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# The Antecedents to Habitual Entrepreneurship: Exploring the Role of Entrepreneurs' Narcissism and Educational Level

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**Abstract:** This paper aims to analyze the antecedents leading to habitual entrepreneurship by investigating the role of entrepreneurs' narcissism and their level of education. While the literature provides a general understanding of what motivates individuals to pursue their entrepreneurial ideas, the possible antecedents to the individual's decision to become a habitual entrepreneur remain unexplored and untested. Relying on a sample of 343 start-up entrepreneurs, hypotheses are tested through the partial least squares analysis. Results show that entrepreneurs' educational levels fully mediate the relationship between narcissism and the choice to become habitual entrepreneurs. The study contributes to the literature on entrepreneurs' personality, decision-making, and human capital, also underlining a few practical implications.

**Keywords:** habitual entrepreneur, entrepreneur narcissism, entrepreneur education, start-up

## 1 Introduction

Habitual entrepreneurs, the ones who start more than one business, create a higher proportion of jobs and economic growth compared to novice entrepreneurs (Fierro et al. 2018). Habitual entrepreneurs are the other side of the coin of novice entrepreneurs, who are focused on the creation and management of their first firm (Politis 2008). Entrepreneurs engage in habitual entrepreneurial behavior either to capitalize on previous entrepreneurial experiences or because of an addiction to starting new ventures (Politis 2008). Previous experience allows entrepreneurs to recognize and estimate the value of opportunities by providing them with the ability to avoid obstacles and choose the best opportunity to pursue (Gottschalk,

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Greene, and Müller 2017; Rerup 2005). The skills and credibility acquired from previous entrepreneurial experience facilitate access to financial resources, also due to the entrepreneur's wider relational network with venture capitalists (Ucbasaran, Baldacchino, and Lockett 2014). On the other hand, entrepreneurial addiction is fostered by sensations, motivations, and rewards originating from the activity of venture creation. Sensations refer to the entrepreneur's feelings of excitement, fear, and uncertainty which lead to increased well-being and satisfaction (Spivack, McKelvie, and Haynie 2014). Motivation and rewards are related to the status, power, and social acceptance that emerge from carrying out entrepreneurial activity (Carsrud and Brännback 2011). However, can other factors impact the choice of becoming a habitual entrepreneur? What about entrepreneurs' personality traits and human capital?

While the literature provides a good general understanding of what motivates individuals to pursue their entrepreneurial ideas (Ucbasaran et al. 2010), the possible antecedents to the individual's decision to become a habitual entrepreneur remain unexplored and untested (Kuvaas and Kaufmann 2004; Navis and Ozbek 2016; Shane and Nicolaou 2015). Westhead, Ucbasaran, and Wright (2005a, 2005b) report significant differences between entrepreneurs with regard to information seeking and opportunity recognition behaviors, concluding that habitual entrepreneurs have different cognitive mindsets, and that future research should examine these differences. Only a few papers, however, emphasize the importance of personality traits and educational levels in the choice to become habitual entrepreneurs. Regarding personality traits, Shane and Nicolaou (2015), for example, refer to the entrepreneurial creativity of serial entrepreneurs, a subcategory of habitual entrepreneurs, suggesting that creative personalities are better able to identify business opportunities as well as being more likely to have the capabilities to start a business. Caliendo, Fossen, and Kritikos (2014), on the other hand, show that openness to experience, extraversion, and emotional stability increase the probability of starting additional businesses, while risk tolerance, locus of control, and trust have strong partial effects on entry decisions. As for educational levels, very few papers have investigated the relationship between educational levels and habitual entrepreneurship. For instance, Amaral, Baptista, and Lima (2011) found a negative relationship between entrepreneurs' educational levels and the choice to become serial entrepreneurs. However, their study only partially examines habitual entrepreneurship.

Drawing on the dispositional theory, which underlines how entrepreneurs' traits affect their attitudes and behavior (Davis-Blake and Pfeffer 1989), and on the upper echelon theory highlighting the importance of individuals' characteristics (visible – i.e., age and invisible – i.e., personality traits) for firm strategic choices and performance (Hambrick and Mason 1984), we explore the antecedents to

habitual entrepreneurship by analyzing entrepreneurs' personality traits and educational levels. The focus of the paper is on start-ups entrepreneurs. Start-ups are young firms characterized by a micro/small size (Skala 2019). These characteristics lead the entrepreneur to cover both the founder and the Chief Executive Officer (CEO) roles (Gatewood, Shaver, and Gartner 1995; DeTienne 2010). This phenomenon is called "founder-CEO duality" (He 2008; Wasserman 2003), and it represents the common thread of this paper. Start-up entrepreneurs acting as CEOs and founders possess formal and informal powers vital to learning (Tzabbar and Margolis 2017), discovering, and implementing new ideas (Abebe and Alvarado 2013).

Among the many personality traits identified in the entrepreneurship literature, such as locus of control and the Big Five, we will focus on narcissism. Narcissists are commonly described as being arrogant, haughty, and grandiose, and also as individuals who overestimate their own abilities (Leonelli and Masciarelli 2020; Wales, Patel, and Lumpkin 2013). Several reasons justify our choice to study narcissism as an antecedent to habitual entrepreneurship. First, narcissism tends to be a prevalent personality trait among individuals who cover top management positions (Engelen, Neumann, and Schmidt 2016). Campbell and Campbell (2009) show that the prevalence of narcissistic CEOs has increased over the last few years, underlining the relevance of this topic. Narcissists, in fact, are driven to hold these positions because they offer more visibility and power and increase their status (Ingersoll et al. 2019). Second, there is empirical evidence that narcissism is important at all entrepreneurial stages. Hmieleski and Lerner (2016), for example, argue that narcissism affects entrepreneurial intentions; Bollaert, Leboeuf, and Schwienbacher (2020) suggest that narcissism impacts the early stages of the entrepreneurial context (i.e., fundraising); while Chatterjee and Hambrick (2007) show that narcissistic entrepreneurs have a more extreme performance (both positively and negatively) than non-narcissistic entrepreneurs. Third, the strategic choices made by narcissistic CEOs have been shown to systematically differ from the ones made by their non-narcissistic counterparts (Chatterjee and Hambrick 2007). Leonelli (2021) states that narcissistic entrepreneurs are more likely to implement more visible or risky decisions. For instance, narcissistic entrepreneurs will easily commit their time and resources to activities that have greater potential to garner attention (e.g., CSR or highly innovative activities) than they will to activities that do not grant a return on reputation (Al-Shammari, Rasheed, and Al-Shammari 2019; Leonelli, Masciarelli, and Fontana 2022). Finally, narcissistic entrepreneurs are characterized by greater awareness of failure experiences than their non-narcissistic counterparts (Zeigler-Hill, Myers, and Clark 2010). However, as Liu et al. (2019) point out, narcissistic

entrepreneurs have a lower ability to learn from failure, which might have a strong impact on their habitual behavior.

