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Introduction

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Recently, some metastudies have examined the individual-level determinants of entrepreneurship or self-employment (Simoes, Crespo, & Moreira, 2016; Walter & Heinrichs, 2015;), focusing on the question "Who is an entrepreneur?" These studies investigate the occupational choice decision at the individual level by comparing entrepreneurs with wage workers (or a different comparison group) based on their individual-level characteristics (see also Grilo & Thurik, 2008; Parker, 2009, Chapter 4). To mention a few of these individual-level determinants (Simoes et al., 2016), the probability of being self-employed—a commonly used proxy for entrepreneurship—is higher for men, older individuals, married individuals, individuals with children, individuals with self-employed parents, individuals with a self-employed spouse, and immigrants.

In these occupational choice models, entrepreneurship is viewed as a single state that an individual can adopt. More generally, studies on the topic of "determinants of entrepreneurship" tend to focus on one stage of the entrepreneurial process—being an entrepreneur or self-employed—and compare the individuals in this single stage with individuals in a comparison group, such as paid employment. Conclusions drawn from these single-state, static analyses do not necessarily maintain for the stages that are prior to (or beyond) the actual venture start-up and that go together with different levels of entrepreneurial engagement. This is why several scholars have advocated the view of entrepreneurship as a process (Baron, 2007; Gartner, 1988; Moroz & Hindle, 2012; Shane & Venkataraman, 2000; Van der Zwan, Thurik, & Grilo, 2010).

The present chapter adopts such a process approach because the integration of several stages that together shape the entrepreneurial decision may provide answers to relevant questions. For example, an analysis that includes various stages could reveal why some individuals are able to convert their start-up attempts into an actual business, whereas others experience difficulties. Moreover, some people are attracted to entrepreneurship or seriously consider starting a business but do not manage to actually found a business.

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In other words, the evidence on some determinants of entrepreneurship, as commonly found in the occupational choice literature, may be more nuanced when considering separate phases of the entrepreneurial process. Hence, research considering entrepreneurship as a single state may provide an incomplete picture of the entrepreneurial potential hidden within individuals. Research that considers the various stages, can subsequently reveal in detail how this entrepreneurial potential can be released or why it is hampered. This may have implications for policy interventions that do not necessarily work out similarly across different engagement levels.

This entrepreneurial potential has also been referred to as "latent entrepreneurship," defined as the preference of individuals for entrepreneurship rather than paid employment (Blanchflower, Oswald, & Stutzer, 2001; Grilo & Irigoyen, 2006). The literature on latent entrepreneurship suggests that many people in both higher-income and lower-income countries would rather be entrepreneurs than wage workers (Gohmann, 2012; Grilo & Irigoyen; 2006). Latent entrepreneurship can be considered a separate stage in the entrepreneurial process, one that precedes one's intentions to engage in entrepreneurship (i.e., "how hard people are willing to try," Ajzen, 1991, p. 181) and is a necessary condition for actual involvement in entrepreneurship (Verheul, Thurik, Grilo, & Van der Zwan 2012). Just as those who intend to become entrepreneurs do not always become so, those who are latent entrepreneurs may in the end decide not to set up a business.

This chapter has two aims. First, it emphasizes the benefits of addressing entrepreneurship as a process. Second, it provides an overview of established empirical findings in the area of the entrepreneurial process, an overview which has not been provided in earlier research. We zoom in on the relevance of several well-known individual-level determinants across the various phases of the entrepreneurial process, and present a concise overview of possible differences across countries. The chapter's empirical approach is important given that there is an underrepresentation of the empirical view of the entrepreneurial process (Brixy, Sternberg, & Stüber, 2012), and is in contrast to earlier studies about entrepreneurship as a process that are mainly theoretical (Moroz & Hindle, 2012).

An important reason for addressing entrepreneurship as a process from an empirical point of view is that there exist discrepancies between the various stages of the process. In other words, there is selection between phases (Brixy et al., 2012), a few examples of which follow. Although we know from previous research that entrepreneurial intentions tend to precede entrepreneurial behavior, it is also true, as mentioned above, that intentions do not necessarily lead to actual involvement in entrepreneurship. Kautonen, Gelderen, and Fink, (2015) found that approximately 80% of respondents in their Austrian and Finnish sample who engaged in entrepreneurial behavior reported having previous intentions to do so. Their study, however, also revealed that 37% of individuals with intentions had taken action to start a business, but approximately 63% had not taken action one year later. In terms of the transition from nascent entrepreneurship actively taking steps to start a business-to actual entrepreneurship, Parker and Belghitar (2006) found that one year later, one third of the nascent entrepreneurs who comprised their American sample had started a business, almost half were still taking steps to start a business, and one fifth had given up their start-up attempts. Also using an American sample, Hopp and Sonderegger (2015) found that one quarter of nascent entrepreneurs had started their venture and approximately half had disengaged from their nascent activities after five years. According to Figure 2 in Hechavarría, Matthews, & Reynolds (2016), approximately 60% of American start-ups were still trying to start

