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On the Work Values of Entrepreneurs and Non-Entrepreneurs: A European Longitudinal Study

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Short Bio

Ana Almeida was born in Ovar, Portugal, on October 6th, 1982. She works as a Project Manager for an IT software company in the healthcare sector since 2006, possessing an extensive international experience in countries such as Italy, England, Chile, Singapore and Malaysia. She has previously held some temporary positions namely as a researcher for Grup Igia in Barcelona or as a Lecture facilitator for young children. Ana earned a degree in Psychology from the University of Porto, graduating in 2005. She loves travelling and music and her themes of interest are restorative justice, conflict resolution and equality matters.

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I feel I extended my interests to new areas and acquired significantly new awarenesses for topics I was absolutely unfamiliar before this experience. This is extremely rewarding and I am really obliged to everyone who have helped and supported me throughout this project.

Abstract

Entrepreneurs are key in making the economy growing and dynamic. Whereas there are studies on entrepreneurs' attitudes, cognitions and traits, only a few have explored the link between entrepreneurship and the job features more valued by them in the work set. Based on literature and taking a longitudinal perspective, this study was conducted using the European Value Study (EVS) dataset, with 27 European countries being examined throughout time (1990-1993 and 2008-2010). A multivariate econometric model is used to investigate the extent to which entrepreneurs differ from non-entrepreneurs regarding the importance given to work and work values, by considering work more important than other life dimensions (namely family, leisure time, friends, politics, and religion) and how 'work values' and country culture influence the entrepreneurship propensity.

The study found that entrepreneurs (i.e., self-employed) consider work more important than other life dimensions (except family) compared with non-entrepreneurs. Also, some work values associated with entrepreneurship are indeed mentioned the most by entrepreneurs (e.g. use initiative, achieving something, responsible job, meeting abilities, have a say and learning new skills) and are related with entrepreneurship propensity. It can be stated that some work values are associated with entrepreneurship regardless the culture (e.g., have a say) whereas others are strongly influenced by culture (e.g., interesting job). Gender is the only demographic variable studied that maintains its influence over time, with men being more prone to entrepreneurship than women.

These findings are discussed in this work and bring increased awareness regarding entrepreneurs' characteristics and profile over time and across nations. It therefore contributes with a deeper knowledge about the work values entrepreneurs prize the most and the role of these values in promoting the propensity to become an entrepreneur.

Keywords: Entrepreneurship, Work values, Life dimensions, Self-Employment, Culture, Entrepreneurship propensity

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1. Introduction

Entrepreneurs all over the world contribute to economic growth (Grigore, 2012) and seem to be essential in moments of crisis, since they are considered agents of change by starting new businesses, experimenting with new techniques and a new organization of production, introducing new products or even creating new markets (Wennekers, Uhlaner and Thurik, 2002; Ferguson and Condoor, 2013).

For this reason, a substantial amount of research has been devoted to trying to understand entrepreneurs' characteristics, personality and contexts, having contributed greatly for the understanding of the role of personality in the entrepreneurial process (Zhao, Seibert and Lumpkin, 2010; Brandstätter, 2011).

Attention to work values (global beliefs or abstract ideals that transcendently guide actions and judgments across specific objects and situations) that can affect this process have been less researched and only a few studies have explored in detail beliefs about work (e.g. Buchholz, 1978; Dickson and Buchholz, 1979; Dickson and Buchholz, 1977). Buchholz (1977) constitutes a seminal contribution, providing a theoretical framework for measuring beliefs and testing it with managers. Later, Puffer, McCarthy and Naumov (1997: 272) studied Russian managers based in Buchholz's framework and concluded that "respondents saw work as a meaningful and rewarding activity rather than an opportunity for passive experience in a bureaucratic environment".

Across countries literature is not consensual the relation between entrepreneurship, culture and values. Some authors argue that entrepreneurs share a common set of values no matter their culture (McGrath, Macmillan and Scheinberg, 1992), whereas others suggest that culture impacts on entrepreneurship intents and propensity (Shane, 1994; Busenitz and Lau, 1996). Noseleit (2008) refers to Weber's sociological theory, arguing that entrepreneurial behavior is influenced by cultural and religious aspects. More recently, Morris and Schindebutte (2005) concluded that culture matters but as an interacting factor rather than an entrepreneurial precondition.

Extant comparative empirical studies on entrepreneurial activity and attitudes (e.g., Global Entrepreneurship Monitor GEM; Davidsson, 2006) usually focus on differences on the entrepreneurial activity between countries, factors that lead to

entrepreneurship and the behavior of individuals about starting and managing a business but seldom tackled the issue of work and work values and how entrepreneurs perceive them. In the present study we aim to understand how entrepreneurs value work, which the work values entrepreneurs consider more important comparing to non-entrepreneurs, and whether work is the most important dimension in their life.

In this context, we will resort to the 2nd (1990-1993) and 4th waves (2008-2010) of the European Values Study (EVS) survey to compare 27 European countries in terms of entrepreneurs' 'work values'. The entrepreneur is, in line of Ferguson and Condoor (2013), the individual who declares him/herself as "self-employed". Across individuals' demographic characteristics and throughout time, the present research aims to assess:

- Whether entrepreneurs, in comparison with non-entrepreneurs, share a common set of 'work values' that favors an entrepreneurial culture, namely by considering work more important than other life dimensions (most notably, family, leisure time, friends, politics, and religion).
- The extent to which 'work values' influence the entrepreneurship propensity.

Such a study is relevant because it brings awareness regarding the evolution of the profile and characteristics of entrepreneurs over time and across nations.

The study is structured as follows. The next chapter reviews the relevant literature clarifying the key concept, providing an account of the state of the art concerning the issue of entrepreneur's work values, with a particular focus on the differences across countries and throughout time. Chapter 3 briefly describes the methodology and data gathering procedures. The empirical results are presented in Chapter 4 and, finally, the Conclusions put forward the study's main results and limitations.

2. A critical review of the literature on entrepreneurship and work values

2.1 Entrepreneurship and self-employment

There is a myriad of definitions of entrepreneurship. While for some entrepreneurship encompasses the creation of an organization (Gartner, 1988; Bygrave, 1997) to others entrepreneurship involves an agent who does new things or does things that are already being done in a different way (Schumpeter, 1947) or a “set of individuals who discover, evaluate and exploit opportunities to create future goods or services” (Shane and Venkataraman, 2000: 218).

Noseleit (2008) reinforces that the Schumpeterian type of entrepreneur can be considered a narrow definition, based only on exceptional individuals.