The paper analyzes a sample of 343 start-up entrepreneurs through a partial least squares analysis. Results show that entrepreneurs' personality and educational levels affect their choice to become habitual entrepreneurs. Our study makes a significant contribution to the research on entrepreneurs' personality, decision-making, and human capital by providing evidence that entrepreneurs' narcissism and educational levels shape individual decisions and actions. From a methodological point of view, this paper is one of the first to investigate the narcissism of real entrepreneurs. Previous studies have generally used secondary data (i.e., business reports or interviews) or primary data based on student samples.

The remainder of the paper proceeds as follows. The following section provides a review of the research literature on habitual entrepreneurship and entrepreneurs' narcissism. The hypotheses to be tested are developed in the subsequent section. Thereafter, a section on method describes the sample and the variables used in the empirical study. After this, another section presents the results. A discussion of findings, theoretical and practical implications, and suggestions for future research closes the paper.

## 2 Theoretical Background

### 2.1 Habitual Entrepreneurship

Entrepreneurs are able to identify and take advantage of multiple business opportunities (Parker 2014). Based on their business experience, prior literature underlines the existence of two categories of entrepreneurs: novice and habitual entrepreneurs. Novice entrepreneurs are individuals who create and manage their first venture (Politis 2008). Habitual entrepreneurs, on the other hand, are individuals who have firm ownership experience (Westhead and Wright 1998; Westhead et al. 2005). They represent a substantial portion of the entrepreneurial population and contribute to creating societal wealth (Pasanen 2003; Rerup 2005).

The literature on entrepreneurship generally investigates the differences between habitual and novice entrepreneurs, mainly focusing on the individual-level characteristics of the different types of entrepreneurs (Carter and Ram 2003; Fierro et al. 2018). Some studies try to create a profile of habitual and novice entrepreneurs. Habitual entrepreneurs are generally male, younger than novice entrepreneurs, and their parents are often unskilled employees; no significant difference is found considering the educational level of both types of entrepreneurs (Barnir 2014; Fierro

et al. 2018; Politis 2008). Other studies focus more on behavioral and experiential differences. According to Ucbasaran, Westhead, and Wright (2009) the characteristics that differentiate habitual and novice entrepreneurs are related to different cognitive styles, behaviors, motivations, and past entrepreneurial experience. In detail, Gordon, Davidsson, and Steffens (2009) suggest that habitual entrepreneurs have different stimuli for firm creation, make different decisions during the process, and have different expectations about outcomes, compared to novices. In addition, Ucbasaran, Baldacchino, and Lockett (2014) show that habitual entrepreneurs are more skilled at identifying and pursuing opportunities, as well as acquiring and using resources. Regarding past entrepreneurial experience, different visions exist in the literature. Gottschalk, Greene, and Müller (2017) state that habitual entrepreneurs do not generally benefit from their experiential knowledge to develop a more viable firm, which places them on the same level as novice entrepreneurs. In contrast, Spivack, McKelvie, and Haynie (2014) identify several aspects of habitual entrepreneurs' experience that cause them to be more addicted to entrepreneurship. These aspects are the physiological arousal resulting from operating in contexts characterized by uncertainty and ambiguity, the intensity of emotions related to various entrepreneurial activities and outcomes, and the identity ties between entrepreneurs and their firm. Rerup (2005) points out that mindfulness helps habitual entrepreneurs to better anticipate opportunities, cope with unexpected events, and efficiently use their prior entrepreneurial experience. Finally, Thorgren and Wincent (2015) suggest that obsessive passion is related to habitual entrepreneurship. This implies that habitual entrepreneurs have a continuous urge to create and start new firms only because they need to sustain their self-identity.

However, only a few papers emphasize the importance of personality traits in the choice to become habitual entrepreneurs. For example, Shane and Nicolaou (2015), analyzing a sample of serial entrepreneurs, a subcategory of habitual entrepreneurs, underline the importance of entrepreneurial creativity in identifying business opportunities and starting new firms. Furthermore, Caliendo, Fossen, and Kritikos (2014) show that openness to experience, extraversion, and emotional stability increase the likelihood of starting another firm.

Given the paucity of contributions to the field, there is a unanimous call for future studies investigating the explanatory power of individual differences in terms of personality traits, dispositional differences, and educational background (Hayward et al. 2010; Ucbasaran, Baldacchino, and Lockett 2014; Ucbasaran et al. 2010). This is the main objective of this paper; we will therefore focus on entrepreneurs' narcissism and levels of education and how they affect the choice to become habitual entrepreneurs.

## 2.2 Entrepreneurs' Narcissism

Narcissism refers to individuals who are self-centered, self-focused, and self-serving (Leonelli and Masciarelli 2020). Psychologists define narcissism as a personality dimension that can range between low and high levels and that, only in extreme cases, can be considered as a personality disorder (Rosenthal and Pittinsky 2006). In this paper, we focus on non-pathological narcissism, which includes many of the basic qualities of the narcissistic personality, such as self-admiration, arrogance, perceived entitlement, and hostility towards external criticism (Leonelli, Masciarelli, and Fontana 2022; Wales, Patel, and Lumpkin 2013). These individuals believe they deserve admiration, have high levels of confidence in their abilities, and a disregard for other peoples' ideas and emotions (Chatterjee and Hambrick 2007; Leonelli, Di Pietro, and Masciarelli 2020). Narcissism, however, is not only a negative (i.e., destructive) trait, but it also has a constructive side. Narcissistic people, in fact, are motivated, motivating, competitive, charismatic, passionate, and persevering (Maccoby 2000, 2003).

Narcissism is sometimes confused with overconfidence and hubris, two different personality traits, because they actually have a few overlapping features (Engelen, Neumann, and Schmidt 2016). However, overconfidence is a cognitive bias whose effects only capture a small portion of individuals' thought processes (i.e., only their behavior) (Galasso and Simcoe 2011), while narcissism encompasses the full spectrum of an individual's thoughts, including emotions and behaviors, and, therefore, it is a personality trait (Leonelli and Masciarelli 2020). According to the literature on personality psychology, hubris has a distinct psychological orientation as compared to narcissism (Tang, Mack, and Chen 2018). Unlike narcissistic entrepreneurs, hubristic individuals do not need social attention and plaudits and they are not concerned with what people think of them because they are overly confident in their abilities (Petit and Bollaert 2012).

