

# The Effect of Creativity in Entrepreneurial Intentions

Ángeles Montoro-Sánchez <sup>a\*</sup>, Marina Dábic <sup>b</sup> and Ana M. Romero-Martínez <sup>c</sup>

<sup>a</sup> Complutense University of Madrid. [mangeles@ccee.ucm.es](mailto:mangeles@ccee.ucm.es)

<sup>b</sup> University of Zagreb. [mdabic@efzg.hr](mailto:mdabic@efzg.hr)

<sup>c</sup> Complutense University of Madrid. [amromero@ccee.ucm.es](mailto:amromero@ccee.ucm.es)

## Abstract

Entrepreneurship favours economic growth and the development of countries, including the formerly planned economies of Central and Eastern Europe. For this reason, fostering entrepreneurship has become a topic of the highest priority in public policy. An entrepreneurial person is one who perceives an opportunity and sets up a company to exploit it. Different authors have shown that a person's intention to become an entrepreneur constitutes the principal predictor of that person's commitment to entrepreneurship in the future. These entrepreneurial intentions are defined by a person's attitude towards entrepreneurship.

A very important factor which has hardly been studied at all in an explicit and empirical way with regard to entrepreneurial intentions is creativity. Creativity, at the individual level, is defined as a function with three components: expertise, capacity of creative thinking and motivation or drive.

This paper analyses the influence of creativity on entrepreneurial intentions. The analysis of a sample of 694 students from University of Zagreb, Croatia, empirically confirms that individuals who are creative, that is, who possess the know-how and the creative thinking to address new situations and problems and who have a strong drive, are likely to display more entrepreneurial intentions.

## Introduction

Entrepreneurship favours economic growth and the development of countries, including the formerly planned economies of Central and Eastern Europe. For this reason, fostering entrepreneurship has become a topic of the highest priority in public policy (Audretsch et al., 2007). Different authors have shown that a person's intention to become an entrepreneur constitutes the principal predictor of that person's commitment to entrepreneurship in the future (Krueger et al, 2000). These entrepreneurial intentions are defined by a person's attitude towards entrepreneurship. An entrepreneurial person is one who perceives an opportunity and sets up a company to exploit it (Bygrave and Hofer, 1991).

One of the principal lines of research on entrepreneurial intentions is one which identifies and analyses the key factors behind these intentions (Baughn et al., 2006; DeMartino & Barbato, 2002; Krueger et al., 2000; Levenburg et al., 2006). A review of the literature shows that different types of factors exist in relation to entrepreneurial intentions such as a person's

attitude, social norms, a person's self-efficacy (Krueger et al., 2000), in addition to normative, legal, economic and financial factors (Mueller and Thomas, 2001). Additionally, some studies relate personality characteristics on decision making process (Johnson, 1990). Therefore, the studies most often indicate a link between entrepreneurial intention and some personality factors, such as self-confidence, risk-taking ability, need to achievement and locus of control (Turker and Selcuk, 2008).

However, a very important factor which has hardly been studied at all in an explicit and empirical way with regard to entrepreneurial intentions is creativity, besides some exceptions such as Hamidi et al (2008) who test whether students' creative potential is related to their intention to engage in entrepreneurship, or the theoretical study by Ward (2004) which suggests that creative individuals are more likely to engage in entrepreneurial behaviours. Creativity, at the individual level, is defined as a function with three components: expertise, capacity of creative thinking and motivation or drive. Expertise is technical, procedural and intellectual knowledge. The ability to think creatively is the degree of flexibility and imagination with which people approach the different situations they are faced with. But expertise and creative thinking are not enough if there is no motivation. This factor determines what people really do. Motivation can be extrinsic or intrinsic. Extrinsic motivation comes from outside the person while intrinsic motivation is a person's passion, interest and internal desire to do something (Amabile, 1996).

