


Chapter 3

Much More Than Meets the Eye: Unveiling the Challenges Behind Nascent Entrepreneurship

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ABSTRACT

Nascent entrepreneurship plays an important role in the study of entrepreneurship. It has been studied from different angles, especially from the psychological and sociological perspective as nascent entrepreneurs have distinctive traits and competencies. Other important foci of research are the investigation of the environment in which nascent entrepreneurs operate, as well as the way both the identification and exploitation of entrepreneurial opportunities have emerged. The main objective of this chapter is to address (1) the main individual characteristics that entrepreneurs have in common; (2) the environmental factors contributing to new venture creation; and (3) the steps in the creation process. The chapter departs from the fundamental process of nascent entrepreneurship, which is centered on opportunity recognition, evaluation, and exploitation, and is complemented by the way how contextual factors and personal characteristics and competencies influence the new venture creation process.

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INTRODUCTION

Entrepreneurship has been deeply studied over time as a driver of job creation, human wellbeing and economic development (Schumpeter, 1934; Dantas, Moreira, & Valente, 2015; 2017a; 2017b; Moreira, Dantas, & Valente, 2017; Bosma et al., 2020; Hamdana, Almubarak, & Sarea, 2020).

National governments and other authorities and experts are abandoning their traditional approach to measure economic development based on the analysis of the results of large companies with different financial and fiscal inducements; they are relying instead on the macro-economic growth induced by small and medium-sized enterprises (SMEs) and new ventures (Martínez-Rodríguez, Callejas-Albiñana, & Callejas-Albiñana, 2020; Stoica, Roman, & Rusu, 2020). This outcome is the result of entrepreneurship being more recognized throughout the world not only as “a good solution to creating jobs and enhancing per capita income growth” but also as “a key mechanism for enhancing economic development” (Shane, 2005, p. 1), and as primary driver of industrial dynamism and economic growth (Hamdana, Almubarak, & Sarea, 2020).

Entrepreneurship has been traditionally associated to the creation of new ventures (Gartner, 1989; Bosma et al., 2020). Moreover, an entrepreneur was traditionally defined by a set of personality traits and exceptional qualities. However, just as a basketball player is not only something one is, it is something one does (Gartner, 1989), an entrepreneur is an individual who exploits market opportunity through technical and/or organizational innovation leading to the creation of new ventures and/or strategic renewal of an existing organization (Schumpeter, 1934; França, et al., 2017). As such, as supported by Agarwal et al. (2010) and Bosma et al. (2020), one can also support that entrepreneurial activities structure the birth, growth and demise not only of organizations, but also of industries, regions, and economies.

There is no single concept attributed entrepreneurship, although it is related to how individuals manage uncertainty and innovation – namely the creation of new business opportunities, new markets and new economic development – and sense new business opportunities.

There are various factors that have been used to explain entrepreneurial behavior. For example the personality traits have been used to explain why some are more entrepreneurs than others (Nicolaou et al., 2008). Human capital has also been used to explain the positive effect in firms’ survival (Gimeno et al 1997), i. e. the entrepreneur’s human capital influences the capacity in assessing the industry and the proper entry of the firm into the market. Social is also important for entrepreneurship, as entrepreneurs use social ties to materialize business opportunities that eventually otherwise could not be obtained (Mesquita et al., 2007). Innovation is also important because it allows entrepreneurs to differentiate from competition and to create the foundations of a competitive market that goes beyond the typical price-based competition (Schumpeter, 1934).

From an economic point of view, entrepreneurship is seen as an outcome, where countries and regions can be distinguished by new business creation indexes (e.g. Bosma et al., 2020). There is a clear macro perspective where the individual characteristics of entrepreneurs are hidden and are not analyzed, i.e. what matters is economic performance in terms of growth, firm survival, job creation, cultural differences, among others (Dantas et al., 2017a; 2017b).

From a macro perspective, however, we can witness that countries as Nigeria, Ghana, Ecuador or Malawi (Bosma et al., 2020) are among the most entrepreneurial countries. However, some of the most developed ones, as Japan, Italy and France are among the least entrepreneurial ones. Clearly this indicates that we are before two different kinds of entrepreneurship necessity-driven entrepreneurship – motivated by self-employment, with a very low impact on economic growth – as opportunity-driven entrepreneur-

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ship – motivated by perceived market opportunities, in which new ventures have more room to grow successfully and to create wealth (Dantas et al., 2017a; 2017b). The former type of entrepreneurship is normally associated to less developed economies, whereas the latter is associated to more developed countries (Mohan, Watson, & Strobl, 2018).

There are also clear differences between technology-based entrepreneurship, where breakthrough innovation plays a key role and rural entrepreneurship, in which the lack of human capital is a serious problem in less favored-regions (Moreira & Martins, 2009; Mohan, Watson, & Strobl, 2018). Clearly, the creation of new ventures is neither simple nor smooth, as there are a number of context specific factors that entrepreneurs need to address. Moreover, according to Bosma et al., (2020), the creation of a new venture involves four evolutionary stages: conception, gestation, infancy and adolescence. As soon as potential entrepreneurs start to commit time and resources to founding the new firm, we can call them nascent entrepreneurs. As such, nascent entrepreneurs cover the conception and the gestation stage, as soon as they start to commit time and resources to founding the new venture, which may lead end in the successful creation of a brand new venture or to the abandonment of the new project before it starts.

The study of nascent entrepreneurship involves a new perspective in the analysis of the creation process of new ventures. Johnson et al. (2006) define ‘nascent entrepreneurs’ as someone who is currently (at least in the past 12 months) trying to start a new, independent business and expect to be owner or partner of the new venture. The decision to start a new venture may be influenced by experience and prior knowledge (Mueller, 2006; Wagner, 2004), availability of financial capital or individual wealth (Kim et al., 2007), the legal and institutional support to create the new venture (Zanakis et al., 2012), social networks and contact with other entrepreneurs (Davidsson & Benson, 2003) and as expected profit and success (Mueller, 2006).

Several perspectives have been used to address nascent entrepreneurship. One of the most important has been addressed by psychologists and sociologists who claim that there are distinctive traits and competences that pre-dispose nascent entrepreneurs to act entrepreneurially. A second stream of research is the analysis of the environment in which nascent entrepreneurs operate. These studies have sought to relate entrepreneurial activity to factors such as knowledge spillover, technological change, market structure, necessity and opportunity-driven opportunities, social identity and cultural values of nascent entrepreneurship (Alon et al., 2016; Brändle et al., 2018; Mohan et al., 2018).

Johnson et al. (2006) put forward several questions concerning this field of research: (1) what are the individual characteristics of nascent entrepreneurs?; (2) what are the environmental factors contributing to new venture creation?; and (3) what are the steps in the creation process, involving a series of decisions, rather than a single decision taken at a particular point in time? This chapter seeks to answer these three questions taking into account the recognition, evaluation and exploitation of new opportunities, which are influenced by contextual factors and personal characteristics and competences.

The chapter is divided in six sections. After the introduction, the second section addresses the concept of nascent entrepreneurship and opportunity spotting. The third section addresses the particularities of biological and psychological drivers of creativity. Section four addresses the creativity and how important the psychological approach is important for nascent entrepreneurs. The fifth section characterizes the importance of knowledge when exploiting employee entrepreneurship. Finally, the main conclusions are presented.