Narcissism is central to entrepreneurship (Leung et al. 2021; Navis and Ozbek 2016). In general, entrepreneurs are more narcissistic than non-entrepreneurs (Mathieu and St-Jean 2013). Previous studies posit that this personality trait affects every stage of the entrepreneurial project (i.e., opportunity identification, business plan drafting, resource acquisition, growth, and survival). In detail, Mathieu and St-Jean (2013) state that entrepreneurs characterized by high levels of narcissism are more likely to start new firms. Other authors show that narcissism influences entrepreneurial orientation and intention (Leonelli, Masciarelli, and Fontana 2022; Leung et al. 2021; Wales, Patel, and Lumpkin 2013), as well as opportunity recognition and exploitation (Leung et al. 2021; Navis and Ozbek 2016). Kollmann, Stöckmann, and Linstaedt (2019) argue that narcissism influences the business

planning process because narcissistic people are generally more creative and idea-generating. Other studies show that entrepreneurs' narcissism is essential to resource acquisition, especially when entrepreneurs use alternative fundraising methods, such as crowdfunding (Bollaert, Leboeuf, and Schwienbacher 2020; Leonelli, Di Pietro, and Masciarelli 2020). Numerous studies investigate the relationship between entrepreneurs' narcissism and performance but they do not come to a univocal result; some of them show a positive relationship with firm performance (Chatterjee and Hambrick 2007; Ingersoll et al. 2019) and innovation and growth (Cragun, Olsen, and Wright 2020; Leonelli, Ceci, and Masciarelli 2019), while others reveal the existence of a negative one (Ham, Seybert, and Wang 2018). Finally, entrepreneurs' narcissism is a barrier to learning from entrepreneurial failure (Liu et al. 2019).

## 2.2 Entrepreneurs' Level of Education

Education represents the way through which people acquire knowledge and skills (Van Praag, van Witteloostuijn, and van der Sluis 2013). The educational process is a structured system of organizational and didactic measures to accomplish specific educational level requirements according to national laws (Barquero and Bosch 2015). In general, the educational process is composed of four stages: assessing the readiness to learn, setting learning goals, engaging in the learning process, and evaluating learning (Zachary 2005).

Empirical studies (e.g., Blundell et al. 1999; Wößmann 2003) often use education as a proxy for human capital. Human capital represents “the knowledge, information, ideas, skills, and health of individuals” (Becker 2002), and it is a driver of production and economic growth (Hanushek 2013). In the literature, education is considered an investment in human capital (Van Praag, van Witteloostuijn, and van der Sluis 2013).

Education plays a quintessential role in the specific context of entrepreneurship, both before entrepreneurs decide to start a business and during the management phases (Lackéus 2015). Throughout their educational journey, entrepreneurs acquire the abilities they need to tackle complex problems, obtain resources, and identify and exploit business opportunities (Arenius and De Clercq 2005; Ucbasaran, Westhead, and Wright 2008). Amaral, Baptista, and Lima (2011) show that people with higher educational levels are less prone to being entrepreneurs compared to people with lower educational levels. Parker (2004) shows that educational level and entrepreneurial experience have a significant effect on the entrepreneur's choice to move out of an initial venture and enter into or create a new one. Passaro, Quinto, and Thomas (2018) provide evidence of a positive

relationship between the educational level of student entrepreneurs and their entrepreneurial intentions. Pena (2002) describes the central role of human capital in start-up success, explaining that the entrepreneur's level of education is important for building a successful company, while experience and motivation are crucial for start-up growth and access to funding. Colombo and Grilli (2010) confirm that entrepreneurs having higher levels of education and work experience, especially in the same industry as the new venture, have greater entrepreneurial ability and more specific knowledge than other entrepreneurs. Therefore, they are in a better position to choose among new business opportunities and make effective strategic decisions that are essential to start-up success. However, to the best of our knowledge, there are no studies that consider the role of entrepreneurs' education as a mediator of the relationship between entrepreneurs' narcissism and habitual entrepreneurship.

### 3 Hypothesis Development

In order to support our hypotheses, we use two important theories generally present in the entrepreneurship and strategic management field. First, the dispositional theory affirms that entrepreneurs' personality traits impact their attitudes and behavior (Davis-Blake and Pfeffer 1989). This theory does not identify a single trait that affects entrepreneurs' behavior but underlines the existence of a "cluster of personal factors" that could forecast entrepreneurial activities (Clark, Pidduck, and Tietz 2022, 744). Previous studies employing this theory show that entrepreneurs' cluster of traits influences the way they manage their firms (Staniewski, Janowski, and Awruk 2016), the way they reach and interpret information (Shimoli, Cai Muhammad Hasnain Abbas Naqvi, and Lang 2020), and their decision-making process from an organizational and a strategic viewpoint (Clark, Pidduck, and Tietz 2022).

Second, the upper echelon theory underlines the impact of individuals' characteristics on firm strategic choices and performance (Hambrick and Mason 1984). The authors state that individuals' background (i.e., cognitive bases and personality traits) strongly affects how they detect differences, understand reality thanks to external input, and interpret facts through knowledge. Numerous studies have used this theory to explore how entrepreneurs' personalities affect strategic and organizational outcomes, such as diversification (Patzelt, Knyphausen-Aufseß, and Fischer 2009), innovation (Leonelli, Ceci, and Masciarelli 2019), internationalization (Alayo et al. 2019), and sustainability (Abatecola and Cristofaro 2019).

As this paper focuses on the impact of entrepreneurs' personality traits and human capital on the choice to become habitual entrepreneurs, these theories provide a convincing conjectural rationale for expecting that personality can affect human capital and, consequently, behaviors and choices.

### 3.1 Entrepreneurs' Narcissism and Habitual Entrepreneurship

Entrepreneurs are not a homogeneous category, and they may behave differently according to their personality (Leonelli, Masciarelli, and Fontana 2022). Personality impacts entrepreneurial choices, distinctive approaches towards gathering and processing information, and decision-making based on that information (Arvonen and Pettersson 2002; Brigham and Sorenson 2008). These differences are critical factors in understanding why some entrepreneurs remain novice entrepreneurs while others become habitual entrepreneurs over time. Through an in-depth literature review, we have identified four mechanisms that have proven to be useful to explore the role of narcissism in the choice to become habitual entrepreneurs. These mechanisms are: (i) the achievement effect; (ii) the optimism effect; (iii) the independence effect; and (iv) the motivator effect. In detail, (i) the achievement effect refers to the tendency of narcissistic entrepreneurs to have a clear vision which is pursued at any cost (Sedikides and Campbell 2017). Narcissists see themselves as original, and often, superior to others, and use their business to satisfy their desires and preferences (Maccoby 2003). (ii) The optimism effect refers to the way narcissistic entrepreneurs look at the future and perceive opportunities (Maccoby 2000). Narcissistic entrepreneurs are incapable of forming coherent and realistic visions of reality, and may engage in risky business activities (Campbell, Goodie, and Foster 2004). When faced with firm failure, however, narcissistic entrepreneurs rarely blame themselves (Liu et al. 2019). (iii) The independence effect refers to the tendency of narcissistic entrepreneurs to act independently because they wish to break free from the rules and control of others (Chatterjee and Hambrick 2007). Finally, (iv) the motivator effect refers to the tendency of narcissistic entrepreneurs to become outstanding leaders having extraordinary abilities and generally attracting the acclaim of the crowd (Rosenthal and Pittinsky 2006).

