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Personal values and entrepreneurial intention: an empirical study

Abstract

From a cognitive perspective, the study of the psychosocial characteristics of new entrepreneurs continues to attract more and more attention among researchers. Nevertheless, the identification of individual values and the effect they exert on the decision to become an entrepreneur is clearly an under-researched area of study. Social psychology has shown that values may cause behaviour by promoting positive attitudes and action-planning. This study examines the value-intention link in entrepreneurship on a sample of 1467 Spanish university students. Schwartz's Portrait Value Questionnaire (PVQ) is used to measure values. Results confirm the positive effects of openness to change and self-enhancement values on the entrepreneurial intention.

Keywords: Individual values, entrepreneurial intention, value structure, cognitive research

Introduction

The influence of social environment on individual perceptions and preferences is widely recognized nowadays (Baum, Frese, & Baron, 2007; Shane & Venkataraman, 2000). Aspects such as cognitive social capital (Liñán & Santos, 2007) or cultural values (Hofstede, 1980, 1991) influence the personal decisions of people. However, the role of individual values has received relatively little attention in this regard. According to Schwartz (1990), values shape the person's motivational goals. This author suggest a circular structure of values in which individualistic persons tend to give greater importance to values such as power, achievement, hedonism, stimulation and self-direction. Meanwhile, collectivist people tend to stress alternative values such as benevolence, tradition and compliance. Within Schwartz's (1990) value structure, there are two additional values to be considered: universalism and security.

In particular, the decision to become an entrepreneur is a complex one that may be influenced by the personal values structure. In this sense, recent research has underscored the value of understanding the cognitive mechanisms leading to the decision to start up a venture (Baron, 1998; Busenitz & Lau, 1996; Katz & Shepherd, 2003; Kolvereid, 1996; Kolvereid & Isaksen, 2006; Krueger, 2000, 2003; Liñán, Urbano, & Guerrero, forthcoming; Mitchell, et al., 2002; Simon, Houghton, & Aquino, 2000; Zhao, Siebert, & Hills, 2005).

Up until now, research on the psychological factors affecting the start-up decision has frequently concentrated on personal traits as predictors of entrepreneurial activity. In this paper, instead, the role of personal values in explaining intention will be tested. Based on the theory, a significant relationship between certain individual values and entrepreneurial intention is expected. It must be remembered that creating a venture is a process that begins with the individual's personal decision to implement it (Liñán, 2007). Thus, these results will allow to better understand the value-structure characteristics of people who decide to start a venture, and how this intention is configured.

The empirical study is based on a survey of Spanish university graduates, which is part of a wider research project (VIE project) aiming to analyze the influence of cultural values and socioeconomic factors on the individual's decision to pursue an entrepreneurial career. Within this framework, the present study examines individual values and the way in which they exert their influence on entrepreneurial intentions. After this introduction, next section presents the theoretical framework. Then, the methodology and results sections describe the characteristics of the study and results obtained. After that, a discussion section comments on these results. The paper ends up with a brief conclusion.

Theoretical framework

Entrepreneurship is considered one of the most important factors contributing to economic development and has numerous benefits for the society. It drives innovation, creates jobs, develops human potential, and satisfies new customer demands (European Commission, 2003). However, only a small percentage of the working population typically engages in entrepreneurship (Bosma & Levie, 2010). Such evidence has compelled researchers to employ socio-cognitive models and theories to identify the antecedents of entrepreneurial intention, especially among university students planning their careers (Alexei & Kolvereid, 1999; Audet, 2004; Autio, Keeley, Klofsten, Parker, & Hay, 2001; Li, 2006; Liñán & Chen, 2009; Moriano, Palací, & Morales, 2007; Pihie, 2009). In this sense, starting a new venture is, in the first place, an individual's personal decision. This is so obvious that it is quite often forgotten. Most research in entrepreneurship concentrates on analysing the firm-creation process once the decision to create has already been taken, completely overlooking the internal process that leads people to that decision. From this viewpoint, the important thing is not which particular individuals will create a new firm. It is understood that at least some of them will take that decision and start their ventures (Liñán, 2007). Taken to the extreme, ecological approaches to entrepreneurship could be an example of this view (Aldrich & Wiedenmayer, 1993).