Individuals with these characteristics, that is, who possess the necessary know-how, the creative thinking to address new situations and problems and who have a strong drive are likely to display more entrepreneurial intentions. Therefore, due to the importance of this factor and the dearth of studies, the goal of this paper is to analyse creativity as a key factor in entrepreneurial intentions. For this purpose, a sample of 694 Croatian university students has been analysed. The positive and significant relationship found between creativity and the likelihood of entrepreneurial intentions has major practical implications given governments' concern to promote entrepreneurial behaviour as a source of growth and economic development. Therefore, the components of creativity –expertise, creative thinking and motivation - should be encouraged in students and potential future entrepreneurs. In order to achieve the goal of this study, the paper is structured in the following way: firstly, the theoretical background is presented. Next, the methodology and findings are set out. Finally, there is a section devoted to conclusions.

### **Theoretical background**

Entrepreneurship is a process entailing the setting up of new businesses. The entrepreneur plays a leading role in this process, that is, the individual that implements the process and succeeds in setting up the new business (Bygrave, 1989). Entrepreneurial intentions are a state of mind that directs the individual's attention, experience, and action toward the goal of founding a business. Intention models offer a coherent, parsimonious and robust framework for pursuing a better understanding of entrepreneurial processes (Krueger, 1993). Intentions towards a behaviour have routinely been proven to be the best single predictor of that behaviour. Moreover, different empirical studies have found that a person's intention to become an entrepreneur constitutes the best predictor of their commitment to really succeeding in being an entrepreneur in the future (Delmar and Davidsson, 2000; Krueger et al., 2000).

A review of the literature shows that entrepreneurial intentions are determined by three types of factor related to the individual (Krueger et al., 2000). The first factor is the person's attitude towards entrepreneurial behaviour. This attitude depends on the future entrepreneur's perception of the likelihood of achieving certain results from his or her behaviour, such as, for example, intrinsic rewards. The second factor is the perceived social norms. Social factors refer to close support of family and friends (Davidsson and Honing, 2003; Krueger, 1993). That is to say, the beliefs and values of certain groups which are important for the future entrepreneur, such as family, colleagues, customers, etc., will influence their intention to be an entrepreneur. Finally, the third factor which affects entrepreneurial intentions is the cognitive issues. They reflect the knowledge and skills involved in establishing and operating a new business, that is, self-efficacy (Luthans et al., 2000). Self-efficacy has been found to greatly influence entrepreneurial behaviour and improve the perceived feasibility of certain courses of action (Krueger et al., 2000).

Moreover of the factors related with the individual, additional factors that influence entrepreneurial intentions are normative, legal, economic and financial factors. Normative factors refer to the country norms, such as social acceptability (Mueller and Thomas, 2001). Legal factors are commercial laws, administrative requirements, property laws, enforcement. In addition, economic and financial environments include availability and cost of capital, taxation and market development. All these factors will also serve to enable entrepreneurship or to make the endeavour more difficult (Baughn et al., 2006). As may be observed, all of these factors, both individual and context related, have been addressed at length and empirically analysed in previous studies, so that there is ample and sufficient evidence of their relation and their explanatory role regarding the likelihood of having future entrepreneurial behaviour.

An individual-related factor which may affect entrepreneurial intentions but which has not attracted sufficient attention, especially at the empirical level, is creativity. Creativity has a vital function in the entrepreneurial process as it can both enhance entrepreneurial behaviour directly and encourage the other factors linked to the individual which influence his or her entrepreneurial intention –personal attitude, social norms and cognitive issues. Creativity is a basic concept in different disciplines, from the fine arts and architecture to psychology, science and management studies (Fillis and McAuley, 2000). A review of the literature on creativity shows that most studies have a strong foundation in the psychology discipline, with specific reference to social and workplace creative issues (for example Bridge et al., 1998; Bruner, 1962; Gruber et al. 1964; Guilford, 1950; Kao, 1989). Gruber et al. (1962) define the creative product such as great works of arts and science and they state that the study of creativity needs no limits. Bruner (1962) considers that creativity is an act that causes effective surprise. Guilford (1950) defines creative personality as those patterns or traits that are characteristic of creative people. Rampley (1998) argues that the notion of creativity is inherently bound up with genius, imagination and subjectivity. That is why it is a very problematic concept.