Based on the dispositional theory and the upper echelon theory, we hypothesize that entrepreneur narcissism positively influences the choice to become habitual entrepreneurs. These theories underline the importance of personality traits and highlight their impact on entrepreneur behavior. The above mentioned mechanisms coexist in every narcissistic entrepreneur and describe the way they think and the forces that drive them to behave in a particular manner. Specifically,

the achievement effect motivates narcissistic entrepreneurs to exploit innovative and original ideas and launch projects, taking risks, and facing difficulties to pursue their personal goals (Maccoby 2000). The optimism effect allows narcissistic entrepreneurs to cope with failure by finding the right way to react or survive in most cases (Leonelli, Ceci, and Masciarelli 2016). The independence effect pushes narcissistic entrepreneurs to continuously create new firms, as newness increases their psychological well-being and satisfies their desire for control and independence (Leonelli, Masciarelli, and Fontana 2022). Finally, the motivator effect drives narcissistic entrepreneurs to use their charisma to attract collaborators to satisfy their desire for power and fulfill their ambitious vision (Leonelli, Ceci, and Masciarelli 2019). In summary, these mechanisms lead narcissistic entrepreneurs to embrace habitual entrepreneurship. Therefore, we hypothesize that:

*Hypothesis 1:* Entrepreneurs' narcissism and the choice to become habitual entrepreneurs are positively associated.

### 3.2 Entrepreneurs' Narcissism and Education

The relationship between personality traits and educational level or motivation in pursuing an academic degree is sparsely discussed in the literature (Komarraju, Karau, and Schmeck 2009; Raza and Shah 2017). The common traits considered were the so-called big five personality traits (i.e., openness to experience, conscientiousness, extraversion, agreeableness, and neuroticism). For instance, conscientiousness positively affects the motivation to learn (Colquitt, LePine, and Noe 2000) and to pursue an academic degree (Judge and Ilies 2002). Other studies, on the other hand, maintain that people who are open, extraverted, and conscientious show the strongest learning goal orientation (Ross, Rausch, and Canada 2003) and have the biggest academic motivation (Vedel and Poropat 2017). However, to the best of our knowledge, no one has investigated the role of narcissism or studied these dynamics within a sample of entrepreneurs. We hypothesize that narcissism negatively affects the choice to study and improve one's own educational background.

Relying on the dispositional theory and the upper echelon theory, we provide support to our hypothesis by using the above mentioned four mechanisms. Regarding the achievement effect, narcissists see themselves as being superior to others (Maccoby 2003), and thus they think they are able to learn without any guidance. Additionally, to maintain their image of superiority, they will never admit to others that they do not understand or know something (Bergman, Westerman, and Daly 2010). Moreover, narcissists do not accept someone sharing

new information because they feel threatened by being in a state of ignorance (Beck, Freeman, and Associates 1990). Through the optimism effect, narcissistic individuals believe they have the right competencies, abilities, and basic knowledge to succeed (e.g., Steve Jobs). However, if performance is inadequate, narcissists are often unwilling or unable to take responsibility for failure or inappropriate behavior. They externalize failure, and typically blame outside sources (e.g., illness, friends, family, professors), believing that others have no right to criticize them, while they feel entitled to criticize other people. The independence effect frees narcissists from strictly obeying rules and constraints. This implies that any constraints, even on an educational level, are seen by them as something to escape from. Furthermore, narcissists are hypersensitive to evaluation and unaccepting of potential negative feedback or criticism (Bergman, Westerman, and Daly 2010). Negative feedback can threaten their fragile self-concept, causing feelings of anger or shame, and resulting in aggressive or antisocial behavior (Leonelli, Masciarelli, and Fontana 2022). Finally, the motivator effect is linked to narcissists' tendencies to become outstanding leaders because of their extraordinary abilities. This means that, due to their extreme ambition, they cannot spend their time on things they consider un-useful or time-consuming, such as formal education. To summarize, these mechanisms push narcissistic entrepreneurs to avoid achieving a high level of education. Hence, we hypothesize that:

*Hypothesis 2:* Entrepreneurs' narcissism and entrepreneurs' level of education are negatively associated.

### 3.3 Entrepreneurs' Education and Habitual Entrepreneurship

Previous research shows that entrepreneurs with higher levels of education have a significant ability to identify opportunities (Arenius and De Clercq 2005). More specifically, Arenius and De Clercq (2005) state that connections established with other 'knowledgeable' individuals during their educational path and maintained after school (i.e., the alumni network) might help identify entrepreneurial opportunities and raise funds quickly. In addition, well-educated individuals are better able to access all the information essential to discover opportunities (Arenius and De Clercq 2005). In contrast, other studies show a nonlinear or inverse relationship between levels of education and the likelihood of becoming an entrepreneur or achieving success (Gimeno et al. 1997; Honig 1996; Reynolds 1997). For example, Davidsson and Honig (2003) suggest that the pursuit of identified opportunities may be less successful for well-educated individuals.

Only a few studies analyze the relationship between levels of education and habitual entrepreneurship, their results being quite contradictory (Birley and Westhead 1994; Wang and Poutziouris 2010). For instance, Barnir (2014) shows that well-educated women are four percentage points more likely to engage in habitual entrepreneurship, but this result is not significant for the male sample. Huovinen and Tihula (2008) illustrate that habitual entrepreneurs have higher educational levels as compared to family firm entrepreneurs. Ultimately, Ucbasaran et al colleagues (2006, 2008) state that habitual entrepreneurs do not exhibit higher levels of education than novice entrepreneurs or subcategories of habitual entrepreneurs (i.e., serial and portfolio entrepreneurs).

The lack of precise and univocal results in 1 previous studies has led us to hypothesize that entrepreneurs' educational levels negatively affect the choice to become habitual entrepreneurs. The theoretical lenses we used are, as usual, the dispositional and upper echelon theories, and three reasons lie behind our hypothesis. First, overinvestment in higher education may discourage risk-taking, while lower levels of education may encourage it (Davidsson and Honig 2003). This means that entrepreneurs who decide to become habitual entrepreneurs need a sort of "lack of knowledge" to avoid being blocked by the fear of risks. Second, the time and effort invested in education can affect the choice to become habitual entrepreneurs because highly educated entrepreneurs know how difficult it is to manage two or more firms simultaneously. In their educational path, they learn that the problems that might affect one firm might also jeopardize the others, and therefore, they prefer avoiding habitual entrepreneurship. Finally, a broad knowledge base may lead to market myopia and difficulties in 'unlearning' the existing behavior (Prahalad and Bettis 1986). Moreover, entrepreneurs might be trapped in more complex reasoning, which leads to the activation of rational rather than instinctual skills (Altinay and Wang 2011). As a result, entrepreneurs could be blocked from thinking outside the box and finding innovative ideas or opportunities to create new firms, thus giving up on becoming habitual entrepreneurs.

To summarize, higher levels of education might reduce the appetite for risk and the ability to think outside the box, as well as reducing the desire to become a habitual entrepreneur. Therefore, we hypothesize that:

*Hypothesis 3:* Entrepreneurs' level of education and the choice to become habitual entrepreneurs are negatively associated.

Based on the above relationships, we propose that entrepreneurs' narcissism, along with their educational level, influences the choice to become habitual entrepreneurs:

*Hypothesis 4:* Entrepreneurs' education mediates the relationship between entrepreneurs' narcissism and the intention to become habitual entrepreneurs.