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a business approximately four years after conception (basically understood as the first attempts to start a business). Finally, Bergmann and Stephan (2013) show that the fraction of nascent entrepreneurs who have recently made the transition to new business ownership—"transition ratio"—is low in a considerable number of countries. In sum, although many individuals have intentions to start a business or are actively taking steps to start a business, significant fractions of these groups never end up doing so. A process perspective could shed more light on the underlying reasons behind this intentions—behavior gap and the difference between nascent and actual entrepreneurship.

In this chapter, we focus on several stages of the entrepreneurial process. These stages incorporate both the "cognitive" and "behavioral" stages (Davidsson, 2005). At a particular moment in time, an individual is engaged in any of these stages, and there is a certain likelihood that this individual will move to the next stage. Implicit in this model are thresholds that indicate the transition from one stage to another. In the majority of studies cited below, one may move (1) from "never considered starting a business" to "thinking about starting a business"; (2) from "thinking about starting a business" to "taking steps to start a business"; (3) from "taking steps to start a business" to "owning a young business"; and (4) from "owning a young business" to "owning an established business." Intriguingly, several strands of literature are integrated in this particular process, such as the literature on entrepreneurial intentions (Schlaegel & Koenig, 2014), nascent entrepreneurship (Davidsson, 2006), and entrepreneurial survival (Van Praag, 2003). Entrepreneurial exit can be considered a critical component of the entrepreneurial process (DeTienne, 2010), and hence, exit can also be added as a stage (Stam, Thurik, & Van der Zwan, 2010). Below, we combine these streams of literature and show that the individual-level determinants of entrepreneurship (as indicated, for example, by Walter & Heinrichs, 2015, and Simoes et al., 2016) deserve separate treatment depending on the stage of the entrepreneurial process. That is, we show evidence that the empirically validated determinants of self-employment or entrepreneurship differ across the several stages of the entrepreneurial process.

The successive stages above have been referred to as the "entrepreneurial ladder" (Van der Zwan et al., 2010), a concept that has also been adopted in other studies (e.g., Minola, Donina, & Meoli, 2016). By modeling the successive stages as a process, one can gain insight into the overall ease or difficulty of moving through the various stages (Van der Zwan et al., 2010, 2013). The transitions can also be analyzed separately, and the remainder of this chapter will present some examples of such an analysis.

Merits of Entrepreneurship as a Process

We acknowledge that entrepreneurship consists of a series of behaviors that have to be performed sequentially over time (Davidsson, 2005). Davidsson (2005) defines the entrepreneurial process as "all cognitive and behavioral steps from the initial conception of a rough business idea, or first behavior towards the realization of a new business activity, until the process is either terminated or has led to an up and running business venture regular sales" (p. 4). In addition to the distinction between cognition and behavior in this definition, a common distinction made in other studies is that between the "discovery" and "exploitation" of entrepreneurial opportunities (Shane & Venkataraman, 2000).

Entrepreneurship as a process is at the heart of the data collection effort of the Panel Study of Entrepreneurial Dynamics (PSED), which follows individuals over time as they start their businesses (Reynolds, 2010). Different cognitive and behavioral steps are taken throughout the process of starting a business (Reynolds, 2010), such as thinking about the new business, preparing a business plan, hiring employees for pay, and submitting a patent, trademark, or copyright application. Baron (2007) distinguishes among the prelaunch phase (activities prior to the new venture launch), the launch phase (activities related to the launch of the venture), and the postlaunch phase (activities related to the period after the launch). Work based on the PSED reveals how businesses are formed (Hechavarría et al., 2016; Parker & Belghitar, 2006) and emphasizes the important role of the individual in the start-up process.