Moreover, mention should be made of studies that discuss creativity and its impact on entrepreneurship and the organization. For example, Kao (1989) analyses how creativity can be managed and developed as a competitive strength; Carson et al. (1985) identifies creativity as a key competency; Bridge et al. (1998) see it as an entrepreneurial attribute; finally, mention should be made of Amabile (1983), who made a very significant contribution by distinguishing creative behaviour from the rest. After the studies by Amabile, creative contributions are defined as developments of ideas, outcomes, products, or solutions that are

judged as original and novel and appropriate and potentially useful for situations (Amabile, 1996; Zhou and Shalley, 2003). Ideas are considered novel if they are unique in relation to other ideas currently available in the organization. Ideas are considered useful if they have the potential for direct or indirect value to the organization, in either the short or long term (Shalley et al., 2004). Creativity is a multidimensional and multifaceted concept which goes far beyond technological innovation and new business models. Moreover, creativity entails a number of different ways of thinking and habits which should be cultivated at both individual and society level (Florida, 2002).

The connection between creativity and entrepreneurship is to be found in the fact that newness and novelty are essential components of entrepreneurship (Davidsson, 2002; Ward, 2004). Original, novel and useful ideas that entail creativity constitute the essence of entrepreneurship (Amabile, 1996). Some authors even define entrepreneurship as a form of creativity and can be labelled as business or entrepreneurial creativity because new businesses are often original and useful (Sternberg and Lubart, 1999). Entrepreneurs need to generate the type of ideas that will be translated into new products or services, identify potential opportunities and decide how to implement them. That is why the possible connections between creativity and entrepreneurship have been of interest for some time (Amabile, 1996; Gilad, 1984; Ward, 2004; Whiting, 1988), and creativity is considered as an important antecedent of entrepreneurial intentions (Hamidi et al., 2008). Therefore, as entrepreneurship and innovative behaviour have long been associated with creativity (Amabile, 1996; Hamidi et al., 2008), and recent literature suggests that creative individuals are more likely to engage in entrepreneurial behaviour (Ward, 2004), but this has not been tested empirically in intention-based models. In this study we wish to verify empirically whether creativity is positively related to students' intention probability to start their own firm.

## Methodology

The sample of this study was drawn from a large data set containing responses to a survey of business students from the University of Zagreb in Croatia. Questionnaires were managed through the web page of "Fostering Entrepreneurship in Higher Education" FoSentHE JP Tempus Project of European Commission which financed this study. The total number of questionnaires compiled was 694.

Regarding to the measures, to measure the dependent variable, entrepreneurial intention, respondents were asked to answer the question: "After you have finished your studies at your academic institution (regardless of whether you obtain a degree), what do you intend to do? (a) Start my own business (Yes/No) (entrepreneurial intention 1: EI 1) (b) Partner with someone to start a business (Yes/No) (entrepreneurial intention 2: EI 2)". The operationalization was taken from prior studies of entrepreneurial intentions (Hamidi et al., 2008; Kolvereid, 1996; Krueger et al., 2000), using a dichotomic variable, which takes value "1" if the student answers "yes", and "0" in case of "no". Table 1 shows the frequencies of the two indicators of entrepreneurial intention. As may be observed, the values indicate a low entrepreneurial intention from students, both in the case of starting their own business and doing it with a partner. To measure the degree of creativity, the independent variable, we used an eight-item scale (Hamidi et al., 2008) to measure different dimensions of creativity: dominance (two items), social boldness (one item), abstractedness (two items), openness to change (two items) and perfectionism (one item). All of them are dichotomic variables that take value one in case students have those characteristics. Table 1 shows the frequencies of each item of creativity. As may be observed, for each of the different creativity dimension

items, students displayed the traits set out in very few cases. Except for the dominance dimension which exceeds 25%, in the other dimensions the percentages are much lower.

Regarding the reliability analysis, Cronbach Alpha was 0.845 which is a very good result for an eight item-scale. In order to reduce dimensionality, we operationalise variable creativity following two methods: calculating the arithmetic mean and running a factor analysis. In the first case, an arithmetic average was calculated with the eight items. Table 3 shows the distribution of the frequencies of this variable, whose mean is 0.1758 and standard deviation 0.2598. In the second case, we carried out an exploratory factor analysis with varimax rotation of the eight items of creativity (Table 2). The factor analysis was significant, with a Kaiser-Meyer-Olkin value of 0.882 and a  $\chi^2$  1794.804 (significance level 0.000) in Bartlett's test of sphericity, allowing for an explanation of 57.68% of the variation in two factors. These two factors have been named: intrinsic creativity and extrinsic creativity.