NASCENT ENTREPRENEURSHIP AND OPPORTUNITY SPOTTING

In essence, entrepreneurship is a creative human process, where entrepreneurs mobilize resources from one level of productivity to a superior one, which implies the mental ability to identify and exploit high-potential opportunities in complex and hectic environments where chances and pitfalls are dangerously entangled (Martínez-Rodríguez, Callejas-Albiñana, & Callejas-Albiñana, 2020; Stoica, Roman, & Rusu, 2020). This may lead to new products, new processes, new modes of organization and new product-market combinations, but they all start with spotting potential opportunities (Bjørnskov & Foss, 2008).

An essential aspect of bringing new ideas to life is to quickly take advantage of small windows of opportunity and find viable solutions to the challenges faced in business development (Ilonen, Heinonen, & Stenholm, 2018). Indeed, opportunities are at the very heart of entrepreneurship (Hansen, Monllor, & Shrader, 2016).

Entrepreneurship literature explicitly distinguishes between opportunity-driven entrepreneurship (pursuit of business opportunities) and necessity-driven entrepreneurship (forced self-employment due to a lack of alternative employment options) (Dantas et al., 2015). There is a general agreement in the literature that opportunity-driven entrepreneurship is more beneficial because it is growth oriented unlike necessity-driven entrepreneurship that is survival-oriented (Acs, 2006). As such, opportunity-driven entrepreneurship improves economic growth, increases productivity, and enhances creativity and innovation (Carree & Thurik, 2010).

Identifying potential opportunities, and finding the best way to exploit them is the core of successful entrepreneurship, specifically in the idea-generating nascent phase (Ward, 2004). According to Alvarez, Barney, and Young (2010), there are two key elements of nascent entrepreneurial behavior: the ability to recognize an opportunity or even to create it, and the exploitation or commercialization of the opportunity. Audretsch (2012) also argues that entrepreneurial behavior is the combination of opportunity spotting, and exploitation. However, if nascent entrepreneurs do pursue opportunities (Dimov, 2010), what are ‘entrepreneurial opportunities’?

The concept of opportunity has been defined in a wide variety of fields including economics, entrepreneurship, and strategy (Alvarez & Barney, 2007). An entrepreneurial opportunity consists of “a set of ideas, beliefs and actions that enable the creation of future goods and services in the absence of current markets for them” (Sarasvathy, Dew, Velamuri, & Venkataraman, 2010, pp. 142). Thus, opportunity in general terms is a chance to meet market needs through a creative combination of resources, whose value is higher than the existing alternatives (Klofsten, 2005).

There are two approaches for analyzing the emergence of an opportunity: the objective discovery and subjective creation. Early thinking regarded opportunities as objective phenomena available to be discovered (Short, Ketchen, Shook, & Ireland, 2010). Thus, opportunities exist when there are competitive imperfections in factor or product markets (Alvarez & Barney, 2007). Nascent entrepreneurs exploit these competitive imperfections to generate economic profits (Schumpeter, 1934). Therefore, the nascent entrepreneurs’ duty is to act timely, using any viable resources to discover these opportunities (Alvarez & Barney, 2007). Under this theory, an entrepreneur’s goal is to scan the external environment and spot new opportunities in the market earlier than others do (Maine, Soh, & Dos Santos, 2015).

Recently, scholars perceive opportunity as a set of actions that occur during the entrepreneurial process. This perspective posits that opportunities emerge from entrepreneurs’ vision of reality, i.e., opportunities are socially constructed (Short et al., 2010; Goss & Sadler-Smith, 2018; Seyb, Shepherd, & Williams, 2019). Opportunities cannot exist apart from the nascent entrepreneur, emerging from entrepreneurial

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actions influenced by social processes and structures (Wood & Mckinley, 2010). Despite important differences, these perspectives share a significant commonality: individuals objectify opportunities as an entity itself that must be acted upon (Williams & Wood, 2015).

The key entrepreneurial process of new venture creation follows a similar logic to the planning processes (Alvarez & Welter, 2015). First, nascent entrepreneurs need to recognize different opportunities, and two types of factors are behind this possibility: (1) prior knowledge and necessary information to identify an opportunity, and (2) cognitive properties needed to exploit the information, such as alertness or pattern recognition (Arenius & Minniti, 2005; Baron, 2006; Sahai & Frese, 2019).

After recognizing an opportunity, nascent entrepreneurs need to evaluate and make sense of it. Opportunity evaluation, defined as “assessing the attractiveness (for me or my firm) of introducing new goods, services, or business models to one or more markets”, it is process of ambiguity reduction and a critical bridge between an idea and actions (Williams & Wood, 2015, p.219). At this stage desirability and feasibility assessment can be supported by peers family, friends, colleagues, partners, informal and formal investors, consultants, accountants, customers, suppliers, and employees from whom they receive feedback about the viability of an opportunity or idea (Dimov, 2007; Wood & Mckinley, 2010). Thus, through these interactions, a clear understanding of the recognized opportunity begins to emerge (Dimov, 2007).

As soon as the opportunity is structured, nascent entrepreneurs need to step into the next stage, which is to actively engage into focused actions, designed to explore the possibility of gaining stakeholders support to capitalize the opportunity (Wood & Mckinley, 2010). During the gestation period, nascent entrepreneurs undertake several actions, such as the formation of entrepreneurial teams (Klein, 2008), development and testing the technology, evaluating consumer demand (Choi & Shepherd, 2004), leading the team, developing the decision-making process, developing human resources practices, strategy, finance and marketing, and sustaining competitive advantage (Alvarez & Barney, 2007). During this stage, nascent entrepreneurs need to gather information to reduce uncertainties and build the firm’s resources and capabilities before making the decision to enter the market (Choi & Shepherd, 2004). Hence, designing a formal business plan is advisable since it increases the likelihood of achieving viability. This script must be however synchronized with other gestation activities. A business plan is defined as “a script that outlines the markets to be served, the provision of products/services, the resources required, and the expected growth of the nascent venture” (Hopp & Greene, 2018, p.321).

Finally, the decision to exploit the opportunity comes after the designing stage, where entrepreneurs decide if they will exploit the opportunity by taking the necessary steps to generate revenue. Opportunity exploitation refers to “building efficient, full scale operation for products or services created by, or derived from, a business opportunity” (Choi, Lévesque, & Shepherd, 2008).

A variety of factors influence and affect opportunity-related decisions and preferences: a) heterogeneity in human capital (e.g. individual’s formal education, training, employment experience, background, and skills), emotions, aspirations, attitudes and perception of environmental conditions, including uncertainty and market conditions (Gruber, Kim, & Brinckmann, 2015; Shepherd, Williams, & Patzelt, 2015); b) prior knowledge, information asymmetry, networking, personal traits (Ardichvili, Cardozo, & Ray, 2003); c) previous life experience (Bryant, 2007); d) industry and market knowledge, cognitive ability to recognize changes and trends in the external world (Baron, 2006); e) entrepreneurial experience and early planning (Dimov, 2010); f) learning asymmetries (Corbett, 2007); and g) taxes and regulatory policies (Wood, Bylund, & Bradley, 2016). Additionally, (Dimov, 2007) defends that opportunity de-

velopment is a dynamic learning process, mediated by prior knowledge, the specific situation in which the entrepreneur is found, the industrial context and the available resources.