More recently, Ferguson and Condoor (2013: 9) defined entrepreneur as “individuals, acting independently (an entrepreneur) or a part of a corporate system (an intrapreneur), who create new organizations of instigate renewal or innovation (in products, processes or concepts) within existing organizations”. This author points out that someone like this can act independently as a self-employed person, a small business owner or an “independent” entrepreneur that can be working on changes. In fact, Ferguson and Condoor (2013) contents that a large number of entrepreneurs-intrapreneurs, small business managers or self-employed are overlooked or not given much attention by extant studies.

Besides economics and sociological perspectives dedicated on the impact of entrepreneurship in society, psychology contributed with a wider research in understand the entrepreneur (the individual) and the entrepreneurial process. Some authors (Zhao and Sibert, 2010) founded that conscientiousness, openness to experience and emotional stability are personality traits that can be associated with entrepreneurship and others (Schoon and Duckworth, 2012) suggest that entrepreneurship is a planned behaviour starting early if life, highlighting the importance of early lifetime experiences. Brandstätter (2011) point out that, apart from economic and financial training given to these individuals, it will be very valuable if they receive training about the limit, chances and risks of their personality

structure. Entrepreneurs are creative individuals who instil change and this is something positive that goes beyond the economic value.

According to Salas-Fumás and Sanchez-Asin (2013), when it comes to empirical analysis, the occupational group that better matches the entrepreneurial characteristics is one of the official statistics identified as 'self-employment'. So self-employed is often used as an indicator of entrepreneurial activity (Hurst and Lusardi, 2004). García (2013) also agrees that self-employment can be used as a way to measure entrepreneurship, and several empirical studies use self-employment as a proxy measure of entrepreneurship (Van Praag and Versloot, 2007).

Notwithstanding the importance of underlining that not all self-employed individuals are entrepreneurs (and thus self-employment captures the rate of entrepreneurship in a limited extension (Parker, 2004), many of the people who are self-employed are directly involved in innovative and managerial activities, and thus self-employment data might be an adequate indicator of entrepreneurship. In empirical terms, the study by Ismail, Jaffar and Hooi (2013), conducted with a Malaysian student sample, concluded that entrepreneurial intentions have a positive impact on self-employment intention. Another study by Levesque, Sheperd and Douglas (2002) compared employers versus self-employed individuals in terms of their initial utility job attributes, resorting to Douglas and Shepherd's (2000) utility maximizing model (which argues that people intend to be self-employed when the combination of income, risk, work effort required and independence provides more utility to this person than the combination of these attributes for the best employment option), and Eisenhower's (1995) economic model (where the decision to be an entrepreneur is based on expected utility derived from income and the working conditions of employment versus self-employment). This study concludes that employers and self-employed individuals differ in terms of their attitudes (utility and disutility weights) towards job attributes (ability, income, risk, work effort, independence), which impacts in their career choices. According to Wright and Perrone (1977), self-employed individuals typically earn more than those who are employed and typically must work more hours putting their business ahead of their family and personal life (Bird and Jellinek, 1988). Moreover, self-employment typically represents a more risky endeavor (Duchesneau and Gartner (1990) and the independence is typically higher (Bird, 1989; Katz, 1994).

Noseleit's (2008) compared self-employed and non-self-employed western people, showing that self-employed people differ significantly from non-self-employed in terms of self-direction and security. Specifically, self-employed people ranked values such as self-direction, stimulation and achievement as more important in comparison to values such as security, conformity and tradition, considered less important. According to the author this is in line with the values commonly attributed to entrepreneurs.

We can conclude by saying that self-employment as occupational status can be used as an adequate way of measuring and defining entrepreneurship, despite the fact that entrepreneurs can go beyond the self-employment concept and that there can be self-employed individuals that are not entrepreneurs.

Having in consideration extant empirical literature on values (e.g. Hemingway, 2005; Miller and Collier, 2010; Senik and Verdier, 2011) it is recognized that although there is a reasonable knowledge of entrepreneurial values, such knowledge and evidence is relatively scarce regarding the relationship between entrepreneurship (self-employment) and *work* values.

2.2. Defining 'values' and 'work values'

2.2.1. 'Values'

According to Hofstede (1980), culture shapes people's cognitive schemes, programming behavioral patterns, which are consistent with the cultural context. In a similar way, Inglehart (1997) says that 'culture' is a set of basic shared values contributing to shape people's behavior in a society. Vauclair (2009) reinforces that these shared values serve a purpose in social groups or cultures: these are guidelines that regulate behavior of its members in a way that permit the organization of collective life and the interaction of individuals.

Shared values can have two distinct but interrelated aspects (Roe and Ester, 1999): a collective and individual aspects. These aspects are associated by Parashar, Dhar and Dhar (2004) to micro and macro concepts. At the micro level of individual behavior, values connect a person's need with social life's demands and evaluation of the options available. At the macro level of cultural practices, values are shared understandings meaningful to social living. Shared values are one of the core aspects of culture (Vauclair, 2009).

Individual value priorities are a product both of shared culture and of unique personal experience (Schwartz, 1999). Within cultural groups there is individual variation in value priorities due to the unique experiences and personalities of different individuals. However, the average priorities attributed to different values by societal members reflect the central thrust of their shared enculturation. Hence, the average priorities point to the underlying, common cultural values, that is, the members of each cultural group share many value-relevant experiences and they are socialized to accept shared social values.

So how can we define values?

Focusing in Schwartz's (2012: 16-17) contribution, "values are the basis for our evaluations (...), a central component of our self and personality, distinct from attitudes, beliefs, norms, and traits. Values are critical motivators of behaviors and attitudes", being the drivers of action and distinguishable by the type of goal or motivation that they express. That is to say that although nature and structure of values may be universal, they differ in terms of importance people give to them (Schwartz, 2012).

Being motivational constructs (Noseleit, 2008), values are crucial to understand the human decision-making process (Hemingway, 2005) and are used to characterize cultural groups, societies, and individuals (Schwartz, 2012). Also, they can influence behavior, which is the way in which one defines situations, considers alternatives and lastly choose an action (Holland and Shepherd, 2013).

Values can be distinguished as individual and collective values and that is why values can be useful in understanding culture (Vauclair, 2009).

Other psychological constructs are usually mistaken for values. A common mistake is to use values and beliefs almost as synonymous concepts. In spite of this lack of accuracy in literature, it is mainly agreed that values are more abstract and global psychological evaluations, relatively distal to specific behaviors (Eagly and Chaiken, 1993) whereas beliefs are ideas about how true it is that things are related in particular ways (Schwartz, 2012). The roles of beliefs in a person's life make it clear that they must emanate from values (Rokeach, 1968, in Puffer, McGarthy and Naumov, 1997).