The publication of the Green Paper Entrepreneurship in Europe (European Commission, 2003) raised an important policy question regarding this subject: How to improve people's inclination toward developing new entrepreneurial initiatives. The European Union has attempted to achieve this objective through short-term policies focused on eliminating barriers to the development and growth of businesses. However, the concession of grants and the removal of red tape have not had the expected impact on the creation of new businesses. This has led to the adoption of a new approach whose principal objective is to ensure that more people decide to become entrepreneurs and work towards that end (European Commission, 2003).

Methodologies used so far to study the entrepreneurial decision have been changing along the years. Many authors began looking for the existence of certain personality features or traits that could be associated with the entrepreneurial activity (Kets de Vries, 1977; McClelland, 1961). Later on, other works have been carried out pointing to the importance of different demographic variables such as age, gender, origin, religion, level of studies, labour experience, etc. (Reynolds, Storey, & Westhead, 1994; Storey, 1994). Both lines of analysis have allowed the identification of significant relationships among certain traits or demographic characteristics of the person, and the fulfilment of entrepreneurial behaviours. However, they have been the object of considerable criticism, both methodological and theoretical, which has highlighted the inadequacy of general individual characteristics for predicting entrepreneurial behavior (Gartner, 1988; Robinson, Stimpson, Huefner, & Hunt, 1991; Shane & Venkataraman, 2000; Shaver & Scott, 1991). Consequently, since the middle 1990s, researchers have stressed the importance of including more and more cognitive factors in studying entrepreneurship (Baron, 1998; Baron, 2004; Baum, et al., 2007; Busenitz & Lau, 1996; Krueger, 2000; Neck, Neck, Manz, & Godwin, 1999).

Keeping in mind that the creation of a new company requires time, involving both considerable planning and a high degree of cognitive processing, the entrepreneurial behaviour could be considered as a type of planned behaviour for which the intention models are ideally convenient (Krueger & Carsrud, 1993; Krueger, Reilly, & Carsrud, 2000). In this sense, the entrepreneurial intention would be a previous and determinant element towards performing entrepreneurial behaviours (Bird, 1988; Kolvereid, 1996). Several models have been used to explain the entrepreneurial intention such as the Entrepreneurial Event Model of Shapero (1982), the Model of Implementing Entrepreneurial Ideas (Bird, 1988), Maximization of the Expected Utility (Douglas & Shepherd, 2000), and the Theory of Planned Behaviour (Krueger & Carsrud, 1993; Liñán & Chen, 2009; van Gelderen, et al., 2006). Although these models represent a step further in entrepreneurial behaviour research, they still lack enough influence of the social factors defining entrepreneurial intention. Therefore, this study seeks to extend the existing literature by examining the role of personal values in explaining entrepreneurial intention.