Opportunities arise from the entrepreneurs' response to emergent environmental contingencies, alongside with their ability to creatively combine accessible resources, flexible organizational arrangements, and to try alternative paths to commercialization within limited resources (Maine et al., 2015). Entrepreneurs explore opportunities within contexts of risk or uncertainty (Jones & Barnir, 2019) and one must keep in mind that the world is unpredictable and uncontrollable; sometimes it favors ingenuity, improvisation and creativity and not so much in traditional and predefined process logic. Chaos creates opportunities for knowledge and ideas and unexpected events can provide fascinating turning points in life (Gabriel, Muhr, & Linstead, 2014). Opportunities emerge unexpectedly as life unfolds.

BIOLOGICAL AND PSYCHOLOGICAL DRIVERS OF CREATIVITY

In the last decades researchers started to ask the question: How and why some people become entrepreneurs and others do not? The business world seems to be eager about this question, since its answer is a promising contribution to the general knowledge about building and leading a firm. Furthermore, entrepreneurial behavior is an important element and driving force behind dynamic changes in modern economies (Schumpeter, 1934). The Irish economist, Richard Cantillon defined entrepreneurship, already in 1732, as the willingness of individuals to carry out forms of arbitrage involving the financial risk of a new venture (Minniti & Levesque, 2008). Therefore, researchers started to look for entrepreneurs' common characteristics, like risk-taking behavior, creativity, identification of entrepreneurial opportunities ability, gender, education, family background and more. Creativity, innovation, and entrepreneurship are acknowledged as decisive to foster an entrepreneurial culture, driving forward socio-economic development (Edwards-Schachter, García-Granero, Sánchez-Barrionuengo, Quesada-Pineda, & Amara, 2015).

In a continuously changing world the predominant role of creativity, is highlighted by scholars and practitioners, as a core competence required for individuals in several areas (Ward, 2004; Gundry, Ofstein, & Kickul, 2014). Contemporary global competitive endeavor establishes creativity as an urgent requirement for interdisciplinary and cross-cultural management (Ko & Butler, 2007). Florida (2002) stated that creativity is undeniably the most important economic resource of the 21st century, as it promotes individual task performance, organizational innovation and effectiveness, and it helps to address future challenges (Amabile, 1996). Researchers agree that creativity is linked to entrepreneurship since it promotes the identification of new opportunities and, among the literature research, entrepreneurs are portrayed as creative individuals who search for new solutions, in order to create added value (Gielnik, Frese, Graf, & Kampschulte, 2012). Creativity and knowledge acquisition have indeed a positive effect on the perceived viability of the business idea (Heinonen, Hytti, & Stenholm, 2011). In 1996, creativity was defined as the production of novel and useful ideas (Amabile, 1996). While it is generally accepted that main drivers of creativity are passion and motivation, little is known about the genetics and neurochemistry behind this trait.

Shane and Nicolaou (2015) examine whether creative personality and the tendency to recognize entrepreneurial opportunities have a common genetic source – that is, the same genetic factors influence the predisposition to develop a creative personality and the predisposition to identify entrepreneurial opportunities. They also examine how much of the correlation between creative personality and the tendency to start businesses is accounted for by common genetic factors. By applying bivariate genetics

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techniques, they examined the cross-characteristic-cross-twin correlations between the creative personality scale and the tendency to recognize opportunities and to start new businesses. They demonstrated that people with creative personalities are more likely to recognize entrepreneurial opportunities and to start new businesses. They also indicate that some people have an innate predisposition to both develop creative personalities and to become entrepreneurs. Moreover, research shows that creativity is influenced by situational, contextual and cognitive factors as well as individual factors related to personality (Gruber, Kim, & Brinckmann, 2015; Baron, 2006). Therefore, the results are complementary to other approaches analyzing the role of creativity in entrepreneurship, including those that show that learning and cognitive structures affect creativity or opportunity recognition (Mumford, 2003; Shalley & Gilson, 2004). Being convinced that there is a clear relationship between genes and the likelihood of becoming an entrepreneur, Scott Shane and Nicos Nicolaou decided to work with twins in order to overcome the heterogeneity among individuals. It enabled the scientists to distinguish the effects between nurture and nature on a high level, with a high number of twin studies. Based on their research in 2015, they stated, that both creative personality and entrepreneurial behavior have a genetic component, as well as the capability to identify entrepreneurial opportunities (Nicolaou, Shane, Cherkas, & Spector, 2009).

According to Shane and Nicolaou (2015), the results do not indicate that either genes or the environment *determine* creative personality and entrepreneurship. They stress the importance of considering the complementary roles that both biology and environment play in explaining entrepreneurial behavior. Their research suggests that one way through which genetic factors influence entrepreneurship is by influencing people's attributes and personality characteristics. As such, the main contribution of the study is showing that part of the genetic influence in entrepreneurship is mediated through an individual attribute not previously looked at: creative personality.

In recent years the interest on understanding the basis of personality grew and more and more effort is done to combine creative personality and entrepreneurship and neuroscience. According to Bridges and Schendan (2019), creativity is based on personal traits as sensitivity. Evans and Rothbart (2007) and Pluess (2015) define sensitivity as a biologically-based personality/temperament dimension which is a result is a result of the 'Big-Five traits' (openness, conscientiousness, extraversion, agreeableness and neuroticism). Pointing out that there is a difference between personality and temperament they identify the lack of research on temperament as a major critical gap in creativity research. While personality integrates cultural factors as beliefs and values, temperament is based on intrinsic reactions to the environment (Bridges & Schendan 2019). Even not being investigated directly it was addressed in several independent studies, as the role of hormones in the creation of new venture. One of the best studied hormone is the sex hormone testosterone. White, Thornhill and Hampson (2006) suggest that people with start-up experience present higher levels of testosterone than people with no start-up experience after they analyzed the testosterone levels of male MBA students trying to see if there was a correlation between the testosterone level and risk-propensity, which itself would have an effect on entrepreneurial behavior. Although they found a positive correlation, the study design did not allow a general conclusion. Zhang et al. (2009) developed and tested a new model that focused on the mismatch of testosterone and status in a group as well as the collective group efficacy. They found a correlation as well, but again the methodology was not convenient for a broader conclusion. Sapienza, Zingales, and Maestripietri (2009) found that testosterone affects financial risk aversion and career choice differently in men and women, and that there is not a linear relationship between testosterone and risk aversion. Nevertheless, individuals with high testosterone seemed to be more likely to choose risky carriers. The following years were dominated by studies trying to improve the test designs. Stenstrom et al. (2011) added the 2D:4D ratio,

(digit length ratio) which is accepted to be a marker of prenatal testosterone exposure, as well as “rel2” which describes the relative length of the index finger to all four fingers ($2D / [2D + 3D + 4D + 5D]$) and is anti-proportional to the androgen level. Maestripieri et al. (2010) made one step back and analyzed the inter and intraspecific sex variation of hormonal response to stress, an important but missing information up to that point. They, however, included the relation status in the samples. They concluded that single males seem to have a higher testosterone concentration than males in a stable romantic relation.

