

THE INTERSECTION OF THE FIELDS OF ENTREPRENEURSHIP AND DEVELOPMENT ECONOMICS: A REVIEW TOWARDS A NEW VIEW

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Abstract. Despite the popularity of promoting entrepreneurship and small and medium enterprises (SMEs) for economic development, there is little scientific basis on which policy makers can lean. The scholarly fields of entrepreneurship economics and development economics have been elaborated in isolation and only recently started to intersect. This growing intersection is, however, still fragmented, *ad hoc*, not based on a unifying theoretical approach and suffering from lack of proper measurement. Better policy making will hence benefit from the extension and deepening of the intersection of these fields. We contribute in this regard by providing a conceptual basis for the eventual elaboration of such a unified theoretical approach. We do so by providing an up-to-date review of the intersection of the two fields by noting the progress and gaps; by delineating the externalities associated with entrepreneurship in development and by proposing a synthesis definition of entrepreneurship.

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1. Introduction

It is widely believed that entrepreneurship is important for economic development and that SMEs are vehicles for such entrepreneurship, in both advanced economies and developing countries. Scholars and policy makers often refer to the job intensity of SMEs as evidence of their potentially significant impact on poverty alleviation (Rijkers *et al.*, 2008) and to the potential impact of new firm start-ups on innovation and growth (Haltiwanger *et al.*, 2013; Rijkers *et al.*, 2014). All that is needed is, in the words of Isenberg (2010) ‘an Entrepreneurial Revolution’¹ which in turn requires an appropriate ‘Entrepreneurial Ecosystem’ (Isenberg, 2010) or ‘National System of Entrepreneurship’ (Ács *et al.*, 2014). It is not the first time that the words ‘entrepreneur’ and ‘revolution’ have been used in one

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sentence: in its 25 December 1976 edition, *The Economist* magazine published an article entitled ‘The Coming Entrepreneurial Revolution: a Survey’ and in its 12th March 2009 edition, in the midst of the global financial crisis, heralded entrepreneurs as ‘Global Heroes’.

The problem is that there never are any ‘revolutions’ that follow and neither are the vast majority of entrepreneurs by any stretch of the imagination ‘global’ in their heroics². In fact, as more and more scholars grudgingly acknowledge, entrepreneurship is no magic bullet for economic development. Schramm (2004) (p. 105) argued that promotion of SMEs ‘add little to the economy in terms of productivity or growth’. Naudé (2011) pointed to the less than straightforward statistical relationship between measures of entrepreneurship and economic growth and development in the bulk of the literature. More recently, Ács *et al.* (2016) (p. 37) concluded that entrepreneurship policies ‘waste taxpayers money, encourage those already intent on becoming entrepreneurs, and mostly generate one-employee businesses with low-growth intentions’.

What is the reason for this state of affairs? In part, it is because the positive impact of entrepreneurs is overestimated and their negative impact is underestimated (Naudé, 2017). For instance, as Shane (2009) (p. 141) reminds us entrepreneurship should not be overestimated because the ‘typical start-up is not innovative, creates few jobs, and generate little wealth’. van Praag and Versloot (2007) conclude that entrepreneurs do not spend more on innovation, they actually create lower quality and less secure jobs, and that ‘the relative contribution of entrepreneurs to the value of productivity levels is low’ (p. 377). Sautet (2013) notes an apparent ‘puzzle’ in the fact that very often ‘entrepreneurship is socially productive, but does not generate a level of wealth that would eliminate mass poverty’. Moreover, as Baumol (1990) has underscored the dangers of entrepreneurship may be underestimated because entrepreneurs can and do engage in un-productive and even destructive activities. Not precisely the stuff of global heroes.

These two biases which policy makers harbour with respect to entrepreneurship may stem from the fact that a unified scientific approach towards the role that entrepreneurship plays in economic development is lacking. The two main scholarly fields that have been interested in the topic, entrepreneurship economics and development economics, have been elaborated in isolation and have only recently started to intersect (Naudé, 2014). Despite slow progress, the intersection between these fields is fragmented, *ad hoc*, lacks a unifying theoretical approach (Naudé, 2008, 2011) and as a result suffers from measurement problems and a lack of data (Ács *et al.*, 2008; Nagler and Naudé, 2017). Better policy making for economic development will benefit from further scholarly work that extends and deepens the intersection of the fields of entrepreneurship and development economics.

