makes him just indifferent between entrepreneurship and paid employment.

Kihlstrom and Laffont (1979), based on Knightian insights, modeled entrepreneurial choice as a trade-off between risk and returns. Individuals are heterogeneous in terms of risk aversion and must face a trade-off between higher returns with greater levels of risk, and safer but lower earnings. The model predicts that more risk-averse individuals become employees while more risk-tolerant agents opt by entrepreneurship.

Holmes and Schmitz's (1990) model, in turn, assumes that the economy is in a permanent state of disequilibrium and that individuals are continually exposed to new opportunities, which are spawned by exogenous technological progress. Individuals' heterogeneity appears in terms of ability, which affects the probability of survival of new ventures. The Holmes-Schmitz model assessed the circumstances under which an entrepreneur should continue operating a venture or transfer it to a possibly less able entrepreneur in order to release time and resources to explore new opportunities. The least able individuals are found to only manage existing firms, while the most able ones specialize in setting up new businesses. Those with intermediate ability optimally either manage the business they have started or replace them by higher quality businesses purchased from the able entrepreneurs. In summary, Holmes and Schmitz (1990) were very influential, not only by incorporating and extending the key ideas of Schumpeter and Kirzner about opportunity recognition, but also by prompting the basis for the

understanding of more complex behavior of the entrepreneur, namely the reasons behind being “portfolio” entrepreneurs or “serial” entrepreneurs.

Subsequent economic models started to formalize not only the (heterogeneous) individuals’ decision between entrepreneurship and another option (commonly, paid employment), but also the determinants behind such decision. The role of credit rationing and financial constraints was one of the first real forces that economists tried to introduce on the theoretical models dealing with the decision of becoming entrepreneur (see, for instance, Stiglitz and Weiss (1981), de Meza and Webb (1987) and Evans and Jovanovic (1989)).

In summary, all these models were crucial to prompt the interest of economic theory on the entrepreneur, after several highly respected mainstream economists – from Schumpeter in the early 20th century to Baumol and Lucas more recently – had rediscovered the entrepreneur and attributed to this figure several crucial roles. This first focus on entrepreneurial decisions of the individuals, thus fitting a labor economics approach, was crucial to the (re)discovery process of the “lost Heffalump” by economic theory. By the same time, other fields of economics were starting to pay an increasing attention to the entrepreneur figure and to his importance to explain particular economic phenomena.

3.2. Microeconomics and Industrial Organization

Besides the attention particularly devoted to the entrepreneur, namely within labor economics, microeconomists and industrial organization (IO) specialists also started to be concerned with the entrepreneur’s firm itself, namely its success, survival and growth. More than looking at the entrepreneurs as those who leave employment (or unemployment) to create their own employment and exploit a (potentially profitable) business opportunity, economic literature also started to see the entrepreneur as the small firm’s owner, the responsible for establishing new firms and the job creator.

Lucas’s (1978) seminal paper had already prompted some signs of concern with the firm entry phenomenon associated with the entrepreneur, by showing that individuals with a specific entrepreneurial talent become entrepreneurs and found firms that employ the others, and that the most able entrepreneurs end up running the largest firms. Thus,

from a theoretical point of view, Lucas (1978) put forward the first theory of the size distribution of firms on the relative endowment of entrepreneurial talents (Santarelli and Vivarelli 2007). Economists from IO thus started to develop increasing efforts to include the entrepreneur in their analysis.

From the early 1980s onwards, owing to the seminal work of Jovanovic (1982) on the post-entry evolution of newborn firms, economics literature started to redirect the attention from the entrepreneur to the entrepreneur's firm. Actually, one of the more fundamental changes that have taken place in this process through which the entrepreneur (re)entered into economic theory was the decline of the research interest in the entrepreneur as an individual in favor of an increasing focus on contextual aspects and on the process associated to the entrepreneurial actions (Landström 2005). Gartner (1988) confirmed this "shift", claiming that "Who is the entrepreneur?" was the wrong question; rather, he argued that more relevant questions were "How are new organizations created?", thus strongly contributing to the shift in economic thought from the personal characteristics and intentions of entrepreneurs themselves to a stronger focus on their actions and outcomes, mainly at the firm and industry-levels.