Greene et al. (2013) as well as Metha and Josephs (2010) were again able to show a clear positive correlation between testosterone and self-employment and risk taking. Yet, van der Loos, Haring, Ritveld, Baumeister, Groenen and Hofman (2013) clearly rejected this hypothesis arguing that the main problems among the previous mentioned studies are the following ones: the sample size was too low, the studies were not repeated, and that the testosterone measurements were not properly done (i.e. using serum instead of saliva, plus additional parameters).

That testosterone does play a role in new venture creation might explain with the clear dominance of men in the economic world, as women have by nature a lower testosterone level than men since the testicles are the main source of this hormone. At this point, it feels necessary to point out that all this studies do investigate the correlation of testosterone and firm creation but they do not include the valuable information if those entrepreneurs are successful or not. In fact, a too high level of risk-taking behavior might cause a high number of new firms; however, it is likely that a high-level of risk-taking behavior may lead to a low success rate. In fact, Miller (2015) raises the question if there might be a counter side to these entrepreneurial behaviors and how likely it is that they turn into aggressiveness, narcissism, ruthlessness, and irresponsibility.

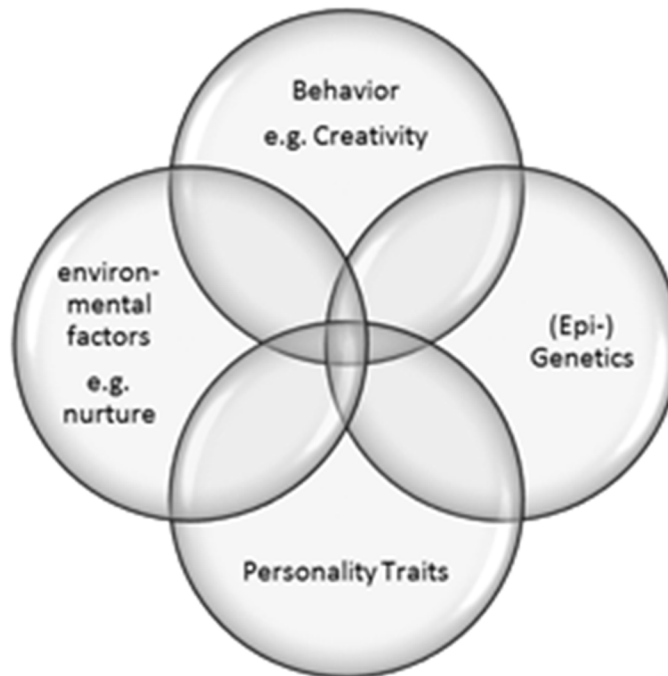
In more recent years, studies started to focus on the role of other hormones as oxytocin, dopamine, norepinephrine and serotonin (Bridges and Schendan, 2019; Chermanhini and Hommel, 2012, Davis et al., 2019; Gu et al., 2019; Want et al., 2020). All studies agree that hormones are chemical modulators of emotions and that emotions lead to behavior (Wang et al., 2020). Gu et al. (2019) developed a ‘three primary color model’ based on the interplay of dopamine-joy, norepinephrine-stress (fear and anger) and serotonin-punishment, trying to explain the relationship of creativity and emotions. They state that the interplay of those hormones can cause motivation and novelty seeking. Murnieks et al. (2020) emphasize that there should be a special effort paid to the nature of motivation as they identified it as a cornerstone to the entrepreneurial process.

Even if there are no doubts that hormones do have an effect on entrepreneurial behavior in general, yet much is left to be investigated. This new research field is facing some problems in what pertains to the right method, as well as some long-term studies on natural and entrepreneurial independent variability are lacking. Furthermore scientists still need to improve the test design regarding i) general accepted definitions (e.g. when is an entrepreneur an entrepreneur?), ii) representative parameters, iii) adequate methods/ protocols, and iv) control variables and v) higher numbers of tested individuals. For example much of the literature on entrepreneurship studied the creation of new firms, which according to some authors may introduce success bias and perhaps a more useful approach would be to study individuals with a propensity to entrepreneurship or nascent entrepreneurs. In this regard, it is fundamental to examine whether people with creative personalities are more likely than others to recognize entrepreneurial opportunities and to start new businesses. Nevertheless, the study of human nature is far from a quick answer, as the individual reactions of each process are quite easy to understand, but the result of those interactions partly remains a mystery.

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The individual, as a result of its genome, which defines personal traits, and therefore its tendency to a certain response (e.g. behavior) to its environment, is a dynamic interplay. Actions/reactions are not static, just as the environment the individual is living in. This does not only influences the individual behavior but can also change the genome (Lapp & Hunter, 2016). A highly simplified model is presented in Figure 1. How often a gene is translated into its product depends on various factors, among which biological and environmental factors are important. Recently, epigenetic, a whole new branch of bioscience became very popular, it is just dealing with the stable and inheritable changes in gene expression patterns (Cortini, Barbi, & Care, 2016). It might help to in understanding of nascent entrepreneurial behavior. Leading scientists as Nicolaou et al. (2019) have great hope in the joining entrepreneurship research with neuroscience as: i) insights in mental processes; ii) validation of entrepreneurship constructs regarding the discriminant and convergence; iii) examination of antecedents and temporal ordering of entrepreneurship variables; and iv) refining, constraining and adjudicating between different theoretical perspectives; however they emphasized that the ethical and moral implications should be taken extremely seriously.

Figure 1. The interplay of behavior, genetic background, environmental influences and personal traits



CREATIVITY AND ENTREPRENEURS: A PSYCHOLOGICAL APPROACH

In terms of personality, entrepreneurs differ from managers (Zhao et al., 2010). The human personality is a dynamic construct and is related to certain persistent qualities in human behavior undertaking individuals as dispositional entities (McAdams, 1996). Several empirical studies based on the person-environment fit theory (Judge & Kristof-Brown, 2004; Kristof-Brown, Zimmerman & Johnson, 2005) and the career choice theory (Lent, Brown & Hackett, 1994; Holland, 1997) provide empirical evidence that people

tend to select work environments that meet their interests, personality and values. The requirements to start and manage a business venture requires an entrepreneur to present certain unique traits such as innovation, risk taking behavior, executive risk reducer behavior, and goal achiever behavior (Chen et al., 1998) that can be translated into openness to experience, neuroticism, agreeableness, conscientiousness and extraversion.

Nevertheless, fewer studies explore how the different pieces of the creativity puzzle fit together. For long, the scientific analysis of creativity has gather great attention from researchers and numerous approaches have been adopted in the study of creativity from different research fields, (Chen, Chang, & Lo, 2015; Edwards-Schachter et al., 2015; Heinonen et al., 2011; Mumford, 2003; Runco, 2004; Ward, 2004).

Empirical psychological studies on creativity vary between the creativity investment theories and the divergent production approach (Sternberg & Lubart, 1999). Although Simonton (1999) consider that the creative behavior is depersonalized and externalized from the individual, attributing the renewal of ideas to social and historical circumstances or contingencies, O'Sullivan and Haklay (2000) locate the determination of behavior within the isolated individual.