## 4 Research Methods

### 4.1 Sample and Procedure

This study utilizes survey data on start-up entrepreneurs. We define an entrepreneur as the most influential member (i.e., decision-maker) in the firm, being its founder and/or principal owner (Parker 2014). The database consisted of start-ups located in China, Italy, France, Denmark, and the US. These countries were selected because some of them are representative of high entrepreneurial cultures (i.e., China, Denmark, and the US) while others embody low entrepreneurial cultures (i.e., Italy and France). According to Hofstede, Hofstede, and Minkov (2010), France and Italy are high uncertainty-avoidance cultures<sup>1</sup> with a medium-term orientation,<sup>2</sup> thus providing an example of low entrepreneurial cultures (Autio, Pathak, and Wennberg 2013; Wach 2015). In contrast, China, Denmark, and the US are low uncertainty-avoidance cultures, which increases their propensity to develop entrepreneurial ideas (Autio, Pathak, and Wennberg 2013; Wach 2015). This reasoning is also supported by the Cultural and Social Norms Index (CSNI),<sup>3</sup> an indicator from the GEM survey that explores the link between cultural and social norms and national entrepreneurial culture: the higher the index, the greater the national entrepreneurial culture. Based on the statistics from the 2007 to 2017 interval, results show that the US, China, and Denmark have higher levels of CSNI than Italy and France, which are well below the mean value.

Furthermore, different cultural values might have a strong impact on entrepreneurs' personality traits and related behavior (Church 2016). According to Hofstede, Hofstede, and Minkov (2010), the US, Denmark, Italy, and France are characterized by high-medium levels of individualism,<sup>4</sup> a cultural value associated with high levels of narcissism (Cai, Kwan, and Sedikides 2012).

Regarding the sampling strategy for Italy, we selected 250 start-ups included in the Italian Chamber of Commerce register. The analysis is restricted to firms

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1 Uncertainty avoidance refers to “the extent to which people feel threatened by uncertainty and ambiguity and try to avoid these situations” (De Mooij and Hofstede 2010, 89).

2 Long-versus short-term orientation is “the extent to which a society exhibits a pragmatic future-orientated perspective rather than a conventional historic or short-term point of view” (De Mooij and Hofstede 2010, 90).

3 This index measures “[t]he extent to which social and cultural norms encourage or allow actions leading to new business methods or activities that can potentially increase personal wealth and income” ([https://tcdata360.worldbank.org/indicators/nes.norms?country=FRA&indicator=3105&countries=CHN,DNK,ITA,USA&viz=line\\_chart&years=2007,2017](https://tcdata360.worldbank.org/indicators/nes.norms?country=FRA&indicator=3105&countries=CHN,DNK,ITA,USA&viz=line_chart&years=2007,2017)).

4 Individualism is common to “people looking after themselves and their immediate family only” (De Mooij and Hofstede 2010, 89).

enrolled in the special section of ‘innovative start-ups,’ which includes start-ups meeting the Italian Chamber of Commerce innovation criteria (e.g., the entrepreneur is the depository or licensee of a registered patent or the owner of a registered software). The French sample included 250 start-ups listed on the “myfrench-startup” website; the Chinese sample included 250 start-ups listed on the “angel.co” website; and the US and Danish samples respectively included 125 start-ups listed on the “angel.co” website. All the start-ups selected were founded between 2007 and 2017. In total, the initial sample included 1000 firms (i.e., 500 for high entrepreneurial cultures and 500 for low entrepreneurial cultures), and we received 343 responses (i.e., 95 for high entrepreneurial cultures and 248 for low entrepreneurial cultures – response rate 19 and 49.6%, respectively). Although we reported a ‘low’ response rate in the high entrepreneurial cultures, we may argue that it is higher compared to other studies based on real entrepreneur surveys (Block, Sandner, and Spiegel 2015; Cardon et al. 2013).

## 4.2 Survey Characteristics

The surveys were administered between January 2016 and April 2017 and consisted of two sections. The first section included the 16 questions to measure entrepreneurs’ narcissism (Ames, Rose, and Anderson 2006); the second section asked respondents for personal details such as entrepreneur’s age, gender, and number of firms owned. The questionnaire and the scale to measure entrepreneurs’ narcissism were in English. We administered the questionnaire in English (for the US and Denmark<sup>5</sup>), Italian (for Italy), and French (for France). In addition, we allowed Chinese entrepreneurs to choose between the Chinese or English version. In order to translate the questionnaire into Italian, French, and Chinese, we employed a rigorous back-translation technique (Brislin 1980). We used Google Survey tools as our survey platform. Due to the restrictions of the Chinese territory in using Google, we administered the questionnaire there through the WebSurveyCreator tool.

We contacted entrepreneurs using various online channels (i.e., LinkedIn, Facebook, Viadeo, email address) since they were located in different parts of the World, and they are generally time constrained. In this way, they were free to answer our questions whenever they had time and wherever they wanted. The preferred online channel was LinkedIn because it is the largest professional

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<sup>5</sup> We decided to administer the questionnaire in English even in Denmark because 86% of the Danish population is fluent in English. See <https://www.thelocal.dk/20201120/danes-are-worlds-second-best-speakers-of-english-as-a-foreign-language/>.

network on the web and is useful to connect and strengthen professional relationships. Entrepreneurs who did not have a LinkedIn account were contacted via Facebook, Viadeo, or their email address. We followed two steps. First, with our personal LinkedIn profile, we invited entrepreneurs to join our personal network, briefly outlining the project. Second, when entrepreneurs accepted our invitation, a detailed project overview was sent to them with a link to the online survey. In order to increase the response rate, we promised entrepreneurs who filled out the questionnaire that we would send them a personalized report. Three follow-up reminder emails were sent at intervals during the survey administration period.

## **4.3 Measures**

### **4.3.1 Dependent Variable**

Following the study by Wiklund and Shepherd (2008), we distinguished between habitual and novice entrepreneurs based on whether they had (or did not have) start-up experience. In detail, we asked: “Have you ever set up one or more firms before or after founding this firm?” We checked the veracity of the answers on Aida and Orbis, which are Bureau Van Dijk’s databases containing comprehensive information on firms in Italy and the rest of the world, respectively. The answers were coded 0 for no and 1 for yes.

### **4.3.2 Independent Variable**

We measured entrepreneurs’ narcissism using the Narcissistic Personality Inventory – NPI-16. This questionnaire was developed by Ames, Rose, and Anderson (2006) and consists of 16 items with two statement options: one is consistent with narcissism, while the other is not. We used Gentile and colleagues’ (2013) version, which considers only the item consistent with narcissism, and the answers follow a Likert scale option ranging from 1 (i.e., totally disagree) to 5 (i.e., fully agree).

To measure entrepreneurs’ level of education, we considered the years of education, and constructed a continuous variable ranging from 12 to 25 years.