Jovanovic's (1982) model is surely the most influential study concerning the growth and survival of firms, linking innovation, entry, exit and the evolution of the industry. His model became indispensable to understand the industry effects of entrepreneurial learning about (initially unknown) entrepreneurial abilities. In essence, Jovanovic assumes that firms, or more explicitly entrepreneurs, have incomplete information at start-up and they learn more about their efficiency as they operate in an industry. Able entrepreneurs' firms grow and survive, while the less able (or unlucky) decline and fail, exiting the market. In result, firms differ in size not because of any fixed capital accumulation *per se*, but due to some learning that they are more efficient than others. Also, Jovanovic's key premise that newer and smaller firms will have higher and more variable growth rates, and also higher exit rates than older and larger firms, have opened the doors to the entrepreneur and entrepreneurship phenomenon within IO.

Jointly with the advances of Jovanovic (1982), the economic context of the 1970s has motivated the discussion around small firms and entrepreneurship, as the dynamics of the (new) firms (involving birth, growth and/or exit) and their impacts in the industry

(for instance, regarding employment creation) were a major concern for IO economists. “Twin oil” crises also played a role (Londström 2005: 48), during which many large companies were hit by severe economic difficulties, with the unemployment becoming a major problem in many western societies. Large firms were increasingly seen as inflexible and slow to adjust to new market conditions.

It was also under that context that David Birch presented his seminal work *The Job Generation Process* (1979), showing which type of firms played the key role on job creation. He found that the majority of new jobs were created by firms – often independent and young firms – with 20 or less employees, so it was not the large firms which created the new jobs, but the small and young firms in the economy (Parker 2009: 293). Birch’s report, published within the framework of the MIT Program *Neighborhood and Regional Change*, was only sold in twelve copies, but its influence was enormous, both on policy makers and the research community, especially in IO. Even being a source of large controversy and criticism, it provided the intellectual foundation for researchers throughout the world to incorporate smaller firms into their analyses of industrial evolution and economic development. Margaret Thatcher in the UK and Ronald Reagan in the US also contributed to this change in the economic thought, by changing their political ideology and pursuing policies strongly in favor of promoting small business and entrepreneurship (Londström 2005). Entrepreneurs, as small business owners, besides innovators and arbitrageurs, started then to be understood as potential job creators.

Such scenario shifted the focus from large companies to smaller firms, which in some cases started to outperform their larger counterparts in innovation and job creation (Acs 1992). New areas of interest emerged during this stage, as the relationship between entrepreneurship, innovation, industrial dynamics and job creation started to dominate the public debate. Simultaneously, theoretical and applied literature started trying to understand the transition of the entrepreneur from a simple self-employed status to a job creator status (e.g., van Praag and Cramer 2001). The increasing access to firm-level data contributed to the development of Empirical Industrial Organization (Einav and Levin 2010), where entrepreneurship started occupying a greater room over the most recent decades.

From the second half of the 1980s onwards, researchers within the field of Industrial Organization, namely from empirical IO, started to pay attention to a wider set of phenomena associated to entrepreneurship (Landström 2005: 51). David Storey's book *Understanding the Small Business Sector*, published in 1994, became one of the most highly cited works by economists' in their entrepreneurship research. Policy oriented work on small business and entrepreneurship (e.g., Storey and Tether 1998; van Stel et al. 2007; Audretsch et al. 2007) or the relationship between small firms and innovation (e.g., Acs and Audretsch 1988, 1990) were two of the most common lines of entrepreneurship research within empirical IO over the most recent decades.

3.3. Macroeconomics: Economic Growth and Development

Since Schumpeter (1911), the entrepreneur emerged as the key figure being considered the *persona causa* of economic development (Hébert and Link 1989; Santarelli and Pesciarelli 1990). The way through which entrepreneurs could promote growth and development seemed to be evident on the academic debates. From the different roles of the entrepreneur distinguished by the several "Heffalump hunters" (section 2; see also Hébert and Link 1989), two main roles had been highlighted as the key ones to link entrepreneurship to economic growth and development – the entrepreneur as the innovator (identified as the Schumpeterian entrepreneur) and the entrepreneur as the creator of new firms and new jobs (a role mainly identified by IO economists). Actually, by founding and operating a new business firm, even if there is nothing innovative in these acts, the entrepreneur was expected to create value and new jobs, which in turn might impact positively on the overall economy. Similarly, by innovating and transforming inventions and ideas into economically viable entities, entrepreneurs were also expected to improve economic development and promote growth (e.g., Wennekers and Thurik 1999).