While we do not provide a unified theoretical approach here, we do provide a conceptual basis to support future work in this regard. We do so first by providing an up-to-date review of the intersection of the two scholarly fields. Then, we delineate the externalities associated with entrepreneurship in development. This is useful to explain the apparent micro-macro-paradox found in empirical studies, which is to say that when one considers the impact of entrepreneurship on economic growth and development, many firm-level studies confirm that individual entrepreneurs create jobs, invest, bring new goods to market and take risk; macro-level studies, however, tend to reject the hypothesis that if more individuals choose entrepreneurship and deliver the jobs and investment just mentioned, that the better developed a country will be, or the faster it will grow in terms of productivity and incomes. We cannot resolve these micro-macro paradoxes without considering externalities (or spillovers) inherent in the activities of entrepreneurs. Finally, we propose a synthesis definition of entrepreneurship. The latter follows the recognition by Audretsch *et al.* (2015, p.704) that definitions of entrepreneurship serve ‘as a construct that can be used to build theories and carry our more effective empirical research’. It is precisely the aim of this paper to support the future building of theories and empirical research at the intersection of the fields of entrepreneurship and development economics.

The remainder of the paper is structured as follows. In Section 2, we review the development economics literature as far as it deals with *entrepreneurship*. In Section 3, we review the entrepreneurship literature

as far as it deals with *economic development*. In each of these sections, we emphasize entrepreneurship as a catalyst of externalities and identify progress and gaps. In Section 4, we outline a synthesis view, including a new definition of entrepreneurship. Section 5 concludes.

2. A Review of Theories of Development, with a Nod to Entrepreneurship

In this section, we review the development economics literature as far as it deals with entrepreneurship. At the outset, we wish to indicate that our concern is with development economics and not specifically or exclusively with developing countries. In our view, all countries in the world face significant economic development challenges, even if some are economically more advanced than others. Moreover, many of the most salient ideas in development economics were elaborated based on the experiences and challenges of countries that are today advanced economies. Our interest is in promoting the intersection of the fields of development economics and entrepreneurship economics for general relevance.

2.1 *The Centrality of Externalities*

Theories of development³ tend to be of a macro-level and comparative nature (e.g. to describe why some countries are more developed than others, and why some tend to catch-up and others not) usually taking a medium or long-term perspective; or they tend to be micro-focused, asking why a specific individual or household has fallen into poverty (or not) or may be at risk from doing so; or why some individuals are subjectively 'happy' and others not. It is of course not so clear-cut in reality, because the macro-environment tends to constrain or facilitate individual-level choices, including the outcomes of randomized impact assessments. There is, however, many instances of micro-macro paradoxes in development economics, such as the paradox that individual aid projects⁴ often seem to be successful on the project level, with desired outcomes, but that aid is not unambiguously effective on the macro-level (Mosley, 1986).

There may be similar micro-macro-paradoxes when one considers the impact of entrepreneurship on economic growth and development: firm-level studies detail the role of individual entrepreneurs in creating jobs, investing, bringing new goods to market and taking risk: but macro-level studies tend to reject the notion if more individuals choose entrepreneurship as an occupation, the better developed a country will be, or the faster it will grow (Gollin, 2008; Sautet, 2013). We cannot resolve these micro-macro paradoxes without considering externalities (or spillovers) inherent in the activities of entrepreneurs as economic agents.

Externalities can be defined as unintended consequences or actions that are not captured in the market price of the product or service provided. While entrepreneurs and businesses can usually appropriate specific technological knowledge when developing innovations, for example by means of patents, general technological knowledge which is developed as a by-product of the innovation process cannot be appropriated and may spillover across economic actors. Externalities explain why markets can fail: their existence provides a theoretical argument for government intervention in the economy. Governments, for example, support clustering by entrepreneurs to enable knowledge spillovers that would otherwise not occur, or not as extensively when entrepreneurs lack close proximity and connectivity to other economic actors and lack density of goods and labour markets. Governments also regulate entrepreneurial entry in order to protect consumers from unscrupulous behaviour and regulate incumbent entrepreneurs actions to prevent them from 'capturing' political decision-makers.

Even without government subsidies, the positive externalities associated with entrepreneurial venturing have been recognized and modelled as contributing to development and/or keeping an economy stuck in an underdevelopment trap. For example, Ciccone and Matsuyama (1996) provided a model that shows that if an economy produces a limited range of intermediate goods, production in final (consumer) goods

sector will be limited to use ‘primitive’ production methods with little demand for sophisticated, new inputs. This will lead to lower incentives for potential entrepreneurs to start-up new firms. The authors also point out that there might in such an ‘underdevelopment trap’ be a case for assistance to new start-ups since these can provide both pecuniary and technological externalities if they start producing new intermediate goods; which will induce final good producers to demand more of these (in turn improving the incentives for other entrepreneurs to start-up firms due to greater demand and the example provided in the application new technology).