The interactionist assessments take in consideration both the social nature of behavior and individual differences (Gruber & Wallace, 1999). This approach in particular develops an intensive and contextualized study of individual cases where social factors assume an important role.

Being creative implies having some personal characteristics, such as taste for risk, sense of humor, persistence, tolerance, and autonomy. However, possessing a creative personality is not guarantee of being creative (Barron & Harrington, 1981; Sawyer, 2006).

Current studies suggest that people with creative personalities are more likely to recognize entrepreneurial opportunities and to start new businesses (Shane & Nicolau, 2015) and center their scope on creative individuals that change paradigms (Simonton, 2000; Sung & Choi, 2009; Klonoski, 2012). However, the fundamentals of creativity and its relation to nascent entrepreneurs are not well understood.

Several studies suggest that creativity and entrepreneurship are correlated (Edwards-Schachter et al., 2015; Ward, 2004). Entrepreneurship is considered as one of the domains in which people with creative personalities are more likely to exercise their creative nature (Chen, Chang, & Lo, 2015; Shane & Nicolau, 2015). Consistent with previous literature, creativity is the result of interaction between internal factors such as intrinsic motivation, individual traits (extraversion, gentleness, openness to experience, emotional stability and awareness) and the environment (Sung & Choi, 2009).

At the individual level, creative skills have been extensively measured by creativity researchers both as part of a personality dimension and a cognitive dimension. Creativity is independently predicted by personality and motivation as well as cognitive and non-cognitive factors – intellectual abilities, knowledge, intellectual styles (Sternberg & Lubart, 1995). Creative performance requires a set of individual skills such as broad interests, attraction to complexity, intuition, self-confidence, persistence, curiosity, energy, and intelligence and initiative (Amabile, 1996; Shalley & Gilson, 2004; Zhou & Shalley, 2003) that will impact the ability to generate novel responses and solutions.

Considerable consensus has emerged that five personality dimensions – neuroticism, extraversion, openness to experience, agreeableness, conscientiousness – capture the basic structure of human personality. The Big Five taxonomy is considered among consumer behavior researchers the psychometric that enjoys the broader agreement (Zhao et al., 2010). The model is organized by personality descriptors grouped together using a factor analysis.

A study developed by Zhao et al. (2010) states that entrepreneurial intentions and entrepreneurial performance are related to the majority of the Big Five personality dimensions.

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The expression of high levels of extraversion, strong extrinsic motivation, and openness to experience denote a high level of creative performance. High levels of agreeableness, and low extrinsic motivation is a positive predictor of creative performance (Sung & Choi, 2009).

Individuals with high levels of extraversion are gregarious, outgoing, warm, and friendly; they are energetic, active, assertive, and dominant in social situations; they experience more positive emotions and are optimistic; and they seek excitement and stimulation. Optimism, energy and assertiveness are traits that have been associated with people's perception of entrepreneurs (Locke, 2000, Zhao et al., 2010).

Openness to experience reflects originality, open-mindedness and it is associated to an active imagination, aesthetic sensitivity, independent judgement and intellectual curiosity. It relates with divergent thinking, one of the features of intelligence related to creativity (McCrae, 1987). It is related with entrepreneurship and artistic and scientific creativity, since professionals within these fields, scored higher when compared with members of the general population (Ko & Butler, 2007).

High levels of openness to experience refer to individuals curious about the internal and external world, are always open to accept new ideas and values and usually present a very rich range of life experiences. In the other side of the spectrum, individuals that present low scores in this specific trait are considered more conventional and conservative with a limited choice of interests.

Neuroticism evaluates the individual's ability for adaptation, or the contrary, the emotional instability. The academic literature considers entrepreneurs as resilient, optimistic, and steady in the face of stress, uncertainty, and social pressure (Locke, 2000). Thus, low levels of this neuroticism, relates to calm, secure emotionally stable and satisfied-with-himself individuals that deals with stressful situations in a more adaptive way. The opposite side reveals negative affectivity or nervousness.

High levels of neuroticism are found to be more accentuated in people who are worried, nervous, and emotionally insecure, with tendency to feel negative affection and to develop inappropriate coping responses.

Agreeableness dimension assesses one's attitude and behavior towards others'. It is related with the level of interpersonal orientation that varies in a continuum from sympathy to antagonism in thoughts, feelings, and actions. Individuals with a high score in agreeableness are altruistic, cooperative, trustworthy, and kind to others. On the other side, those who present low score in agreeableness are usually characterized as being, rude, unpleasant, suspicious, unhelpful, vindictive, manipulating, and more competitive than cooperative.

The conscientious individual has strong force of will, is determined, scrupulous, punctual, organized, hard-working, self-disciplined, ambitious, persevering, and trustworthy, Conscientiousness reflects control or constraint in behavior directed toward a certain objective. This trait relates to the degree of organization, persistence, and motivation.

A low score in this characteristic depicts individuals who are careless in the pursuit of their objectives, unconcerned, negligent and with a weak force of will.

Hence, creativity is considered imperative to entrepreneurial behavioral since it is connected with identification of opportunities that leads to new businesses and ventures. Chen et al. (2015) define creative entrepreneurs as the founders who establish and remain in charge of a business. Opportunity recognition is considered a creative process involving different steps of preparation, incubation, and insight (Lumpkin & Lichtenstein, 2005). Entrepreneurs who are able to generate more original ideas (openness to experience) are more successful in terms of venture growth. Openness to experience and conscientiousness appear to be the personality constructs most strongly and consistently associated with entrepreneurial intentions and entrepreneurial performance. The study presented by Zhao et al. (2010) disclosures as

well that entrepreneurial intentions and entrepreneurial performance explain the existence of personality differences among entrepreneurial and managerial populations. Entrepreneurship not only relates to creativity and innovation but also requires knowledge and business competence (Heinonen et al., 2011).

According to the presented literature there are in fact evidences for a correlation between hormone concentration and/or genetic background to entrepreneurial behavior (Stenstrom et al., 2011; Greene et al., 2013; Mehta & Josephs, 2015).

ENVIRONMENTAL FACTORS OF NASCENT ENTREPRENEURSHIP: AVAILABLE AND ACCESSIBLE KNOWLEDGE

Knowledge is the foundation, where both firms' competitive advantage and nations' macro-economic growth stand (Agarwal, Audretsch, & Sarkar, 2010). It also plays an exceptional role in motivating new venture creation (Schumpeter, 1934) and facilitating its success (Davidsson & Benson, 2003). The fundamental principle of an organization is the generation, combination, recombination and exploitation of knowledge, which is present during the creation of new ventures converting knowledge into growth (Acs, Audretsch, Braunerhjelm, & Carlsson, 2012; Acs & Sanders, 2013).

In the previous section we have seen the importance of opportunity spotting and exploitation for nascent entrepreneurs, in this section we argue along with Qian, Acs and Stough (2013) that identifying available and accessible novel knowledge is one of the environmental sources of entrepreneurial opportunities leading to new venture creation.