However, despite this widespread belief that entrepreneurship was a key factor in economic growth and development, a conviction that remained alive during almost the whole 20th century, few attempts were made to incorporate entrepreneurship in formal growth and development models, at least until the early 1990s (Schmitz 1989;

Wennekers and Thurik 1999). Until then, perfect competition assumptions from traditional theoretical neoclassical models and models of general equilibrium, which did not take into account the dynamics of the Schumpeterian innovator entrepreneur, still obstructed the formal inclusion of the entrepreneur.

Endogenous growth theory has created new possibilities for fitting entrepreneurship or the assumed entrepreneurs' innovative behavior into growth models. Endogenous growth models (e.g., Romer 1986, 1990; Lucas 1988) started highlighting the role of knowledge and innovation for the growth of nations. New knowledge was argued to lead to innovations and it could be capitalized by being transformed into new products, processes and organizations. Besides assuming knowledge externalities, these models started to propose increasing returns to scale. However, these two processes appeared as a black box in the mainstream growth theory, which did not go very far toward illuminating the process by which knowledge externalities produce growth, or by which increasing returns can be manifested in the production process.

Knowledge spillovers were however recognized to not occur automatically, but rather to require some channel(s) through which they could work. Some mechanism was necessary to serve as a conduit for the spillover and commercialization of knowledge. The recognition of entrepreneurship's role in the market process filled this gap (Holcombe 1998). Subsequent theoretical models started introducing entrepreneurship and/or entrepreneurs' innovative activities in the endogenous growth models, by identifying entrepreneurship as the missing link in the previous models, being responsible for the conversion of knowledge into economically relevant knowledge (Acs et al. 2004, 2009). Schmitz (1989) and Aghion and Howitt (1992) provided key advances by that time. While the former developed a model in which endogenous entrepreneurial activity was found to be a key determinant of economic growth, the later showed that industrial innovations conducted by entrepreneurs, which improve the quality of products, were the key channel to induce progress and growth in the economy.

In summary, incorporating entrepreneurship into the framework of economic growth added to the growth theory mainly by showing the nature of increasing returns to scale, knowledge externalities and the role of human capital. Knowledge externalities occur

when the entrepreneurial insights of some produce entrepreneurial opportunities for others, while increasing returns occur because the more entrepreneurial activity an economy exhibits, the more new entrepreneurial opportunities it creates (e.g., Holcombe 1998). Moreover, the new focus on entrepreneurship pushed growth theory forward, towards the institutional setting within which growth occurs, and away from neoclassical theories that focused on production process' inputs.

Entrepreneurship is already considered one of the key growth components in “new growth theory” (eg., Audretsch et al. 2006; Henrekson 2005). More recent concerns of economic growth theory have been related to the quality of the entrepreneurship. Recent models have been suggesting the need to encourage high ability entrepreneurs, as reduced quality of entrepreneurs is argued to retard growth (e.g., Jiang et al. 2010; Jaimovich 2010). These new results stress the need to provide the right incentives to the most able entrepreneurs, in order to promote productive and growth-enhancing entrepreneurship, and avoid unproductive or even destructive entrepreneurial activities, in line with Baumol (1990).

4. THE ECONOMICS OF ENTREPRENEURSHIP IN ECONOMICS JOURNALS

Despite research about entrepreneurship and small business had been limited through economics lenses during large decades, the late 1970s and early 1980s witnessed the publication of a number of pioneering scientific studies, mainly in the area of what can be termed “small business economics” or “economics of entrepreneurship”, which had a very strong influence on the subsequent development of entrepreneurship as an academic research field (Landström 2005: 61). “Small is beautiful” became the catchphrase in an increasingly wider number of publications, debates and policy concerns.

This section aims at providing a brief quantitative overview of the evolution of entrepreneurship research in Economics literature over the last decades. The analysis is based on ISI Web of Science database and intends to show how entrepreneurship research has been evolving, towards the *Economics of Entrepreneurship* or *Small Business Economics* as a new field of research.