### **4.3.3 Control Variables**

Entrepreneurs’ age, gender, and country entrepreneurial culture were considered as control variables to eliminate the confounding effects of these personal demographic characteristics. Regarding age, we constructed a multinomial

variable taking the value 1 if the entrepreneur was under 30 years old, 2 if the entrepreneur was between 31 and 40 years old, 3 if the entrepreneur was between 41 and 50 years old, and 4 if the entrepreneur was over 50 years old. As for gender, we constructed a dummy variable taking the value 1 if the entrepreneurs were women, and 0 otherwise. Finally, with regard to country entrepreneurial culture, we decided to include two dummy variables representing a high entrepreneurial culture (i.e., China) and a low entrepreneurial culture (i.e., Italy). This choice relies on the fact these Countries are strongly representative of high and low entrepreneurial cultures (Autio, Pathak, and Wennberg 2013; Wach 2015).

## 5 Results

Table 1 presents the characteristics of the entrepreneurs included in our sample. Most of the entrepreneurs were men (83.97%), aged between 30 and 39 years (39.36%), and with a master's degree level of education (56.27%). Their start-ups

**Table 1:** Characteristics of the survey sample ( $n = 343$ ).

	<i>N</i>	%		<i>N</i>	%
<b>Entrepreneur's age</b>			<b>Start-up location</b>		
<30 years old	53	15.45	Italy	151	44.02
30–39 years old	135	39.36	France	97	28.28
40–49 years old	92	26.82	China	68	19.83
>50 years old	63	18.37	United States	17	4.95
			Denmark	10	2.92
<b>Entrepreneur's education</b>			<b>Start-up industry</b>		
High school	43	12.54	Manufacturing	37	10.79
Bachelor's degree	56	16.33	Commerce	21	6.12
Master's degree	193	56.27	Information and communication	123	35.86
Ph.D.	51	14.87	Scientific activities	102	29.74
			Firm services	19	5.54
			Education	11	3.21
			Other <sup>a</sup>	30	8.75
<b>Entrepreneur's gender</b>			<b>Start-up size (number of employees)</b>		
Man	288	83.97	Less than 5 employees	201	58.60
Woman	55	16.03	5–10 employees	91	26.53
			11–25 employees	51	14.87
<b>Entrepreneur type</b>					
Habitual	208	60.64			
Novice	135	39.36			

<sup>a</sup>Includes construction, transport and storage, accommodation and catering, financial activities, real estate, health and healthcare, other service activities.

were mostly located in Italy (44.02%), they mainly belonged to the Information and Communication industry (35.86%), and were micro-firms having less than five employees (58.60%).

The research model was examined using Smart PLS, which is a partial least squares software. Following Hulland's (1999) recommendations, the PLS model analysis process was divided into two stages, the first of which was aimed at checking the adequacy of the measurement model and assessing the structural model, while the second was intended to test the hypotheses.

## 5.1 Adequacy of the Measurement Model and Assessment of the Structural Model

In order to measure the adequacy of our statistical model, we calculated the standardized root mean square residual (SRMR), the squared Euclidean distance ( $d_{ULS}$ ), and the geodesic distance ( $d_G$ ), which are useful values to check the model fit (Benitez et al. 2020). However, there is considerable debate in the literature about the clarity and correct use of these measures, as they are in their early research stage (Hair et al. 2016). The standardized root mean square residual (SRMR) allows for the evaluation of the average magnitude of discrepancies between observed and expected correlations, and it is considered an ideal measure to check model fit and avoid misspecification. In our model, the SRMR score is 0.083, and values below 0.1 indicate an acceptable model fit (Henseler et al. 2014). In order to calculate the exact model fit, the squared Euclidean distance ( $d_{ULS}$ ) and the geodesic distance ( $d_G$ ) should be considered. These original values should be lower than the upper bound of the confidence interval (i.e.,  $HI_{95}$ ) created by carrying out the Bollen-Stine bootstrapping procedure. In our model, both  $d_{ULS}$  and  $d_G$  are lower than the  $HI_{95}$  ( $0.818 < 0.901$  and  $0.245 < 0.300$ , respectively) indicating that the model has a good fit.

After that, we conducted confirmatory factor analysis (CFA) for the narcissism scale. Table 3 reports the reliability, convergent validity, and factor loadings of our variable. Cronbach's Alpha, used to explain the internal consistency reliability of the constructs, assumed the value of 0.834, which is higher than the required value of 0.700 (Nunnally and Bernstein 1994). The Rho\_A and Composite Reliability (CR) values, both of which measure internal consistency reliability, confirmed this result. Rho\_A considers the construct's weights and not its loading (Dijkstra and Henseler 2015), while CR considers the variances and covariances in the composite by dividing this sum by the total variance in the composite. The Rho\_A coefficient of the narcissism variable assumed the value of 0.860, while CR assumed the value of 0.864, which were both well above the accepted value of 0.700 (Fornell and

Larcker 1981). Finally, to assess the convergent validity of the narcissism scale, we evaluated the Average Variance Extracted (AVE), a measure of the variance of a construct in relation to the variance to the measurement error. AVE's value is 0.419,

**Table 2:** CFA results for the reliability and validity of the Narcissistic personality inventory.

	Narcissism items (1: Strongly disagree, 5: Strongly agree)	Cronbach's alpha	Rho_A	CR	AVE	VIF	Factor loading	Weight
		0.834***	0.860	0.864	0.419			
1	I know that I am good because everybody keeps telling me so					–	–	–
2	I like to be the center of attention				2.697	0.738***	0.150 <sup>†</sup>	
3	I think I am a special person				1.709	0.617***	0.113	
4	I like having authority over people				1.735	0.753***	0.254**	
5	I find it easy to manipulate people					–	–	–
6	I insist upon getting the respect that is due me					–	–	–
7	I am apt to show off if I get the chance				1.602	0.697***	0.287**	
8	I always know what I am doing					–	–	–
9	Everybody likes to hear my stories					–	–	–
10	I expect a great deal from other people					–	–	–
11	I really like to be the center of attention				2.547	0.709***	0.112	
12	People always seem to recognize my authority				1.320	0.478***	0.024	
13	I am going to be a great person				1.429	0.668***	0.279 <sup>†</sup>	
14	I can make anybody believe anything I want them to				1.321	0.565***	0.147 <sup>†</sup>	
15	I am more capable than other people				1.622	0.588***	0.114	
16	I am an extraordinary person					–	–	–

$n = 343$ ; CR, composite reliability; AVE, average variance extracted; VIF, variance inflation factor. –, items excluded because factor loading is less than 0.3. \*\*\* $p < 0.001$ ; \*\* $p < 0.01$ ; \* $p < 0.05$ . <sup>†</sup> $p < 0.1$ .

below the required value of 0.500 (Fornell and Larcker 1981). In sum, since the AVE is below the desired value of 0.500 and CR is above 0.700, the convergent validity and reliability of our construct is adequate (Shrestha 2021).

We checked for multicollinearity and common method bias using the Variance Inflation Factor (VIF). The values of all our variables range from 1 to 2.697.<sup>6</sup> According to Kock (2015), VIF values below 3.300 indicate the absence of both pathological collinearity and common method bias in our model. In addition, we also assessed common method bias by using the partial correlation method (Podsakoff and Organ 1986), which implies adding the highest factor from the principal component factor analysis to the PLS model as a control variable over the dependent variable. Adding this factor did not significantly change the variance explained in our dependent variable, again suggesting no substantial common method bias.