2.2.2. 'Work values'

Work is one of the most basic and important activities for people in modern society (Harpaz and Fu, 2002). In the line of Dose (1997: 228), one can define 'work values' as "evaluative standards relating to work or the work environment by which individuals discuss what is right or assess the importance of preferences". However, work values can refer to multiple notions in the work context, such as business ethics and personal work preferences including pay, enjoyment, achievement, advancement, vocational choice and so on (Sagie, Elizur and Koslowsky, 1996; Dose, 1997; Krishnan, 2012).

In terms of categorization, Hirschi and Fischer (2013) highlight Cable and Edwards' (2004) attempt to transfer Schwartz's ten universal 'values' to the work domain, proposing eight work values, aggregated into four categories of values: 1) Self-transcendence values, which are represented by altruism (corresponding to universalism in Schwartz's model) and relationships with others (benevolence); 2) Self-enhancement values, reflected by salary (achievement/hedonism) and prestige (power); 3) Conservation values, represented by security (security) and authority (conformity/tradition); and 4) Openness to change values, represented by variety (stimulation) and autonomy (self-direction).

Ros, Schwartz and Surkiss (1999) define 'work values' as particular expressions of general values in the work setting, which are more specific than basic individual values. The literature also uses other terms to refer to work values, such as work orientations (e.g., Halman and Müller, 2006). Accordingly, such orientations are typically based on reasons why people work (Yankelovich et al., 1985) or on what one wants from a job (see e.g., Herzberg, Mausner and Snyderman, 1959).

More recently, Halman and Müller (2006) suggest two types of work orientation: intrinsic work orientation (main goal of labor as the work itself) and extrinsic (work as a means of achieving goals that are outside work). Work orientations are often linked with a country's level of prosperity, that is, more prosperous and secure societies have greater tendency to intrinsic work orientation. Indeed, according to the same authors, the differences in work orientations could be attributed to country differences in the degree to which populations are individualized, 'developed', masculine, working in agriculture, industry, or services, and living in equal or more

unequal societies. Extrinsic work orientations are more stressed by people in more individualistic societies. People's work orientations will depend on a number of individual and contextual characteristics (Halman and Müller, 2006).

Once again, values and culture are related: values about work depend on culture, setting how and why work is important and the relationship between the individual and the organization (Hofstede, 1980; Markus and Kitayama, 1991; Gahan and Abeysekera, 2009).

2.3. Theoretical approaches on values

Literature presents several theories on values, which put forward different approaches about the structure of values: individual-level (e.g. Schwartz, 1992) or cultural-level (e.g. Hofstede, 1980).

Hofstede (1980) treats values as part of culture and defines a specific set of values (country-level dimensions), which describe some aspect of culture and human activities: Collectivism versus Individualism (relation between individuals and groups), Femininity versus Masculinity (allocations of roles between sexes), Tolerance versus Intolerance of Uncertainty (stance toward the future), and Power Equalization versus Power distance (management of inequality between people). These Hofstede's country level dimensions are not replicable in the individual level (Vauclair, 2009). While Hofstede's model relates to geographic and macro-economic variables, Schwartz (1994) developed an alternative theory, suggesting that some values can serve both individual and collective interests (Gouveia and Ros, 2000).

The Schwartz's (1992) value theory structured ten basic universal value types, based on their motivational content that people in all cultures implicitly recognize (Schwartz, 2012): power, achievement, hedonism, stimulation, self-direction, universalism, benevolence, tradition, conformity and security. In the vast majority of nations studied by Schwartz (2012), benevolence, universalism and self-direction appear at the top of hierarchy and the values of power, tradition and stimulation appear at the bottom. This implies that the aspects of human nature and social functioning that shape individual value priorities are widely shared across cultures.

According to Holland and Shepherd (2013), by utilizing the similarities and differences among the motivational structures of the ten basic values, Schwartz delineated four main value types: 'self-enhancement', 'openness to change', 'self-

transcendence', and 'conservation'. 'Self-enhancement' relates to personal interests development, including the values of 'achievement', 'power' and 'hedonism'; 'openness to change' relates to 'stimulation', 'self-direction' and 'hedonism' values; 'self-transcendence' relates to 'universalism' and 'benevolence' values, and 'conservation' values relates to 'tradition', 'conformity' and 'security'.

In another perspective, Inglehart and Welzel (2010) categorized countries in terms of culture proximity, identifying two axes in their global cultural map that explain more than 70 percent of the cross-national variance on values: traditional versus secular-rational values and survival versus self-expression values.

The first axis includes countries that place more emphasis on the maintenance of traditional values, such as religious beliefs, family obligations, national pride, respect for authority and less environmental focus, contrasting with secular-rational countries that place less emphasis on such values.

The second axis is related with the emphasis on economic and physical security that is more valued in survival value countries. In contrast, self-expression value countries give more importance to tolerance, interpersonal trust, participation in political life and focus on subjective well-being, quality of life and self-expression.

In this line, Welzel (2013) refers to Inglehart and Welzel's (2005) study that demonstrates that people in 'stressed' societies emphasize 'survival values': these values favor discipline, uniformity, and authority. In contrast, people in 'prospering' societies emphasize 'self-expression values': these values favor creativity, diversity, and autonomy. As one would expect, authoritarian in-situations dominate in survival-oriented societies and liberal institutions are more prevalent in self-expressive societies. According to Inglehart et al. (2008), economic development increases people's sense of existential security, leading them to shift their emphasis from survival values toward self-expression values and free choice, which is a more direct way to maximize happiness and life satisfaction. Earlier, Inglehart and Baker (2000) highlighted that in the industrial societies there was a shift between traditional toward secular-rational values and that modernization requires a move from survival values toward self-expression values, relating values with countries' development and emancipation.

2.4. Empirical literature on ‘values’: uncovering the missing link between entrepreneurship and ‘work values’

2.4.1. The role of values in entrepreneurship

The relationship between values, attitudes and behavior has been validated in numerous studies (Onesimo, 2011), but empirical evidence regarding the link between values and entrepreneurship is scarcely explored and emphasize mainly certain ‘values’ other than ‘work values’.

Weber (1958) and Schumpeter (1947) have argued that the source of entrepreneurial behavior lies in the social structure of societies and the value structures they produce. Cultural and social norms are emphasized as the major strength of entrepreneurial orientation and seem to be the differentiating factor for higher levels of entrepreneurial activity (Minniti and Bygrave, 2003). Indeed, according to Mueller and Thomas (2000), some cultures encourage entrepreneurship more than others. Individualistic cultures nurture strong entrepreneurial values that promote self-reliance and independent action while collectivistic cultures do not.

