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ORIGINAL SCIENTIFIC PAPER

Gender Differences and Attitudes in Entrepreneurial Intentions: the Role of Career Choice

Polne razlike i stavovi u pogledu preduzetničkih namera: Njihova uloga u izboru zanimanja

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A B S T R A C T

Gender differences in entrepreneurial intentions and agentic traits frequently linked to entrepreneurship (locus of control, entrepreneurial self-efficacy, risk-taking propensity, and proactiveness) were examined using a sample of Spanish university students, 535 women and 283 men. Self-reported data were collected through a questionnaire consisting of several scales. MANOVA results showed gender differences in entrepreneurial intention and entrepreneurial self-efficacy, in the sense that men felt themselves more efficient and oriented to create a new venture than women. Nevertheless, major area and age explained differences in the variables studied better than gender.

KEY WORDS: *entrepreneurship, career choice, gender-role stereotypes, agentic traits*

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Introduction

Although the traditional labor division between genders has now dissipated in many western societies, and women are increasingly occupying job positions typically dominated by men, a gap still remains in the working life of men and women. Gender differences are especially evident in entrepreneurial careers. In spite of the fact that in the last few years there has been a significant increase in the number of new ventures created by women, the proportion of these in comparison to the whole is still small. In this sense, several research studies carried out in North America and Europe have systematically found a greater trend towards entrepreneurship in men than in women (e.g., Brockhaus, & Horwitz, 1986; Zhao, Seibert, &Hills, 2005). These differences are quite pronounced in certain European countries like Spain (Sánchez, & Odoardi, 2008). According to the first Global Entrepreneurship Monitor (GEM) report on female entrepreneurs published in 2006 (Allen, Langowitz, & Minniti, 2006), only 30% of Spanish entrepreneurs were women. This proportion is one of the smallest registered in the 34 countries covered in this report, ranking in position 28, only ahead of Poland, Italy, Hong Kong, Norway, Greece, and Croatia.

Authors from different countries around the world, including Spain, agree that explaining the scarce involvement of women in business initiatives should consider the obstacles that women typically face in comparison to men (e.g., Bruni, Gherardi, & Poggio, 2004; Catley & Hamilton, 1998; Jome, Donahue, & Siegel, 2006), the existence of different motivations between men and women to create a new venture (e.g., Bruni, Gherardi, & Poggio, 2004), or certain psychological characteristics that would appear in different levels in men and women, thus creating different attitudes towards self-employment (e.g., Gatewood, Shaver, & Gartner, 1995; Sexton & Bowman-Upton, 1990).

However, these explanations to account for the scarce entrepreneurial behavior observed in women come mainly from studies focusing only on samples of established and experienced entrepreneurs. But the new venture creation process takes place over the long term and involves multiple successive stages, which go from the formation of an entrepreneurial intention as a result of a meditated decision of career choice, to the development of real entrepreneurial behavior with the implementation of a new business idea. From this point of view the analysis of gender

differences in initial entrepreneurial career choices could suggest new insights for understanding the low rates of female entrepreneurs in different regions of the world. In this sense, some studies carried out in North America and Europe with samples of undergraduate students have found that young men are more interested in entrepreneurial careers than young women (Kourilsky & Walstad, 1998; Wilson, Marlino, & Kickkul, 2004; Zhao, Seibert, & Hills, 2005). Following this argument, this study is the first attempt in Spain to explain gender differences in the development of entrepreneurial intentions as useful predictors of future entrepreneurial behavior (Shapero, & Sokol, 1982).

Specifically our aim is to answer two fundamental questions: Do Spanish men have a higher intention to start a business than Spanish women?, and is it possible to extend such gender differences to other entrepreneurial traits, such as locus of control, entrepreneurial self-efficacy, risk-taking propensity, and proactiveness? Taking as a basis the scientific literature about gender differences in career-related processes (e.g., Abele, 2000) and person-organization fit (e.g., Cable & Judge, 1996), we propose that gender roles and stereotypes cause differences between genders in certain psychological traits strongly associated with entrepreneurial intentions and choices. To analyze this premise we conducted a self-report-based study from a sample of Spanish university students involved in career choice processes, in order to analyze gender differences in entrepreneurial intentions and traits.

