

Am I an Entrepreneur? Entrepreneurial Self-Identity as an Antecedent of Entrepreneurial Intention

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ABSTRACT

Although many studies have shown that entrepreneurial intention can be explained according to a theory of planned behavior, some scholars have provided interesting insights into the role of job self-identity perception—in particular the ones related to entrepreneurship—as significant precursor of entrepreneurial intention. A questionnaire has been administered to graduates and students of an Italian university (N = 153). A hierarchical regression analysis controlling for demographic variables has been performed in order to test the research hypotheses. The findings of this study have been discussed, with particular attention paid to the unexpected, weak, or non-significant effects of perceived behavioral control and social norms on entrepreneurial intention.

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1. INTRODUCTION

Entrepreneurship can be seen as one of the crucial economic factors of a national economy. In fact, the entrepreneurial system of a country grows upon the Entrepreneurs willingness to develop new ideas, make a breakthrough in developing new technologies—thus registering a patent—and innovate work places in order to stimulate workers creativeness (Holcombe1998; Wennekers and Thurik1999; Samila and Sorenson2011;Engle et al.2010 ;Aidis et al.2012;Aparicio et al.2016; Lucas and Fuller2017). For these reasons, Entrepreneurship is mostly regarded as one of the most influential factors able to greatly impact on a country's economic and social growth (Holcombe1998 ; Wennekers and Thurik1999 ;Samila and Sorenson2011;Engle et al.2010; Aidis et al.2012 ; Aparicio et al.2016 ;Lucas and Fuller2017). In fact, several nations (e.g., those in the European Union) have increased their efforts in the past few years to create incentives to aid people in starting their own firm (Von Graevenitz et al.2010).

Many researchers have focused their analysis on cognitive factors capable of fostering entrepreneurship development. The Theory of Planned Behavior (Ajzen1991) supports the idea that entrepreneurial behavior can be considered as a highly intentional behavior. Thus, becoming an

entrepreneur and managing a firm can be seen as volitional behavior and not as random occurrences in a person's life (Ajzen1991;D íaz-García and Jimenez-Moreno2010;Van Gelderen et al.2008; Liñán and Chen2009;Lortie and Castogiovanni2015;Kautonen et al.2015;Rauch and Frese2012).

According to the original theorization of the TPB, the behavioral intention (BI) represents the decision to try and the effort committed to performing that particular behavior (Ajzen1991). The following three individual perceptions act as motivational antecedents of the BI. Higher levels of these

three antecedents will predict a higher level of BI, which in turn will lead the individual to act in this particular way (Ajzen1991;Krueger et al.2000):

Personal attitude (PA), described as an one's positive or negative evaluation of a particular object or behavior;

Perceived behavioral control (PBC), described as how much an individual believes him/herself to be able to behave in a specific way;

Social norms (SN), which reflect the social pressure (coming from several groups of reference people) felt by an individual as pushing her/himself to perform this behavior.

The application of the TPB cognitive framework has showed an overall validity across different contexts and has retained its robustness even when applied to different kinds of behavior (Armitage and Conner2001). In the particular case of the entrepreneurial behavior, the TPB antecedents typically explain 30–45% of the variance in BI (Kautonen et al.2015). However, BI in practice represents an instrument or intermediate element that serves to anticipate actual behavior (e.g., starting up). For this reason, there is a need to consider additional variables that may contribute to increasing the accuracy in the prediction of BI.

Additionally, the strength of the relation between the TPB antecedents and Behavioral Intention may be enhanced or reduced according to the specific behavior one is analyzing (Conner and Armitage1998). For example, Armitage andArmitage and Conner(2001) reported in their meta-analysis how social norms have been labeled in the previous literature on TPB as the overall weakest antecedent of behavioral intention. In contrast, the effects of social norms on behavioral intention may be context-related, as in the study carried on byMorianio et al.(2012).

As a possible explanation for these differences, the use of inadequate measurement instruments has been pointed out, often relying on a single item for evaluation (Armitage and Conner2001). Alternatively, some people may be more guided by normative beliefs, while others are so by attitudes and self-efficacy perceptions (Trafimow and Finlay1996).

Finally, the existence of different characteristics associated with specific behaviors justify the need to test several additional variables to the model, over and above the three original motivational antecedents (Conner and Armitage1998) in order to overall magnify model validity. Thus, there is a need to adapt the model to the specific target behavior under investigation in order to create a version providing a better fit to the data.

The choice to become an entrepreneur can be seen as a decision having a substantial impact on an individual's life. Therefore, it should reasonable be based on, and in continuity with, self-perceived inner characteristics in order to maintain an individual's state of cognitive equilibrium or to avoid an unbalanced state between an individual's thought, feelings, attitudes, and behavior (Heider1946,1958).