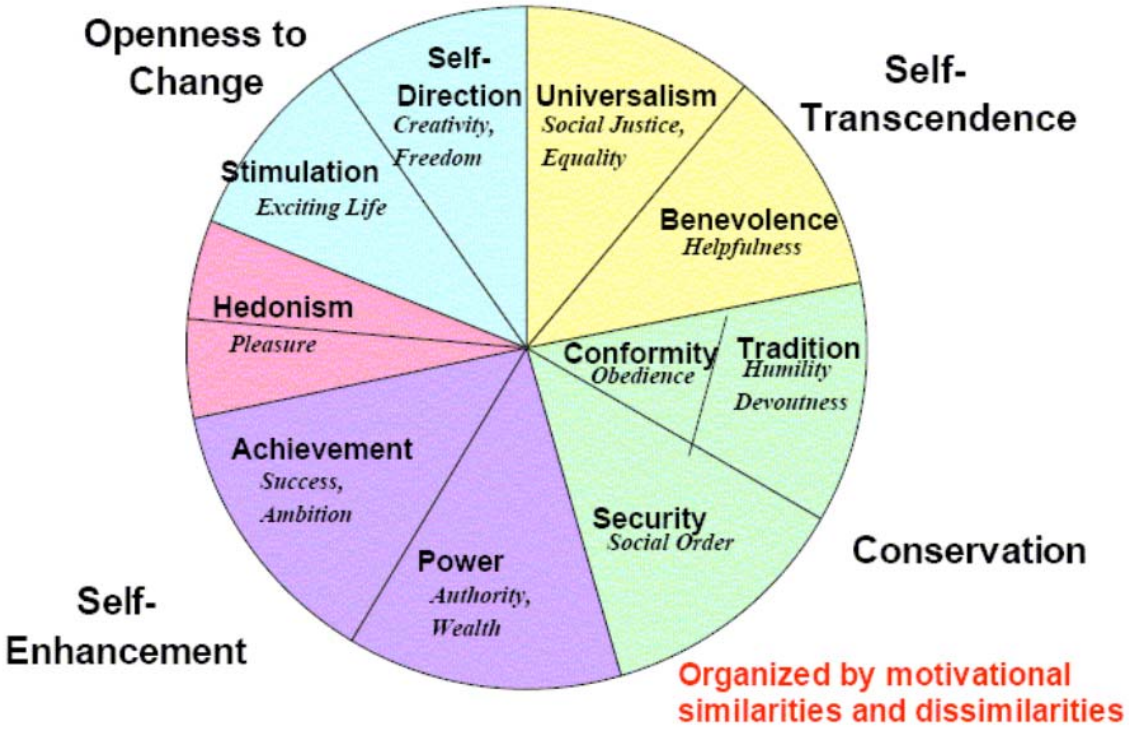
Personal values structure

Research in social psychology has shown that values may cause behaviour (Verplanken & Holland, 2002). In this sense, Feather (1995) argues that people's values induce valences on possible actions. That is, actions become more attractive, more valued subjectively, to the extent that they promote attainment of valued goals. People who value stimulation would likely be attracted to a challenging job offer whereas those who value security might find the same offer threatening and unattractive (Schwartz, 2006). Thus, an opportunity to attain one of these highly prioritized values will set off an automatic, positive, affective response to actions that will serve them. On the contrary, if a threat to value attainment is sensed, a negative affective response will set off.

Even in more complex decisions involving the need to develop careful plans, values play a relevant role. More important goals induce a stronger motivation to plan thoroughly. The higher the priority given to a value, the more likely people will form action plans that can lead to its expression in behaviour (Gollwitzer, 1996). Planning focuses people on the pros of desired actions rather than the cons. It enhances their belief in their ability to reach the valued goal and increases persistence in the face of obstacles and distractions. By promoting planning, value importance increases value-consistent behaviour (Schwartz, 2006).

According to Schwartz (1990), values shape the individual's motivational goals. He proposes a circular structure of values (see Figure 1) representing the dynamic relationships between values according to principles of compatibility and logical contradiction. Following this circular structure, the pursuit of adjacent values (e.g., power and achievement, or stimulation and self-direction) is compatible, whilst the pursuit of opposing values (e.g., power and universalism) would generate conflict (Schwartz, 1999; Schwartz, Melech, Lehmann, Burgess, & Harris, 2001). The conflicts and congruities among all ten basic values yield an integrated structure of values of two orthogonal dimensions. The first is a conflict between openness to change and conservation, which opposes value types referring to novelty and personal autonomy (Stimulation & Self-direction) to value types leading to stability, certainty and social order (Tradition, Conformity & Security). The second is a conflict between self-enhancement and self-transcendence, which opposes value types referring to the pursuit of selfish interests (Achievement & Power) to value types promoting the welfare of both close and distant others (Benevolence & Universalism). Hedonism shares elements of both openness and self-enhancement.