Table 1. Frequencies of entrepreneurial intentions and creativity

Entrepreneurial intentions	Value 1	Percentage value 1	Value 0	Percentage value 0
EI 1: Start my own business	121	17.4 %	573	82.6 %
EI 2: Partner with someone to start a business	131	18.9 %	563	81.1 %
Creativity items	Value 1	Percentage value 1	Value 0	Percentage value 0
Dominance 1	198	28,5 %	496	71,5 %
Dominance 2	183	26,4 %	511	73,6 %
Social boldness	84	12,1 %	610	87,9 %
Abstractedness 1	113	16.3 %	581	83.7 %
Abstractedness 2	95	13.7 %	599	86.3 %
Openness to change 1	152	21.9 %	542	78.1 %
Openness to change 2	76	11.0 %	618	89.0 %
Perfectionism	75	10.8 %	619	89.2 %

Table 2. Factor Analysis of creativity

		Creativity Factor 1: Intrinsic creativity	Creativity Factor 2: Extrinsic creativity
Creativity Factor 1: Intrinsic creativity	Dominance 1	0.840	0.186
	Dominance 2	0.793	0.297
	Abstractedness 2	0.594	0.245
	Abstractedness 1	0.590	0.390
Creativity Factor 2: Extrinsic creativity	Openness to change 2	0.170	0.792
	Social boldness	0.240	0.702
	Openness to change 1	0.479	0.617
	Perfectionism	0.309	0.576

Control variables. Three variables were used as control variables: gender, age and the father's employment. Gender variable took value 1 for female and 2 for male. 52.4% were female and 47.6% were male. Age variable took values 1 (less than 20 years old), 2 (between 21-25 years old), 3 (between 26-30 years old), 4 (between 31-35 years old), 5 (between 36-40

years old), 6 (between 41-45 years old), and 7 (more than 46 years old). The sample included only students less than 30 years old, of whom 93% are 20 years old or less, 6% between 20 and 25 years, and only 1% are between 25 and 30 years old. Finally, the father's employment variable took value 1 (if the father has his own business), 2 (if the father works for someone else), 3 (if the father is currently unemployed), 4 (if the father is retired), and 5 (if the father is deceased). It has been pointed out that individuals with a close relation to someone with entrepreneurial experience will be more likely to try their wings as self-employed. In particular, it is known that a large proportion of entrepreneurs have parents who themselves were entrepreneurs (Delmar and Davidsson, 2000). In the case of our sample, result show that in 84.9% of cases the father had his own business and in the the other 15.1% he worked for someone else.

## Results

For the purpose of analysing the impact of creativity on the entrepreneurial intentions of students, several models of binary logistic regression have been performed. Tables 3 and 4 display the results for each model and dependent variable. The goodness of fit indicators show models with good fit.

Table 3. Binary logistic regression I (arithmetic mean of creativity)

	Entrepreneurial Intention 1: own business			Entrepreneurial Intention 2: partner for business		
	B	Wald	Exp(B)	B	Wald	Exp(B)
Creativity	4.749** *	121.926	115.433	6.388	148.624	594.666
Gender <sup>a</sup>	-.222	.871	0.801	-.728	7.662	0.483
Age <sup>a</sup>	18.773	0.000	1.423E8	-1.244	1.088	0.288
Father employment <sup>a</sup>	-21.415	0.000	0.000	-.128	0.020	0.835
Constant	14689.6 88	0.000	0.000	-1.655	1.788	0.191
$\chi^2$	63.473*			27.190*		
-2lnVerosimility	**			**		
R <sup>2</sup> Cox and Snell	475.417			412.221		
R <sup>2</sup> Nagelkerke	0.214			0.313		
Classification	0.354			0.504		
Matrix	83.4			85.6		
N	694			694		