Theoretical Background

To explain gender differences in occupational interests and status, researchers (e.g., Eccles-Parsons, Adler, Futterman, Goff, Kaczala, Meece *et al*., 1983; Fassinger, 1990) generally have posited that being a man or a woman does not directly affect career motivation, career choice, or career commitment, but rather that gender is a background variable indirectly influencing career-related processes via other connected variables, such as gender-role stereotypes. One example of this research perspective is the dual-impact model by Abele (2000). It was developed to explain gender differences in career-related processes, and predicts that being a man or woman involves a gendered self-conceptualization, derived to a great extent from taking on gender roles. This self-conceptualization influences other career-related psychological variables, for instance, self-efficacy

expectations or goals, which have a direct impact on career-related behaviors and outcomes. In addition, this model poses that being a woman or a man elicits different expectations and stereotypes regarding women and men, which have a direct influence on the structure of opportunity, that is, the different treatment of men and women in the context of career.

This model can predict that individuals' accommodation to their respective gender roles and the existence of shared stereotypes regarding how men and women must be and behave could explain the observed gender differences in certain psychological traits involved in career choice processes. From this perspective we expect that the greater involvement of Spanish men in entrepreneurial careers can be explained, at least in part, by certain psychological traits acquired through the socialization process, which distinguish men from women.

Researchers have affirmed that certain personal traits can be used to predict entrepreneurial behaviors, such as internal locus of control (e.g., Brockhaus, 1982; Brockhaus & Horwitz, 1986; Perry, 1990), entrepreneurial self-efficacy (e.g., Chen, Greene, & Crick, 1998; De Noble, Jung, & Ehrlich, 1999; Markman, Balkin, & Baron, 2002; Markman, Baron, & Balkin, 2005), risk-taking propensity (e.g., Thomas, & Boyd, 1987; McCelland, 1961; Stewart, & Roth, 2001, 2004), and proactiveness (e.g., Becherer, & Mauer, 1999; Jennings, Cox, & Cooper, 1994).

Most of the cited studies were carried out in the United States and northern Europe. There is scarce empirical evidence about the relationship between these four dimensions and entrepreneurship in Spanish studies (Sánchez, 2009). Nevertheless, since the sociocultural aspects of entrepreneurship are quite similar in western societies, we assume that the results previously given can be generalized to Spain.

As we have just mentioned, the intention to start a new business represents the first step in the entrepreneurial sequence (Krueger, 1993). Intentions capture the motivational factors affecting specific behaviors, and show the individual's predisposition for undertaking such behaviors (Ajzen, 1991); in psychological literature, intentions are good predictors of planned behavior (Ajzen, 1991). The creation of a new company demands time and involves considerable planning. It is difficult to imagine the creation of a business merely as a response to a stimulus and not as a planned decision involving some degree of cognitive processing. Thus, entrepreneurial behavior is precisely the type of planned behavior (Bird,

1988) for which intention models are ideally suited (Krueger, Reilly, & Carsrud, 2000).

Although many gender differences in entrepreneurship have been established based on actual entrepreneurs, some North-American and European studies have also tried to verify these discrepancies at the entrepreneurial intentions level (e.g., Crant, 1996; Zhao, Seibert, & Hills, 2005), systematically finding a greater entrepreneurial propensity in men than in women. Considering this fact, we propose that gender represents one of the determining variables of entrepreneurial intentions in Spain as well. Nevertheless, according to career models, gender is only a background variable indirectly influencing career-related processes via other connected variables (e.g., Abele, 2000).

According to the dual-impact model by Abele (2000) and the person-organization fit perspective (e.g., Cable, & Judge, 1996), we propose that gender affects entrepreneurial intentions and traits, and that the differences between the sexes in entrepreneurial career choice are associated with the fit level of men's and women's personal characteristics with the entrepreneurial requirements. Specifically, after controlling for major area and age, we hypothesize that:

(H_1) men will have a higher level of entrepreneurial intention than women;

(H_2) men will have higher level of entrepreneurial self-efficacy than women;

(H_3) men will have higher level of internal locus of control than women;

(H_4) men will have higher level of risk-taking propensity than women; and

(H_5) men will have higher level of proactiveness than women.