Figure 1. Motivational structure of the value system



Source: Schwartz (2006)

As regards the study of entrepreneurs' values, little research has been done up to now. Nevertheless, the few studies that have been carried out indicate a significant relationship between certain values of an individualistic nature and entrepreneurial behaviour. Thus, Kecharananta and Baker (1999) found significant differences between the values of Thai entrepreneurs and company employees using the SYMLOG instrument (Polley, Hare, &

Stone, 1988). Specifically, entrepreneurs scored higher in individualism, independence and resistance to authority. Similarly, in an exploratory study carried out in Spain, Moriano, Palací and Trejo (2001) observed a tendency for entrepreneurs to be inspired by individualistic values, such as hedonism (i.e. pleasure and enjoying life). Furthermore, Moriano, Palací, and Morales (2007) found that individualist values (i.e. power, achievement, hedonism, stimulation and self-direction) positively predict entrepreneurial intention of Spanish university students.

Therefore, based on the review of theory and research, we propose the following four hypotheses:

H1: Openness to change (stimulation, hedonism and self-direction values) will be positively related to the entrepreneurial intention.

H2: Conservation (tradition, conformity and security values) will be negatively related to the entrepreneurial intention.

H3: Self-enhancement (achievement and power values) will be positively related to the entrepreneurial intention.

H4: Self-transcendence (universalism and benevolence values) will be negatively related to the entrepreneurial intention.

Demographic and socioeconomic characteristics of individuals have been found to correlate with start-up behaviour. Nevertheless, the explaining capacity of these variables have been very limited (Robinson, et al., 1991). In this sense, age and gender are typical examples of demographic variables affecting entrepreneurship (Langowitz & Minniti, 2007; Levesque & Minniti, 2006). Similarly, People's age, gender, education, and other characteristics largely determine the life circumstances to which they are exposed. These include their socialization and learning experiences, the social roles they play, the expectations and sanctions they encounter, and the abilities they develop. Thus, differences in background characteristics represent differences in the life circumstances that affect value priorities (Schwartz, 2006).

Labour experience and, in particular, self-employment experience are very relevant sources of information, skill-development, and knowledge that may be relevant in the start-up decision (Cooper, Gimeno, & Woo, 1994; Dahlqvist, Davidsson, & Wiklund, 2000). Vicarious learning (Bandura, 1997) may also be important when an entrepreneurial role model is available (Matthews & Moser, 1996; Scherer, Brodzinsky, & Wiebe, 1991). Additionally, some authors point to the higher entrepreneurial activity by immigrants (Bauder, 2008).

Therefore, a number of control variables have been considered in the analysis: age, gender, being an immigrant, labour experience, self-employment experience, socioeconomic level, family role model and occupational status (student, unemployed, self-employed, starting-up, others). Since this is not the focus of the present study, no specific hypotheses about control variables are made.

Method

Procedure and sample

The VIE project has developed a web based questionnaire to assess the relevant variables. All universities in Spain have been contacted, asking them to distribute the information to their alumni. Collaboration was obtained from 12 of them. Data collection stretched from February to June 2010. For this paper, responses up to May 31st have been used. A total of 1467 responses were available. Nevertheless, an initial test for normality of the different items identified a number of outliers (51 cases). Additionally, 11 respondents stated an age of 20 or less. Since they cannot be logically expected to be graduates, they were excluded. Therefore, the final usable sample for this study was 1405. The general characteristics of the sample are presented in Table 1.

Measures

Values. We used the Spanish version of Portrait Values Questionnaire (PVQ, Schwartz, et al., 2001). The PVQ includes short verbal portraits of 40 people. Each portrait describes a person's goals, aspirations or wishes that point implicitly to the importance of one of the 10 value types on the individual level. For example: "It is important to him/her to be rich. He/she wants to have a lot of money and expensive things" describes a person who cherishes power values. Respondents are asked to answer "How much like you is the person?" on a six-point scale, ranking from 0 (not at all like me) to 6 (very similar to me).