4.1. Evolution of the volume of entrepreneurship research within Economics

We started by performing a search in the ISI Web of Science database, by imposing the following combination of keywords in the publications' TITLE: "entrepreneur*" OR "small firm*" OR "new firm*" OR start-up*"³. This allowed us to identify 16747 results until the end of 2011, 2606 out of these belonging to Economics Web of Science category. From this subset, 1573 were classified as "articles"⁴. The analysis is focused only on articles published on journals and academic reviews indexed in Social Sciences Citation Index.

Fig 1. Total number of articles

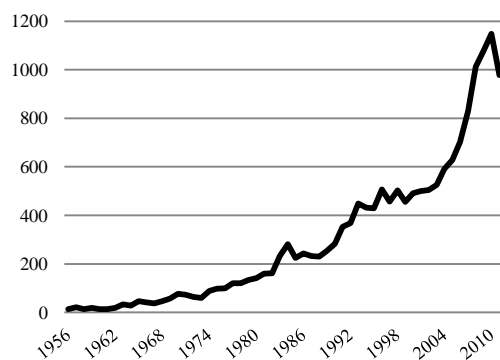
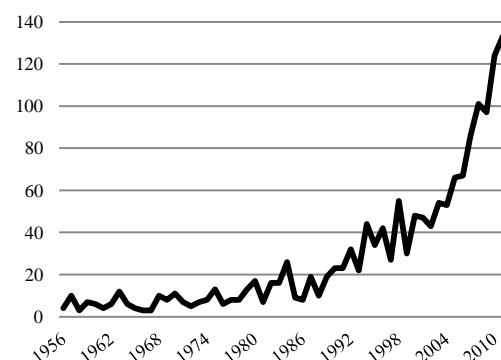


Fig 2. Total number of articles in Economics



Figures 1 and 2 illustrate the evolution of the total number of articles satisfying the criteria imposed in the search process. Overall, we confirm that entrepreneurship research was very scarce until the late 1970s. Economics literature started to pay an

³ Despite this seems to be somewhat restrictive, by imposing these criteria on the search process we are allowing to capture two particular aspects. First, by using these different combinations of keywords, it is more likely to include a wider number of studies using different definitions of entrepreneurship. In the literature, the entrepreneurship phenomena has been associated either to self-employed individuals – thus, to the entrepreneur in particular, or to the entrepreneurial firm – which is commonly understood as being a small firm, a start-up or a new firm. Besides this, it is possible that different Economics fields give a different relative importance to these different visions of the entrepreneurship phenomenon (for instance, IO is expected to be more concerned with the entrepreneurial firm, while Labor Economics may be more focused on the entrepreneur in particular), so by imposing these wider criteria we try to avoid a potential overrepresentation of one of these visions about entrepreneurship. Second, imposing these keywords to appear in the title may also seem to be a strong restriction. However, with this criterion we ensure that publications are really dealing with entrepreneurship topic. If we impose these keywords to appear in the abstract or even in the publication's topic, we could be either including marginal publications whose contribution to our understanding of entrepreneurship phenomena would be less significant or even including publications not concerned at all with entrepreneurship questions.

⁴ These results were last accessed in March 2012.

increasing attention to this topic by the late 1980s onwards, when the number of publications started to increase almost exponentially. Nevertheless, a new and even stronger “boom” in Entrepreneurship research seems to have been prompted during the change of the century, by the early 2000s, both overall and in Economics in particular.

4.2. Entrepreneurship research in Economics Journals

Table 1 reports the journals with the largest number of articles published over the time satisfying the requirements imposed in the search. The leading journal is *Small Business Economics*, a journal founded by David Audretsch and Zoltan Acs in the late 1980s and which has a broad scope involving multiple dimensions of entrepreneurship, as entrepreneurs’ characteristics, new ventures and innovation, firms’ life cycle, as well as the role played by institutions and public policies. Since its foundation, *SBE* has becoming an outlet of recognized reputation for researchers interested in the economics of new and small firms and entrepreneurship topics, as Table 1 confirms.

In this list of leading journals publishing the most on entrepreneurship, we identify not only some of the highest ranked Economics journals (e.g., AER, JPE and RES), but also some well recognized specialized journals, namely in Development Economics, IO and Economic History. Another aspect that deserves to be mentioned is the impact factors of these journals. The majority of them have relatively high impact factors, as the last column of Table 1 reports. The fact that these journals are either specialized in, or highly receptive to, entrepreneurship and small business research, added to their relatively high impact factor, suggests that entrepreneurship as a research field is actually growing and gaining further importance and attention among the academic community.