Finally, we reported the factor loadings of the narcissism items, which represent the correlation between the indicator and the corresponding emergent variable, and the weights showing the relative contribution of each indicator to the emergent variable (Benitez et al. 2020).

Table 3 reports the means, standard deviations, and Heterotrait-Monotrait Ratio (HTMT) Correlation values. HTMT correlation values are used to check for discriminant validity. HTMT confidence intervals were extracted through the Bollen-Stine bootstrapping procedure. Our HTMT values were all inside the confidence interval, meaning that no discriminant validity affected our variables.

## 5.2 Hypothesis Testing

Table 4 shows the highlights of path analysis. Hypotheses are tested following three steps. The first step considers the direct effect between entrepreneurs' narcissism and habitual entrepreneurship, and the impact of the control variables on this relationship. The second step focuses on the total effect caused by including in this model the entrepreneurs' education variable from the previous model. Finally, the third step considers the indirect effect, showing the mediating effect of entrepreneurs' education on the relationship between entrepreneurs' narcissism and habitual entrepreneurship.

To evaluate and test the mediation models, we used the bootstrapping method (Hayes 2009). Bootstrapping is a non-parametric re-sampling procedure employed

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<sup>6</sup> Table 2 shows the VIF values of the Narcissism construct items. The VIF of the other variables included in the model was 1, as they are continuous, ordinal, and dummy variables (not reported in the text).

Table 3: Descriptive statistics and Heterotrait-Monotrait ratio correlation values.

Latent variables	Mean	SD	1	2	3	4	5	6	7
1. Habitual entrepreneur <sup>a</sup>	0.335	0.472	–						
2. Entrepreneur's narcissism	0.000	0.943	0.070 [0.041; 0.184]	–					
3. Entrepreneur's education	0.711	0.453	0.211 [0.109; 0.305]	0.229 [0.142; 0.337]	–				
4. Entrepreneur's gender <sup>b</sup>	0.160	0.367	0.173 [0.071; 0.271]	0.138 [0.097; 0.231]	0.099 [0.008; 0.208]	–			
5. Entrepreneur's age	2.481	0.962	0.168 [0.060; 0.277]	0.158 [0.094; 0.277]	0.111 [0.019; 0.207]	0.029 [0.002; 0.145]	–		
6. Country: China <sup>a</sup>	0.198	0.399	0.091 [0.007; 0.200]	0.214 [0.166; 0.305]	0.343 [0.249; 0.431]	0.179 [0.077; 0.277]	0.189 [0.083; 0.290]	–	
7. Country: Italy <sup>a</sup>	0.440	0.497	0.176 [0.077; 0.269]	0.299 [0.209; 0.401]	0.578 [0.503; 0.644]	0.180 [0.073; 0.284]	0.078 [0.006; 0.162]	0.441 [0.385; 0.498]	–

$n = 343$ ; SD, standard deviation. <sup>a</sup>1 = Yes, 0 = No. <sup>b</sup>1 = Woman, 0 = Man.

Table 4: Path analysis.

Path	Step 1		Step 2		Step 3		Hp	Result
	Direct effect		Total effect		Indirect effect			
	Coefficient	t-value	Coefficient	t-value	Coefficient	t-value		
NAR > HAB	0.009	0.915	-0.018	0.276			H1	Not supported
NAR > ED			-0.251***	5.769			H2	Supported
ED > HAB			-0.150**	2.483			H3	Supported
NAR > ED > HAB					0.038*	2.105	H4	Supported
<b>Control variables</b>								
AGE > HAB	0.216***	4.454	0.213***	4.198				
GEN > HAB	-0.156**	2.928	-0.152**	2.780				
CHI > HAB	0.195***	3.425	0.122 <sup>†</sup>	1.803				
ITA > HAB	-0.013	0.227	0.002	0.009				

$n = 343$ , <sup>†</sup> $p < 0.1$ ; \* $p < 0.05$ ; \*\* $p < 0.01$ ; \*\*\* $p < 0.001$ . NAR, entrepreneur's narcissism; HAB, habitual entrepreneur (0 = No, 1 = Yes); ED, entrepreneur's education; AGE, entrepreneur's age; GEN, entrepreneur's gender (0 = Man, 1 = Woman). CHI, country: China (0 = No, 1 = Yes); ITA, country: Italy (0 = No, 1 = Yes).

in the analyses of both simple and multiple mediation. The present case required 5000 bootstrap samples with replacement.

The direct effect of entrepreneurs' narcissism on the choice to be habitual entrepreneurs is positive and not statistically significant ( $\beta = 0.009$ ,  $p > 0.1$ ), not supporting Hypothesis 1. However, the relationship between age, gender, and country (i.e., our control variables) and habitual entrepreneurship is interesting. In detail, the higher the age, the higher the propensity to be habitual entrepreneurs ( $\beta = 0.216$ ,  $p < 0.001$ ); men ( $\beta = -0.156$ ,  $p < 0.001$ ) and Chinese entrepreneurs ( $\beta = 0.195$ ,  $p < 0.001$ ) (i.e., entrepreneurs belonging to high entrepreneurial cultures) are more inclined to be habitual entrepreneurs.

The total effect column shows that the direct effect of entrepreneurs' narcissism on habitual entrepreneurship is negative and not statistically significant ( $\beta = -0.018$ ,  $p > 0.1$ ), which again did not support Hypothesis 1. Regarding the relationship between entrepreneurs' narcissism and education, results showed a negative and significant relationship ( $\beta = -0.251$ ,  $p < 0.001$ ), thus supporting Hypothesis 2; while regarding the relationship between entrepreneur's education and the choice to be a habitual entrepreneur, results showed a negative and significant relationship ( $\beta = -0.150$ ,  $p < 0.01$ ), thus supporting Hypothesis 3. Also in Step 2, the control variables follow the same paths as in Step 1.

Finally, in order to analyze the mediating effect, the indirect effect should be considered. Results show the existence of a significant indirect effect between

entrepreneurs' narcissism and the choice to be habitual entrepreneurs through the mediation of entrepreneurs' education ( $\beta = 0.038$ ,  $p < 0.05$ ), thus demonstrating the existence of a full mediation and supporting Hypothesis 4.

## 6 Discussion

This research suggests the existence of a relationship between narcissism and habitual entrepreneurship. Successful entrepreneurial endeavors require entrepreneurs to know how to use their skills; they must make decisions every day and must be able to deal with failure (Politis 2008). Prior work in the literature on entrepreneurship investigates how entrepreneurs' knowledge and skills lead to certain behaviors (Gottschalk, Greene, and Müller 2017; Parker 2014) without focusing on the antecedents leading to these behaviors. Our results suggest that the psychological antecedents to and the skills involved in entrepreneurship affect the decision to become a habitual entrepreneur. Specifically, we show that entrepreneurs' narcissism and their educational levels affect the choice to become habitual entrepreneurs.