While some of the salient values of entrepreneurs are clearly traceable to their native culture, it appears that entrepreneurs share certain core values regardless of cultural origin. Fagenson (1993) argues that entrepreneur’s values are very different from the personal values of ordinary managers. Specifically, he showed that managers valued more the pleasures of life whereas entrepreneurs valued the freedom to achieve and develop their potential.

In this line of argumentation, Mueller and Thomas (2000) elucidate that personal attributes such as independence, need for control, self-reliance, confidence, initiative, and resourcefulness are frequently associated with entrepreneurial values and behavior. Furthermore, Mueller and Thomas (2000: 68-69) argue that “since the culture of a country influences the values, attitudes, and beliefs of its people, we can expect variety in the distribution of individuals with entrepreneurial potential across cultural contexts”.

According to Inglehart and Baker (2000), findings regarding the cultural global map, traditional values are correlated with *religion* (0.89 correlation) *work* (0.65) and *family* (0.45), which are very important in respondents’ life (0.65), in contrast with secular-rational values. On the second dimension, survival values are correlated with

leisure time and friends not being important in life (0.69 and 0.56 respectively) and with the focus on a good income and safe job when seeking a job over the feeling of accomplishment and working with people you like (0.74) in contrast with self-expression values. The question mark is to understand how these values can be associated and linked to an entrepreneurial culture.

Morris and Schindebutte (2005) summarized the cross-cultural research on the role of values in entrepreneurship concluding that the values associated with entrepreneurship can go from social marginality, group spirit and drive for self-actualization (Ray and Turpin, 1990) to individualism, lower uncertainty avoidance, high power distance, masculinity, longer time orientation (Busenitz and Lau, 1996). A new research on understanding the relative importance of values at different levels (cultural, subcultural, institutional, and personal) and their relation with entrepreneurial activity is proposed by Morris and Schindebutte (2005). These authors concluded that culture can influence values, the search for entrepreneurial activity increases certain shared values; values influence management practices in entrepreneurial ventures, and significant values can only partially be related to one's ethnic background. They also highlight that longitudinal comparisons are crucial to analyze the value changes over time and the corresponding implications for entrepreneurship.

Literature shows (e.g. Miller and Collier (2010), Senik and Verdier (2011), Morris and Schindebutte, 2005) there is an amount of studies on entrepreneurship and culture and values, but it is still unexplored whether there's a link between work values and entrepreneurship. In order to investigate this issue we need to understand how work values are being studied/analyzed.

2.3.2. Empirical studies about work values and the importance of work in people's life

There is a variety of studies that examined work values and its importance in many countries: importance of work outcomes in urban adult Israeli population (Elizur, 1984), influence of work values on job choice of students (Judge and Bretz, 1991), work values of industrial workers in Bangladesh (Khaleque, 1992), Russian managers' beliefs about work (Puffer, McCarthy and Naumov, 1997), beliefs about work of Saudi Arabia, Kuwait and Oman managers (Robertson et al., 2001), Russian

and Georgian entrepreneurs' values (Ardichvili and Gasparishvili, 2003), and work values of Turkish and American university students (Aygün, Arslan and Güney, 2008), among others.

Several studies have attempted to assess the importance of work compared with other important aspects of people's life (Harpaz and Fu, 2002). It has been found that work is of high importance when compared with other areas of life (e.g. England, 1991; Ruiz-Quintanilla and Wilpert, 1991). One example of this is Harpaz and Fu's (2012) longitudinal study, which analyzed the importance of work and the valued work outcomes in independent samples of the Israeli labor force. Results show that work was ranked the second most important life sphere after family and that values are stable over time.

Based on a cross-cultural exploration, Sverko (2001) studied people's life roles and the values they seek for their careers and life in general (WIS - work importance study) and found that work tends to occupy the highest place in the adult hierarchy while leisure is most important for students.

In another context, Nam (1998) highlighted the higher work centrality, that is, the importance of work in the individual life in both Korea and China as compared to the US. Further, work centrality was positively related to organizational commitment.

On a gender perspective, Rowe and Snizek (1995) analyzed 12 national samples from 1973 to 1990, where respondents gave greater importance to a feeling of accomplishment, high income and opportunity for advancement than they did to either job security or short working hours, for both men and women. Both men and women ranked each of these work values in identical order of preference: feeling of accomplishment, high income, chance for advancement, job security, and short working hours (most to least preferred). Although slight gender differences in preference for a particular value occurred, the overall pattern of preference remained the same for both: men were slightly more likely than woman to favor job security and short working hours and women were slightly more likely to favor high income, change for advancement and feeling of accomplishment.

Tolbert and Moen (1998) also studied men's and women's preferences from 1973 to 1994, for five key attributes: short hours, high income, meaningful work, chances for promotion and security. Differences were found along full-time workers in three of

the five job attributes examined. Meaningful work is more likely to be ranked as a first preference for women, whereas promotion opportunities and security are more often ranked first by men. These findings are consistent with a number of previous studies that suggest men are more oriented toward extrinsic rewards, whereas women set a higher value on intrinsic rewards (Beutel and Marini, 1995; Lueptow, 1992, 1996).

Providing an overview of the area, Nam (1998) refers that in terms of empirical research on 'work values' it was found that 'work values' can predict job performance and vocational interests, are associated with career choice and work performance, and are strongly associated with organizational commitment.

2.3.3. Empirical studies relating 'work values' and entrepreneurship: put forwarding the study's main hypothesis

As referred earlier, there are a few studies that relate entrepreneurship and values, but do not focus specifically on which values about work entrepreneurs attribute more relevance.

Focusing on students, Hirschi and Fischer (2013) studied the impact of 'work values' on entrepreneurial intentions. They found a positive association between the work value 'openness to change' with entrepreneurial intentions (EI), and a negative association of conservation values with EI. These results are in line with previous research (e.g., Douglas and Shepherd, 2002; Rauch and Frese, 2007), which suggest that entrepreneurs are characterized by higher change orientation, low uncertainty avoidance, an acceptance of financial insecurity, and positive attitudes toward risk. The study performed by Hirschi and Fischer (2013) supports the usefulness of 'work values' as predictors of specific career intentions by showing that there is a positive association between openness to change and negative association of conservative values both with EI.

