The Antecedents of Serial Entrepreneurship: the Role of Entrepreneurs’ Narcissism and Human Capital

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Abstract

This paper analyses the psychological antecedents affecting the individual decision to become a serial entrepreneur. Using a cross-industry sample of 343 start-ups’ entrepreneurs, we show that entrepreneurs with a high level of narcissism are likely serial entrepreneurs, and entrepreneurs’ experience positively mediates the above relationship. Our study makes significant contributions to the research on entrepreneurship and human capital. We respond to calls for a more in-depth explaining of the relation between entrepreneurs’ seriality and personality trait differences and we contribute to the discussion about the importance of the interaction between human capital and personality traits.
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**Keywords:** serial entrepreneur, entrepreneur narcissism, personality trait, human capital, start-ups.

1. **Introduction**

Serial entrepreneurs create a high proportion of jobs and economic growth respect the novice entrepreneur (Roberts and Eesley, 2011). Scholars have investigated many individual differences associated with serial entrepreneur and novice entrepreneurs (i.e. those have so far operated only one venture), such as differences based on cognitive styles, behavior, motivations, and past entrepreneurial experience (Mandl, Berger and Kuckertz, 2016, Eesley and Roberts, 2012). But what makes serial entrepreneurs? Can the seriality be due to their experience or their talent?

The serial entrepreneurial behaviour consists in a continuous desire to exit from an initial venture and create a new venture (Wright, *et al.*, 2007). The entrepreneurs feel the desire to exit when the opportunities in the old firm are exhausted and the goals are reached (DeTienne and Cardon, 2012). Entrepreneurs can engage the serial entrepreneurial behaviour to “seize the moment” and because of addiction. Previous experiences allow entrepreneurs to recognise and estimate opportunities (Gottschalk, Greene and Müller, 2017); these capabilities enable avoiding the obstacles and selecting the best opportunity to pursue (Short, *et al.*, 2010). The skills acquired from any previous experience can facilitate entrepreneur obtaining financial resources because of their credibility and because they have built a broader relational network with venture capitalists (Ucbasaran, Baldacchino and Lockett, 2014). However, applying prior experiential learning appropriately is difficult particularly in new different situations in which entrepreneurs cannot use the same know-how (Cassar, 2014). Addiction is linked to sensations, motivations and rewards that entrepreneurs perceive from the venture creation activities. Sensations refer to the moods that entrepreneurs perceive (i.e., excitement, fear, uncertainty) which leads them to feel wellbeing and satisfaction...
Motivation and rewards are related to the status, power, social acceptance that entrepreneurs achieve during their entrepreneurial activity (Carsrud and Brännback, 2011).

While research has provided a strong general understanding of what motivates individuals to pursue their entrepreneurial ideas (Ucbasaran, et al., 2010), the psychological antecedents that might affect the individual decision to become a serial entrepreneur are still unexplored and untested (Navis and Ozbek, 2016, Shane and Nicolaou, 2015). Only few papers emphasise the importance of personality traits in the choice to be serial entrepreneurs; Shane and Nicolaou (2015) focus on the entrepreneurial creativity of serial entrepreneurs and state that creative personalities have higher capabilities in identify business opportunities and start businesses. Caliendo, Fossen and Kritikos (2014) show that openness to experience, extraversion, and emotional stability increase the probability to re-start a business, while risk tolerance, locus of control, and trust, have strong partial effects on entry decisions.

Drawing on dispositional theory (Davis-Blake and Pfeffer, 1989), which underlines how entrepreneurs’ traits affect their attitudes and behaviour, and on human capital theory (Becker, 1994), which emphasises the equivalence of human capital with the other resources involved in the business process and as such his importance in increasing the productivity of firms, we demonstrate our hypotheses.