Method

Sample

Data were collected from 818 participants (34.6% men and 65.4% women), aged between 18 and 26 years old, and with a mean age of 21.67 (*SD* = 2.18). Forty-eight percent of the participants were aged between 18 and 21, and the remaining 52% was aged between 22 and 26 years old. The sample was comprised of Spanish university students from different areas

of knowledge, with a predominance of Social Sciences (31.4%), Business and Economic Sciences (25.3%), Technical Sciences (15.3%), Humanities (9.2%), Educational Sciences (9.1%), Experimental Sciences (4.6%), Health Sciences (3.2%), and Legal Sciences (1.9%). Using a sample of students allowed us to work with people actually involved in processes of occupational career choice (Krueger, 1993; Krueger, Reilly, & Carsrud, 2000) and, in accordance with our research aims, makes it possible to study gender differences in the antecedents of entrepreneurial intentions.

The sample of women comprised 535 participants with a mean age of 21.58 (*SD* = 2.06), 50.8% of them aged between 18 and 21, and the remaining 49.2% aged between 22 and 26 years old. The distribution of the sample of women by major areas was: 42.6% Social Sciences, 22.2% Business and Economic Sciences, 9.1% Technical Sciences, 8.7% Educational Sciences, 8.2% Humanities, 3.8% Health Sciences, 3% Experimental Sciences, and 2.3% Legal Sciences.

The sample of men was comprised of 283 participants with a mean age of 21.85 (*SD* = 2.38), 42.8% of them aged between 18 and 21, and 57.2% aged between 22 and 26 years old. The distribution of the sample of men by major areas was: 31% Business and Economic Sciences, 27.1% Technical Sciences, 11.2% Humanities, 10.1% Social Sciences, 9.7% Educational Sciences, 7.6% Experimental Sciences, 2.2% Health Sciences, and 1.1% Legal Sciences.

Materials

Data were collected by administering questionnaires to the total sample. All the subjects voluntarily answered the questionnaire (COE, Sánchez, 2010), which consisted of different sections and scales. Reliabilities of scales assessed by Cronbach's alpha are shown in Table 1.

Entrepreneurial intention. In line with Krueger, Reilly, & Carsrud, (2000), we used a single item measure of the intention to start a business, asking the participants to indicate their intention to start their own business in the next five years on a Likert type scale from 0 (low intention) to 10 (high intention). The higher the score in this item, the greater the intention to start a company, and vice versa.

Locus of control. We used 20 items adapted from previous research (Hoffman, Novak, & Schlosser, 2003; Levenson, 1974; Rotter, 1966) referring to individuals' expectancies for internal versus external locus of

control. Participants answered on a Likert type scale from 0 (totally in disagreement) to 5 (totally in agreement). The items were averaged to form an overall measure. High scores in the scale are indicative of internal locus of control, whereas low scores denote external locus of control.

Entrepreneurial self-efficacy. We used the Entrepreneurial Self-efficacy Scale by De Noble, Jung, & Ehrlich (1999), which measures the belief of a person in his/her own abilities to carry out the tasks required for creating a business, and was highly correlated with entrepreneurial intentions. The scale was devised according to Bandura's (Bandura, 1986) suggestions regarding the development of domain-specific self-efficacy measures. Items from the original scale were translated into Spanish using a *translation / back-translation* procedure (Behling & Law, 2000). The scale is composed of 23 items. Scores range from 1 to 10, from "completely incapable" to "perfectly able". An overall score is obtained by averaging the 23 items. The higher the score in the scale, the more the perceived entrepreneurial self-efficacy, and vice versa.

Risk-taking propensity. A reduced version of the Risk Orientation Questionnaire (ROQ) was used (Rohrmann, 1997), which evaluates the general tendency of a person to take on risks. This scale is based on a series of items about the propensity to and avoidance of risky situations, and is highly correlated with other scales of risk attitudes and propensity, such as Farley's scale (Farley, 1987). Selected items from the original scale were translated into Spanish using a *translation / back-translation* procedure (Behling & Law, 2000). Participants answered eight items in all referring to risk-facing and attitudes towards risk decisions. Answers were categorized on a Likert type scale ranging from 0 (totally in disagreement) to 5 (totally in agreement). The eight items were averaged to form an overall measure. High scores in the scale indicate risk-taking propensity, whereas low scores point to cautiousness.