That fact that entrepreneurs’ actions are associated with positive externalities when they start new businesses that provide new goods or services has been recognized by Hausmann and Rodrik (2003) who point out that entrepreneurs illustrate new technology embodied in goods and production methods and moreover also generate pecuniary externalities from the information their success or failure implies for the profitability of new activities (i.e. providing a ‘signaling’ function). In this sense, entrepreneurs provide a ‘cost-discovery’ function in making sunk costs in a new activity which *ex ante* may or may not be profitable, but which will provide information *ex post* on such profitability to other entrepreneurs. In so doing, entrepreneurs provide information on what an economy can be good at producing, which in the context of developing countries is information that may be lacking and thus subject to uncertainty (Hausmann and Rodrik, 2003). From this perspective, it is implied that different types of firms, not just high-growth or high-tech firms, can play a role in economic development, and that the ‘variety of entrepreneurship’ should in itself be valued, as Chowdhury *et al.* (2015) emphasizes.

Approaching entrepreneurship as an activity that generates externalities helps to make the link between entrepreneurship and development. In what follows, we will provide examples, with reference to major theories in development economics, where externalities play an important role, and where we can trace these to the (often non-formalized) role of entrepreneurs.

2.2 *The Advent of Entrepreneurship and the Growth Take-Off*

The ‘growth take-off’ refers to the rather abrupt and historically unprecedented acceleration of economic growth and virtual exponential rise in per capita incomes in the West since the late 18th and early 19th centuries (Maddison, 1982; Landes, 1999). For most of history, per capita income levels have tended to hover around subsistence levels. Hansen and Prescott (2002) call the era before the take-off the ‘Malthusian’ era and contrast this with the post-industrial or ‘modern economic growth’ era. For Hansen and Prescott (2002), the modern economic era was made possible by changes in the type of technologies that humans primarily used. In the Malthusian era, the dominant technologies were based on land. They shift of these towards technologies based on physical and human capital accumulation, made the take-off possible.

This process of economic take-off has been formalized in ‘unified growth models that are consistent with an epoch of Malthusian stagnation and the transition from Malthusian stagnation to sustained growth’ (Galor and Moav, 2001) (p. 720). Once this take-off started, economic development became characterized by the structural transformation of human society: specifically, labour and capital moved out of farming towards manufacturing and service activities, where knowledge and capital were the key assets. This association of economic development with structural transformation was formalized in development economics in dual economy models by Lewis (1954) and Ranis and Fei (1961) and only later extended to incorporate the entrepreneur explicitly by Gries and Naudé (2010)⁵.

What role did the entrepreneur play in the Malthusian era to facilitate the transition from Malthusian stagnation to growth? According to Murphy *et al.* (2006), it was the ‘*advent of entrepreneurship*’ that allowed the shift towards new technologies. How did the entrepreneurial advent arise? And how does it relate to the fundamental change in societies technology based on land, to a technology based on physical and human capital accumulation? Again, the externalities inherent in entrepreneurship provide clues.

During the Malthusian era, the problem was one of low levels of *entrepreneurial ability* and few opportunities whose exploitation would have resulted in economic growth (Naudé, 2008). Over time, however, growing population density, as a result of growing urbanization and basic technological progress in agriculture and transport, created large enough agglomerations where urbanization and localization externalities allowed opportunities for specialization⁶. Specialization in turn facilitated learning and innovation, and made the adoption and the spread of new technology much faster (Goodfriend and McDermott, 1995).

It also provided incentives for investment in human capital, which facilitated the switch in a parental (household) strategy of quality rather than quantity of offspring as described in Galor and Moav (2002). With many people doing so at the same time, more positive externalities were created which then in turn encouraged further specialization and hence investment in human capital, given that an individual's productivity is increased if he or she is together with other high-productivity individuals (Kremer, 1993). This switch and its externalities made possible an increase in entrepreneurial ability in two ways (Cagetti and de Nardi, 2005). First, parents transfer human capital, in particular tacit knowledge, to their children. For entrepreneurship, this may be an important source of entrepreneurial ability, as it is often found that children of entrepreneurs are more likely to become entrepreneurs themselves (Davidsson and Honig, 2003). Second, parents transfer financial capital to their children (e.g. through inheritance) which provide them with the financial capital to support entrepreneurial ventures.

Once these conditions for a take-off had been established, it becomes useful to try and understand how over the more recent past entrepreneurs had made of the opportunities the conditions created, to drive what has become known as 'modern economic growth'.

2.3 *Modern Economic Growth*

Modern economic growth, roughly speaking the period from the growth take-off of the West after the Middle Ages has been documented and analysed by numerous scholars and remains a topic that fascinates. Classic texts dealing with this include Adam Smith's 'The Wealth of Nations' (1776) and Joseph Schumpeter's 'The Theory of Economic Development' (1911). Other noteworthy contributions include Landes (1999), Diamond (1997), Maddison (1982), Morris (2010), Acemoglu and Robinson (2013) and recently Piketty (2013).