In the first section of this chapter, we noted the justification of a process approach. In general, we argue that the process approach has the following three advantages over a traditional approach where entrepreneurship is viewed as a single state that can be adopted:

- 1) First, one can gain a summary measure of the ease or difficulty of moving through the various stages of the entrepreneurial process (Van der Zwan et al., 2010). The research question to be answered here is: What determines the probability of moving forward in the entrepreneurial process? This is particularly useful in drawing cross-national comparisons.
- 2) Second, one can retrieve information about the ease or difficulty of making a transition between two successive stages of the entrepreneurial process. This is related to the transition ratio in Bergmann and Stephan (2013) reflecting the "efficiency" of the start-up process, which is especially convenient from a cross-national perspective. Thus, one may also gain insight into the relative difficulty of making a specific transition in the entrepreneurial process. For example, it is shown by Van der Zwan et al. (2010) that the probability of transitioning from "thinking about starting a business" to "taking steps to start a business" is higher than that of making other transitions. Hence, a process perspective may reveal which regions or countries have better entrepreneurial conditions or which transition(s) in the process pose(s) fewer difficulties to individuals.
- 3) Third, a process approach may hint at a specific position in the process where certain groups of people experience more difficulties in making a transition than other groups of individuals. This is also relevant from a policy perspective. When conditions for certain groups are not beneficial at a certain transition, government may take action at a particular rung of the entrepreneurial ladder where a specific group is hampered in its progress. In other words, the determinants of entrepreneurial engagement can differ across the various phases of the entrepreneurial process (Baron & Markman, 2005). Variables that are not important for a specific stage in the entrepreneurial process may entail an important influence for another stage. This is also emphasized by Baron (2007), who states that "the impact of specific variables may change appreciably over different phases of the process" (p. 30).

Three Stylized Facts

This section elaborates on three stylized facts that have emerged from the existing literature on the entrepreneurial process and its determinants.

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Latent Entrepreneurship

The first stylized fact based on empirical evidence refers to latent entrepreneurship, defined as an individual's preference for entrepreneurship versus wage work. Earlier studies on latent entrepreneurship have revealed the importance of the some individuallevel determinants of latent entrepreneurship (Blanchflower et al., 2001; Bönte, & Piegeler, 2013; Gohmann, 2012; Grilo & Irigoyen, 2006; Grilo & Thurik, 2005, 2006). This evidence is based mainly on demographic variables. For example, men are more likely than women to prefer to be an entrepreneur rather than a wage worker. Furthermore, there exists a U-shaped relationship between an individual's age and his/ her preference for entrepreneurship, such that the youngest and oldest individuals are most likely to prefer an entrepreneurial career. Interestingly, prior studies have not detected a significant relationship between educational attainment and the preference for entrepreneurship. Lastly, risk-taking propensity plays a decisive role here: risk tolerance increases the probability of being a latent entrepreneur. Hence, whereas the important role of an individual's risk-taking propensity for entrepreneurship has been emphasized in numerous earlier studies, the literature on latent entrepreneurship stresses the importance of this variable in a very early stage of the entrepreneurial process. Indeed, the process perspective may be particularly useful in the context of risk-taking propensity because the role of risk may change across the different stages of the entrepreneurial process (Baron, 2007), playing an especially important role in the earliest phases.

The concept of latent entrepreneurship can also be used to explain why certain groups of individuals have relatively low levels of entrepreneurial engagement. One prominent example refers to women, who are the focus in Verheul et al.'s (2012) study. It is generally known that women are less likely than men to engage in entrepreneurial activities and Verheul et al. (2012) find that the relatively low self-employment rate of women can be explained partly by a lower willingness to engage in entrepreneurship compared with men, that is, lower levels of latent entrepreneurship. In addition, the lower engagement among women is partly explained by the existence of gender-specific obstacles that are more prevalent in the latent entrepreneurship (preference) stage than in the actual entrepreneurship (action) stage. All in all, latent entrepreneurship plays an important role in explaining women's lower engagement in entrepreneurship than men's.

Different Roles Throughout the Process

Our second observation relates to the difference in importance of a particular variable throughout the entrepreneurial process. Gender is a prominent example and is a widely researched individual-level determinant of entrepreneurship. While gender determines entrepreneurial engagement, the importance of gender decreases as one's involvement in the process increases. In other words, the higher likelihood of men than women to engage in entrepreneurship depends on the stage in the entrepreneurial process, and the "advantage" of men over women diminishes at more mature stages of the entrepreneurial process (Van der Zwan et al., 2010, 2013). For example, based on the sample of Van der Zwan, Verheul, & Thurik (2011), it appears that men are twice as likely as women to think about engaging in entrepreneurship but that this advantageous position for men becomes less pronounced as the level of involvement increases. That is, the probability of owning an established business is approximately equal for women and men once they own a young business (Van der Zwan et al., 2013). Moreover,

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Brixy et al. (2012) conclude that although women are "less likely than men to even think about becoming an entrepreneur. . ., once in the process, women tend to proceed to start a firm more often than men" (p. 116). In a similar fashion, Parker and Belghitar (2006) do not find a gender effect for the transition from nascent entrepreneurship to actual entrepreneurship status.