The only study that enlightens the relationship between 'work values' (the values considered to be more important in a job) and an entrepreneurial and innovative work culture, comparing these values by gender, age, socio-economic status and country (namely Spain, Sweden, US and Japan) is that from Ayerbe and Buenetxea (2000), which analyzes the Basque Region. The results showed that the values that favor entrepreneurship – having an interesting job, possibility to take initiatives, possibility

to reach something more, having responsibility – were not so valued in the Basque Region. Instead, ‘good pay’ and ‘security’ (less associated with the entrepreneurial culture) were considered the most valued. Compared with Basque Region, Spain, USA and Japan, the Sweden sample showed more positive values towards entrepreneurship. This study also compared the work importance with other areas of life (family, friends, leisure time, politics and religion) showing that women appreciated work more than men, people with lower socio-economic status valued less leisure time, and the importance of work increased with age.

According to Aziz et al. (2013), individuals start business because of their personal needs. Empirically, they concluded that Kyrgyz entrepreneurs (from Turkey) were more motivated by financial motives rather than recognition: the basic drive was to earn money and gain wealth. From another point of view, Hisrich and Fulop (1994) highlighted that women in Hungary seek self-employment as a way to overcome occupational segregation, and to participate in the economic development, suggesting that women entrepreneurs are motivated by opportunity, independence, money, economic necessity, achievement, status, prestige, power and career because of this occupational segregation and wage disparities between man and woman.

Some authors (e.g., Marcketti, Niehm and Fuloria, 2006) presented a new category of entrepreneurs named “Lifestyle entrepreneurs”, that is, individuals who owned and ran businesses lined up with their personal values, interests, and passions. Lifestyle entrepreneurs aspire to earn a decent living, find satisfaction in career achievements, and spend quality time with family and friends (Henderson, 2002). The drive to balance personal, family, and business needs to achieve monetary and other intangible rewards was significant in this sample of lifestyle entrepreneurs (Marcketti, Niehm and Fuloria, 2006). This concept is interesting since we may have different types of entrepreneurs valuing different things in the work setting.

Having in consideration all these studies, it seems that a clear vision of the work values of entrepreneurs either personal or cultural, is on demand. All the mentioned studies seem not replicable because they tend to focus in a specific culture. There is no clear evidence of the most important attribute entrepreneur’s value when referring to work. If so, it will be possible to develop entrepreneurial profiles, which recognize both commonality and differences across cultures (Mueller and Thomas, 2000). The developing of an entrepreneurial zeal seems to matter even for those who are not

entrepreneurs (Puri and Robinson, 2013) and so this work value framework can also be very useful in the socialization of new newcomers (Dose, 1997).

Given the literature review performed earlier, we put forward some hypotheses that are tested in Chapter 4:

*H1: Compared to non-entrepreneurs, entrepreneurs are more likely to **top rank work as the most important thing in life**, before family, friends, leisure time, politics and religion.*

*H2: Compared to non-entrepreneurs, **entrepreneurs tend to give more importance to work values that favor an entrepreneurial culture** (e.g. autonomy, need for achievement and self-realization).*

*H3: Countries' **culture impacts on the perception entrepreneurs have of values.***

3. Methodology

3.1. Econometric specification and hypotheses to be tested

The present study resorts to a multivariate econometric model, more specifically, a logistic regression to assess the extent to which entrepreneurs differ from non-entrepreneurs regarding the importance they attribute to work and work values.

Our ‘dependent’ variable, being an entrepreneur, is a dummy, which assumes the value 1 in the case the individual is self-employed and 0 otherwise (non-entrepreneur). Given the nature of the dependent variable (binary), the empirical assessment of entrepreneurs’ view on work and work values is based on the estimation of the general logistic regression, which in turn is based on the existing literature surveyed in Chapter 2.

In order to have a more straightforward interpretation of the logistic coefficients, it is convenient to consider a rearrangement of the equation for the logistic model, in which it is rewritten in terms of the odds of an event occurring. Writing the logistic model in terms of the log odds, we obtain:

$$\log\left(\frac{\text{Prob}(\text{Entrepreneur})}{\text{Prob}(\text{Non} - \text{Entrepreneur})}\right) = \beta_0 + \underbrace{\beta_1 \text{Work vs Other Life Dimensions}}_{\text{Life Dimensions}} + \underbrace{\beta_2 \text{Important in a Job}}_{\text{Work Values}} + \underbrace{\beta_3 (\text{Life dimensions} * \text{Country's culture}) + \beta_4 (\text{Work Values} * \text{Country's culture})}_{\text{Interaction terms}} + \underbrace{\beta_5 \text{Age} + \beta_6 \text{Gender} + \beta_7 \text{Country's culture}}_{\text{Control variables}} + \varepsilon_i$$

Where ε_i is the error term (and bold indicates a vector variable).

The logistic coefficient can be interpreted as the change in the log odds associated with a one-unit change in the independent variable. Then, e raised to the power β_i is the factor by which the odds change when the i^{th} independent variable increases by one unit. If β_i is positive, this factor will be greater than 1, which means that the odds are increased; if β_i is negative, the factor will be less than one, which means that the odds are decreased. When β_i is 0, the factor equals 1, which leaves the odds unchanged. In the case where the estimate of β_1 emerges as positive and significant for the conventional levels of statistical significance (that is, 1%, 5% or 10%), this

means that, on average, all other factors remaining constant, an entrepreneur values ‘work’ as more important than an entrepreneur.

The descriptive statistics of the model’s variables are presented in tables 3-7 and the matrix of correlations are presented in tables A1 and A2 (in Appendix A1). The estimates of the β s are given in Table 7.

3.2. Description of the data

In order to estimate our model and test the relevant hypotheses, we resort to the *European Value Survey* (EVS).¹ EVS is a large-scale, cross-national and longitudinal survey research program that covers different thematic categories from perceptions of life, environment, work, family, politics and society, religion and morale, national identity to life experiences, socio demographics, etc., with a total of 882 variables, 49 countries participating across four different periods of time (1st wave from 1981 to 1984, 2nd wave from 1990 to 1992, 3rd wave from 1999 to 2001 and the 4th wave from 2008 to 2010).

According to the methodological document available in the EVS web site,² the selection method of the individuals inquired was based on a multi-stage or stratified random sample of the country’s adult population (that is, those aged 18 or over - in Finland the selection covered individuals aged 18-74 years). Respondents were supposed to be fluent in the language of the questionnaires (the country’s mother tongue).

The net sample size (that is, completed interviews) was 1500 respondents per country, except Iceland (808), Cyprus (1000), Ireland (1013), Norway (1090), Finland (1134), Sweden (1187), France (random sample: 1501 and two additional quota samples: 1570), and Germany (disproportional sample East: 1004, West: 1071).

The respondents totaled 166502 individuals and the survey was administered through face-to-face interviews with a standardized questionnaire (translated into 65 language versions). With the exception of Greece, surveys were conducted in all countries by experienced professional survey organizations.