In the previous section, we argued that the growth take-off was triggered by a shift in technologies towards capital and knowledge, and that entrepreneurs played a role in this through the generation of externalities, which became self-reinforcing in the context of higher population numbers and densities. The growth take-off of the West has been sustained and emulated by many other countries which had caught up with the West in the meantime (or are in the process of doing so) by accompanying the rise of institutions, broadly defined as the 'rules of the game'. These institutions, which include both formal institutions (such as property rights and fictitious company legal personas) and informal institutions (such as social networks and belief systems) encouraged and rewarded innovation and risk-taking by entrepreneurs. These pro-entrepreneurial institutions had their western origins at around the time when both the first European universities were founded in 12th century Italy and when a legal and administrative 'revolution' was initiated by Pope Gregory VII that 'allowed the novelty-seeking and risk-taking capitalists to pursue their enterprise over a larger space' (Lal, 2006) (p. 5). In the words of Lal (2008) (p. xii)

'It was due to the eleventh-century papal legal and administrative revolution of Pope Gregory VII that Western Europe alone ...broke from these dysfunctional material beliefs. The legal papal revolution created a church-state that protected property rights...This led to the Great Divergence, with the slow rise of the West from the twelfth century onward until it overtook the other hitherto richer Eurasian civilizations by the eighteenth century'.

These legal and administrative reforms provided stronger protection for property rights and adherence to the rule of law, laying the ground eventually for the idea of intellectual property rights and the patenting of new ideas and trademarks. Historians and others have documented a burst of innovations in Europe following these reforms. It is worthwhile to quote from Maddison (2001) (p. 51) who described some of the subsequent technological innovations that followed in medieval Europe:

'Increased use of water and watermills augmented power available for industrial processes, particularly in new industries such as sugar production and paper making. There was international specialization in the woollen industry...the silk industry was introduced in the twelfth century and had grown impressively in Southern Europe by 1500...There were improvements in mining and metallurgy which helped transform and expand European weapons production.'

Since the growth take-off in the West, other regions of the world have also started to experience modern economic growth, most pronouncedly in Asia; and did so in large part through the roles that entrepreneurs play in identifying and adopting existing technology. The case of Asia showed that catch up requires a lot of effort and capability building on the part of lagging countries (Fagerberg *et al.*, 2007). One of these capabilities is entrepreneurs who obtain licences to use foreign technology, or who just copy, reverse engineer or even steal new technologies without bearing all the sunk costs and risks of investment in new knowledge incurred by firms in advanced economies. The benefit of copying technology in countries at earlier stages of development is that their entrepreneurs can focus on delivering incremental improvements to foreign designs, rather than the risky development of products and technologies that are new to the world. This is a process of innovation that is new to the local market or the domestic firm but not to the world. Once rapid growth is underway, there is a gradual shift – in the most successful countries – to innovation at the frontiers of knowledge. This has largely been the story (and present challenge) of technological innovation and development in China (Fu *et al.*, 2010). It is also a story that suggests that there are 'varieties of entrepreneurship' (Chowdhury *et al.*, 2015; Dilli *et al.*, 2018) and that, as Welter *et al.* (2016) argued one should not equate entrepreneurship only with high-growth, high-tech innovative (Schumpertian) entrepreneurship. In many countries, the imitating, copying entrepreneur is a vital source of progress.

Our conclusion is thus that the role and relationship of entrepreneurship and innovation is therefore different depending on the stage of development that a country finds itself in. In the case of poorer countries that are essentially trying to 'catch-up', sufficient absorptive capabilities including copying, stealing and reverse engineering may be essential. At higher levels of development, the generation of new technologies, as opposed to the absorption and implementation of existing technologies, may become more important for modern economic growth, in an innovation-driven economy (Thurik, 2011; Ács and Naudé, 2013). As 'the latecomer approaches the technological frontier, its strategies have to shift from imitation to innovation' (Tang and Hussler, 2011) (p. 25). Sometimes, countries may fail to make this shift and end up in a middle-income 'trap'. The question is how can the transition towards an innovation-driven economy be made?

An answer is provided by Peretto (1999) who proposes an endogenous growth model that illustrates how long-run structural transformation depends on the degree to which an economy can make a transition from a growth path driven by capital accumulation, to an 'innovation-driven' economy. Three inter-related sources of productivity growth that determines how an economy makes this transition are (1) the allocation of talent (Murphy *et al.*, 1991), (2) the accumulation of human capital (Peretto, 1999) and (3) technological progress (Ciccone and Matsuyama, 1996). These three factors are important as they correspond to the emphasis that has increasingly been put in the entrepreneurship economics literature on the talent or human capital of entrepreneurs; what has also been labelled 'entrepreneurial ability'. In the concept of entrepreneurial ability, the development economics and entrepreneurship economic literatures can be seen to be converging. In the next section, we discuss this in more detail.