Proactiveness. We used a reduced version of the Proactive Personality Scale by Bateman & Crant (Bateman, & Crant, 1993; Crant, & Bateman, 2000). The original scale is made up of 17 items which assess an individual's propensity towards proactive behavior. In our study we used the 10-item version of the scale, developed by Seibert, Crant & Kraimer (1999), and Seibert, Kraimer & Crant (2001), based on the selection of the most significant items of the original 17-item version by Bateman & Crant. Selected items from the original scale were translated into Spanish using a *translation / back-translation* procedure (Behling, & Law, 2000). The

adapted 10 items assessed the participants' agreement or disagreement with a series of statements referring to typical actions of proactive people such as opportunity identification, using a 5-point Likert scale from 0 (totally in disagreement) to 5 (totally in agreement). An overall score was obtained by averaging the 10 items, and the higher the score in the scale, the more proactive the individual, and vice-versa.

Results

First of all, we ran two chi-square analyses to determine whether major area and age group were confounded with gender. These results suggest that major area and age group are mingled with gender in this study and it is necessary to include them as control variables in the analyses.

Table 1 shows the means, standard deviations, alpha coefficients, and correlations. Regardless of gender, mean scores in entrepreneurial intentions and traits were relatively low in the total sample.

Table 1: Means, Standard Deviations, Reliabilities, and Correlations of Study Variables

Variable	1	2	3	4	5	6	7
1. Entrepreneurial intention	--						
2. Locus of control	.12 [b]	(.76)					
3. Entrepreneurial self-efficacy	.19 [b]	.30 [b]	(.88)				
4. Risk-taking propensity	.13 [b]	.29 [b]	.31 [b]	(.71)			
5. Proactiveness	.22 [b]	.33 [b]	.50 [b]	.45 [b]	(.78)		
6. Gender	-.09 [a]	-.01	-.04	-.02	-.06	--	
7. Major area	.04	.04	-.08 [a]	.06	.03	-.03	--
8. Age group	-.01	-.01	.07 [a]	.02	.01	-.14 [b]	-.14 [b]
M	2.61	3.30	4.99	2.73	3.31	--	--
SD	2.37	.59	1.64	.61	.58	--	--

Note. *Cronbach's alphas are in parentheses.* [a] $p < .05$; [b] $p < .01$. *Scores of entrepreneurial intention, locus of control, risk-taking propensity, and proactiveness range from 0 to 5; scores of entrepreneurial self-efficacy range from 0 to 1*

In accordance with our hypotheses, we carried out a three-way between-subjects MANOVA to assess the existence of significant differences in entrepreneurial intentions and traits between genders, after

controlling for major area and age group. Gender, major area, age group, and the interactions between them served as independent variables, and the dependent variables were entrepreneurial intention, locus of control, entrepreneurial self-efficacy, risk-taking propensity, and proactiveness. Table 2 contains the means and standard deviations

Table 2: Means of individual variables by gender, major area, and age group

	Dimensions									
Samples	Entrepreneurial intention [a b]		Locus of control		Entrepreneurial self-efficacy [a]		Risk-taking propensity		Proactiveness	
Gender										
Men (n = 249)	3.09	(2.56)	3.31	(.60)	5.15	(1.61)	2.76	(.65)	3.39	(.58)
Women (n = 483)	2.62	(2.36)	3.30	(.60)	4.95	(1.62)	2.73	(.59)	3.30	(.58)
Major area										
Business and Sciences (n = 189)	2.87	(2.39)	3.25	(.55)	5.20	(1.54)	2.73	(.65)	3.38	(.57)
Humanities (n = 61)	2.08	(2.68)	3.15	(.67)	4.96	(1.85)	2.73	(.64)	3.29	(.73)
Social Sciences (n = 242)	2.78	(2.33)	3.40	(.61)	5.04	(1.59)	2.73	(.57)	3.25	(.56)
Experimental Sciences (n = 31)	1.45	(2.19)	3.35	(.47)	4.74	(1.71)	2.70	(.62)	3.24	(.73)
Technical Sciences (n = 106)	3.02	(2.59)	3.22	(.67)	5.17	(1.76)	2.77	(.66)	3.48	(.53)
Legal Sciences (n = 14)	4.00	(3.37)	3.53	(.62)	4.22	(1.49)	2.54	(.64)	3.26	(.73)
Health Sciences (n = 22)	3.27	(1.93)	3.23	(.47)	4.28	(1.15)	2.54	(.43)	3.23	(.53)
Educational Sciences (n = 67)	2.47	(2.31)	3.31	(.51)	4.78	(1.52)	2.89	(.62)	3.33	(.53)
Age group										
18-21 (n = 356)	2.81	(2.35)	3.30	(.55)	4.93	(1.53)	2.73	(.60)	3.31	(.56)
22-26 (n = 376)	2.75	(2.53)	3.31	(.64)	5.11	(1.69)	2.75	(.62)	3.34	(.60)