In this sense, self-identity perceptions are the meaningful characteristics an individual uses to describe himself (Liñán et al.2018). They can play a significant role in shaping career-related behavior, serving as one of the bases an individual should comply with when making major life decisions (Saka et al.2008).

Starting from these considerations, this study aims to test the role of the entrepreneurial self-identity as a significant antecedents of the entrepreneurial intention (EI). To achieve this aim, the model has been tested on a group of college students and young graduates in Italy.

2. THEORY OF PLANNED BEHAVIOR AND ENTREPRENEURIAL INTENTION

Although much empirical evidence, even from several different countries, supports the idea that entrepreneurial behavior can be studied through the cognitive framework called the “Theory of Planned Behavior” (Engle et al.2010;Kautonen et al.2015), its goodness of fit is still a controversial matter. Some scholars underline the need for a methodically accurate study of this model's application to the entrepreneurial field due to the unreliability of some tools used by scholars in the past to assess entrepreneurial intentions (Liñán and Chen2009). Moreover,Engle et al.(2010) openly reasoned about the possibility of adapting the TPB framework to the country where a study is carried out, given that its power to explain the variance of individuals' intentions varies greatly from one country to another. Recently,Lortie and Castogiovanni(2015), in reviewing the literature on the use of the TPB in Entrepreneurial fields of study, reported that only one research project tried to test the TPB as theorize byAjzen(1991), whereas the majority of studies used only portions of the model, adapting it to their contextual needs, or else underlined great differences between how much a specific population valued

the three antecedents of TPB in cross-national research, thus obtaining an unstable and inconclusive relation between the three variables and EI. These studies seem to indicate that although entrepreneurial behavior can be considered correlated to following an individual's intentionality, it might also be characterized by peculiar aspects that make it different from others intentional behaviors.

However, for the aim of this study and the particularly behavioral intention we want to investigate, we describe the three independent antecedents of the TPB as follows:

Personal Attitude (PA) refers to how much entrepreneurship career is deemed as attractive to individual. More deeply, it is linked to the personal positive or negative evaluation that an individual can have about being an entrepreneur (Ajzen1991; Kautonen et al.2013 ; Zhang et al.2014 ; Miao et al.2019). In the TPB model, PA is greatly influenced by the expected outcomes of a specific course of action (Ajzen1991). Moreover, in the literature about entrepreneurship, PA is strongly associated with EI (Moriano et al.2012;Di Paola et al.2016);

Perceived Behavioral Control (PBC) mirrors an individual perception about how difficult would be becoming an entrepreneur especially taking into account his/her perceived skills and knowledge. In fact, PBC can be defined as a mix of perceptions about one's self-efficacy (Bandura1986)

and behavioral controllability (Liñán and Chen2009). Although PBC has been considered as having a great impact on the development of EI—even receiving empirical support (Krueger et al.

2000;Jung et al.2001;Engle et al.2010),Lortie and Castogiovanni(2015) reported some issues concerning the relation between PBC, EI, and entrepreneurial behavior and advocated the use of robust and valid tools in future studies to appropriately answer this open question;

Subjective Norms (SN) is linked to individual perceived social pressure about behaving—or not—in a particularly way. As it can be easily guessed, SN are deeply related to one family economic status, his/her education and political history and present of his/her country. In the entrepreneurial literature, although some authors reported SN as having a trivial impact on the development of EI (Autio et al.2001;Krueger et al.2000;Lortie and Castogiovanni2015) other studies demonstrated that SN can indeed affect the birth and growing of EI. For example,

Liñán and Chen(2009) found out that SN did indirectly affect EI through the moderation of the level of PA and PBC. On the contrary,Kautonen et al.(2015) proved in his study that SN may

have a direct effect onMoriano et al.(2012) hypothesized that the weight of SN on EI is greatly influenced by the national culture of the subjects. Individualistic cultures hinder the relation between SN and EI, since in that national environment potential entrepreneurs are more focused on having the right characteristics than on a desire for social acceptance, whereas in collectivist cultures, the thoughts and perceptions of others are taken into great consideration.

In light of the above, we hypothesize that:

Hypothesis 1a (H1a). A higher level of personal attitude will predict a higher level of entrepreneurial intention.

Hypothesis 1b (H1b). A higher level of perceived behavioral control will predict a higher level of entrepreneurial intention.

Hypothesis 1c (H1c). A Higher level of social norms will predict a higher level of entrepreneurial intention.