<sup>a</sup>: 1 is the category of reference

\*\*\* p< 0.01; \*\* p<0.05; \*p<0.10

The results obtained in the models in tables 4 and 5 confirm the hypothesis of this study, that is, that creativity is a very important factor which explains entrepreneurial intention. With regard to the entrepreneurial intention 1 indicator, that is, starting a new business, the results of the two binary logistic regressions indicate that whether creativity is measured by a single indicator that includes the arithmetic mean of the eight items, or by the two factors resulting from the exploratory factorial analysis, creativity has a positive and significant influence on the likelihood of starting a business. With regard to the entrepreneurial intention 2 indicator, starting a new business with a partner, once again the results in the two logistic regressions indicate that creativity has a positive and significant influence on the likelihood of starting a

business with a partner. As may be observed these findings are in line with those which Ward (2004) indicated on a theoretical level, that is to say, individuals - in this case students – who are creative display a greater engagement with future entrepreneurial behaviour. Likewise, the findings match those published recently by Hamidi et al. (2008) who also worked with students and found that the creative potential of the latter is positively related with their intention to undertake entrepreneurial activities in the future.

With regard to control variables, gender was only significant in the model that employs creativity factors and with regard to the intention of starting a business with a partner. The negative value of the relation indicates that it is significant in the case of male students, an aspect which had previously been detected in the correlations analysis and the mean differences. However, neither the age nor the line of work of the father had any significant effect on the likelihood of entrepreneurial intention. With regard to the last control variable, the father's work, it has been pointed out that individuals with a close relation to someone with entrepreneurial experience will be more likely to try their wings as self-employed, that is, a large proportion of entrepreneurs have parents who themselves were entrepreneurs. However, although we expected this variable to increase the intention of a young student to engage in future entrepreneurship, not only did it not have any significant effect, but the only relation found in the correlations and mean differences indicated the opposite, that is, when the father was an employee the entrepreneurial intention was greater.

Table 4. Binary logistic regression II (two factors of creativity)

	Entrepreneurial Intention 1: own business			Entrepreneurial Intention 2: partner for business		
	B	Wald	Exp(B)	B	Wald	Exp(B)
Creativity Factor 1	1.235** *	116.931	3.439	1.391** *	122.546	4.018
Creativity Factor 2	0.543** *	33.222	1.721	0.944** *	74.912	2.571
Gender <sup>a</sup>	-0.102	0.174	0.903	-.662**	6.253	6.253
Age <sup>a</sup>	18.537	0.000	1.123E8	-1.360	1.332	0.257
Father employment <sup>a</sup>	-0.229	0.435	0.795	-0.228	0.401	0.796
Constant	-20.342	0.000	0.000	-0.401	0.108	0.669
$\chi^2$	36.570*			28.361*		
-2lnVerosimility	**			**		
R <sup>2</sup> Cox and Snell	457.197			408.934		
R <sup>2</sup> Nagelkerke	0.234			0.316		
Classification	0.388			0.509		
Matrix	83.4			86.2		
N	694			694		

<sup>a</sup>: 1 is the category of reference; \*\*\* p< 0.01; \*\* p<0.05; \*p<0.10

## Conclusions

Individuals' entrepreneurial intentions constitute the principal predictor of their becoming entrepreneurs in the future. In this regard, the purpose of this paper was to analyse the role of creativity as a key factor in entrepreneurial intentions. Therefore, the principal contribution of

this study is that we consider that if an individual is creative, that is, if he or she possesses the necessary know-how, the creative thinking to address new situations and problems and has a strong drive he or she is more likely to display entrepreneurial intentions. To verify this relationship we have used a sample of 694 Croatian university students. The results of the analysis of this sample of students have enabled us to find a positive and significant relationship between creativity and the likelihood of entrepreneurial intentions. One of the most interesting findings in this study is the surprisingly strong influence of the measure of creativity (whether the arithmetic means or the two factors resulting from the factorial analysis) on entrepreneurial intentions. These findings confirm those set out on a theoretical level by Ward (2004) and are in line with the empirical findings of Hamidi et al. (2008). Furthermore, mention must be made of the relationship found between gender and entrepreneurial intentions. In line with previous studies an entrepreneurial intention is more likely to exist if the person is a man than if she is a woman. Despite the strong and growing presence of women in professional and business spheres, the intention of becoming an entrepreneur and setting up one's own business is still more marked in men than in women (Shinnar et al., 2009).