Note. *Scores of entrepreneurial intention, locus of control, risk-taking propensity, and proactiveness range from 0 to 5; scores of entrepreneurial self-efficacy range from 0 to 10. Standard deviations are shown in parentheses.* [a] *Denotes differences between men and women.* [b] *Denotes differences between Experimental Sciences and Business and Economic Sciences, Technical Sciences, and Legal Sciences*

In the first place, the multivariate effect of gender was significant, indicating significant differences in entrepreneurial intentions and traits between men and women, F (5, 700) = 2.81, $p < .05$, $\eta^2 = .98$, by Wilk's lambda criterion. Analyses of variance (ANOVA) were conducted on each dependent variable as a follow-up test to the MANOVA. The univariate main effect of gender was significant for entrepreneurial intention, F (27, 704) = 11.44, $p < .001$, with men scoring higher than women (Men, M = 3.09, DT = 2.56; Women, M = 2.62, DT = 2.36), as shown in Table 2. This result confirms our hypothesis 1. There was also a univariate effect of gender on entrepreneurial self-efficacy, F (27, 704) = 3.90, $p < .05$, in the sense that men scored higher than women (Men, M = 5.15, DT = 1.61; Women, M = 4.95, DT = 1.62). These results support our hypothesis 2 in that men showed greater levels of entrepreneurial self-efficacy than women. Otherwise, contrary to our hypotheses 3, 4, and 5, there were no gender differences in locus of control, risk-taking propensity, and proactiveness.

Secondly, the multivariate effect of major area was also significant, indicating that participants in different major areas differed in regard to the set of entrepreneurial variables analyzed, F (35, 2947) = 1.63, $p < .05$, $\eta^2 = .92$, by Wilk's lambda criterion. ANOVAs on each dependent variable were conducted as follow-up tests to the MANOVA. The univariate effect of major area was significant only for entrepreneurial intention, F (27, 704) = 3.36, $p < .01$. Tukey post hoc analyses showed that students of Experimental Sciences scored significantly lower in the entrepreneurial intention item than students of Business and Economic Sciences, Technical Sciences, and Legal Sciences (Experimental Sciences, M = 1.45, SD = 2.19; Business and Economic Sciences, M = 2.87, SD = 2.39; Technical Sciences, M = 3.02, SD = 2.59; and Legal Sciences, M = 4.00, SD = 3.37). These results are shown in Table 2.

Finally, the multivariate effect of major area × age group interaction was significant, indicating significant differences in entrepreneurial intentions and traits between participants of different major areas in each age group, F (30, 2802) = 1.97, $p < .001$, $\eta^2 = .92$, by Wilk's lambda criterion. ANOVAs on each dependent variable were conducted as follow-up tests to the MANOVA. The univariate effect of the interaction was significant for locus of control, F (27, 704) = 3.60, $p < .01$, entrepreneurial self-efficacy, F (27, 704) = 2.27, $p < .05$, risk-taking propensity, F (27, 704) = 2.78, $p < .05$, and proactiveness, F (27, 704) = 2.45, $p < .05$. Tukey