### 6.1 Theoretical Contributions

The present study investigates the antecedents to the decision to become a habitual entrepreneur, thus making significant contributions to the research field.

First, based on the dispositional theory and the upper echelon theory, the study intends to ascertain the importance of personality traits in shaping entrepreneurs' human capital and decision-making choices. These theories enclose durable patterns of cognitions, beliefs, and choices affected by entrepreneurs' personalities and backgrounds. Given the many potential dispositions that influence entrepreneurial decisions (such as the choice to become habitual entrepreneurs), it becomes essential, both theoretically and empirically, to recognize the constraints and effects of entrepreneurs' personality traits and human capital. Thus, this study intends to add to the theoretical development by integrating these two theories with entrepreneurs' narcissism and how it fosters their level of education and the choice to become habitual entrepreneurs.

Second, the paper makes a novel contribution to the research on entrepreneurial personality, and particularly narcissism, by applying the personality trait of narcissism in the context of habitual entrepreneurship. Building on past studies for a more thorough explanation of the relationship between psychological traits

and entrepreneurship domains (Deprez et al. 2021; Navis and Ozbek 2016; Spivack, McKelvie, and Haynie 2014), the present findings suggest that narcissism is truly important for understanding the essence of entrepreneurship and all the processes surrounding it. Specifically, our findings indicate that entrepreneurs' narcissism and their educational levels act as individual pressures towards the engagement in habitual entrepreneurship activities. When discussing entrepreneurship motivators, it is therefore relevant to acknowledge the importance of the entrepreneur's personality and, among the various personality traits, of narcissism. In this paper, we also offer a call to action for future research on the antecedents to entrepreneurs' behaviors in order to improve firm governance, and thus foster sustained excellence within organizations. In agreement with Seijts et al. (2019), the literature on strategy and governance usually underestimates the importance of the personality of entrepreneurs/CEOs. Previous studies emphasize the beneficial role played by personality in terms of effectiveness and board governance. However, this approach is not commonly investigated in workplaces and board conversations.

Third, by examining the negative relationship between entrepreneurs' educational levels and their choice to become habitual entrepreneurs, we contribute to the literature on decision making and human capital. The lack of consistency among previous studies allows this paper to push knowledge forward underlining a new relationship between human capital facets and decision-making processes. Prior studies show that the educational level of entrepreneurs is not dissimilar across different types of entrepreneurs (i.e., novice or serial and portfolio) (Ucbasaran, Westhead, and Wright 2006; Ucbasaran, Paul, and Wright 2008). Traditionally, habitual entrepreneurs have been considered to have a higher education level than other entrepreneurs because they are apt to demonstrate stronger knowledge acquisition, assimilation, and transformation capability, which facilitates the generation of entrepreneurial initiatives and understanding of business strategic operations. However, to the best of our knowledge, no studies have fully supported this reasoning. The paper contributes to this stream of research by pointing out that the higher the entrepreneurs' levels of education, the lower their likelihood of becoming habitual entrepreneurs. This is because, in well-educated individuals, the rational side prevails over the instinctive side, thus reducing the appetite for risk and the ability to think outside the box.

Fourth, we contribute to the literature on human capital by investigating the mediating role played by the entrepreneur's level of education in the relationship between entrepreneurs' narcissism and habitual entrepreneurship. In detail, we explain the mechanisms through which entrepreneurs' narcissism affects the choice to become habitual entrepreneurs. Previous studies emphasize the need to investigate the effect of human capital on discovery and creation (Alvarez

and Barney 2014; Marvel, Davis, and Sproul 2016). Our results show that the entrepreneur's educational background fully mediates the above relationship, playing a crucial role. In detail, without considering the education variable, the relationship between entrepreneurs' narcissism and habitual entrepreneurship is not significant. This means that education and, in general, human capital strongly affect entrepreneurial opportunity discovery, creation, and exploitation.

Finally, this paper is one of the first to investigate the narcissism of real entrepreneurs. Previous studies generally used secondary data (i.e., business reports or interviews) or primary data related to samples of students.

## 6.2 Practical Contributions

The present paper also offers practical implications for investors, academia, and policymakers.

Angel investors, venture capitalists, and banks should consider personality, prior experience, and educational background as proxies for firm founders because they underlie entrepreneurial competence. Investors can expect how entrepreneurs might react when faced with risk or pressured to think outside the box, through surveys investigating entrepreneurs' personality and human capital.

Regarding the academic world, we call for more investment in entrepreneurship education to make students more aware of the decision to become entrepreneurs, and more specifically, habitual entrepreneurs. As we saw through our literature reviews, more educated entrepreneurs are generally aware of and avoid risks and are discouraged from pushing their boundaries of knowledge. Therefore, in their courses, academics should focus more on the entrepreneurial idea and the welfare that this idea might generate than on mere profit or risk. Courses should be developed to increase creativity and problem-solving skills, to improve innovative thinking and the ability to cope with difficulties. This would encourage students to envision a more flexible way of creating new firms, eventually becoming habitual entrepreneurs, without being scared of risks and the future.

Finally, as far as policymakers are concerned, our contribution is twofold. First, policymakers generally provide direct support to nascent entrepreneurs to help them develop and implement their business ideas. However, previous research shows that habitual entrepreneurs create a higher proportion of jobs and economic growth than novice entrepreneurs (Fierro et al. 2018). Thus, this paper invites policymakers to also direct their resources and support to habitual entrepreneurs by investing in initiatives (e.g., education programs or practical support to cope with bureaucracy) that break down barriers to the development of firms founded by experienced entrepreneurs. Second, to obtain resources and support, policymakers should require habitual

entrepreneurs to submit questionnaires about their personality traits in addition to application letters, business plans, and other bureaucratic papers. In fact, by analyzing entrepreneurs' personalities, policymakers can anticipate how entrepreneurs will behave and the strategic choices they will make.

### 6.3 Limitations and Future Research

The present study has some limitations that suggest directions for further research. One is related to the data, which do not provide information on the duration of the entrepreneur's involvement in the previous new firm(s). Temporal permanence could be used to measure entrepreneurial seriality and as a proxy to check whether personality or human capital are associated with permanence. We also lack information on the composition (personality traits and human capital characteristics) of the top management team. It would be interesting to investigate the relationships existing within the management team, and whether the personality and skills of certain individuals influence the team's strategic choices. In line with Gottschalk, Greene, and Müller (2017), the skills and competencies of team members may encourage mutual learning and open thinking but, in the presence of overly strong or weak personalities, this might lead to uniformity of thinking, which could ultimately endanger the firm. Another limitation of our study is the composition of the sample. Future work could include entrepreneurs from other areas, such as Africa, to check for the effect of culture on the choice to be habitual entrepreneurs. Finally, through an in-depth literature review, we have identified four mechanisms that supported our reasoning through hypothesis development. Still, we could not separately test these mechanisms in our model. Therefore, we hope that future studies can work on developing a new survey that will allow for a more in-depth exploration of these mechanisms.

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