This study constitutes one of the first to be conducted on the role played by creativity in entrepreneurial intentions. Therefore, it provides contributions to the literature on entrepreneurial intentions (Hamidi et al., 2008; Krueger et al. 2000). One of the main contributions of this study is to have detected and empirically confirmed the major role played by creativity in entrepreneurial intentions; it voices concern that these aspects should be developed more thoroughly by means of educational programmes at all levels of students' academic careers. This endows this study with major implications for public entities interested in fostering economic growth and regional development. Insofar as our findings indicate that exercises in creativity can be used to enhance entrepreneurial intentions, governments and public organisms should try to encourage creativity as a value in individuals. At the same time, the findings of this study should be approached with caution. Creativity is a very complex and difficult phenomenon to explain. The processes and structures underlying the generation of new ideas do not suffice to explain this phenomenon (Sternberg, 1999; Wald, 2004). Interactive models that include knowledge, cognitive processes and skills, motivation, personality factors, and environmental influences are required to provide a complete theoretical account (Amabile, 1983; Sternberg and Lubart, 1991). Therefore, future research should consider the wide range of measures in creativity assessments (Amabile, 1996). Furthermore, future research could also study differences in creativity between students with entrepreneurship background and with engineering or other training, suggesting that creativity can be affected by different educational efforts.

## References

1. Audretsch, D.B., Grilo, I., & Thurik, A.R. (2007). Explaining entrepreneurship and the role of policy: A framework. In D.B. Audretsch, I. Grilo & A.R. Thurik (Eds.), *The handbook of research on entrepreneurship policy* (pp. 1-17). Cheltenham, UK and Northampton, MA: Edward Elgar.
2. Krueger, N.F., Reilly, M., Carsrud, A. (2000). Competing models of entrepreneurial intentions. *Journal of Business Venturing*, 15, 411-432
- Amabile, T.M. (1983). *The social psychology of creativity*. New York: Springer-Verlag.
3. Bygrave, W.D., & Hofer, C.W. (1991). Theorizing about entrepreneurship. *Entrepreneurship: Theory and Practice*, 16 (2), 13-22.