3. THEORY OF PLANNED BEHAVIOR AND PERCEIVED SELF-IDENTITY IN THE ENTREPRENEURIAL ENVIRONMENT

3.1. Theory of Planned Behavior and Self-Identity

Although the application of the TPB in the entrepreneurial field has been supported by past research studies—even if not all the studies found the same results in terms of the relation between the three main antecedents and entrepreneurial intention (Liñán and Chen2009;Kautonen et al.2015; Lortie and Castogiovanni2015;Obschonka et al.2015)—some authors have underlined the need to add other variables to intentional antecedents, especially in the entrepreneurial field, in order to increase the ability of the model to account for Entrepreneurial Intention variance (Conner and Armitage1998; Pihie and Bagheri2013;Bagheri and Pihie2014;Zhang et al.2014;Ajzen2015;Baluku et al.2019). Suggestions have been made to add not only variables linked to the individual's inner world such as belief,

perception of one's self, and values, but also variables related to the individual's external world, such as ones connected to a particular context, nation, or culture (Rise et al.2010;Zhang et al.2014).

In the literature about TPB, it has been proposed to include Self-Identity (SI) in order to better predict a planned behavior (Conner and Armitage1998;Rise et al.2010;Ries et al.2012; Gkargkavouzi et al.2019). The Self-Identity construct refers to the socially meaningful categories people utilize to describe themselves and often wants to be recognized with. Taking into account this description, SI can be considered having a great impact on individuals' choices about which ways they want to behave and be seen by others. It should be noted, though, that this factor is different from the three of the original TPB models since it has different motivational roots (Rise et al.2010 ; Carter2013). More specifically, an individual may choose to behave in a particular way in order to avoid a cognitive dissonance state (Festinger1957;Newbery et al.2018), thus confirming his /her belief (Conger et al.2012;Obschonka et al.2012) and self-efficacy perception (Cardon et al.2009; Brändle et al.2018). Stets and Burke(2000) advanced the idea according to which when a specific person's identity is activated, a process of self-verification occurs; the individual will then behave according to his/her activated identity in order to maintain a sense of equilibrium and consistency. In this sense, we can argue that self-identity possesses different motivational roots from the other TPB antecedents already considered (namely PA, PBC, SN), since the latter guide people to comply with others or to act for instrumental reasons, whereas the former serves to confirm one's own ideas about oneself (Rise et al.2010). It seems reasonable to think, at this point, that since Intention is the strongest antecedent of planned Behavior (Bagozzi et al.1989;Ajzen1991), we should find a relation between Self-Identity and Behavioral Intention (BI), especially for identity-related behavior such as career-related behavior (Saka et al.2008).

However, the relation between SI and BI has been studied widely and it has produced inconclusive results. For example,Fekadu and Kraft(2001) have reported in their study that SI may not have an independent effect on BI whereas other studies have found statistically significant impact of SI on BI (Terry et al.1999;Nigbur et al.2010). Finally,Smith et al.(2008) showed that Self-Identity is a powerful antecedent of purchasing behavioral intention—as well as PA, PBC, and SN—and the same results have been found in the study ofCarfora et al.(2017) on the antecedents of pro-environment behaviors. Moreover,Ries et al.(2012) confirmed that behavioral intentions and behavioral outcome can be indeed predicted by SI.

These results seem in line with the general agreement found in TPB literature about the inclusion of SI in the TPB cognitive framework as independent factors that enhance the model's ability to explain variance in behavioral intention (Hagger and Chatzisarantis2006;Smith et al.2008;Fielding et al.2008; Rise et al.2010;Carfora et al.2017).Rise et al.(2010) stated that SI should be fully considered as a fundamental addition to the TPB model since it helps to rise the predictive power of the model by 6% in terms of the explained variance.

However, as stated before, the robustness of the TPB across different contexts and situations, both in terms of the sample national culture and the actual behavior taken into account, can vary greatly and is something that should be empirically tested. For these reasons, this study will test the idea that SI can be considered an antecedent of EI.

3.2. *Entrepreneurial Self-Identity as an Antecedent of Entrepreneurial Intention*

The recent literature on Entrepreneurship has introduced self-identity perception, i.e., personal characteristics and self's elements an individual identifies with in order to give significance to context and his/her own behavior, as a variable capable of influencing entrepreneurs choices from the starting point of her/his firm to the end of her/his company. (Conger et al.2012;Donnellon et al.2014;Sieger et al.2016;Alsos et al.2016;Brändle et al.2018;Newbery et al.2018;Ceresia and Mendola2019; Donaldson2019).

Specifically, studies regarding the possible impact of SI on the entrepreneurs firm related choices can be divided into two main approaches: one based on the Identity Control Theory (ICT) (Burke2004,2007) adopted byConger et al.(2012) and the other based on the Social Identity Theory (SIT) (Tajfel and Turner1979) proposed byFauchart and Gruber(2011). Both approaches explain how the entrepreneurs' self-identity perception, especially in economically ambiguous situations, can influence their decision-making process regarding the strategies to be put in place to make a firm flourish, but they differ in their conception of the Self-Identity variable.