Most studies find that the probability of being an entrepreneur increases with an individual's age but decreases beyond a certain threshold (Simoes et al., 2016). Van der Zwan et al. (2010) similarly conclude that the probability of moving forward in the entrepreneurial process decreases with age after a certain age. Not surprisingly, there are differences in terms of the importance of age across the various stages of the process. For example, the inverse U-shaped relationship between an individual's age and entrepreneurial engagement is in sharp contrast with the U-shaped relationship that has been found between age and latent entrepreneurship (Lévesque & Minniti, 2006). Latent entrepreneurs tend to be young individuals (Brixy et al., 2012; Grilo & Irigoyen, 2006; Verheul et al., 2012). Similarly, age negatively impacts the transition in the entrepreneurial process from "never considered starting a business" to "thinking about starting a business" (Van der Zwan et al., 2011, 2012), implying that it is the youngest individuals in particular who consider an entrepreneurial career.

Moreover, for educational attainment, we find a different role depending on the stage or transition in the process. While there exists a significant positive relationship in the earliest stage (from "never considered starting a business" to "thinking about starting a business"), the relationship between education and entrepreneurial involvement becomes nonsignificant or significantly negative at later stages (Van der Zwan et al., 2013). This suggests that higher educated individuals indeed have a higher likelihood of considering an entrepreneurial career but that the importance decreases as the level of entrepreneurial engagement increases. Brixy et al. (2012) interpret the decreasing prevalence of highly educated individuals in later stages of the process as a sign of selection because of the higher opportunity costs of entrepreneurship for these individuals.

Mickiewicz, Nyakudya, Theodorakopoulos, and Hart (2016) also find that some determinants are more important for specific phases in the entrepreneurial process. For the earliest stages, opportunity costs play a more important role such that it can be expected that individuals with more resources are discouraged from engaging in these earliest stages of entrepreneurship. For the more advanced stages in the entrepreneurial process, this resource effect dominates in the sense that individuals with more resources are more likely to reach these advanced stages. For example, Mickiewicz et al. (2016) find that household income and specific entrepreneurial knowledge and skills are of particular importance for the more advanced stages in the entrepreneurial process. Regarding income level, Brixy et al. (2012) find that individuals with lower incomes are more likely to have intentions to start a business or to actively take steps to set up their own business.

Country Differences

The third observation refers to country differences. Although the evidence presented here is based on cross-sectional data, the focus on multiple countries in combination with the entrepreneurial stages has an advantage over longitudinal designs, which usually focus on a single country. Differences between countries in terms of transitions

between entrepreneurial stages—and, in particular, new business ownership—also receive attention in Bergmann and Stephan (2013).

When focusing on a particular example, Van der Zwan et al. (2013) find that American citizens on average have the highest odds of considering an entrepreneurial career. That is, among the country dummy variables in their empirical analysis, there are only two countries—Czech Republic and Greece—that have positive and nonsignificant coefficients and are thus on par with the United States. Regarding actually founding a new firm—that is, focusing on the transition from "taking steps to start a business" to "owning a young business"—we observe that citizens of almost every country have a higher likelihood than the United States to move beyond the "taking steps to start a business" stage. In other words, compared to individuals in other developed countries, individuals in the United States are more likely to think about starting an entrepreneurial career, but there appear to be difficulties for the subsequent transitions in the entrepreneurial process.

In addition to country-specific transition probabilities, country differences also exist regarding the influence of a particular variable on moving beyond a specific stage such as gender (Van der Zwan et al., 2012). Considerable cross-country variation is identified regarding gender differences in the transitions from "never considered starting a business" to "thinking about starting a business" and from "owning a young business" to "owning a mature business." Especially in some European former transition economies, females face difficulties taking steps to start a business" ("thinking about starting a business") and moving from "owning a young business" to "owning a mature business" (see Van der Zwan et al. (2012).

The setup of entrepreneurship as a process also provides ample opportunities to focus on the impacts of country-level variables on an individual's likelihood of moving beyond a certain stage of entrepreneurial engagement. For example, Kibler and Kautonen (2016) focus on the perceived degree of moral legitimacy and find that this is an important variable for various stages in the entrepreneurial process. Specifically, this variable is relevant not only for considering an entrepreneurial career but also for preparing to start a business and actually founding and running a business. In addition to demonstrating the importance of country-level variables for every transition, there could also be a relevant influence for a single stage. For example, Van der Zwan et al. (2013) conclude that there is a high inclination to think about a business when average risk tolerance in a country is high.