The mechanism, by which an individual or a firm accesses others' knowledge, is described as knowledge sourcing (Gray & Meister, 2004). Organizations can rely on internal knowledge (e.g. employees, departments within the firm) and external knowledge (e.g. competitors, alliance networks, market feedback) to draw profitable information (Agarwal et al., 2004). The ability to recognize the value of new information, assimilate it, and apply it to commercial ends is critical to success, and implies innovative capabilities or absorptive capacity (Cohen & Levinthal, 1990). The higher one's absorptive capacity is, the more and richer knowledge one can take in (Aghion & Jaravel, 2015) leading to higher changes of survival and success (Kato, 2020).

In the domain of nascent entrepreneurship, a founder can draw knowledge from two sources: (1) working in an organization and learning "on the job" incorporating available tacit and explicit knowledge, and (2) participating and observing in the practices of an industry and learning from others' innovations and mistakes; in both cases by recognizing and exploiting the opportunity through the available and accessible knowledge. Furthermore nascent entrepreneurs can source knowledge by two means: knowledge transfer – where available knowledge is transferred in a market-like transaction involving the cross-party compensation of the value of the knowledge (Cristo-Andrade & Ferreira, 2020) – and knowledge spillover – where knowledge created by one agent is "flowing freely" and can be used by someone else without compensation, or with a compensation lower than the value of that knowledge (Jaffe, 1998).

We will focus our attention on knowledge spillover or "unintended knowledge transfer" (Agarwal et al., 2004). As a rich source, we argue that it represents a greater variety and a more successful source of opportunities for new venture creation. Furthermore we target knowledge spillover that is originated from within the firm (from the employer organization) rather than from the market, as organizations, compared to markets, are conceptualized as superior settings for the transfer and integration of knowledge (Argote, McEvily, & Reagans, 2003).

KNOWLEDGE INHERITANCE FROM KNOWLEDGE SPILLOVER AND EMPLOYEE ENTREPRENEURSHIP

New knowledge is the fountainhead of new venture creation (Schumpeter, 1934), and inheriting knowledge is one of the most efficient ways to gain the required innovativeness to start a business (Agarwal et al., 2004).

Knowledge inheritance is (tacit and explicit) knowledge that employees of an incumbent organization acquired (spilled-in) while working at the firm and utilized it afterwards (without compensation) after leaving their employer to create a new venture of their own (Agarwal et al., 2004). This inherited knowledge incorporates both technological knowledge – ability to generate new scientific discoveries and technological breakthroughs –, and market know-how – ability to seize new opportunities or withstand threats, and commercialize technological innovations before competitors do. Spilled-over knowledge is a great source of entrepreneurial opportunity (Acs, Audretsch, & Lehmann, 2013; Ferreira, Ratten, & Dana, 2017; Ghio et al., 2015), but only when it is understood, its value recognized, and its essence commercialized (Qian et al., 2013). The new venture can strategically advance with less effort and costs (Lee, Choo, & Yoon, 2016) on the expense (lost opportunity) of the incumbent organisation. Knowledge spillover directly benefits the recipient exactly at the degree that the originating party is incapable of materialising the benefits of its knowledge investment (Veréb & Ferreira, 2018).

Knowledge by itself is a fundamental condition for the success of any organisation, and therefore entrepreneurs invest increasingly more in acquiring knowledge (Acs, Audretsch, & Lehmann, 2013). A firm's knowledge is not only embedded in the organizational culture, but also makes up the individual human capital (Smith, 2001). As human capital is inherently mobile (Coff, 1997), and knowledge is appropriable by anyone who possess it (Arrow, 1962), employees by “learning on job” and working “in industry” are in a potential position to use their knowledge to create new ventures. Said differently, employees can utilize the knowledge spillover of their former employing organization to establish their own (possibly competing) firm. Campbell, Ganco, Franco and Agarwal (2012) as well as Gambardella and Giarratana (2010) support this view by providing compelling evidence that the more skilled and higher-ability employees are, the more likely to create new ventures. The inclination for nascent entrepreneurship is also sparked by the incumbents having imperfect and permeable knowledge repositories (Kotha, 2010). Previous studies have additionally suggested that spin-outs may be triggered by organizational crisis, change in leadership, or lack of promotional prospects for employees (Garvin, 1983), however scholars do not yet agree on the exact reasons, why some incumbent environments tend to be more prone to spin-outs than others (Burton, Sorensen, & Beckman, 2002).

Agarwal et al. (2004) have developed a theoretical framework linking knowledge inheritance (knowledge spillover) to spin-out (new venture) formation, development and survival. Building on this framework we provide a brief literature review supporting our claim that rich knowledge inheritance is the main determining factor for the success of nascent entrepreneurship.

1. Effect of larger environment: Industries/firms with abundant know-how are more likely to generate spin-outs.

Audretsch and Feldman (1996) emphasized the importance of the knowledge-rich environment when it comes to new venture creation. Because, Wright (2019) explains, spin-outs are not evenly distributed geographically, but they have a tendency to cluster spatially within close proximity to the knowledge

source. Alcácer and Chung (2007) as well as Feller, Ailes, and Roessner (2002) found that start-ups are more likely to be located close to academic knowledge. This implies, on one hand, that new ventures tend to breed in (academic) knowledge-rich environment, on the other hand, start-ups strategically choose a location where further gains from knowledge spillover can be expected.

Emerging industries that are abundant in new knowledge, like blockchain or green environmental technologies, were too found to be more prone to new venture creation even in the face of stringent governmental policies (Cojoianu et al., 2018). As new knowledge provides a range of novel opportunities both scientifically and commercially, as well as attracts venture capital (Park, Shin, & Choy, 2020).

The most recent systematic literature review on the common domain of knowledge spillover and strategic entrepreneurship has also confirmed that location (cluster) plays the major role in fostering entrepreneurship (Cristo-Andrade & Ferreira, 2020). The clusters' agglomeration effects are particularly advantageous for new ventures, like shared costs for infrastructure, the concentration of skilled workforce, transaction efficiency, opportunity for cooperation, supportive public policies and nevertheless, knowledge spillover (Boschma, Eriksson, & Lindgren, 2009).

It is essential to note, however, that location increasingly means both physical and virtual vicinity, as researchers from different parts of the globe can collaborate remotely through the growing use and sophistication of information technology (Hoekman, Frenken, & Tijssen, 2010). So, it is not the physical location per se, but the proximity of knowledge that start-up can benefit from (Alcácer & Chung, 2007).

Besides knowledge-rich industry environment, firms being abundant in knowledge could enhance potential entrepreneurs' ability and sensitivity both to recognize market opportunities and to creatively extend (technological and marketing) knowledge in new ways. Since knowledge asymmetry lies at the heart of entrepreneurship (Venkataraman, 1997), such access to valuable knowledge can be a source of competitive advantage a new venture can rely on. Agarwal, Audretsch, and Sarkar (2007) found that that firm investments in knowledge creation are associated with increased spin-out rates. Even if the complexity of knowledge may limit employee turnover, underutilized opportunities within a firm, regardless of the complexity, tend to spill-out via employee entrepreneurship (Ganco, 2013).

The knowledge inheritance can also incorporate the benefits the nascent entrepreneurs can gain from the affiliation with the incumbent firm through the transfer of status (Agarwal et al., 2004). This positive association can legitimize new ventures in the market, and provide a better access to resources (e.g. finance) through the (inherited) social capital of the incumbent firm. Nevertheless, the common foundation of the knowledge source and knowledge inheritance can provide a great opportunity for collaborative knowledge creation between the incumbent and the start-up, where combining resources can lead to higher individual gains (Ding & Huang, 2010).