post hoc analyses showed a differential effect of major area on the four psychological variables between older and younger groups (18-21 vs. 22-26). The younger group students of Business and Economic Sciences scored significantly higher in entrepreneurial self-efficacy than students of Social Sciences (Business and Economic Sciences, M = 5.25, SD = 1.50; Social Sciences, M = 4.84, SD = 1.53). Also, there were significant differences in risk-taking propensity between students of Educational Sciences and Social Sciences (Educational Sciences, M = 2.95, SD = .62; Social Sciences, M = 2.63, SD = .57). And finally, students of Social Sciences showed lower levels of proactiveness than their counterparts from Technical Sciences and Business and Economic Sciences (Social Sciences, M = 3.19, SD = .59; Technical Sciences, M = 3.58, SD = .52; Business and Economic Sciences, M = 3.41, SD = .51). In the group of older students, Tukey post hoc analyses showed that students of Social Sciences showed higher levels of internal locus of control than their counterparts from Business and Economic Sciences, Technical Sciences, and Humanities (Social Sciences, M = 3.51, SD = .62; Business and Economic Sciences, M = 3.20, SD = .61; Technical Sciences, M = 3.14, SD = .70; Humanities, M = 3.13, SD = .66). These results are shown in Table 3.

Table 3: Means of individual variables by major area × age group

Samples	**Dimensions**									
	Entrepreneurial intention		Locus of control [a]		Entrepreneurial self-efficacy [b]		Risk-taking propensity [c]		Proactiveness[d]	
Younger group (18-21)										
Business and Sciences (n=108)	2.82	(2.47)	3.31	(.51)	5.25	(1.50)	2.77	(.61)	3.41	(.51)
Social Sciences (n=122)	2.77	(2.36)	3.29	(.58)	4.84	(1.53)	2.63	(.57)	3.19	(.59)
Experimental Sciences (n =9)	1.22	(1.64)	3.13	(.56)	5.64	(1.76)	2.47	(.73)	3.40	(.72)
Technical Sciences (n=37)	3.11	(2.54)	3.40	(.60)	5.14	(1.58)	2.88	(.59)	3.58	(.52)
Legal Sciences (n =6)	2.83	(2.14)	3.30	(.60)	3.89	(1.37)	2.31	(.74)	3.07	(.83)
Health Sciences (n=22)	3.27	(1.93)	3.23	(.47)	4.28	(1.15)	2.57	(.43)	3.23	(.53)

Educational Sciences (n =52)	2.73	(2.17)	3.31	(.54)	4.59	(1.54)	2.95	(.62)	3.28	(.52)
Older group (22-26)										
Business and Sciences (n =82)	2.99	(2.34)	3.20	(.61)	5.17	(1.61)	2.69	(.70)	3.35	(.67)
Humanities (n =60)	1.98	(2.59)	3.13	(.66)	4.91	(1.82)	2.72	(.63)	3.26	(.71)
Social Sciences (n=120)	2.78	(2.31)	3.51	(.62)	5.25	(1.62)	2.84	(.55)	3.32	(.53)
Experimental Sciences (n =22)	1.55	(2.40)	3.44	(.41)	4.37	(1.59)	2.79	(.57)	3.18	(.74)
Technical Sciences (n=69)	2.97	(2.64)	3.14	(.70)	5.19	(1.86)	2.72	(.69)	3.43	(.54)
Legal Sciences (n =8)	4.88	(3.98)	3.71	(.61)	4.47	(1.62)	2.72	(.53)	3.40	(.66)
Educational Sciences (n =15)	3.80	(2.65)	3.32	(.36)	5.44	(1.28)	2.72	(.60)	3.53	(.50)
Younger group (18-21)										
Business and Sciences (n=108)	2.82	(2.47)	3.31	(.51)	5.25	(1.50)	2.77	(.61)	3.41	(.51)
Social Sciences (n=122)	2.77	(2.36)	3.29	(.58)	4.84	(1.53)	2.63	(.57)	3.19	(.59)
Experimental Sciences (n =9)	1.22	(1.64)	3.13	(.56)	5.64	(1.76)	2.47	(.73)	3.40	(.72)

Note. *Scores of entrepreneurial intention, locus of control, risk-taking propensity, and proactiveness range from 0 to 5; scores of entrepreneurial self-efficacy range from 0 to 10. Standard deviations are shown in parentheses.* [a] *Denotes differences between Social Sciences and Business and Economic Sciences, Technical Sciences, and Humanities in the older group (22-26).* [b] *Denotes differences between Business and Economic Sciences and Social Sciences in the younger group (18-21).* [c] *Denotes differences between Educational Sciences and Social Sciences in the younger group (18-21).*[d] *Denotes differences between Social Sciences and Business and Economic Sciences and Technical Sciences in the younger group (18-21).*

Discussion

The principal aim of this study was to account for the scarce involvement of women in entrepreneurial initiatives in Spain from a perspective of career choice. Our argument was that by explaining why men develop entrepreneurial intentions and choose entrepreneurial careers to a greater extent than women, we could offer new insights to help understand the low rates of female entrepreneurship and suggest ways to foster new venture creation in women. We expected that men actually involved in career decisions would have a higher entrepreneurial intention than their female counterparts, and that such gender differences would also extend to other entrepreneurial traits, specifically, locus of control, entrepreneurial self-efficacy, risk-taking propensity, and proactiveness.