For the purpose of this paper, we focus on entrepreneurs who are business owners and who have started or acquired a business (Parker, 2004, Westhead and Wright, 1998). Using a cross-industry sample of 343 start-ups’ entrepreneurs, we show that entrepreneurs with a high level of narcissism are likely serial entrepreneurs, and entrepreneurs’ human capital mediates the above relationship. Our study makes significant contributions to the research on entrepreneurship and human capital. Previous works investigate factual knowledge and skills that characterise entrepreneurs and lead them to have certain behaviours. However, agreeing with Navis and Ozbek (2016), we show the existence of some psychological and behavioural factors that shape individuals’ decisions and actions. Moreover, we respond to the calls for a more in-depth explanation of the relationship between entrepreneurs’ seriality and personality trait differences (Hayward, Shepherd and Griffin, 2006). Regarding the human capital literature, we extend the human capital theory into the domain of the serial entrepreneurship, by emphasizing the mediator role in the choice to be serial entrepreneurs. Finally, we contribute to the discussion about the importance of the interaction between human capital and personality traits in the entrepreneurial choices (De Jong and Veijer, 2014). The paper is organised as follows. In the next sections, we review the existing literature and we develop
our hypotheses. We then detail our data and measures, discuss the method applied, and report the findings. The paper concludes with a discussion of the implications of our results and some directions for future research.

2. Theoretical background and hypotheses

Entrepreneurs’ narcissism and seriality

Narcissism indicates people that are self-centred, self-focused, and self-serving (Rosenthal and Pittinsky, 2006). The basic qualities of the narcissistic personality are self-admiration, arrogance, perceptions of entitlement, and hostility toward external criticism (Wales, Patel and Lumpkin, 2013). Due to this, they think to merit all the consideration and admiration, they have high self-esteem in their capacities, and they do not matter the others’ ideas and emotions (Chatterjee and Hambrick, 2007). However, narcissistic people are motivated, motivators, competitive, charismatics, passionate and perseverant (Maccoby, 2000).

The narcissistic trait of the entrepreneur personality is likely to influence serial entrepreneurship. Serial entrepreneurs have a clear vision, which they pursue at whatever cost. In fact, serial entrepreneurs start business sequentially to pursue their personal goals and to develop ideas and personal skills (i.e., experience) (Westhead, Ucbasaran and Wright, 2003). The narcissistic trait of personality generally push the entrepreneurs to undertake too optimistic and hazardous actions and rarely blame themselves for a failure (Pan and Yu, 2017). This is very common in serial entrepreneurs are too optimistic, and this enables them to start multiple activities, and in case of business failure, they feel better positioned to start subsequent ventures and develop a sort of resilience to failure (Hayward, et al., 2010).

Finally, the narcissistic trait of personality push the entrepreneurs to act independently, and this is due to the desire to become free from rules and the control of others (Chatterjee and Hambrick, 2007). This push to start new business, since serial entrepreneurs are moved by the desire of control, independence and enhanced psychological well-being, while financial motivations are restricted only to the first business (Ucbasaran, et al., 2003). For these reasons, we hypothesize that:

*Hypothesis 1 (H1): Entrepreneurs’ narcissism positively influences entrepreneurs’ seriality.*

The role of human capital

Human capital refers to the knowledge, education, and characteristics of the entrepreneurs (Wright, et al., 2007). Human capital is only one part of the intellectual capital
that includes a various range of knowledge-based resources (i.e., human, organisation, and relationship-centred capital) (Passaro, Quinto and Thomas, 2018). Previous studies on entrepreneurs’ human capital focus on the relationship with firm performance (Amaral, Baptista and Lima, 2011, Unger, et al., 2011), but the majority focus on their influence on the entrepreneurs’ intention (Marvel, Davis and Sproul, 2016, Passaro, Quinto and Thomas, 2018, Piva and Rossi-Lamastra, 2018). However, no study has considered the possible role of human capital as mediator of the relationship between entrepreneur’s narcissism and serial entrepreneurial experience.

Education is a source of knowledge and provides entrepreneurs with the necessary cognitive skills to adapt themselves to environmental changes (Ucbasaran, Westhead and Wright, 2008). Entrepreneurs, through their educational path, acquire all the capabilities to better deal with complex problems, to obtain resources easily, and to identify and exploit business opportunities (Arenius and De Clercq, 2005). Generally, narcissists are hypersensitive to evaluation and do not accept potential negative feedback or criticism (Bergman, Westerman and Daly, 2010). When faced with inadequate performance, narcissists are often unwilling or unable to take responsibility for their failures or inappropriate behaviours. They externalise failure, typically blaming outside sources (e.g., illness, friends, family). Since they tend to do not reach high educational levels for fear of being judged and not put in first place, they are aware of the fact that, with their basic knowledge, they can achieve success better than anyone else. Hence, we assume that:

**Hypothesis 2a (H2a): Entrepreneurs’ narcissism negatively influences entrepreneurs’ level of education.**

Previous studies show that entrepreneurs with high levels of education have a significant ability to identify opportunities, but they have limits in pursuing them (Arenius and De Clercq, 2005). The time and efforts invested in education can influence life career choices, including attitudes towards entrepreneurial activity (Ucbasaran, Westhead and Wright, 2008). According to Davidsson and Honig (2003), over-investment leading to high levels of education may discourage risk-taking, while under-investment may encourage it. Moreover, more educated people tend to perform in more complex reasoning, which leads them to activate and prefer the rational part compared to the instinctive part (Altinay and Wang, 2011). Thus, more educated entrepreneurs can trap their risk appetite and decide to prefer to be portfolio entrepreneurs (i.e. entrepreneurs who identify and take the advantage for multiple parallel business opportunities (Parker, 2014). Therefore, we suppose that:
Hypothesis 2b (H2b): Entrepreneurs’ level of education negatively influences entrepreneurs’ seriality.

Hypothesis 2c (H2c): Entrepreneurs’ human capital mediates the relationship between entrepreneurs’ narcissism and entrepreneurs’ seriality.

Research methods

Sample and procedure

The present study relies on Italian, French, Chinese, US and Danish start-ups’ entrepreneurs. We define entrepreneurs as individuals who are the most influential members (i.e., decision makers) of the firms, that could be the founder and/or the principal owner. We selected start-ups listed in the register of the Italian Chambers of Commerce for the Italian sample, on the myfrenchstartup website for the French sample, and the angel.co website for the Chinese, US and Danish sample. Myfrenchstartup and angel.co are websites that contain general, financial and employment information of the firms. All the start-ups selected are founded between 2008 and 2015: the initial sample included 1000 firms and we received 343 answers (response rate 34.5%). We contacted start-ups’ entrepreneurs using various channels. For those registered on LinkedIn, we used our personal LinkedIn profiles to introduce ourselves and explain the study, and, after, to send the link to the electronic survey. In the case of those with no LinkedIn profile, we contacted them via Facebook, Viadeo or their e-mail address. We administered the surveys between January 2016 and Avril 2017; in this period, we sent three follow-up reminder emails. We used Google Survey tools as a platform for our surveys. Only for the Chinese sample, we used the WebSurveyCreator tools because of the Google restriction on Chinese territory.

Measures

In order to distinguish between habitual and novice entrepreneurs, we have asked: “Have you ever set up one or more firms before or after the founding this firm?” If the answer to this was yes, they were asked whether they possess yet the other firms or they have left them. If they have left the previous firms, we have attributed the value one and zero otherwise, constructing a dummy variable that allows to categorise them as serial entrepreneurs. We have measured the entrepreneurs’ narcissism using the Narcissistic Personality Inventory (NPI-16). The questionnaire was elaborated by Ames, Rose and Anderson (2006) and is composed of 16 items for which the respondent chooses one of the two assertions reported which better fits with him/her. The two assertions are alternatively
consistent and inconsistent with the narcissism trait. In this study, a 5-point Likert scale version was preferred; therefore, the respondent is called to express the level of correspondence of the statement (from 1=totally disagree to 5=fully agree) with his or her personality. The original NPI-16 is in English and to ensure accurate translation to Italian, French and Chinese, we employed a rigorous back-translation technique (Brislin, 1980). Finally, to measure the entrepreneurs’ level of education we have constructed a dummy variable at which we have attributed the value one if the entrepreneur has a master’s degree or a PhD and zero otherwise.

Results

Table 1 shows the descriptive statistics of our sample. The research model was analysed using Smart PLS, a PLS structural equation modelling tool. Following the recommendations of (Hulland, 1999), the PLS model was analysed in two stages, testing first the adequacy of the measurement model and then assessing the structural model. Testing of the measurement model included the estimation of individual item reliability (Cronbach’s Alpha>0.70), the composite reliabilities (CRs>0.70), and the average amount of variance (AVE>0.50). Table 2 shows all the values. We did not check the discriminant validity for entrepreneurs’ seriality and level of education because are dummy variables.

Table 3 reports the results of the testing of discriminant validity of the measurement scales. The elements in the matrix diagonals, representing the square roots of the AVEs, are greater in all cases than the off-diagonal elements in their corresponding row and column, supporting the discriminant validity of our variables.