The model proposed byFauchart and Gruber(2011) states that there are three qualitatively different kind of identities that an entrepreneur can assume and be categorized with. Based on a match between on his/her social-educational background and three criteria identified by the authors: the principal driving motivational force of the entrepreneur, evaluations about his/her ability or skills, and his/her or others' expectations he wants to meet, an entrepreneur can be a Darwinian Entrepreneur, a Communitarian

Entrepreneur, or a Missionary Entrepreneur. This apparently rigid structure seems to be able to explain entrepreneurial behavior while considering: (a) entrepreneur choice of the his/her target or client, (b) how much an entrepreneur cares for the wellness of his/her customers, and (c) how much he/she is able to maximize company growth through wise uses of resources and workers' knowledge (Fauchart and Gruber 2011).

The theory of Conger et al. (2012), instead, implies that entrepreneurial identities are general identities that can be formed upon several kinds of minor identities called person identities, role identities, and social identities. Every entrepreneur can be thought of as a carrier of specific sub-identities that form the general entrepreneurial identity by interacting with each other and with the context. In particular, the authors pose a person's identities, which grow upon—and are linked to—social and cultural characteristics that have been assimilated by an individual and let him think of himself as special or unique, as the core of their model. They achieved that by defining them as trans-situational master identities that can shape entrepreneurs' course of action through different ways: a direct one, which for example leads him/her to choose a particular mission or vision for his/her venture and an indirect one, through the enacting of others' minor identities, such as the ones encompassing social or political roles. In their work (Conger et al. 2012), the authors suggest that these master identities, as byproduct of inner characteristics, can be considered as a powerful link between one's inner worlds and actions, and thus may have a role in defining the relation between Intention and Behavior. This assumption is in line with the studies regarding the role of SI in the TPB framework (Rise et al. 2010; Newbery et al. 2018; Murnieks et al. 2020) and will be tested in this study.

Finally, some studies have proposed identity aspiration can have an impact on life-changing choices and related behaviors, such as career choice and planning, stating that one's present behavior might be influenced even by characteristics one does not already possess but hopes to do so in the future. For example, the characteristics labeled as unique of an organized group to which one aspires to belong in the future (Alsos et al. 2016; Watson 2013). This consideration represents a turning point since it gives scholars a good reason to investigate entrepreneurial intention and characteristics in subjects who are not yet entrepreneurs.

Since our study was conducted on a group of students and fresh graduates, we chose to investigate the relation between SI and EI using items inspired by the theory of Conger et al. (2012), specifically referring to the Person identity construct. We made this choice because the model proposed by Fauchart and Gruber (2011) seems to be more adapted to studying characteristics of someone who has already performed entrepreneurial behaviors and not someone who merely wishes to do so in the future.

Following the work of Conger et al. (2012), for the aim of this study, we defined the Entrepreneurial Self-Identity Construct as one's perception about himself/herself regarding in particular the possession of traits that are widely labeled as distinctive of entrepreneurs and, taking into account the previous studies and results, we hypothesize:

Hypothesis 2 (H2). A higher level of entrepreneurial self-identity will predict a higher level of entrepreneurial intention.

4. METHODOLOGY

4.1. Subjects

Our sample group was composed of students and fresh graduates signed up for the Placement Service of a Public University Department in Italy, specifically the one centered in the study and exploration of political sciences and international relations. These subjects were enrolled in academic courses concerning the managing of complex firms and the understanding of our country and its relation with Europe and the rest of the world. 154 registered subjects, out of 265 invited through an online voluntary request, chose to participate in the survey (58% of the total invited subjects). One of the candidates was left out from the statistical analysis because he declared to already have job-related experience in entrepreneurship. We decided to make that one of our two exclusion criteria since we wanted to investigate EI in not-yet entrepreneurs, whereas our second one was to not analyze unfinished questionnaires. Finally, 153 candidates were fully accepted to participate in the survey. Taking into account their distinctive characteristics, the group was divided as follows: 70.6% were students and 29.4% fresh graduates, whereas there were more females than males (63.4% vs. 36.6%).

Our population had an average age below 29 years old, while only a few were outliers in the upper tail of the age distribution—i.e., less than 4% were actually over 35 years old at the time of the study.

Since our sample was characterized as described above, we were not surprised by the fact that almost of all candidates were looking for their first job or unemployed (90.8%) at the time of the invitation for participating in the survey. Finally, all of the final participants reported to never have attended a specific course about entrepreneurship and starting up a firm or never have been a self-employed.

4.2. Tools

For the aim of testing the hypothesis described before, we chose to use a two section questionnaire. The first part of the questionnaire was focused on measuring the variables discussed in the previous section of this paper that may have an impact on the choice of becoming an entrepreneur: personal attitude towards entrepreneurship (PA), social norms (SN), perceived behavioral control (PBC), entrepreneurial intention (EI), and entrepreneurial self-identity (ESI). The last part was used to collect data about demographic and educational variables such as age, university course attended, work experiences, etc. In order to assess the five variables of the first part of the questionnaire we asked the participants to rate—using a Likert-type scale with 7 point (from 1—“do not agree at all” to 7—“absolutely agree”)—23 sentences or items (Ceresia and Mendola2017).