Table 1: Sample characteristics

	Mean	**Std.dev.**	**N (%)**	**N (%)**
Age	27.11	4.58	---	---
Gender	.49	.50	**Female**	**Male**
			710 (50.5)	695 (49.5)
	Mean	**Std.dev.**	**No**	**Yes**
Entrepreneurship Centre	.23	.42	1082 (77.0)	323 (23.0)
Labour Experience	.83	.37	243 (17.3)	1162 (82.7)
Self-Employment Experience	.13	.33	1223 (87.0)	182 (13.0)
Family Role Model	.64	.48	504 (35.9)	901 (64.1)
Immigrant (<= 10 years in region)	.15	.35	1192 (84.8)	213 (15.2)
Immigrant (> 10 years in region)	.09	.29	1274 (90.7)	131 (9.3)
			Lower	25 (1.8)
			Lower-middle	263 (18.7)
Socioeconomic level	2.93	.64	**Middle**	897 (63.8)
			Upper-middle	219 (15.6)
			Upper	1 (.1)

Entrepreneurial intention. The perceived likelihood of an individual to choose an entrepreneurial career was measured using a five-item scale developed in previous studies

(Liñán & Chen, 2009; Liñán & Moriano, 2007; Moriano, et al., 2007). Respondents rate items (e.g., "My professional goal is to be an entrepreneur") using a seven-point Likert scale ranging from 0 (not at all) to 6 (totally).

Results

Confirmatory Factor Analysis

Confirmatory factor analysis (CFA) was carried out in AMOS 17 (Byrne, 2009) to test the fit of the measurement model, using the Maximum Likelihood estimation procedure and the covariance matrix as input. A measurement model was thus specified to have the 10 value types as manifest variables for the four latent predictor variables (i.e. openness to change, conservation, self-enhancement, and self-transcendent) and five indicators for the outcome variable (i.e. entrepreneurial intention).

The proposed measurement model exhibited good results, with fit indices meeting satisfactory levels (see, for a review, Hu & Bentler, 1995). The χ^2-test was 769.43 ($p < .001$) with 80 degrees of freedom. Goodness of fit index (GFI) and adjusted goodness of fit index (AGFI) were .93 and .90 respectively. The comparative goodness of fit indexes measured by the comparative fit index (CFI), and non-normed fit index (NFI) were .93 and .92 respectively. The root mean square error of approximation (RMSEA) was .078.

Table 2. Individual Loadings (λ), Composite Reliabilities (CR), t-values, and AVE.

Construct	Indicators	λ	*t*	CR	AVE
Openness to change	Hedonism	.42	6.85**	.76	.53
	Stimulation	.84	40.91**		
	Self-direction	.84	44.33**		
Conservation	Conformity	.64	2.91**	.76	.53
	Security	.97	2.18*		
	Tradition	.49	1.91†		
Self-enhancement	Achievement	.88	75.21**	.89	.79
	Power	.90	88.91**		
Self-transcendent	Benevolence	.96	6.68**	.84	.72
	Universalism	.72	3.13**		
Entrepreneurial intention	IE1	.91	172.98**	.93	.74
	IE2	.91	144.30**		
	IE3	.57	18.29**		
	IE4	.94	258.44**		
	IE5	.90	131.42**		

† $p < .1$, * $p < .05$, ** $p < .01$

Validity and reliability of measures

The individual reliability of each item is given by loadings or correlations between the item and the construct (λ). The convergent validity of each construct is acceptable for a loading higher than .5 and a critical t-value of 1.96 for $p < .05$. (Hair, Black, Babin, Anderson, & Tatham, 2006). On the other hand, the scale reliability allows measuring internal coherency of all indications in relation to the construct. Composite reliability is a preferred alternative to Cronbach's alpha as a measure of reliability because Cronbach's alpha may over or under estimate scale reliability (Fornell & Larcker, 1981). For this reason, composite reliability is now preferred and may lead to higher estimates of true reliability. The acceptable cut-off for composite reliability would be the same as the researcher sets for Cronbach's alpha since both attempt to measure true reliability. In an adequate model, composite reliabilities should be greater than .70 (Nunnally, 1978). The loading of the manifest variables on the latent constructs were generally strong and the composite reliability coefficients were high (see Table 2).