Table 1 also adds the ranking position of each of these journals, taking into account the total number of articles they published in the most recent decade (2000-2011). This allows us to see if some particular journals have been gaining an increasing importance on entrepreneurship research over the most recent years, as well as if some journals were more important in earlier periods, when entrepreneurship research started to enter into Economics literature. For instance, data suggest that JPE was particularly relevant in former periods, when the majority of its articles on entrepreneurship research were

published. The same seems to apply to Economic History journals, as EEH and JEH. On the other hand, ICC and JEE seem to have been most prominent during the last decade, by climbing 6 and 5 positions in this ranking, respectively.

Table 1 Economics Journals publishing on Entrepreneurship

Journal	Total # Articles	Overall Ranking Position	Ranking position 2000-2011	JCR Impact Factor
Small Business Economics	329	1	1	1.555
Journal of Economic Behavior & Organization	31	2	2	0.924
American Economic Review	27	3	8	3.150
Economics Letters	26	4	7	0.449
World Development	26	4	9	1.612
Tijdschrift voor Economische en Sociale Geografie	25	5	3	0.802
Journal of Economics & Management Strategy	23	6	2	1.123
Applied Economics	21	7	7	0.424
Journal of Evolutionary Economics	21	7	2	0.984
Applied Economics Letters	19	8	5	0.245
Economic Development and Cultural Change	19	8	16	1.392
Economic Development Quarterly	18	9	6	1.059
Explorations in Economic History	18	9	18	1.222
Journal of Political Economy	18	9	16	4.065
Industrial and Corporate Change	17	10	4	1.235
Review of Economics and Statistics	17	10	12	2.883
Journal of Economic History	15	11	19	1.042
Journal of Financial Economics	15	11	12	3.810
Review of Industrial Organization	15	11	9	0.529
Journal of Banking & Finance	14	12	9	2.731
Journal of Development Studies	14	12	15	0.793

Table 2 summarizes the total number of articles on entrepreneurship published by some of the top Economics journals, as well as by some journals specialized in Labor Economics, Development Economics and IO. Despite the absolute number of articles may seem marginal in some cases (which, in part, reflects the restrictions imposed regarding the keywords that should appear in the publications' title), the results confirm that entrepreneurship questions deserved a significant attention within top academic journals, as AER, JPE, RES, JET or QJE. Even over the most recent years, a significant number of articles were published by AER and RES.

Table 2 Top Journals and Specialized Journals publishing on Entrepreneurship

Selective Top Journals	Total # Articles	# Articles since 2000	JCR Impact Factor
American Economic Review	27	12	3.150
Journal of Political Economy	18	4	4.065
Review of Economics and Statistics	17	8	2.883
Journal of Economic Theory	6	5	1.112
Quarterly Journal of Economics	5	0	5.940
Labor Economics Journals			
Labour Economics	9	9	0.783
Journal of Labor Economics	5	4	2.244
International Labor Review	3	0	0.524
Journal of Human Resources	3	0	2.101
Economic Development and Growth Journals			
World Development	26	11	1.612
Economic Development and Cultural Change	19	4	1.392
Economic Development Quarterly	18	14	1.059
Journal of Development Studies	14	5	0.793
Developing Economies	7	1	0.156
Journal of Comparative Economics	7	5	0.835
Journal of Development Economics	6	4	1.747
Journal of Macroeconomics	4	4	0.678
Journal of Economic Growth	3	2	2.458
Industrial Organization Journals			
Journal of Economic Behavior & Organization	31	20	0.924
Industrial and Corporate Change	17	17	1.235
Review of Industrial Organization	15	11	0.529
International Journal of Industrial Organization	11	8	0.731
Journal of Industrial Economics	11	0	0.795

On the other hand, it was during more recent years that more specialized journals started to pay greater attention to the entrepreneurship phenomena. Labor Economics journals published the majority of entrepreneurship articles during the last decade. This may be partly justified, on the one hand, by the recent year of foundation of some of these journals⁵, and also by the fact that data suitable to perform empirical analyses of entrepreneurship at the individual-level only appeared over the most recent years, as most of the publications on entrepreneurship by Labor Economics journals consist on empirical analyses of that phenomenon.

⁵ As an example, the first articles in Labour Economics only appeared in 1993.