We will now discuss, more in detail, the structure of the questionnaire:

- The variables PA, PBC, SN and EI were explored using items adapted from the Entrepreneurial Intention Questionnaire (EIQ) developed byLiñ án and Chen(2009). The subjects were asked to express their level of agreement on six statements for each variable (a total of 30 items). The ones
- that follow are examples of items used in the questionnaire: “In my opinion, being an entrepreneur implies having more advantages than disadvantages”, “My parents will share my goal of becoming an Entrepreneur”, “I know all the necessary details to build a start-up”, “I’ll do everything I can to become an entrepreneur”.

The ESI variable was assessed using four items adapted from the scale developed by Terry et al.(1999) to explore self-identity perceptions. We asked the candidates to express their level of agreement on four statements regarding their consideration of themselves. An example item is the following: “I consider myself as someone who has entrepreneurial characteristics”.

A confirmatory Factor Analysis (CFA) of all items was used to assess the construct validity of the questionnaire scales. The results reported fairly adequate fit based on commonly accepted criteria (Hu and Bentler1999;Kline2005), $\chi^2(242) = 513.568$, $p = 0.000$; Comparative Fit Index (CFI) = 0.92; Tucker–Lewis Index (TLI) = 0.91; root mean square error of approximation (RMSEA) = 0.08. Furthermore, the results suggested that all items loaded statistically significantly on, and generated satisfactory standardized average variance extracted estimates for, their respective constructs ($p < 0.05$). More specifically, the standardized regression weights of the five factors considered range between:

0.368 and 0.923 (personal attitude); 0.717 and 0.894 (subjective norm); 0.749 and 0.928 (perceived behavioral control); 0.574 and 0.931 (entrepreneurial self-identity); 0.833 and 0.948 (entrepreneurial intention).

4.3. Procedures

The subjects completed an online questionnaire. Some descriptive statistics, Cronbach’s Alpha (Cortina1993) and confirmatory factor analysis (CFA) of the questionnaire’s factors and a hierarchical multiple regression analysis for variables predicting entrepreneurship intentions was performed through IBM SPSS v. 23.

The following assumptions of hierarchical multiple regression analysis were tested:

- Sample size: it was analyzed its adequacy, given the number of independent variables to be included in the analysis (Tabachnick and Fidell2001).
- Assumption of singularity: it was explored to rule out the possibility that the independent variables were a combination of other independent variables. Values for skewness and kurtosis between -2 and $+2$ were considered acceptable in order to prove normal univariate distribution of the questionnaire variables (George and Mallery2010).
- Assumption of multicollinearity: this assumption is tested using Tolerance and Variance Inflation Factor (VIF) values. Tolerance values of 0.10 or less indicate that there may be serious multicollinearity and any VIF of 10 or more provides evidence of serious multicollinearity (Bryman and Cramer2005;Field2005).

The demographic variables were entered at stage one of the hierarchical multiple regression to control for sex (M = 1, F = 2), age (years), academic status (college student = 1, graduated = 2), past work experience (years).

5. RESULTS

5.1 Descriptive Statistics

The Cronbach's Alpha coefficients and correlation of the questionnaire factors are shown in Table 1. The factors possess an adequate internal consistency since the overall Cronbach's Alpha coefficients are higher than 0.80. The correlation matrix shows a moderate degree of correlations, with the exception of entrepreneurship intention with personal attitude ($r = 0.715$, $p < 0.01$) and entrepreneurship intention with entrepreneurial self-identity ($r = 0.727$, $p < 0.01$) that show a high degree of correlation. The values for skewness of the probability distribution of all model variables range between -0.967 and 0.386 (max SD = 0.196) and the values for kurtosis of the probability distribution of all model variables range between 0.894 and -0.747 (max SD = 0.390), therefore a normal univariate distribution of all questionnaire variables can be reasonably assumed.

Table 1. Descriptive statistics. Cronbach's alpha and correlation of the questionnaire factors (N = 153).