The convergent validity represents the common variance between the indicators and their construct, and it is measured by the average variance extracted (AVE). The higher AVE value, the more representative are the indicators of the construct on which they load. In general, it is suggested that its value should be above .50 (Chin, 1998; Fornell & Larcker, 1981). In this study, the AVE for each construct was satisfactory (see Table 2). To assess discriminant validity among constructs, the AVE square root should be higher than the correlation between constructs (Fornell & Larcker, 1981). Table 3 shows correlations between the constructs and, along the diagonal, the AVE square root. In view of this data, there is discriminant validity among constructs assessed in the model.

Table 3. Means, standard deviations, AVE scores and correlations

Latent variables	*Mean (SD)*	*1*	*2*	*3*	*4*	*5*
1. Openness to change	3.61(.53)	*.72*				
2. Conservation	2.88(.60)	.09	*.72*			
3. Self-enhancement	2.73(.86)	.27	.33	*.88*		
4. Self-transcendent	3.98(.56)	.39	.29	-.01	*.84*	
5. Entrepreneurial intention	3.10(1.46)	.31	.07	.32	.05	*.86*

Linear regression analysis

Once the validity and reliability of the measures have been established, a linear regression analysis was performed to test the hypotheses formulated in the theory section. In Table 4, results from five regression models are displayed. The first model corresponds to purely demographic variables. As was expected, the explanatory capacity of this model is low (R^2 = .04), and only one significant variable emerges (being male is associated with higher entrepreneurial intention). In the second model, occupational status and experience is included (both direct experience and indirect, through family role models). This model 2

explains 13.9% of the variance in the dependent variable, which is a considerable improvement over model 1.In this case, being self-employed or starting up a venture are both occupational situations clearly and significantly associated with higher entrepreneurial intention. Additionally, having an entrepreneurial role model within the family and self-employment experience, are also significant predictors of entrepreneurial intention.

Table 4: Linear regression models on entrepreneurial intention

	Model 1	**Model 2**	**Model 3**	**Model 4**	**Model 5**
Variables	***β***	***β***	***β***	***β***	***β***
Age	.01	-.02	-.01	.01	.01
Gender	.20**	.17**	.18**	.14**	.14**
Immigrant (<= 10 years)	.01	.01	-.01	.01	-.01
Immigrant (> 10 years)	.03	.02	.02	.02	.02
Socioeconomic level	-.01	-.01	-.02	-.03	-.04
Labour Experience		.01	.01	.02	.01
Self-Employment Exp.		.09**	.07**	.07**	.06*
Family Role Model		.09**	.08**	.07**	.07**
Student		.02	.01	.01	.00
Unemployed		.01	.01	.01	.01
Self-Employed		.16**	.15**	.14**	.14**
Starting-Up		.19**	.18*	.18**	.18**
Openness to change			.24**		.16**
Conservation			.03		-.03
Self enhancement				.27**	.24**
Self transcendence				.07**	.01
R^2	.04	.13	.19	.21	.23
ΔR^2	.04**	.09**	.06**	.08**	.10**

*$p < .05$, **$p < .01$. Changes in models 3, 4 and 5 are estimated with respect to model 2 in order to facilitate comparisons.

Model 3 introduces only the two variables measuring the first value dimension considered (openness to change and conservation). Overall, R2 increases significantly with respect to model 2 (ΔR2 = .06, p < .01). Openness to change is a significant positive predictor of intention, which would be in accordance with hypothesis H1. Meanwhile, conservation is not significant, which would not support H2. To better compare the effect of each one of the two dimensions, Model 4 includes only the two variables measuring the second dimension (self-enhancement and self-transcendence). Model fit is slightly better than in model 3 (R2 = .22, with a significant increase from model 2 of .08). In this case, self-enhancement is significantly and positively related to entrepreneurial intention (β = .28, p < .01), as H3 stated. On the other hand, H4 must be rejected, since self-transcendence is positively related to intention (contrary to the hypothesized relationship). Finally, model 5 includes the four

variables together. Model fit is reasonable, since it explains 24.1% of the variance in entrepreneurial intention. Both openness to change and self-enhancement have significant and positive coefficients, which confirm hypotheses H1 and H3. However, some differences are found with respect to conservation and self-transcendence when compared with models 3 and 4. Conservation now has a negative coefficient, although not significant, whereas self-transcendence is not significant in model 5. Therefore, no support is found for hypotheses H2 and H4.