Regarding Development Economics and IO journals, despite they have paid attention to entrepreneurship questions both before and after the change of the century, in the majority of the journals more than half of the articles on entrepreneurship were published during the first decade of the 21st century, which shows that entrepreneurship questions are an increasing concern in Development Economics and IO literature.

4.3. Top Publications

Table 3 reports the 10 articles satisfying the bibliometric search requirements and that currently have the largest absolute number of citations. From these, we identify the three main Economics fields that have been showing the major concerns about entrepreneurship phenomena: Labor Economics, IO and Economic Growth and Development.

Table 3 The 10 most cited Economics articles on Entrepreneurship

Article	Journal	Total # Citations	Average # Citations per year
"An estimated model of entrepreneurial choice under liquidity constraints", Evans and Jovanovic (1989)	Journal of Political Economy	482	20.1
"Entrepreneurship - productive, unproductive and destructive", Baumol (1990)	Journal of Political Economy	448	19.5
"Finance, entrepreneurship and growth - theory and evidence", King and Levine (1993)	Journal of Monetary Economics	371	18.6
"Innovation in large and small firms - an empirical analysis", Acs and Audretsch (1988)	American Economic Review	369	14.5
"What makes an entrepreneur?", Blanchflower and Oswald (1998)	Journal of Labor Economics	349	23.3
"Monetary policy, business cycles and the behavior of small manufacturing firms", Gertler and Gilchrist (1994)	Quarterly Journal of Economics	323	17.0
"General equilibrium entrepreneurial theory of firm formation based on risk aversion", Kihlstrom and Laffont (1979)	Journal of Political Economy	254	7.5
"Entrepreneur human capital inputs and small business longevity", Bates (1990)	Review of Economics and Statistics	233	10.1
"Sticking it out - entrepreneurial survival and liquidity constraints", Holtzeakin, Joulfaian and Rosen (1994)	Journal of Political Economy	212	11.2
"The location and employment choices of new firms - an econometric model with discrete and continuous endogeneous variables", Carlton (1983)	Review of Economics and Statistics	205	6.8

The articles of Evans and Jovanovic, and Kihlstrom and Laffont, both in JPE, in addition to the work of Blanchflower and Oswald in the late 1990s, were some of the most influential articles that helped to intensify the concern among academics about the individual's decision to become an entrepreneur. Labor economists thus started to pay an increasing attention to these transitions in the labor market, trying to identify the main factors prompting or hindering such entry decisions.

The concerns with the entrepreneur's firm, more prominent in IO after Jovanovic (1982), were also evident after the increasing influence of the works of namely Acs and Audretsch in AER, Bates and Carlton both in RES, and Holtzeakin et al. in JPE. Empirical IO was thus becoming increasingly important and entrepreneurship questions started occupying an increasing share of empirical analyses by IO academics.

Finally, Baumol (1990), in addition to the works of King and Levine, and Gertler and Gilchrist in early 1990s, were some of the most influential articles intensifying the debate about the importance of entrepreneurship for economic development and growth.

4.4. Top authors doing research on Entrepreneurship in Economics

According to Landström (2005:67), the researchers that have published about entrepreneurship constitute a rather heterogeneous group of researchers, being possible to divide them into four categories: 1) *Ad-hoc transients*, i.e., researchers who appear only once and whose publication within the field of entrepreneurship is a one-off event; 2) *Influential transients*, i.e. transient researchers who appear only once, but whose work is influential for entrepreneurship research; 3) *Craftsmen*, which are the researchers whose names tend to appear more frequently in entrepreneurship articles, meaning that they have stayed within the field for a longer period of time; and 4) the *Core Group*, i.e. highly productive researchers in the entrepreneurship field, whose work has a substantial impact upon the research field.

Table 4 presents the 15 authors who have published the highest number of articles satisfying the criteria imposed in this bibliometric exercise. Using Landström's taxonomy, we could say that these authors either belong to the group of *Craftsmen* or to

the *Core Group*, not only by the number of articles they have been publishing over the time (which, despite being apparently marginal in absolute number, correspond to the articles including the specific aforementioned keywords in the title), but also by the impact that the majority of their articles has been presenting in the literature (through the number of citations). Moreover, the majority of the research being published by these authors is mainly empirical. Actually, after economic theory has (re)discovered the entrepreneur during the 20th century, and owing to an increasing number of rich datasets allowing to perform extensive empirical analyses of several questions related to entrepreneurship phenomena, a major part of the current entrepreneurship research is of empirical nature.