	Mean	SD	1	2	3	4	5
Personal Attitude	5.07	1.22	(0.89)				
Subjective Norms	5.44	1.29	0.51 **	(0.84)			
Perceived Behavioral Control	3.23	1.31	0.39 **	0.28 **	(0.93)		
Entrepreneurship Intention	4.28	1.55	0.71 **	0.44 **	0.53 **	(0.96)	
Entrepreneurial Self-Identity	3.23	1.33	0.56 **	0.36 **	0.61 **	0.73 **	(0.85)

** $p < 0.01$; α = Cronbach's Alpha; Values on the diagonal are coefficient alphas.

5.2 Hierarchical Multiple Regression Analysis

A three-stage hierarchical multiple regression analysis was conducted with Entrepreneurship Intention as the dependent variable (Table 2). The sample size of 153 was considered adequate given the four independent variables to be included in the hierarchical multiple regression analysis. Since overall correlation between the supposed independent variables of entrepreneurial intention range between a moderate and high degree, the assumption of multicollinearity was tested. The assumption of multicollinearity was considered confirmed because the collinearity statistics were all within accepted limits (Personal Attitude: Tolerance = 0.544, VIF = 1.838; Subjective Norm: Tolerance = 0.675, VIF = 1.482; Perceived Behavioral Control: Tolerance = 0.585, VIF = 1.709; Self-Identity: Tolerance = 0.500, VIF = 2.001).

Table 2. Summary of hierarchical multiple regression analysis for variables predicting entrepreneurship intentions (N = 153).

Variables	Model 1		Model 2		Model 3	
	B	SE	B	SE	B	SE
Constant	4.92 ****	0.60	-0.36	0.64	-0.28	0.57
Demographic Variables						
Sex	-0.053	0.26	-0.05	0.17	-0.02	0.15
Age	-0.13	0.16	-0.10	0.11	-0.13 **	0.11
Academic Status	-0.09	0.30	0.01	0.21	0.03	0.18
Past Work Experience	0.23 **	0.12	0.06	0.08	0.74	0.07
Personal Attitude			0.56 ****	0.08	0.41 ****	0.08
Subjective Norms			0.05	0.08	0.03	0.07
Perceived Behavioral Control			0.30 ****	0.07	0.11 *	0.07
Entrepreneurial Self-Identity					0.42 ****	0.08
R ²	0.07		0.60		0.69	
Adjusted R ²	0.04		0.58		0.67	
df	148		145		144	
F for change in R ²	2.64 **		64.31 ****		40.98 ****	

B = Standardized Beta Coefficient; SE = Standard Error; * $p < 0.10$. ** $p < 0.05$. *** $p < 0.01$. **** $p < 0.001$; df = degrees of freedom.

The demographic variables were entered at stage one of the regressions to control for sex, age, academic status, and past work experience. The hierarchical multiple regression revealed that at stage one, past work experience contributed significantly to the regression model ($F [4.148] = 2.64, p = 0.036$) and accounted for 4.1% of the variation in Entrepreneurship Intention. At stage two, the addition of the TPB antecedent variables, namely PA, PBC, and SN, to the regression model explained an additional 57.6% of the variation in entrepreneurship intention and this change in R2 was significant ($F [7.145] = 31.012, p = 0.000$). At stage three, the addition of the Entrepreneurial Self-Identity variable to the regression model explained an additional 9% of the variation in Entrepreneurship Intention and this change in R2 was significant ($F [8.144] = 39.739, p = 0.000$).

It is remarkable to observe that when personal attitude, subjective norms, and perceived behavioral control were included in stage two of the regression model, the past work experience variable was no longer a significant predictor of entrepreneurship intentions. Moreover, the “age” variable became a significant predictor ($B = -0.131, p < 0.05$) of entrepreneurship intentions when entrepreneurial self-identity was added to the regression model at stage three.

As the regression model at the stage three depicted in Table 2 shows, the far more important predictor of Entrepreneurial Intentions was entrepreneurial self-identity ($B = 0.421, p < 0.001$), which uniquely explained 9% of the variation in entrepreneurship intentions, followed by personal attitude ($B = 0.409, p < 0.001$), whereas perceived behavioral control ($B = 0.111, p < 0.10$) was a barely significant and weak predictor of Entrepreneurial Intentions.

All four independent variables, plus the demographic ones, jointly accounted for 67% of the variance in entrepreneurship intentions and it can be observed that subjective norms are not a significant predictor of entrepreneurship intentions.

6. DISCUSSION

Analyzing the results of this research in regard to the antecedents of the TPB cognitive framework, it can be seen that both personal attitude and perceived behavioral control were significant antecedents of entrepreneurial intention, while subjective norms were not, thus we can state that H1a was fully confirmed, H1b was weakly confirmed, and H1c was not confirmed.