We test convergent validity extracting the factor and cross loadings of all indicator items to their respective latent constructs. These results, presented in Table 4, indicated that all items loaded on their respective construct from a lower bound of 0.69 to an upper bound of 0.82; and more highly on their respective construct than on any other.
PLS path analysis allows to evaluate and test mediation models, using the bootstrapping method (Hayes, 2009). In the present analyses, 5000 bootstrap samples with replacement were requested (Hair, Ringle and Sarstedt, 2011). Figure 1 shows the structural model results omitting the influence of the mediator variable. The beta path coefficient is positive and statistically significant ($=0.146$, $t=2.849$, $p < 0.01$), and this confirm our Hypothesis 1.

Figure 2 shows the structural model results with the influence of the mediator variable. We test the mediation following the Baron and Kenny (1986) the formal steps. The relationship between entrepreneurs’ narcissism and their level of education is negative and significant ($=-0.171$, $t= 2.952$, $p<0.01$), thus we can accept the Hypothesis 2a. The relationship between entrepreneurs’ level of education and entrepreneurs’ seriality is also negative and significant ($=-0.196$, $t= 3.511$, $p<0.001$) and this allows to accept the Hypothesis 2b.

To check if entrepreneurs’ narcissism affects entrepreneurs’ seriality through human capital, we should also consider the indirect effect. As we said previously, the direct effect is significant ($=0.146$, $t=2.849$, $p < 0.01$) however also the indirect effect is significant ($=0.033$, $t=2.121$, $p<0.05$), but it decreases. For this reason, we state that entrepreneurs’ human capital plays a partial mediating role in the relationship between entrepreneurs’ narcissism and entrepreneurs’ seriality, supporting the Hypothesis 2c.

**Discussion and conclusion**

During the new venture creation process, entrepreneurs need to continually shape their personal characteristic (Zhao, Seibert and Lumpkin, 2010) and develop their critical resources and capabilities (Brush, Greene and Hart, 2001). According to Markman and Baron (2003), entrepreneurs can reach their goals only if they know how better use their skills, preferences and attitudes. Entrepreneurs need to cope with the liabilities of newness, make
different decisions every day, and be able to deal with the constant failures that generally characterise the new venture creation process (Politis, 2008). Thus, the psychological antecedents and the skills of entrepreneurs affect the decision to become an entrepreneur and in particular the choice to be serial entrepreneurs. The results of this paper confirm this point of view: serial entrepreneurship is influenced by entrepreneurs’ narcissism, and entrepreneurs’ levels of education partially mediate the above relationship. According to Zhao, Lynch Jr and Chen (2010), we can identify the type of partial mediation. In particular, entrepreneurs’ level of education plays a complementary partial mediation because multiplying all the beta values of the variables involved, we have a positive number (Nitzl, Roldan and Cepeda, 2016).

The paper generates several theoretical implications on entrepreneurship and human capital literature. Agreeing with Short, et al. (2010), by examining serial entrepreneurship, we gain more insight into entrepreneurship regarding how and by whom entrepreneurs discovered, evaluated, and exploited entrepreneurial opportunities. In particular, we contribute for a deeper understanding of the personal, cognitive and behavioural factors that influence critical entrepreneurial dynamics. Beyond the influence of these more tangible and experiential factors, however, there are some psychological and behavioural factors that model individuals’ decisions and actions (Navis and Ozbek, 2016). Moreover, we respond to the calls to better explain the relationship between psychology and entrepreneurship domains (Spivack, McKelvie and Haynie, 2014) and, in particular, for a more in-depth explanation of the relation between entrepreneurs’ seriality and personality trait differences (Hayward, Shepherd and Griffin, 2006). Although our knowledge of serial entrepreneurial behavior is increasing, we still know very little about the antecedents that drive these behaviours (Navis and Ozbek, 2016). Agreeing with Spivack, McKelvie and Haynie (2014), “a more comprehensive understanding of the psychology of the entrepreneur may suggest important prescriptive implications for how and what we study when examining entrepreneurs, including potentially important connections to psychological and physiological rewards and changes in behavior over time”. The paper also extends the human capital theory into the domain of the serial entrepreneurship, by emphasizing his mediator role in the choice to be serial entrepreneurs. Finally, we contribute to the discussion about the importance of the interaction between human capital and personality traits (De Jong and Veijer, 2014). In recent years, scholars have used a human capital perspective to explain the deviation from predicted behaviour (Korunka, et al., 2003). Investigating the mediator effect of the human capital, our findings are consistent with that of Hsiao, Lee and Chen (2016), who assert principally that
people with particular personality traits, when encountering challenges, proactively solve problems by enhancing their skills and acquiring additional knowledge.