Regarding the top authors identified in Table 4, we can highlight some particular patterns. Zoltan Acs and David Audretsch have been strongly working on small firms and innovation. Roy Thurik has been more focused on small business and industrial dynamics, in addition to the link between entrepreneurship and the macro economy. Simon Parker can be considered as one of the emerging researchers in the *core group*, having recently published the book *Economics of Entrepreneurship* (Parker 2009) and being highly interested in entrepreneurship from the individual-level perspective.

Henrekson's research interests include the relationships between entrepreneurship, economic growth and structural and technical change, similarly to Pontus Braunerhjell. The more recent works of Gavin Reid, Enrico Santarelli, Marco Vivarelli and Marc Cowling, in turn, have been mainly dealing with small firms' inception and growth. David Storey is mostly known by his studies on entrepreneurship policy evaluation. Baumol's latest research has been dealing with innovative entrepreneurship. Marco Caliendo's research has been focused on unemployment dynamics and entrepreneurship from the individual-level perspective while Maria Minniti has been mainly attentive to entrepreneur's entry decision. Finally, Andre van Stel has been working both on causes and consequences of entrepreneurship, being though more concerned with firm entry and exit⁶.

In summary, within Economics, we still detect a high degree of fragmentation in the entrepreneurship field, with very different questions being addressed, diverse

⁶ This information was collected from the website and personal WebPages of the authors, whenever possible, and/or by inspection of their main publications.

approaches being employed and with entrepreneurship phenomenon being studied from many different angles. We still find strong concerns with the entrepreneur individually, with the entrepreneurial firm, in addition to the link between entrepreneurship and the effects on industries, regions and the economy as a whole. Actually, the boundaries of the entrepreneurship field remain highly permeable, which allows scholars from various disciplines to conduct research within the field of entrepreneurship.

Table 4 Top authors publishing on entrepreneurship

Authors	Current affiliation	Total # Articles	Most cited Article (total number of citations within brackets)	Average citations per year
AUDRETSCH, D.B.	Indiana University, USA	31	[369] “Innovation in large and small firms – an empirical analysis”. <i>American Economic Review</i> . 1988, with ZJ Acs	14.8
ACS, Z.J.	George Mason University, USA	20	[79] “Capitalism and democracy in the 21 st Century: from the managed to the entrepreneurial economy”. <i>Journal of Evolutionary Economics</i> . 2000, with DB Audretsch	6.1
THURIK, R.	Erasmus University, Netherlands	18	[21] “What happens to nascent entrepreneurs? An econometric analysis of the PSED”. <i>Small Business Economics</i> . 2006, with Y Belghitar	3
PARKER, S.C.	University Western Ontario, Canada	11	[80] “Start-up size and industrial dynamics: some evidence from Italian manufacturing”. <i>International Journal of Industrial Organization</i> . 1999, with DB Audretsch and E Santarelli	5.7
SANTARELLI, E.	University of Bologna, Italy	9	[24] “Determinants of the prevalence of start-ups and high-growth firms”. <i>Small Business Economics</i> . 2002, with P. Davidsson	2.2
HENREKSON, M.	Research Institute of Industrial Economics (IFN), Stockholm, Sweden	8	[22] “What makes a new business start-up successful?”. <i>Small Business Economics</i> . 2000, with JA Smith.	1.7
REID, G.C.	University of St. Andrews, Scotland, UK	8	[35] “New firm formation – a labor market approach to industrial entry”. <i>Scottish Journal of Political Economy</i> . 1987, with AM Jones.	1.4
STOREY, D.J.	University of Warwick, UK	8	[80] “Start-up size and industrial dynamics: some evidence from Italian manufacturing”. <i>International Journal of Industrial Organization</i> . 1999, with DB Audretsch and E Santarelli	5.7
VIVARELLI, M.	Univ. Cattolica Sacro Cuore, Italy	8	[448] “Entrepreneurship – productive, unproductive and destructive”. <i>Journal of Political Economy</i> . 1990	19.5
BAUMOL, W.J.	New York University, USA	6	[30] “The knowledge spillover theory of entrepreneurship”. <i>Small Business Economics</i> . 2009, with ZJ Acs, DB Audretsch and B Carlsson.	7.5
BRAUNERHJEL, M. P.	Royal Inst. Technol., Stockholm, Sweden	6	[12] “Risk attitudes of nascent entrepreneurs – new evidence from an experimentally validated survey”. <i>Small Business Economics</i> . 2009, with FM Fossen, AS Kritikos	3
CALIENDO, M.	Potsdam University, Germany	6	[33] “Entrepreneurial women and men: two different species?”. <i>Small Business Economics</i> . 2001, with M Taylor	2.8
COWLING, M.	Univ Sussex, England	6	[69] “Perceptual variables and nascent entrepreneurship”. <i>Small Business Economics</i> . 2005, with P Arenius.	8.6
MINNITI, M.	So Methodist University (SMU), USA	6	[79] “Nascent entrepreneurship and the level of economic development”. <i>Small Business Economics</i> . 2005, with S Wennekers, R Thurik and P Reynolds	9.9
VAN STEL, A.	Univ Amsterdam and EIM Business & Policy Research, Netherlands	6		