Conclusion and Recommendations for Future Research

This chapter has emphasized the benefits of a process view of entrepreneurship for the investigation of the determinants of entrepreneurship. While the majority of existing studies focus on the binary choice between entrepreneurship and paid employment, we have presented several reasons why it is helpful to integrate levels of entrepreneurial engagement. We have focused on the importance of variables over the course of the entrepreneurial process, also sometimes referred to as the entrepreneurial ladder. We have highlighted the differential influence of gender, age, and educational attainment on entrepreneurial decisions depending on the phase of the entrepreneurial process. In addition, we highlighted striking country differences at specific phases of the process.

There are various opportunities for further research. The present chapter has focused only on individual-level factors, whereas Baron (2007) notes two other groups of variables that also deserve attention in research on the entrepreneurial process: group or interpersonal factors, such as in terms of social networks (Afandi, Kermani, & Mammadov, 2016) and role models; and societal-level variables (Kibler & Kautonen, 2016). Another topic on which more knowledge is required relates to country differences. We have not yet obtained a complete understanding of how countries at different levels of economic development rank on the different rungs of the entrepreneurial ladder. Some evidence is assembled in Van der Zwan et al. (2011), which found that the transition from nascent entrepreneurship to a new business was especially difficult in China and the United States. Furthermore, we do not have a complete picture of different determinants over the course of the entrepreneurial process in various countries. Although the case of gender was investigated in Van der Zwan et al. (2012), other common individual-level determinants are also worth investigating.

New research is being developed on the biological determinants of entrepreneurship, such as genes and hormones (see Thurik, 2015; Van der Loos et al., 2013a, 2013b) for early attempts. Moreover, studies are taking the first steps to connect the world of psychiatric measures for nonclinical reasons and manifestations of entrepreneurial behavior. Attention deficit hyperactivity disorder (ADHD) is used as "a proof of concept" phenomenon (see Verheul et al., 2015, 2016; Thurik, Khedhaouria, Torrès, & Verheul, 2016). Linking these initiatives to the engagement-level approach is bound to lead to new insights.

Future research should follow an integrative approach by adopting a process perspective. In this way, a more comprehensive picture of the determinants of entrepreneurship depending on the stage in the entrepreneurial process is obtained. For example, "in entrepreneurship research, an urgent need exists to empirically and theoretically investigate the intention-behavior link" (Fayolle & Liñán, 2014, p. 665). Indeed, although the theory of planned behavior (Ajzen, 1991) is an established means to investigate entrepreneurial intentions (Kautonen et al., 2015), there are not many studies that investigate the effect of entrepreneurial intentions on entrepreneurial behavior (Schlaegel & Koenig, 2014). Moreover, the relation between nascent entrepreneurship and actual entrepreneurial behavior has not been the focus in much research, which calls for investigations on how individuals proceed in the process beyond nascent entrepreneurship (Parker & Belghitar, 2006). Such research would help identify the stages of the process at which people experience difficulty in making the transition to another stage.

Data availability is an important issue. The Panel Study of Entrepreneurial Dynamics (PSED) is a longitudinal survey conducted in the United States that follows nascent entrepreneurs over a four-year period in PSED I and a six-year period in PSED II. It focuses on the transition between nascent entrepreneurship to actual venture start-up. Cross-national analyses in a longitudinal context should become possible with the emergence surveys comparable to the PSED. So far, cross-national analyses have been performed with two cross-sectional surveys surveys that do not have a panel data design. One is the Flash Eurobarometer surveys on entrepreneurship conducted on behalf of the European Commission—with interviews mainly in European countries and the United States—which were performed in 2001, 2002, 2003, 2004, 2007, 2010, and 2013 and contain information on latent entrepreneurship and various phases in the entrepreneurial process. The other cross-national survey with information about levels

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of entrepreneurial engagement is the Global Entrepreneurship Monitor (GEM), with yearly surveys in dozens of countries from 1999 onwards. GEM contains measures of entrepreneurial intentions (expecting to start a business in the next three years), nascent entrepreneurship (actively taking steps to start a business), young business ownership (business in existence for less than 3.5 years), and established business ownership (businesses in existence for more than 3.5 years). The increased availability of available years and rounds of these cross-sectional surveys, together with the emergence of longitudinal designs in countries other than the United States, opens up possibilities for a more rigorous empirical investigation of the entrepreneurial process and how individuals climb the entrepreneurial ladder.

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