Our results also have practical implications. Our findings challenge serials entrepreneurs to carefully consider their personality and their background because they are essential in the evaluation and the success of any new opportunities. Experience recover a fundamental characteristic to valuate opportunities (Gottschalk, Greene and Müller, 2017). Our findings also have implications for investors. Angel investors, venture capitalists, and banks could consider personality and prior experience as an evaluable proxy for a founder’s underlying entrepreneurial competence. The last practical implication is for practitioners and policy-makers so that they can use entrepreneurs’ personal information to target entrepreneurship support measures more effectively knowing that different types of entrepreneurs perform differently.

Finally, this paper is prone to several limitations that therefore provide numerous avenues for further research. One limitation is related to the data because they are silent on how long these founders were involved in earlier new firms. Temporal permanence could be another variable useful to measure the antecedent of entrepreneurial seriality; also, it could be a proxy that allows checking if the personality or human capital is associated with permanence. Moreover, we do not have any information about the composition of the top management team, in term of personality trait and human capital characteristics. It will be interesting to investigate the relationship inside the management team and if the personality or the skills of someone of the group acts as a lighthouse for the strategic choice of the group.
## Appendix

### Table 1: Descriptive statistic (n=343)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entrepreneurs’ seriality</td>
<td>0.335</td>
<td>0.472</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Entrepreneurs’ narcissism</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Narcissism_5</td>
<td>2.411</td>
<td>1.154</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Narcissism_13</td>
<td>2.875</td>
<td>1.302</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Narcissism_14</td>
<td>2.391</td>
<td>1.155</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Narcissism_16</td>
<td>2.755</td>
<td>1.233</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Entrepreneurs’ level of education</td>
<td>0.711</td>
<td>0.453</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>

### Table 2: Assessment of the measurement model

<table>
<thead>
<tr>
<th>Variable constructs</th>
<th>Cronbach’s Alpha</th>
<th>CR</th>
<th>AVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entrepreneurs’ narcissism</td>
<td>0.742</td>
<td>0.833</td>
<td>0.556</td>
</tr>
</tbody>
</table>

### Table 3: Discriminant validity (intercorrelation) of variable constructs

<table>
<thead>
<tr>
<th>Latent Variables</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Entrepreneurs’ level of education</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Entrepreneurs’ narcissism</td>
<td>-0.171</td>
<td>0.746</td>
<td></td>
</tr>
<tr>
<td>3. Entrepreneurs’ seriality</td>
<td>-0.215</td>
<td>0.147</td>
<td>1</td>
</tr>
</tbody>
</table>

### Table 4: Factor loadings (bolded) and cross loadings

<table>
<thead>
<tr>
<th></th>
<th>Entrepreneurs’ level of education</th>
<th>Entrepreneurs’ narcissism</th>
<th>Entrepreneurs’ seriality</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entrepreneurs’ level of education</td>
<td>1.000</td>
<td>-0.170</td>
<td>-0.215</td>
</tr>
<tr>
<td>Narcissism_5</td>
<td>-0.091</td>
<td>0.693</td>
<td>0.089</td>
</tr>
<tr>
<td>Narcissism_13</td>
<td>-0.175</td>
<td>0.820</td>
<td>0.140</td>
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<tr>
<td>Narcissism_14</td>
<td>-0.091</td>
<td>0.696</td>
<td>0.091</td>
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<tr>
<td>Narcissism_16</td>
<td>-0.127</td>
<td>0.766</td>
<td>0.106</td>
</tr>
<tr>
<td>Entrepreneurs’ seriality</td>
<td>-0.215</td>
<td>0.147</td>
<td>1.000</td>
</tr>
</tbody>
</table>
Figure 1: Structural model results (without interacting variables). ** p < 0.01

Figure 2: Structural model results. *** p < 0.001, ** p < 0.01, * p < 0.05
References