It must be noted, though, that these changes in coefficients may be indicating some kind of interaction effect between conservation and self-transcendence. It would surely deserve further investigation. Additionally, the socioeconomic level becomes marginally significant when the four value dimensions are included as explanatory variables, contributing negatively to the entrepreneurial intention. This would be pointing to the existence of differences in value priorities between each socioeconomic level. Thus, controlling for value dimensions, a higher self-reported socioeconomic level is associated with lower intention.

Discussion

There are differences in entrepreneurial intention levels depending on the person's value priorities. This is the most important result derived from the present study. Spanish university graduates whose priorities are *openness to change* and *self-enhancement* values do exhibit higher intention to become entrepreneurs, as hypotheses H1 and H3 stated. This is in accordance with previous studies that identified individualistic values such as power, achievement, hedonism, stimulation and self-direction to predict the entrepreneurial intention (Moriano, et al., 2007; Moriano, et al., 2001; Polley, et al., 1988). However, the results did not support H2 and H4.This could point out to the existence of more complex relationships between the values themselves, and between values and intentions. In this sense, when self-transcendence was initially included (model 4), it had a significant and positive effect on the entrepreneurial intention, at the same level as other variables such as a knowing a family role model or having self-employment experience. Nevertheless, this relationship became not significant when the four value dimensions were included together.

Entrepreneurship involves several different functions and/or activities (Lazear, 2004). Some of them may be more appealing to individuals with individualistic value priorities, whereas others may be attractive to collectivistic value-oriented individuals. In fact, Individuals tend to focus their attention on those situational aspects that are related to their value priorities (Schwartz, 2007). In this sense, Tiessen (1997) analyses two functions of entrepreneurs: innovating and leveraging resources. While the former may be more attractive to individualistic people, the latter may help satisfy collectivistic values. Therefore, as Schwartz (2006) points out, people with contrasting value priorities will see the same situation (e.g. starting up a venture) very differently. Some of them will see entrepreneurship as a way of gaining freedom (i.e. self-direction value), others will see it as a challenge (i.e. achievement value), and still others may see it as the possibility to continue the family business (i.e. tradition value).

Moreover, it will probably be the case that different value priorities lead people to consider alternative forms of entrepreneurship and varying entrepreneurial orientations. Further investigation is undoubtedly needed to clarify this issue. In particular, the influence of personal values on intention may be indirect, through the motivational antecedents of

intention (Liñán, et al., 2009). This is a stream of research that the authors plan to follow in the future.

Relevant implications may be derived from these results. In the first place, a new line of analysis is opened that may help to better understand what individuals decide to start their venture, and why. Any advancement in this field will be useful in the design of more effective policy measures to promote a favourable entrepreneurial culture, as the European Commission proposes. Additionally, more specific and comprehensive educational programmes may be developed that take into account value priorities of those participating in the training activities.

Conclusion

This research has analysed the influence of different value priorities on the entrepreneurial intention. Results have been considerably satisfactory, in that this influence have been confirmed. That is, the value priorities of people play a relevant role in taking the decision to start a venture. This may be common-sense, but it is clearly an under researched area of analysis at present. For this reason, we call for more research to be carried out on the ways and means through which values affect intention.

In this sense, the present study is not without limitations, which again renders further research as potentially very illuminating. Firstly, the sample used for this study corresponds to graduates (alumni) from several Spanish universities. Since an increasing proportion of new ventures are founded by graduates, we chose to concentrate on this segment of the population. Nevertheless, they represent no more than 25% of adults in the country. A wider sample on lower-education segments of the population would probably be needed. Additionally, Spain is a culturally varied country, and some differences might be found between the different regions. Finally, cross-country comparisons would also be needed to assess the robustness of these results.

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