As expected, men reported a higher intention to start a business than women. Such differences are consistent with the results of previous studies carried out in different countries, which have suggested a greater initiative towards self-employment in men compared to women (e.g., Crant, 1996; Kourilsky, & Walstad, 1998; Wilson, Marlino, & Kickkul, 2004; Zhao, Seibert, & Hills, 2005).

In the second place, our results showed parallel gender differences in entrepreneurial self-efficacy, in line with previous studies performed outside Spain (e.g., Chen, Greene, & Crick, 1998). This finding is congruent with previous studies (e.g., Costa, Terraciano, & McCrae 2001; de Miguel Negredo, 2005; Feingold, 1994) supporting the idea that women show predominantly communal/expressive traits, whereas men are higher in agentic/instrumental traits. Furthermore, this result suggests the relevance of gender stereotypes in Spanish culture, in the sense that the socialization process linked to gender stereotype can foster the development of certain agentic traits, such as entrepreneurial self-efficacy, to a greater extent in men than in women.

In short, these findings are in line with the prediction of the dual-impact model by Abele (2000). We found that gender affects the intention to start a business and the agentic trait of entrepreneurial self-efficacy (men feel themselves more efficient and prone to create a venture than women). These results can also be explained in terms of the person-organization fit perspective (e.g., Cable, & Judge, 1996), in the sense that we can explain the development of entrepreneurial intentions as the result of an accommodation between the personal characteristics of the individual and

the requirements of new venture creation. Thus, people showing certain entrepreneurial traits such as entrepreneurial self-efficacy will be the most able to choose entrepreneurial careers. Since our results suggest that men are higher in this trait than women, we can explain the scarce involvement of the latter in entrepreneurial initiatives in terms of a poor fit between their personal traits and the qualities required to create a new business.

Contrary to what was expected, our results have failed to demonstrate the existence of gender differences in other agentic entrepreneurial traits, specifically locus of control, risk-taking propensity, and proactiveness. This result can be linked to other previous failures in the identification of explanatory personal indicators of gender differences in entrepreneurship. For example, Cromie (1987) did not find notable differences between men and women in dimensions strongly related to the entrepreneurial process, such as the need for achievement, locus of control, primacy of businesses, trust, independence, and planning. The present study thus joins the previous literature that offers only partial support for the suggestion that gender differences in certain psychological dimensions can be at the basis of additional gender differences in entrepreneurial intentions. In fact, in our sample, major area and age explained entrepreneurial intentions and traits much better than gender.

Implications for Education

Our findings suggest a possible way of promoting self-employment in women, through entrepreneurship training programs addressed to future working women. These programs should incorporate components and activities for improving agentic characteristics such as entrepreneurial self-efficacy in women, in order to fight gender stereotypes and allow women to overcome the possible existing differences with respect to men. This, in turn, would allow them to place themselves on the same level of personal and psychological predisposition towards the creation of a new enterprise. Following Bandura's (Bandura, 1986) recommendations for raising self-efficacy, which is influenced by the characteristics of university courses (Licciardello, Marletta, Maucer & Castiglione, 2010), we think that it is possible to propose some basic activities regarding this matter, including opportunities for executive mastery, modeling, verbal persuasion, and the positive interpretation of emotional and physical states. In fact, some studies suggest that mentoring is a useful initiative when starting up a new

business, in the sense that psychological support can be considered as formal support (Sánchez, 2011; Waters, McCabe, Kellerup, & Kellerup, 2002). In addition, we think that the empowerment of entrepreneurial self - efficacy in women could positively affect the change of gender stereotypes and the cognitive-behavioral rigidity linked to the stereotyped representation of sex roles. As to the relevance of educational processes, which are mainly significant in the developmental age, empirical evidence has shown that gender stereotype flexibility in children correlated with high levels of creativity (De Caroli, & Sagone, 2009). This psychological dimension, "widely acknowledged as vital to society" (Hoffmann, Cropley, Cropley, Nguyen, & Swatman. 2005, p.1), can be influenced by educational climate (Licciardello, De Caroli, Castiglione, & Sagone. 2010) and could affect current and future self-representation in the sense of providing the personal freedom to choose a course of the study and type of the job.