This result is in line with previous studies found in literature (Krueger et al.2000; Autio et al.2001 ; Lortie and Castogiovanni2015) and with the research of Liñán and Chen(2009) that demonstrate how SN may affect EI only through PA and PBC, exercising an indirect, rather than direct, effect on individual intentionality. It should be noted, however, that this result does not suggest that the TPB should not be used in the entrepreneurial field of study. In fact, as suggested by the work Armitage and Conner (2001), the SN factor can be considered as an overall weak predictor of BI and the application of the TPB to different behaviors and situations requires adaption of the model (Conner and Armitage1998; Moriano et al.2012) since the weight of the singular antecedent of the TPB on influencing BI can vary greatly from nation to nation and across different cultures (Liñán and Chen2009; Moriano et al.2012). Hypothesis 2, however, is fully confirmed. Entrepreneurial self-identity is a strong and significant predictor of EI. This result is in line with the previous work found in literature concerning the effect of identity perception on behavioral intentions (Conner and Armitage1998; Rise et al.2010; Ries et al.2012) and on entrepreneurial behaviors and intentions (Fauchart and Gruber2011; Conger et al.2012 ; Alsos et al.2016 ; Brändle et al.2018). It is also important to underline how the impact of the TPB antecedents of EI was greatly reduced once we entered ESI in the regression model, confirming the result obtained by the work of Rise et al.(2010), and “Age” became a weak but significant predictor of ESI. These results can be an expression of peculiar characteristics of the entrepreneurial career such as, for example, a high level of propensity to risk, competencies in facing ambiguity, and particular decision-making processes (Sarasvathy2001), which an entrepreneur must possess in order to successfully manage a firm. Due to the problems faced by an entrepreneur on a daily basis, it is logical to think that the choice of launching an entrepreneurial career is more based on the perception of inner characteristics (Saka et al.2008), like one’s attitude, self-efficacy, and self-identity, than oriented to complying with others’ expectations and opinions—i.e., SN. Among these significant variables capable of influencing entrepreneurial intention, entrepreneurial self-identity is the strongest and appears to act potentially as a variable that incorporates aspects of the other two significant variables. In particular, it seems that ESI may come to dominate PBC. However, more research is needed to uncover the relation between these three variables and EI, although we can say

that in regard to entrepreneurial behavior and Intention, one's beliefs and perception of self may play a prominent role in shaping individual intention.

This consideration entails a serious implication for the development of educational entrepreneurship-related courses, as reported in the work of Donnellon et al. (2014), since they should be more focused on helping young adults develop characteristics linked to entrepreneurial self-identity perceptions, rather than be centered only on providing knowledge about firm management. These findings have relevant implications for entrepreneurship research and policy-making.

In the field of research, the TPB model is generally accepted in entrepreneurship studies. However, the traditional specification of this model leads to a level of variance explained in entrepreneurial intention that is rarely above 40–50% (Kautonen et al. 2015). This means that over half of the variation in entrepreneurial intentions is unexplained by the antecedents initially proposed by the TPB. Several authors have called for the inclusion of additional variables that may increase the model's explanatory power (Schlaegel and Koenig 2014). In this sense, the inclusion of entrepreneurial self-identity has proven to be relevant. Previous research in social psychology also found similar results (Rise et al. 2010). In the particular case of entrepreneurship, the inclusion of self-identity contributes substantially to increasing the accuracy of entrepreneurial intention predictions and may also help explain a subject's subsequent advancement toward enterprise creation. In this sense, some research has shown that entrepreneurial self-identity is relevant both during the venture creation process (Navis and Glynn 2011) and in the consolidation of a new firm (Down and Reveley 2004).

Entrepreneurial promotion measures should also consider these results as relevant. The resources devoted to helping aspiring entrepreneurs develop their ideas into operational ventures are substantial. They include advice, training, facilities, and financing, among others. Nevertheless, the abandonment ratio is substantially high. A great portion of these aspiring entrepreneurs will take a very long time to start their venture or will never start it (Manolova et al. 2012). For this reason, understanding which elements may contribute to accelerating this process and help it be completed successfully would be of the highest interest. In this sense, entrepreneurial self-identity emerges as a potentially key variable, since seeing oneself as an entrepreneur provides legitimacy and facilitates the actual creation of new start-ups (Navis and Glynn 2011).

These findings could be especially relevant in entrepreneurship education. Training that helps students become entrepreneurial in character and, eventually, actual entrepreneurs could benefit by considering the importance of self-identity. There is evidence that entrepreneurship education may contribute to the formation of an entrepreneurial identity (Donnellon et al. 2014). Thus, this entrepreneurial self-concept can be developed together with the mastering of key entrepreneurial competences (Mets et al. 2017). In particular, early emphasis on the construction of an entrepreneurial self-identity could be crucial to raising self-awareness and self-interest toward entrepreneurship, thus orienting professional careers towards entrepreneurship (Liñán et al. 2018). In fact, a recent study demonstrated that youngsters with role models oriented to entrepreneurship—either a family related or a friend who is self-employed—are more inclined to develop entrepreneurial intention (Garaika and Margahana 2019; Meoli et al. 2020). This is possible because through the experience of others, the wanna be entrepreneurs can have a taste of who an entrepreneur really is and can ask him/herself if he/she want to be one. This particular consideration may lead the way to change completely the guidelines upon which entrepreneurial courses are built. Some authors, in fact, suggest that courses that compass meeting and real world entrepreneurial experience may be linked to successful startup. (Newbery et al. 2018) We can argue that this kind of educational experience help youngsters to think and develop perception and consideration about themselves. Having this kind of early experience might make youngsters wonders who they really are and what are they capable of. In other terms, educational courses may enhance on students' entrepreneurial self-identity perceptions that in turn lead to stronger volition of being an entrepreneur. Lately an interesting concept has surfaced in literature: the entrepreneurial passion (Murnieks et al. 2020) described as a potent emergent motivational force that emerges only from individuals inside that allows people to start and continue to pursue their entrepreneurial journey in order to fulfill their volition and needs. The authors proved that this construct is positive associated to an entrepreneurial-related identity. This can be seen as another proof that Entrepreneurial Self-Identity plays a pivotal role not only in shaping Entrepreneurial Intention but even on the actual entrepreneurial behavior itself. This relation justifies the needs for uncovering in what ways Entrepreneurial Self Identity may affect entrepreneurial starting and managing process even taking into different social and political context.