3. A Review of Theories of Entrepreneurship Economics, with a Nod to Development

3.1 *The Centrality of Entrepreneurial Ability*

Since the contribution of Kirzner (1973), entrepreneurship has been closely linked to opportunity recognition. A business is created after an opportunity development process has been successful. Some individuals are better in recognizing and exploiting opportunities than others. In this respect, several models emphasize the importance of entrepreneurs *ability, knowledge or talent*. In the model of Jovanovic (1982) for example, firm entry and exit result from a selection process among new firms facing costs of production that are random and that differ across potential firms. These costs are unknown prior to entry, and the firm learns about these costs through its performance post-entry (i.e. through an externality of the market-entry action). Decisions, for example to enter or exit, are taken based on expected profit maximization. While efficient firms survive and grow, inefficient firms will decline and fail. The differences in production costs can be interpreted as reflecting differences in *entrepreneurial ability*. Another example can be found in Lucas (1978) who expressly postulates a distribution of managerial ‘talent’ in the population, which leads to an occupational decision between employment and entrepreneurial engagement.

These models emphasize the importance of learning through (prior) entrepreneurial experiences. Landier (2005) links entrepreneurial ability to re-entry after exit. In his model with asymmetric information, entrepreneurs choose whether to continue or abandon a project and raise funds for undertaking a new project. The choice to continue or exit a project is based on the quality of the project and his/her ability, the capital costs for a new project, as well as the costs (including stigma) of failure. In this model, the cost of capital to failed entrepreneurs is endogenous. One of the equilibrium outcomes of this model is a dynamic one with high entry and high exit rates in which there is a large degree of ‘serial-entrepreneurialism’. This dynamic equilibrium becomes more likely as entrepreneurial ability in the population increases.

3.2 *Entrepreneurial Ability and Externalities*

Entrepreneurial ability is decisive for whether and how entrepreneurship generates externalities. Holcombe (1998) eloquently pointed out that entrepreneurship generates externalities through knowledge and *vice versa*. Specifically, talented entrepreneurs will bring an innovation to the market which will create knowledge that can underpin further innovations, for example the introduction of the iPad created externalities in terms of opportunities for the development of Apps. More generally, the ‘knowledge spillover theory of entrepreneurship’ (Agarwal *et al.*, 2007; Ács *et al.*, 2009; Braunerhjelm *et al.*, 2010) describes entrepreneurs as thriving on the ideas (knowledge) developed by universities and private firms by commercializing it and incentivizing it at the same time. Entrepreneurship is thus not only the generator of but also the outcome of a ‘knowledge-spillover’. In the ‘knowledge-spillover theory’, entrepreneurial *ability* is central, which resonates with the emphasis on human capital or ability in development economics. This has influenced more recent contributions in entrepreneurial economics, such as by Ehrlich *et al.* (2017) who model investments in R&D and firm-level training as investments in ‘firm-specific entrepreneurial human capital (EHC)’ in order to connect the ‘market for ideas (basic science) and the market for goods’ (p. 34).

Whether entrepreneurs with ability will have the incentive to commercialize ideas as described in the ‘knowledge-spillover theory’ may depend on the way in which entrepreneurial ability is allocated (Baumol, 1990). Institutions are considered to play a central role for the allocation of entrepreneurship. Boettke and Coyne (2003) argue that protection of property rights and rule of law are key institutions in this regard. According to Leeson and Boettke (2009), the protection of property rights can incentivize entrepreneurial investment and stimulate the development of financial and credit markets, which are vital for entrepreneurial development.

Bianchi (2010) provides a model wherein financial development, underpinned by property rights, changes the structure of production as more individuals become entrepreneurs and it results in a more efficient allocation of entrepreneurial talent to production technologies. The model shows that by relaxing credit constraints, financial development promotes higher production, job creation and social mobility. Countries with very similar conditions may, however, experience very different levels of development depending on their institutions and resulting wealth distribution. In countries with similar low levels of financial development but slightly different wealth distributions, for example, there are a few wealthy individuals who can set up a firm without asking for a loan in the richest country. When financial development improves, this latter country will end up in equilibrium with high financial development, many opportunity-driven entrepreneurs and high growth, while the country in which no one is wealthy enough to set up a firm will get stuck in low financial development, fewer entrepreneurs to commercialize knowledge spillovers and stagnant growth. Thus, small differences in initial property rights and wealth distribution may lead one country to take off and the other to stagnate.

In entrepreneurship economics research, there is a convergence with development economics thinking in terms of the recognition not only of the importance of institutions but also in terms of the differences in the roles and impacts of entrepreneurs across various stages of development. For instance, Pahn *et al.* (2008) argue that it is important for the government to address market failures that inhibit entrepreneurship and that these failures are more serious at lower levels of economic development. As mentioned by Naudé (2011), the recognition by entrepreneurship scholars such as Pahn *et al.* (2008) of the importance of government in generating positive externalities through addressing market failures, kick-starting growth and laying the institutional foundations or prerequisites for growth is entirely consistent with both the early development economics literature, for instance Hirschman (1958) on linkages, Rosenstein-Rodan (1943) on the need for a ‘big push’ and also consistent with the development economics literature on the need for good institutions, for example (Rodrik, 2000).