4. Baughn, C.C., Cao, J.S.R., Le, L.T.M., Lim, V.A., & Neupert, K.E. (2006). Normative, social and cognitive predictors of entrepreneurship interest in China, Vietnam and the Philippines. *Journal of Developmental Entrepreneurship*, 11(1), 57-77.
5. DeMartino R., & Barbato, R. (2002). An analysis of the motivational factors of intending entrepreneurs. *Journal of Small Business Strategy*, 13(2), 26-36.
6. Levenburg, N.M., Lane, P.M., & Schwarz, V. (2006). Interdisciplinary Dimensions in Entrepreneurship. *Journal of Education for Business*, 81(5), 275-281.
7. Mueller, S.L., & Thomas, A.S. (2000). Culture and entrepreneurial potential: A nine country study of locus of control and innovativeness. *Journal of Business Venturing*, 16(1), 51-75.
8. Johnson, B.R. (1990). Toward a multidimensional model of entrepreneurship: the case of achievement motivation and the entrepreneur. *Entrepreneurship Theory and Practice*, 14(3), 39-54.
9. Turker, D., Selcuk, S.S. (2008). Which factors affect entrepreneurial intentions of university students? *Journal of European Industrial Training*, 33(2), 2009.
10. Amabile, T.M. (1996). *Creativity in context*. Boulder, CO: Westview.
11. Bygrave, W.D. (1989). The entrepreneurship paradigm:II. Chaos and catastrophes among quantum jumps?. *Entrepreneurship: Theory and Practice*, 14, 7-30.
12. Krueger, N.F. (1993). The impact of prior entrepreneurial exposure on perceptions of new venture desirability and feasibility. *Entrepreneurship Theory and Practice*, 18(1), 5-21.
13. Delmar, F., & Davidsson, P. (2000). Where do they come from? Prevalence and characteristics of nascent entrepreneurs. *Entrepreneurship and Regional Development*, 12, 1-23.
14. Davidsson, P., & Honing, B. (2003). The role of social and human capital among nascent entrepreneurs. *Journal of Business Venturing*, 18, 301-331
- Beugelsdijk, S., & Noorderhaven, N. (2005). Personality characteristics of self-employed: An empirical study. *Small Business Economics*, 24, 159-167.
15. Luthans, F., Stajkovic, A., & Ibrayena, E. (2000). Environmental and psychological challenges facing entrepreneurial development in transitional economics. *Journal of World Business*, 35(1), 95-110.
16. Fillis, I., & McAuley, M. (2000). Modeling and measuring creativity at the interface. *Journal of Marketing Theory and Practice*, 8(2), 8-17.
17. Bridge, S., O'Neill, K., & Cromie, S. (1998). *Understanding enterprise, entrepreneurship and small business*. Basingstoke: Macmillan Press Ltd.
18. Bruner, J.S. (1962). The conditions of creativity. In H.E. Gruber, G. Terrell & M. Wertherimer, *Contemporary approaches to creative thinking*. USA: Atherton Press.
19. Gruber, H.E., Terrell, G., & Wertherimer, M. (1962). *Contemporary approaches to creative thinking*. USA: Atherton Press.
20. Guilford, J.P. (1950). Creativity. *American Psychologist*, 5, 44.
21. Kao, J.J. (1989). *Entrepreneurship, creativity and organization*. New Jersey: Prentice-Hall.
22. Rampley, M. (1998). Creativity. *British Journal of Aesthetics*, 38(3), 265-278.
23. Zhou, J., & Shalley, C.E. (2003). Employee creativity research: A critical review and proposal for future research directions. In J.J. Martocchio & G.R. Ferris (Eds.), *Research in human resource management*. Greenwich, CT: JAI.
24. Shalley, C.E., Zhou, J., & Oldham, G.R. (2004). The effects of personal and contextual characteristics on creativity: where should we go from here? *Journal of Management*, 30, 933-958.
25. Florida, R. (2002). *The rise of the creative class: And how it's transforming work, leisure, community and everyday life*. New York: Basic Books.

26. Ward, T.B. (2004). Cognition, creativity, and entrepreneurship. *Journal of Business Venturing*, 19, 173-188.
27. Sternberg, R.J. (1999). *Handbook of creativity*. Cambridge, UK: Cambridge University Press.
28. Gilad, B. (1984). Entrepreneurship: the issue of creativity in the market place. *Journal of Creative Behaviour*, 18, 151-161.
29. Whiting, B.G. (1988). Creativity and entrepreneurship: how do they relate? *Journal of Creative Behavior*, 22(3), 178-183.
30. Hamidi, D.Y., Wennberg, K., & Berglund, H. (2008). Creativity in entrepreneurship education. *Journal of Small Business and Enterprise Development*, 15(2), 304-320.
31. Kolvereid, L. (1996). Organizational employment versus self-employment: reasons for career choice intentions. *Entrepreneurship: Theory and Practice*, 20, 23–31.
32. Shinnar, R., Pruett, M., & Toney, B (2009). Entrepreneurship education: Attitudes across campus. *Journal of Education for Business*, 84(3), 151-158
33. Sternberg, R.J., & Lubart, T.I. (1991). An investment theory of creativity and its development. *Human Development*, 34, 1-32.

### **Acknowledgment**

The results of this paper are supported by EU Commission grant JP Tempus 144713 Fostering Entrepreneurship in Higher Education FoSentHE to University of Zagreb (Faculty of Economics and Business as grant holder); the research projects ECO2009-13818, ECO2009-10358 of Spanish Ministry of Science and Innovation and BSCH-UCM project of the Research Group “Estrategias de Crecimiento Empresarial” (940376) and by Cátedra Bancaja “Jóvenes Emprendedores”-Complutense University of Madrid and Cátedra Iberdrola for Research in Business Management and Organization-URJC.