¹ In: <https://dbk.gesis.org/dbksearch/sdesc2.asp?no=4804>, accessed on March, 10th 2014.

² In https://dbk.gesis.org/dbksearch/file.asp?file=ZA4804_cdb.pdf accessed on March 10th 2014.

In the 4th wave (2008-2010), surveys were carried out through face-to-face interviews with standardized questionnaire, while in the 2nd wave (1990-1993), surveys were carried out through phone interview with standardized questionnaire.

The total number of countries involved in the EVS was 49 from 1981 to 2010. The 27 countries selected for the present study were those that participated in the 2nd (1990-1993) and 4th (2008-2010) waves.³ Since the time span between the waves is 18 years to the comparative analysis of the data, we can see how values, more specifically, work values, have changed over time and how they were related with the entrepreneurial status of the respondents.

Based on the literature (e.g., Van Praag and Verslot, 2007; Garcia, 2013; Salas-Fumás and Sanchez-Asin, 2013), the occupational status, namely being a self-employed, can be used as a good indicator to classify the individuals as entrepreneurs. In the EVS respondents were asked about their employment status. Those who answered ‘self-employed’ were categorized as entrepreneurs (value = 1) while the rest (Full time, Part-time, Retired, Housewife, Student, Unemployed, Other) were coded as non-entrepreneurs (value = 0). Thus, our dependent variable is the “Entrepreneur” that resulted from the recoding of the “Employment Status” variable. Additionally, we crossed this variable with other variables related with occupational status and type of job of the respondents.⁴

In order to test the first hypothesis (***H1: Compared to non-entrepreneurs, entrepreneurs are more likely to top rank work as the most important thing in life, before family, friends, leisure time, politics and religion***), we need to understand whether the entrepreneurs scores *work* as the most important dimension in life as compared with non-entrepreneurs. According with the literature, we should expect entrepreneurs to be more committed with the work, typically working more hours and putting their business ahead of their family and personal life (Bird and Jellinek, 1988). To test this hypothesis it was used a variable from the Perceptions of Life

³ Appendix A2 lists these countries.

⁴ Employment status was the more appropriate variable to capture entrepreneurship. In spite of not being a perfect link to entrepreneurship, all the other variables would lead to the same problem. The cross analysis identified that in the 2th wave, individuals classified as entrepreneurs answered that they were managers of establishment with less than 10 employers (around 39%) and farmers with own farm (around 47%). In the 4th wave, entrepreneurs answered that they were small employers and self-employed, both non agriculture (around 67%) and agriculture (around 51%) or using another variable, categorized themselves as self-employed with no employers (67%) or with employers (68%). For more detail, please refer to Tables A3, A4 and A5 in the Appendix A3.

category. Respondents were asked about how important family, friends and acquaintances, leisure time, politics, work and religion was in their life's scaling it from 1 (very important) to 4 (not all important). We recoded these variables in order to revert the scale, switching 1 as 'not all important' and 4 as 'very important'. In order to compare work with the other dimensions, we've checked if the *work* score was higher than any of the other dimensions.

To test the second hypothesis, respondents were asked to look at a list of work values and evaluate whether they were important in a job or not (mentioned/not mentioned).

In order to identify which work values favor an entrepreneurial culture, these were categorized according with the literature.

Entrepreneurs are associated with values such as *freedom to achieve, develop their potential, drive for self-realization, individualism, material gain, positive attitude toward risk, acceptance of financial insecurity* (Mueller and Thomas, 2000, Fagenson, 1993). In a similar way, self-employers are associated with values such as *self-direction, stimulation and achievement against security, conformity e tradition values* (Noseleit, 2008), *more independence* (Bird, 1989; Katz, 1994; Mueller and Thomas, 2000), *need for control, self-reliance, confidence, initiative, resourcefulness* (Mueller and Thomas, 2000), *earning more* (Wright and Perrone, 1977), *more risk tolerance* (Duchesneau and Gartner, 1990) and tend to *work more hours* (Eden, 1973; Hamermesh, 1990; Chay, 1993).

The work values related with an entrepreneurial culture were accordingly categorized in 3 groups:

- need for autonomy (associated with variables *use initiative, have a say, responsible job*);
- need for achievement (associated with variables *achieving something, chances for promotion, meeting people*);
- Self-realization (associated with variables *interesting job, meeting abilities, useful for society, learning new skills*).

The remaining work values (*good pay, not too much pressure, job security, good hours, generous holidays, respected job, family friendly, pleasant people*) were not *a priori* associated with an entrepreneurial culture. One work value (*people treated equally*) was not *a priori* associated with none of the groups.

It is expected that *entrepreneurs top rank the work values related with an entrepreneurial culture compared with non-entrepreneurs* (H2).

The econometric analysis of H1 and H2 requires the inclusion of variables (‘control variables’) that are usually considered important to explain entrepreneurial behaviors. These include the gender, age and qualifications of the individuals.

Table 1: Description of the relevant variables and proxies

Hypothesis	Variable	Proxy	Question
H1 and H2	Entrepreneurs (Recoded)	Dummy: 1 for Self-employed and 0 otherwise	<i>Occupational status</i>
H1	Work vs family	Dummy: 1 when work is more valued than family and 0 otherwise	Please say, how important is in your life. Recoded: 1- Very important 2 – Quite important 3 – Not important 4 – Not at all important
	Work vs friends and acquaintances	Dummy: 1 when work is more valued than friends and 0 otherwise	
	Work vs leisure time	Dummy: 1 when work is more valued than leisure time and 0 otherwise	
	Work vs politics	Dummy: 1 when work is more valued than Politics and 0 otherwise	
	Work vs religion	Dummy: 1 when work is more valued than Religion and 0 otherwise	
H2	Good Pay; Not too much pressure; Job Security; Respected Job ; Good Hours; Use initiative; Generous Holidays ; Achieving something; Responsible Job; Interesting Job; Meeting abilities; Pleasant People; Chances for promotion; Useful for Society; Meeting people; Learning new skills; Family friendly; Have a say; People treated equally	1 if value is mentioned and 0 otherwise	Here are some aspects of a job people say are important. Please look at them and tell me which ones you think are important in a job (Importance of work values: c011- c027_4)
H3	Country’s culture	R-SE; R-SV; T-SE; T-SV). Country variable recoded	Categorization of countries according to their ‘culture’, following Inglehart and Welzel (2010)
Control Variables	Respondent’s Age	Number of years	Can you tell me your year of birth?
	Respondent’s Gender	1 when female and 0 for male	Sex of respondent;
	Respondent’s education level	Income (2 nd wave)	Income household respondent (x047r): 1 – Low 2 – Medium 3 – High
		Educational attainment (4 th wave)	Highest educational level attained respondent (x025) recoded: HEL (High) MEL (Medium) LEL (Low)

Gender variable assumes the value 1 when the respondent is a female and 0 a male (cf. Table 1). Age is measured by year (in logarithm). Since a direct measure of education attainment is not available in the 2nd wave of the EVS, we use household income as a proxy in the line of Wolf (2002). According with this author the higher income a person earns, a higher education level that person holds. For the 4th wave, a more direct proxy was available – the highest educational level attained. This variable was recoded into three different categories: High Educational Level (HEL) that corresponds to university degree, Medium Educational level (MEL) that goes from completing secondary school to some university frequency without degree and Low Educational level (LEL) that goes from inadequately completed elementary education to incomplete secondary education.