5. CONCLUDING REMARKS

Despite the debate has emerged in the 18th century with Richard Cantillon, entrepreneurship remains the phenomenon which is most emphasized yet least understood by economists (Kanbur 1980; Montanye 2006). Though some of the most important economists as Cantillon, Mill, Say, and Marshall, had tried to give some life to the entrepreneur within economic theory, by the end of 19th century, the entrepreneur had virtually disappeared from the economic thought, requiring a rebirth after that (Blaug 1998). In fact, many microeconomic theory and industrial organization texts always omitted mention of entrepreneurship altogether because neoclassical economics posits no need for it (Baumol 1993).

However, from the early 20th century onwards, economics felt the need for including the entrepreneur into the analysis of several economic problems. Several roles started to be attributed to the entrepreneur and he was understood to be responsible for important phenomena, as labor market and industry dynamics, innovation, economic development or economic growth. It was the man behind the firm, who remained invisible to the economists' eyes for long time, endowed with creative talent (Lucas 1978), learning capacity and alertness (Kirzner 1979, 1997) to the profitable opportunities in the market - though facing high risk and uncertainty (Knight 1921) – who prompted the dynamics and the progress in the economy (Schumpeter 1911, 1934).

The recognition of these roles of the entrepreneur led to the rebirth of this figure within Economics by the beginning of the 20th century. An increasing anxiety to understand the importance of the entrepreneur for several economic problems was noticeable in several Economics fields. Some of the first attempts to infuse some life to the entrepreneur were concerned with the identification of the reasons behind the decision to engage into entrepreneurship. Economic theory, particularly the fields closer to Labor Economics, started to develop the first occupational choice models applied to the entrepreneur, trying to explain his decision between remaining (un)employed and becoming self-employed.

By the same time, the entrepreneur started to receive other new labels from the economics literature, becoming increasingly viewed as the creator of new jobs, new and

promising firms. This contributed to redirect the emphasis towards the entrepreneurial firm rather than the entrepreneur alone. Within IO, and moreover among empirical IO researchers, the impacts of entrepreneurship at the firm and industry-level gained a growing interest and an increasing attention by policymakers.

Regarding economic growth and development theory, it was only by the late 1980s and early 1990s that entrepreneurship has formally found its place in economic models. Endogenous growth theory has created new possibilities for fitting entrepreneurship or the expected entrepreneurs' innovative behavior in growth models. Despite the long time required to achieve its deserved room, entrepreneurship has recently gained an increasing importance as one of the key explanatory factors of economic growth and development, working as the channel through which knowledge spillovers and increasing returns to scale work in endogenous growth theory.

Over more recent years, owing to this evolution of economic thought about the entrepreneur and his roles, we can discern the development of entrepreneurship and small business research within existing disciplines toward the establishment of a distinct domain of research, which is becoming known as *Economics of Entrepreneurship* or *Small Business Economics*. Even though the field is still young and of an eclectic nature, much has been achieved, and we know a great deal more about, for example, the characteristics of the entrepreneur, the entrepreneurial process, the context of entrepreneurship, and the role of small businesses in the economy, than we did a couple of decades ago. However, *Economics of Entrepreneurship* is an emerging and growing academic interest, so we could expect great developments of the topic, both theoretical and empirical, in the near future.

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