7. CONCLUSIONS

The present study has tested the inclusion of entrepreneurial self-identity as a relevant contributing variable to the formation of entrepreneurial intentions. The results have been satisfactory and contribute to a deeper understanding of the mental process that leads individuals to decide to become entrepreneurs. First of all, our work helps to uncover the role motivational factors can have on entrepreneurial intentions, thus enabling scholars to rightfully question if variables or characteristics related to the inner self—i.e., psychological needs or individual traits or perception about oneself—should be considered having a more impact on EI than cognitive factors (TPB Model) or being able to influence those cognitive variables (Delanoë-Gueguen and Liñán2019; Donaldson2019; Garaika and Margahana2019 ; Al-Jubari et al.2019 ;Fragoso et al.2020). For example, Kruse et al.(2019) found that personal values (Schwartz1992) can have an important direct impact on the three variables of the TPB model and thus, indirectly, on Entrepreneurial Intention, when applied to a particular kind of entrepreneurship—the social one. These personal values are defined as the most important goals that individuals want to achieve in their life and can act as inner motivational factors for starting a firm and imprinting a particular kind of leadership or vision on it (Kruse et al.2019). In another recent research, Al-Jubari et al.(2019) found that basic psychological needs—linked to extrinsic and intrinsic motivation (Deci and Ryan2000)—play a crucial role on shaping EI antecedents—Attitude, social norms and perceived behavioral control. The authors even suggested that the prominence of specific needs might have an impact on the entrepreneurial behavior persistence in time—thus enabling people to be more resilient.

Our study follows these footsteps: in fact, our results indicate that not only Self-identity should be investigated in order to heighten the variance explained of behavior using the TPB model as reported by previous research (Rise et al.2010) but also that this variable can have a greater impact on EI on young students and graduates than attitude, social norms and perceived behavioral control. It raises the question if Self Identity might be considered one of the main variables able to influence EI and underline the need to deep our knowledge of this relationship. There is a possibility, however, that these findings could be related to the composition of our sample: young students and graduates with almost no pre-existence work experience may base their future career choices more on perception about oneself than to external variables or cognitive ones. More research is needed in the future to clarify this point.

Additionally, it opens the way for future research to focus on the role of self-identity perceptions in the actual development of entrepreneurial behaviors (effectively starting up a new firm). We are convinced this is an interesting and potentially very fruitful avenue for future research. For example, integrating our results, the work of Murnieks et al.(2020) and the ones related to Stereotypical Threats (Steele and Aronson1995) effect on career choices (Schuster and Martiny2017) future researches can explore what variables enable or disable woman or other minoritarian groups to develop Entrepreneurial Self-Identity, EI actual behavior. Moreover, since Self-Identity plays a crucial role in shaping Entrepreneurial Intention a future research can investigate what meaningful categories related to entrepreneurship are combine together in order to create this construct and if these categories vary from countries to countries, under the effect of different national cultures and values, or there are overall common meanings and answers to the question “Am I an entrepreneur”?

Finally, the results of our work, if they are corroborated by future research, may lead the way the development of educational courses based on a learning through experience approach in order to contribute to the creation of early identity perceptions based on actual comparison through the inner world of students and the real challenges that the entrepreneurial journey may pose.

As with any research, however, this study is not without limitations. In the first place, the sample is limited to a single location in Italy and to a group of young university students and graduates. Therefore, the generalizability of the results cannot be taken for granted. In this sense, future research could replicate this study with alternative samples from different countries, and in samples with different characteristics. Secondly, the study is cross-sectional, and this means causality cannot be claimed. Longitudinal studies are needed, and thus called for, in order to further test the robustness of our findings. As a follow-up of this research, we plan to re-contact these respondents to assess the role that self-identity plays in the stability of entrepreneurial intentions over time, as well as on actual start-up creation.

Conflicts of interest:

The authors declare no conflict of interest.

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