Finally, the recognition of entrepreneurial ability as a central concept in both development and economics and entrepreneurship economics has in recent years led to an appreciation that entrepreneurial ability is nuanced by the motivation and aspirations of the entrepreneur. Not all entrepreneurs are motivated to accumulate wealth⁷. If wealth or income is not always the motivation for entrepreneurship, then scholars should not be too obsessed about equating entrepreneurship only to high-tech or high-growth entrepreneurship (Welter *et al.*, 2016). This is a valid point made recently by, for instance, Welter *et al.* (2016) – although it has been made before (see, e.g. Naudé *et al.* (2014)). Symptomatic though of the isolation of the fields of development economics and entrepreneurship economics is that entrepreneurship scholars such as Welter *et al.* (2016) show no awareness of the prior work by development economists who have made the case for a variety of entrepreneurship and for entrepreneurship as contributing more to individual well-being than wealth accumulation alone more eloquently and more formally. For instance, Gries and Naudé (2011) formalized Amartya Sen’s *Capability Approach* for entrepreneurship and illustrated the conditions under which entrepreneurship can be a valued human functioning or not.

The way forward calls for a synthesis definition. As Audretsch *et al.* (2015, p.704) stated, definitions of entrepreneurship serve ‘as a construct that can be used to build theories and carry our more effective empirical research’. It is thus precisely the aim of this paper to support the future building on theories and empirical research at the intersection of the fields of entrepreneurship and development economics. In the next section, we propose a synthesis definition that can serve as a construct for strengthening the intersection.

4. A Synthesis Definition

From our survey in the previous section, it is clear that the current intersection faces a number of weakness which will affect the work of both entrepreneurship and development economics scholars.

For one, empirical work often finds an apparent micro-macro paradox, in that while micro-evidence indicates successful business firms, macro-evidence still very often does not find a relationship between entrepreneurship indicators and indicators of economic and productivity growth. Two, the relationship between institutions and entrepreneurs is most often still too one-sided with entrepreneurship depicted as dependent on the institutional rules of the game without appreciating also the impact of entrepreneurial activities in determining institutions. Third, in both entrepreneurship economics and development economics, there is, as far as the entrepreneur is concerned, still too much focus on restricted definitions of development like growth and GDP, or on entrepreneurship in relation to wealth accumulation and employment creation. There is a need to move beyond monetary indicator motivations. Related to this is the usefulness, from a broader development perspective, of seeing entrepreneurship as only one choice, or phase, in a continuum of occupations that an individual can assume during his or her lifetime.

In order to progress in addressing these three weaknesses, we propose that a stronger recognition be given to the externalities associated with entrepreneurship. These external impacts go beyond the 'knowledge filter' effects that have become standard. It also goes further than the development economics literature has modelled.

We also propose to extend the scope of development outcomes to include multi-dimensional and subjective welfare, as one important but relatively neglected external effect of entrepreneurship, as occupational choice, is on subjective and non-monetary welfare (Naudé *et al.* (2014)). This means that the value of entrepreneurship may not be adequately appreciated or measured. To the extent that monetary outcomes depend on non-monetary aspects, this may partly explain (in addition to measurement issues) the micro-macro paradox.

These two proposals require one to adopt a new definition of entrepreneurship. While the well-known definition of Baumol (1990) has emphasized the role of incentives it has led to a broad view of entrepreneurship that underappreciates individual agency. We think Baumol's insight is useful and relevant for all persons' occupational choice, not just entrepreneurship. Similarly, we agree with Audretsch *et al.* (2015) and Welter *et al.* (2016) that the even more well-known entrepreneurship definition of Shane and Venkataraman (2000) places too much emphasis on the behaviour of entrepreneurs and hence is a too much narrow view of entrepreneurship and one that overappreciates individual agency.

To further the theoretical intersection of development economics and entrepreneurial economics, we therefore propose a new synthesis definition, modifying a definition proposed in 2011 by Gries and Naudé (2011) to describe entrepreneurship as

'the resource, process and state of being through which individuals with ability and agency utilize positive opportunities in the market for generating individual and/or social value'.

The emphasis of entrepreneurship as 'resource' and linked with individuals with 'ability' is based on the fact that a large part of the literature is indeed concerned with entrepreneurial 'capital' and 'entrepreneurial ability' as a production factor in economic growth and development (Lucas, 1978; Evans and Jovanovic, 1989; Murphy *et al.*, 1991; Banerjee and Newman, 1993; Audretsch and Thurik, 2004; Fonseca *et al.*, 2007).