The H3 (*Countries' culture impacts on the perception entrepreneurs have of values*) required the categorization of countries in groups that permit to assess how culture directly and indirectly (through work values) impacts on the propensity to become an entrepreneur. As explained before, these groups were categorized in terms of their culture proximity in two different axis (cf. Table 2 and Figure 1): the first one related with the dichotomy between traditional (more emphasis on religion, family and authority) and rational secular values (less emphasis on religion, family and authority) and the second one related with the dichotomy between survival (focus on economic/physical security) and self-expression values (focus on tolerance, interpersonal trust, political life involvement, well-being, quality of life, etc.)

Table 2: Countries divided according to the Global Cultural Map

Dimensions	Countries	Categories – map's legend
Traditional and Survival Values	Poland, Romania	T-SV
Traditional and Self-Expression Values	Malta, Spain, Ireland, Portugal, Northern Ireland	T-SE
Secular-Rational and Survival Values	Bulgaria, Estonia, Hungary, Latvia Lithuania, Slovenia, Slovak Republic	R-SV
Secular-Rational and Self-Expression Values	Belgium, France, Czech Republic Denmark, Germany, Italy Great Britain, Iceland, Netherlands Sweden, Norway, Austria, Finland	R-SE

Figure 1: European Cultural Map

Legend: see Table 1.

Source: Adapted from Inglehart and Welzel (2010).

4. Empirical results

4.1. Descriptive and exploratory analyses of the cases selected

Starting by analyzing life dimensions over time (cf. Figure 2), we found that, in the overall, the life dimensions that individuals value the most is, by decreasing order of preference, *family*, *work*, *friends and acquaintances*, *leisure time*, *religion*, and *politics*. The order of preference does not change over time, that is, from the 2nd to the 4th wave. Another interesting outcome is that individuals tend to give more importance to life dimensions as time goes by. All scores of life dimensions increase from 2th to 4th wave, with exception to *work* life dimension that decreases.

Figure 2: Life Dimensions over time

If we specifically compare *work* with the other life dimensions (cf. Table 3) differences between *entrepreneurs* and *non-entrepreneurs* emerge. *Entrepreneurs* score *work* higher than *non-entrepreneurs* when comparing to all other life dimensions. The only exception is for the *family* in the 2nd wave with no differences founded between *entrepreneurs* and *non-entrepreneurs*.

If we look at the evolution of this comparison over time, we can state that from the 2nd to the 4th wave the percentage of *entrepreneurs* valuing *work* more than other dimensions decreases, but they still value *work* more than *non-entrepreneurs*.

The *politics* and *religion* are the less valued life dimensions and *family* is the most valued dimension (only about 7% of *entrepreneurs* and about 5% of *non-entrepreneurs* consider *work* more important than *family*). *Work* is valued a bit less than *friends and acquaintances* (approx. 43% of *entrepreneurs* and 39% of *non-entrepreneurs* value *work* more than *friends*). When comparing *work* with *leisure time*, 52% of *entrepreneurs* and 48 % of *non-entrepreneurs* value *work* more than *leisure time*.

Table 3: Difference in life dimensions between entrepreneurs (E) vs non entrepreneurs (Non-E) (Kruskal Wallis test), in the 2nd (1990-1993) and 4th (2008-2010) waves of the European Values Survey

Wave	Emp. Status	Work vs Family	Work vs Friends&Acq	Work vs LeisureTime	Work vs Politics	Work vs Religion
2nd Wave (# 38.213)	E	0.075	0.436	0.520	0.812	0.654
	Non-E	0.067	0.372	0.413	0.753	0.628
	<i>p-value</i>	<i>0.191</i>	<i>0.000</i>	<i>0.000</i>	<i>0.000</i>	<i>0.016</i>
4th Wave (# 67.786)	E	0.054	0.398	0.483	0.785	0.626
	Non-E	0.047	0.306	0.371	0.739	0.551
	<i>p-value</i>	<i>0.051</i>	<i>0.000</i>	<i>0.000</i>	<i>0.000</i>	<i>0.000</i>

Note: grey cells identify statistical differences between entrepreneurs and non-entrepreneurs; bold figure identify the highest means.

Regarding work values, we observe (cf. Figure 3) that all the work values increased over time and, in both waves, *good pay* is the work value that is mentioned the most (74%/84% of the respondents in the 2nd/4th waves), which contrasts with *generous holidays*, the less mentioned work value (27%/37% of the respondents in the 2nd/4th waves).⁵

Based on these results we can state that the relative position of the distinct work values do not change significantly over time. Exceptions are made for *interesting job* and *job security* (the first more important in the 2nd wave and the second more important in the 4th wave), *use initiative* (more mentioned in the 2nd wave), *not too much pressure* (more mentioned in the 4th wave) and *useful for society* (less mentioned in the 4th wave).

⁵ Some variables are only available in the 2nd wave (*chances for promotion* and *respected job*) or in the 4th wave (*Learning new skills*, *family friendly*, *have a say* and *people treated equally*).

Figure 3: Values that individuals consider relevant in a job (in % total individuals), in the 2nd (1990-1993) and 4th (2008-2010) waves of the European Values Survey

Note: computations made by the author based on 105.999 individuals from 27 countries.

When crossing work values with the individuals' employment status it is clear that there are major differences between the two groups, *entrepreneurs and non-entrepreneurs* (cf. Table 4).

Entrepreneurs valued *use initiative* and *achieving something* more than *non-entrepreneurs*, difference that is consistent over time. The work values *good hours*, *generous holidays*, *job security*, *pleasant people* are more valued by *Non-Entrepreneurs*, and these differences are also consistent over time.