There is a final layer of the incumbent's knowledge that can motivate employees for spin-out: it is the how well the incumbent firm utilizes its own knowledge internally. The unexploited opportunities, like new scientific breakthroughs that are not commercialized, marketing insights into emerging and unfulfilled customer needs, underutilized technological inventions can lead to employee frustration, lowering job satisfaction and demising commitment, which can drive employees away (Christensen, 1993). However unexploited opportunities can provide employees not only with an excellent reason to leave, but also to pursue these available prospects for themselves through entrepreneurship (Agarwal et al., 2010). Klepper and Thompson (2007) also found that disagreement within incumbent firms provide a great motivation for employee spin-outs in knowledge-intense industries.

Liu, Wright, Filatotchev, Dai, and Lu (2010) argue along the same lines that former employees of multinational companies are a great source of innovative knowledge benefiting the local industry as

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well as the national economy. On one hand, they enhance the innovation capacity of any potential firms they are employed by later, and on the other hand, in case they pursue new venture creation themselves, their firm can encourage the innovation of other firms in the industry through cooperation and/or competition. Just like transnational entrepreneurs, who spill in knowledge from multiple location through their transnational embeddedness and generate local knowledge spillovers that benefit the local industry (Veréb and Ferreira, 2018).

2. Quality of knowledge inheritance: The richer the parent firm's knowledge is at the time of the spin-out's inception, the richer the spin-out firm's capabilities likely to be at start and so increase over time.

The inherited knowledge is the foundation where the new venture is built. The stronger this foundation is, the higher the potentials of the spin-out will be (Agarwal et al., 2004). Firms with persistent R&D investments and a general superiority in sales, exports, productivity, profitability and wages are less likely to inspire and enable spin-outs than firms with temporary or no R&D investments, however, if they do, their entrepreneurial spawns tend to be of higher quality indicating the importance of inherited knowledge (Andersson, Baltzopoulos, & Lööf, 2012).

Confirming the above argument, high-performing employees who had a deeper and wider access to knowledge and were aware more of the opportunities left dormant by the parent firm were found more likely to spawn their own ventures outside the parent firms and become more successful in doing so (Acs, Audretsch, & Lehmann 2013; Ghio et al., 2015). Also, individuals who have worked longer and at a higher hierarchical position in the industry as well as who have developed a larger variety of skillsets through their employment period transitioned to successful entrepreneurship at a higher rate (Garrett et al. 2017). De Figueiredo, Meyer-Doyle, and Rawley (2013) explored employee entrepreneurship in the hedge fund industry. They too found evidence of inherited knowledge effects: employee entrepreneurs with prior experience in leadership positions of hedge funds in New York or London outperform their peers, regardless of where the entrepreneurial firms are located.

We also have to mention here that besides the explicit knowledge of the firm (like scientific formulae, technical specifications, blue-prints, strategy reports, hardware, etc.), the tacit knowledge, the competences and the values of the organizational culture held by individual employees also "imprint" on the core of new venture. Moreover, it determines the new firm's knowledge absorptive capacity (i.e. the ability, efficiency and aspiration to learn, discover, and acquire new knowledge). Since starting with a good model can affect subsequent firm performance, superior knowledge endowments at birth can result in longer-term knowledge superiority (Cyert, Kumar, & Williams, 1993). Recent evidence also confirmed that organizational practices do transfer from parents to spawns, particularly the already established and successful ones (Feldman, Ozcan, & Reichstein, 2019).

3. Higher rate of success: Spin-outs (as a type of nascent entrepreneurs) will have higher levels of capabilities than other types of potential entrants.

Nascent entrepreneurs can be "original entrants" and spin-outs, while spin-outs can also be divided further between incumbent backed-up new ventures (e.g. subsidiaries) and independent spin-outs. Agarwal et al. (2004) argue that while both incumbent-backed ventures and spin-outs benefit from knowledge transfers from incumbents, the spin-outs are at an advantage, because their agents of knowledge transfer

are the founders as opposed to recruited employees in subsidiaries. The authors explain this advantage by contrasting the founders' holistic leadership style and influential position with employees' limited vision and status to transfer and reinforce knowledge flow across different departments of a new organization. They also add that since power in organizations depend on having non-replicated knowledge, hired employees could prefer not to lose their knowledge monopolies, thus be discouraged to share and fully utilize their capabilities; on a different perspective founders have high incentives and motivation to share their knowledge and transform it into best practices, so as to appropriate full benefits for the firm as a whole. Finally, Agarwal et al. (2004) defend that when multiple employees from diverse organizational, industrial, and social backgrounds come together to start a new firm, the synergy of their different capabilities, experiences, and social capital can greatly increase the potential value of their combined know-how. Other studies also support the importance of social capital in entrepreneurial adventuring (Mueller, 2006).

Employee entrepreneurs are also better aware of the R&D developments and the essence of the industry knowledge due to their work within the industry. As a result, nascent employee-entrepreneurs are in a better position to re-combine knowledge and to create valuable innovation (Yang & Steensma, 2014) than others without this "insider information". Dahl and Sorenson (2013) as well as Chatterji (2009) go one step further arguing that new entrepreneurs with previous industry experience have higher performance than those without this prior experience. By comparing spin-outs in the German and North American laser industry Buenstorf (2007) explains that specific capabilities, both technological and market-related, acquired at the parent firm are not accessible to new comers in the market and thus, provide unbeatable advantage to employee entrepreneurs. Kato (2020) further adds that founders of new start-up firms who have experience in the industry are more successful as they are capable to constantly spill-in and utilize external knowledge in their new venture through their already-established industry network.

4. Better chances of survival: The likelihood of survival will be greater for spin-out entrants than for all other types of entrants.

Spin-outs benefit from entrepreneurial mindset (effective opportunity-seeking behavior), and are also armed with insider industry knowledge; this combination makes them superior to other types of market entrants.

In addition to having technological and marketing knowledge, spin-out founders are likely to benefit from their previous employer's contacts and network ties, while their own social capital is possibly closely related to the industry they have worked for. Moreover, spin-outs bring with them routines and processes along with links to customers that enable them to better overcome liabilities of newness in the market vis-à-vis other entrants. Campbell et al. (2012) demonstrated that the superior performance of employee entrepreneurs rests on the importance of complementary assets, which are more easily transferred to or recreated in a new firm, because employees who leave for entrepreneurship do not only take their knowledge with them but their business and customer networks, too. Besides local business and customer contacts, Buenstorf and Costa (2018) found that hiring the early employees from within the local industry also contributes to the longevity of spin-outs.

There is a big difference in the leadership style of managers and entrepreneurs (McGrath & MacMillan, 2000), because managers of incumbent-backed spin-outs are likely to be evaluated on the basis of how closely they adhere to a corporate plan, while spin-out founders are motivated by the ends achieved,

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as their livelihood is tied to their ventures' performance. Therefore spin-out founders are more flexible and faster to change strategic direction if needed, thus enhancing their chances of survival.