Limitations and Future Researches

Our results underscore the need to investigate more deeply the specific role played by people's personal characteristics and their relation to gender in our understanding of the complex entrepreneurial phenomenon. Additionally, some authors pose the need to test other alternative hypotheses that consider the influence of certain contextual variables (fundamentally, socio-demographic, motivating, and hindering aspects of the context) and their combination with personal variables. This line of investigation is quite promising in explaining gender differences in entrepreneurship (e.g., Catley, & Hamilton, 1998; McCelland, Swail, Bell, & Ibbotson, 2005). In this sense, it is expected that the application of this line of study to the context of the formation of intentions towards self-employment could be more fruitful than the isolated analysis of certain personality dimensions.

As regards the possibility of generalizing our results, it is necessary to point out some limitations of this study. The main concern is related to the use of a sample of students, but this type of sample is very useful, and, as has been argued by some authors (Krueger, 1993; Krueger, Reilly, & Carsrud, 2000), samples composed of students are the most appropriate for studying entrepreneurial intentions. Nevertheless, great caution should be exercised when generalizing the present results to other groups of

entrepreneurs or non-students (Robinson, Stimpson, Huefner, & Hunt, 1991) because of the homogeneity of certain important dimensions such as age and educational level, and the scarce degree of students' initiation in the entrepreneurial process. Although they are people actually beginning to face career decisions, students are certainly not the same as entrepreneurs, and we cannot be certain whether their intentions are clear and durable or whether the observed gender differences can be extended to other groups of experienced entrepreneurs.

Secondly, we based this research on the assumption that gender roles and stereotypes lead to distinctive psychological traits in men and women, but we did not include measures of gender roles or stereotypes in our study. Future studies should seek to fill this gap and empirically prove this premise and its implications in career choice. Another problem is the use of a single item to measure the intention to start a business. Although research about intentions has often used single-item measures, multiple items could reduce measurement error and increase the reliability and validity of the measure, and thus of the research (Krueger, Reilly, & Carsrud, 2000). Furthermore, the present findings are based on self-reports (questionnaires) that are susceptible to errors and biases.

Finally, the sample was also drawn only from Spain, and thus caution should be taken in generalizing the results to other countries. Clearly, more research could be helpful in order to verify these results in other countries.

Given these limitations, future research is needed to analyze gender differences in entrepreneurial intentions using more appropriate methodologies, including entrepreneurial samples and experimental designs based on simulations and laboratory experiments.

Moreover, there is a general need for longitudinal studies in entrepreneurship in order to examine the relationship between entrepreneurial intentions and behavior over time and the evolution of gender differences throughout the whole entrepreneurial sequence.

Finally, cross-cultural studies will be helpful in order to replicate our findings in other countries and suggest the role of culture and its relationship with individual traits in explaining gender differences in entrepreneurial intentions and behaviors.

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A P S T R A K T

Polne razlike u pogledu preduzetničkih namera, koje su često povezivane sa preduzetništvom (fokus na kontrolu, preduzetničku efikasnost, sklonost ka preuzimanju rizika i proaktivnost), ispitane su za potrebe ovoga rada na uzorku od 535 ženskih i 283 muških studenata iz Španije. Prikazani podaci prikupljeni su preko upitnika, koji se sastoji od nekoliko skala. MANOVA rezultati su pokazali polne razlike u preduzetničkim namerama i preduzetničkoj efikasnosti. Shodno tome, muškarci su efikasniji i spremniji da uđu u novi poslovni poduhvat pre nego žene. Ipak, preduzetnuičko polje delovanja i godine starosti bolje objašnjavaju razlike u varijablama nego polna pripadnost

KLJUČNE REČI: *preduzetništvo, izbor karijere, polni stereotipi*

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