But entrepreneurship is not only a resource: it is also a process. More specifically, as a process, it is about the discovery and exploitation of opportunities (Shane and Venkataraman, 2000). These generate individual value, but can also as we discussed, generate value for society more broadly. Often, this will not be captured in measures of development, leading to either to a micro-macro paradox or ineffectiveness of policy measures to promote entrepreneurship.

Gries and Naudé (2011) propose that only the utilization of positive opportunities (reflecting *intention*) be considered as valid for defining entrepreneurship. We support this as this adds a normative view to our synthesis definition of entrepreneurship. This may be contentious, as it rules out destructive and criminal opportunities as 'entrepreneurial'. We believe, however, that this is valuable because Baumol (1990)'s definition of entrepreneurship which describes entrepreneurs as any individual who

strives to optimize his or her wealth or status is too broad, and moreover introduces a rather one-sided dependence of the allocation of talent on institutions (the ‘reward structure of society’), whereas one of the externalities associated with entrepreneurship is their role in shaping and moulding institutions as ‘institutional entrepreneurs’.

This is also a point made in the 1990s by management scholars such as Moran and Ghoshal (1999) and economists such as Nelson (1994). An ‘institutional entrepreneur’ is an entrepreneur ‘who starts or expand his business venture and in the process helps destroy the prevailing nonmarket institutions in order for his business to be successful’ (Li *et al.*, 2006) (p. 358). Institutional entrepreneurs may be especially important in the context of underdeveloped countries, strengthening social norms and customs, private courts and laws, and reputation. Such entrepreneurs may generate massive positive externalities in terms of a generally better business environment. Indeed, we may argue that the notion of ‘institutional’ entrepreneurship is a special case of entrepreneurial externalities that changes laws, customs, notions within which all businesses have to operate.

In our synthesis definition, entrepreneurship is also a *state of being* which implies that entrepreneurship can be intrinsically valued and does not have to be instrumental (Naudé, 2010; Naudé *et al.*, 2014). This brings entrepreneurship closer to development economics given that development economics has moved beyond a narrow concern with only monetary measures of economic performance to measures of broader human well-being, security and capabilities. Development economists have proposed supporting indices and measures. Examples include the (1990) Human Development Index, the Millennium Development Goals (2000), the Sustainable Development Goals (2015) and even a Multidimensional Poverty Index (Alkire and Santos, 2010). This is also in line with recent arguments for appreciating the variety and diversity of entrepreneurship, e.g. Audretsch *et al.* (2015), Welter *et al.* (2016) and Dilli *et al.* (2018).

If being an entrepreneur is valued for its own sake, for instance through the independence it affords an individual, then it is restrictive to define entrepreneurship as only those individuals who are innovative or who introduce novelty into society. Basically, restricting the definition of entrepreneurship to only those who do something innovative or novel may recognize the externalities of entrepreneurship, but miss completely the ‘internalities’, which is its contribution to subjective well-being. As Gries and Naudé (2011) argue, these ‘internalities’ are more likely if individuals have the ‘agency’ to choose to be entrepreneurial or not. Individuals can through entrepreneurship also introduce novelty into their own lives; however, they want to experience or define this novelty. Efforts to determine an ‘optimal’ level of entrepreneurship, such as Prieger *et al.* (2016), will thus be biased if this is omitted.

Our identification of entrepreneurship also as a ‘process’ therefore resonates with approaches in the management literature to link entrepreneurship and development, such as for example the concept of community-based enterprises of Peredo and Chrisman (2006) which are ‘the result of a process in which the community acts entrepreneurially to create and operate a new enterprise’. All of the aforementioned concepts have been of growing interest in entrepreneurial economics and also in management studies, and await broader recognition and incorporation by development economics.

In this synthesis definition, one can also find (directly or indirectly) all three of the strands or perspectives or definitions of entrepreneurship in the literature. These three strands were described by Naudé (2008, p.2) as approaching entrepreneurship ‘from an *occupational* definition, a *behavioral* definition, or an *outcomes* definition’. In 2015, Audretsch *et al.* (2015) labelled these as approaching entrepreneurship from its ‘organizational status’, its ‘behaviour’ and its ‘performance’ directly corresponding to the discussion in Naudé (2008).

In our new synthesis definition, we have explicitly incorporated the behavioural and outcome (performance) views of entrepreneurship elsewhere in the literature. However, we have put less emphasis on the occupational (organizational) status. The reason for this is as follows. Rather, as resource and process and state of being, entrepreneurship may be associated or consistent with variety of occupations. Occupational choice of being self-employed, or owning a business can thus be consistent with entrepreneurship, but

there may also be other occupational choices where entrepreneurship, as generator of externalities, will be prevalent, for instance in corporations (e.g. 'corporate entrepreneurship', 'intrapreneurship') and in social, non-profit contexts (e.g. 'public entrepreneurship', 'social entrepreneurship'). As such, our synthesis definition is also consistent with the call recently made by Audretsch *et al.* (2015) (p. 709) for the future application of entrepreneurship to 'phenomena and contexts that have previously not been considered'.