The findings of Dencker, Gruber, and Shah (2009) also suggest that pre-entry knowledge and management experience increase firm survival through the moderating the effects of subsequent learning activities. Andersson, Baltzopoulos, and Lööf (2012) too highlight the importance of pre-entry knowledge by demonstrating that spin-outs from firms with persistent R&D investments have a significantly increased probability of survival compared with other types of entrants. They reason that this is because an 'average employee' in an incumbent is more likely to accumulate both the specific technological and market knowledge as compared to an 'average employee' in other firms.

Finally, spatial proximity to knowledge source does not only encourage new venture creation, but it also increases the new ventures' survival chances. Buenstorf and Costa (2018) demonstrated that young firms can greatly benefit from local and larger regional agglomeration externalities. Positive agglomeration externalities are benefits that firms derive from being located close to other economic actors. They can be urbanization externalities (i.e., benefits of city size, like high quality amenities and infrastructure), localization externalities (i.e., benefits that firms derive from the local presence of firms that belong to the same industry) and Jacobs' (1969) externalities (i.e., benefit from the presence of a large number of different industries in the local economy, as source of diverse and free-flowing knowledge). Neffke, Henning, and Boschma (2012) further specified that Jacobs' externalities and localization externalities contribute the most to the survival of new ventures.

CONCLUDING THOUGHTS AND CONCEPTUAL MODEL

In the introduction of this chapter, we raised three important questions we wanted to address regarding nascent entrepreneurship: (1) the individual characteristics of nascent entrepreneurs (2) the environmental factors contributing to new venture creation, and (3) the steps in the creation process. Clearly, new venture creation involves indeed a series of decisions centered on opportunity exploration, evaluation and exploitation. This process of nascent entrepreneurship is surrounded and determined by external and internal factors. While we reviewed several distinct factors that affect nascent entrepreneurs, we conclude that, among internal qualities, creativity plays the most important role when it comes to identifying and utilizing opportunities, and a stimulating environment, abundant with available and accessible knowledge, drives successful formation and growth of new ventures.

Based on our findings we also propose a model incorporating all three aspects of nascent entrepreneurship: opportunity spotting and exploitation, individual creativity, and available external knowledge. Research has shown that regardless of whether opportunities exist in the environment or emerge as a creative act, individuals need to identify and exploit them, engaging in a process of opportunity development. Academic literature and practical knowledge also support the idea that the intention of new venture creation is influenced by contextual stimulus and individuals' internal traits, skills and abilities. Conceptually, the opportunity development model build on the above assumptions is shown in Figure 2.

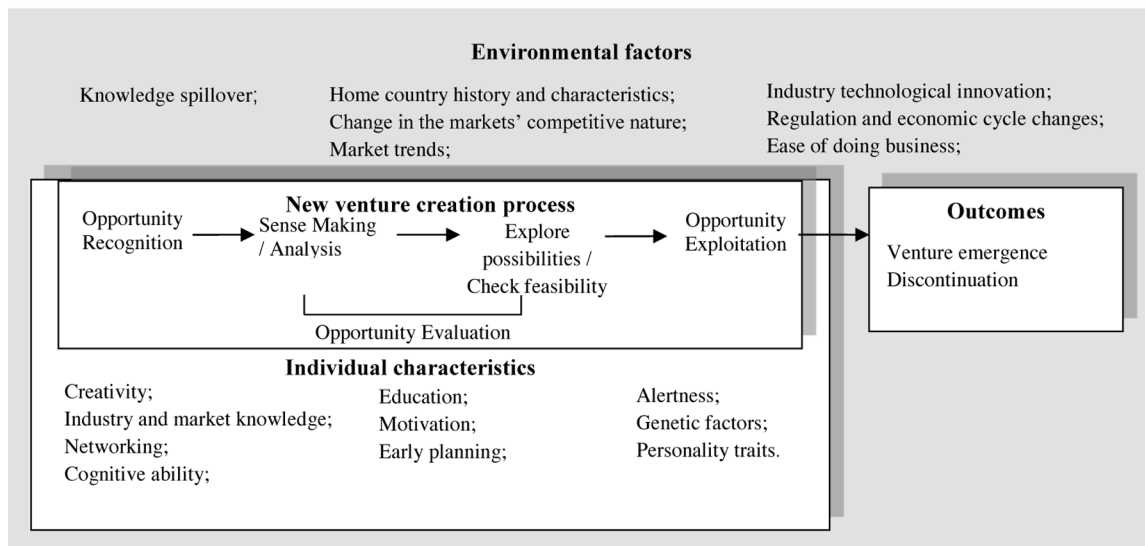
Although the model incorporates the key process of new venture creation embedded in the main drivers of nascent entrepreneurship, there might be several factors that need to be addressed by the literature as gender issues, as biological characteristics, that are not yet clearly covered by the literature.

It would also be interesting to invest time and effort in a longitudinal study rather than analyzing a snapshot of the nascent entrepreneurial stage, as new venture creation is a decision carefully deliber-

ated and refined over time and through a series of stages. As such, a longitudinal study incorporating all the preceding decisions would be of added value in analyzing and understanding the evolving nature of nascent entrepreneurship.

Entrepreneurial activities are not fixed or static, they are dynamic, continuously emerging, shaped and constructed through social processes. For this reason, focusing research attention on the entrepreneurial opportunities phenomenon assumes pivotal importance. So, “any effort at understanding the phenomenon of entrepreneurial opportunities, and more specifically, how opportunities emerge in the decision horizon of an entrepreneur, will yield rich dividends in our quest for strengthening entrepreneurship research and scholarship” (Dutta & Crossan, 2005, p. 426).

Figure 2. Opportunity Development Process



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KEY TERMS AND DEFINITIONS

Creativity: It is the process of bringing something new into being. It is an essential part of entrepreneurs to drive new opportunities into the market. As creativity requires passion and commitment, it is believed to be part of the entrepreneurial behavior that is necessary to mobilize resources and implement new projects.

Entrepreneurial Behavior: It is the capacity of the individuals to spot opportunities in the market and to turn them into profitable businesses. For that individuals need to adopt a risk-taking behavior and to deploy all necessary resources to develop, organize and manage the new business venture profitably.

Entrepreneurship: There are several understandings about this concept. It is known as the capacity and willingness to develop, organize and manage new business ventures profitably. The concept it is normally associated to an innovative, risk-taking behavior, which is essential to spot new opportunities in the market and to adapt to an ever changing and increasingly competitive global marketplace. Economically, it has been associated to the creation of new jobs, the enhancement of per capita income growth, and as primary driver of industrial dynamism.

Epigenetic: It deals with the stable and inheritable changes in gene expression patterns, due to environmental influences and individual life experiences.

Nascent Entrepreneurship: It is closely associated to individuals who are actively engaged in creating new own or co-owned ventures. This venture has not paid salaries, wages, or any other payments to the owners for more than three months.

Necessity-Driven Entrepreneurship: It is understood as the type of entrepreneurship motivated by self-employment, or as a result of absent or unsatisfactory work options, normally with a very low impact on economic growth.

Opportunity Development: It is a necessary process so that individuals develop new competitive businesses in the market.

Opportunity-Driven Entrepreneurship: It is understood as motivated by perceived market opportunities (i.e., entrepreneurs are pulled to entrepreneurship out of a choice).