5. Summary and Concluding Remarks

It is widely believed that entrepreneurship is needed for economic development and that SMEs are vehicles for such entrepreneurship. However, as more and more scholars grudgingly acknowledge, policy makers find it complex to promote entrepreneurship and SMEs in such a way that will drive economic growth and development. Why is this the case?

In this paper, we have argued that it is in part because the positive impact of entrepreneurs is overestimated and their negative impact is underestimated. But this is not the only reason. There is no unified scientific approach towards the role that entrepreneurship plays in economic development. The two main scholarly fields that have been interested in the topic, entrepreneurship economics and development economics, have been elaborated in isolation and only recently started to intersect. This intersection is, despite very useful contributions, still largely fragmented, *ad hoc* and not based on a unifying theoretical approach and (as a result) suffering from lack of proper measurement and data. The lack of a proper theoretical understanding at the intersection of entrepreneurship economics and development economics, and consequent measurement weaknesses has been a reason why empirical studies fail to find a statistically significant and unambiguous relationship between measures of entrepreneurship and measures of economic development.

Better policy making for economic development will benefit from further scholarly work to extend and deepen the intersection of the fields of entrepreneurship and development economics. While we did not attempt to provide in this paper the required unified theoretical approach that is ultimately required for this, we provided a conceptual basis for the eventual elaboration of such a theoretical approach. We did so by providing an up-to-date review of the intersection of the two scholarly fields, to identify progress and gaps, by delineating the externalities associated with entrepreneurship in development and by proposing a new synthesis definition of entrepreneurship.

In our synthesis definition, entrepreneurship *is the resource, process and state of being through which individuals with ability and agency utilize positive opportunities in the market for generating individual and/or social value*. This definition suggests that we cannot escape from the intention of the economic agent. The alternative is a Baumolian definition wherein there is a rather one-sided dependence of the allocation of talent on institutions (the 'reward structure of society'), whereas one of the externalities associated with entrepreneurs is their role in shaping and moulding institutions as 'institutional entrepreneurs'. The definition also suggests that as a process and state of being, there are externalities and 'internalities' (subjective well-being effects) that characterize entrepreneurship in development, and that ability and agency stand central in this.

We have argued that understanding the nature of externalities associated with entrepreneurship is useful to understand the apparent micro-macro-paradox found in empirical studies. One cannot resolve these micro-macro paradoxes without considering externalities (or spillovers) inherent in the activities of entrepreneurs as economic agents. In this regard, we noted that progress has been made in both entrepreneurship economics and development economics in starting to understand these externalities, particularly from the point of view of the institutional aspects. This bodes well for future progress in terms of elaboration of a unified theoretical approach.

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Notes

1. Isenberg (2010) (re) introduced the concept of entrepreneurial ecosystems in a 2010 article in *Harvard Business Review* citing Rwanda's development experience under its president Paul Kagame, as 'exemplary'. Human rights watchdogs disagree.
2. The Economist's 'Coming Entrepreneurial Revolution' did not materialize, at least not in the West, where the decades after the 1970s saw GDP and productivity growth in continuous decline. Decker *et al.* (2014) furthermore document that the share of USA employment from new enterprises declined by 30% over the past 30 years and the start-up rates have declined across all sectors in the USA. Similiar evidence has recently been presented for Belgium and Sweden by, respectively, Dumont and Kegels (2016) and Daunfeldt *et al.* (2015).
3. This section draws on Naudé (2008).
4. Development aid has externalities which confound merely adding up the good impacts of individual projects, for instance if aid crowds out private investment.
5. Gries and Naudé (2010) formalized the role of the entrepreneur in driving structural change across the stages of development using an endogenous growth model with micro-economic foundations. In their model, entrepreneurs provide five essential roles in structural transformation: they (1) create new firms outside of the household, (2) absorb surplus labour from the traditional sector, (3) provide innovative intermediate inputs to final-goods producing firms, (4) permit greater specialization in manufacturing, and ultimately (5) raise productivity and employment in both the modern and traditional sectors.
6. Even today, it remains the case that the externalities of high-productivity locations (e.g. cities or rich countries) or firms are such that this would drive divergence in development outcomes between countries and also within countries, where we find for instance much greater dispersal of productivity between firms in developing countries than in advanced economies offered larger markets, see also, Owoo and Naudé (2017).
7. There is a growing literature on the subjective well-being that entrepreneurs experience. A more extended discussion falls outside the scope of the paper, but interested readers can consult, for example Hessels *et al.* (2008) and Hessels *et al.* (2017).

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