Apart from the work values appreciated more by *entrepreneurs* in both waves, they do not present any other higher percentage in the 2nd wave. However, in the 4th wave, they value more *responsible job*, *meeting abilities* (no differences founded in the 2nd wave) *have a say* and *learning new skills* (which was included only in the 4th wave) compared with *non-entrepreneurs*. Interestingly *not too much pressure* is the only work value whose importance is reverted over time, that is, is more valued by *non-entrepreneurs* in the 2nd wave and more valued by *entrepreneurs* in the 4th wave.

On the other hand, the work values appreciated more by *Non-entrepreneurs* in both waves, they also show a higher percentage for *interesting job*, *chances for promotion*, *useful for society*, *not too much pressure* and *meeting people* in the 2nd wave and for *interesting job* and *people treated equally* in the 4th wave.

No differences were founded between the two groups regarding *responsible job*, *meeting abilities* and *respected job* in the 2nd wave and *good pay*, *useful for society*, *meeting people* and *family friendly* in the 4th wave.

Table 4: Differences between entrepreneurs and non-entrepreneurs in work values (Kruskal Wallis test) in the 2nd (1990-1993) and 4th (2008-2010) waves of the European Values Survey

Group of values	Work values	2 nd wave (# 38.213)			4 th wave (# 67.786)		
		Entrep	Non Entrep	p-value	Entrep	Non Entrep	p-value
Work values associated to an entrepreneurial culture	Achieving something	0.580	0.550	0.007	0.670	0.610	0.000
	Use initiative	0.490	0.440	0.000	0.560	0.490	0.000
	Responsible job	0.420	0.410	0.256	0.520	0.500	0.028
	Interesting job	0.570	0.610	0.000	0.670	0.690	0.052
	Meeting abilities	0.550	0.560	0.402	0.660	0.630	0.000
	Chances for promotion	0.280	0.340	0.000			
	Useful for society	0.360	0.400	0.000	0.450	0.450	0.526
	Meeting people	0.420	0.450	0.066	0.520	0.510	0.138
	Learning new skills				0.570	0.540	0.001
	Have a say				0.500	0.440	0.000
Work values NOT associated to an entrepreneurial culture	Good pay	0.690	0.740	0.000	0.840	0.840	0.353
	Not too much pressure	0.290	0.310	0.100	0.510	0.460	0.000
	Job security	0.480	0.580	0.000	0.630	0.710	0.000
	Respected Job	0.410	0.390	0.213			
	Good hours	0.340	0.450	0.000	0.550	0.580	0.000
	Family friendly				0.580	0.570	0.910
	Generous holidays	0.210	0.270	0.000	0.350	0.370	0.000
	Pleasant people	0.580	0.700	0.000	0.720	0.760	0.000
Others	People treated equally				0.600	0.640	0.000

Note: grey cells identify statistical differences between entrepreneurs and non-entrepreneurs; bold figure identify the highest means.

Some work values differences are consistent over time. Regardless of the wave considered, *entrepreneurs* value more *use initiative* and *achieving something* whereas *non-entrepreneurs* value more *job security*, *good hours*, *generous holidays*, *interesting job* and *pleasant people*. It is possible to observe that not all the work values that were expected to be associated to *entrepreneurs* or *non-entrepreneurs* are empirically related nor totally consistent over time.

The work values associated with *entrepreneurs* and that are indeed more valued by them in both waves are *use initiative* and *achieving something* (cf Figures 4 and 5). Apart from these two work values, no other work values associated with an entrepreneurial culture is associated with *entrepreneurs* in the 2nd wave. Surprisingly,

the other work values linked to entrepreneurship are unexpectedly more valued by *non-entrepreneurs*, most notably *useful for society*, *interesting job* and *meeting people*. No differences were found for *responsible job* nor *meeting abilities*.

Nevertheless, the scenario changes in the 4th wave. Besides *use initiative* and *achieving something*, other entrepreneurial work values such as *responsible job*, *meeting abilities*, *learning new skills* and *have a say* are more valued by entrepreneurs. The work values *useful for society* and *meeting people* presents no differences between the two groups and *interesting job* continues to be unexpectedly more valued by *non-entrepreneurs*.

Regarding *non-entrepreneurs*, almost all work values related to this category are indeed more valued by them in the 2nd wave (the exception is *respected job* which presented no differences – see Figure 4). In the 4th wave only *job security*, *good hours*, *generous holidays* and *pleasant people* continue to be more valued by *non-entrepreneurs* when comparing them with *entrepreneurs*. Against theory, *not too much pressure* was more valued by *entrepreneurs* (as we can see in Figure 5). There are no differences for the *good pay* and *family friendly* values. Conversely, *people treated equally* was more valued by *non-entrepreneurs*, in spite of not being, a priori, associated with any of the groups.

Figure 4: Representation of the association between work values and employment status and its validation (*Entrepreneurs* vs *Non-Entrepreneurs*) in the 2nd wave

Legend: grey italic cells identify the work values that were not associated with the expected group; underlined cells identify the work values that were associated with the opposite group; cells in the intersection of the two circles identify that there were no statistical differences between the two groups – entrepreneurs and non-entrepreneurs.

Figure 5: Representation of the association between work values and employment status and its validation (*Entrepreneurs vs Non-Entrepreneurs*) in the 4th wave

Legend: grey italic cells identify the work values that were not associated with the expected group; underlined cells identify the work values that were associated with the opposite group; cells in the intersection of the two circles identify that there were no statistical differences between the two groups – entrepreneurs and non-entrepreneurs

In order to understand the role of culture in life dimensions and work values perceptions, we compare the percentage of individuals who attribute greater importance to *work* (as compared to other life dimensions) and mentioned the values associated to a job according to the four different cultural categories – *Traditional Survival* (TSV), *Traditional Self-Expression* (TSE), *Rational Survival* (RSV) and *Rational Self-Expression* (RSE) – put forward by Inglehart and Welzel (2010).

Based on the Kruskal Wallis test of differences in means, we confirm (cf. Table 5) that life dimensions and work values differ among cultural groups in different countries.

Regarding life dimensions, *work* is mainly considered more important than the other dimensions, with exception to *family*, regardless the country's culture category.

When looking at the results of the 2nd wave, the *Traditional Survival* group is the most representative, with the largest proportion of individuals valuing *work* more than *friends and acquaintances* (60%), *leisure time* (56%) and *politics* (86%) compared with the other three groups. The *Rational Survival* group presents the higher percentage of individuals who value *work* more than *family* (even though percentage is quite small – 8%) and *work* more than *religion* (70%).

In the 4th wave, the *Rational Survival* group is the more representative group, showing the largest proportion of individuals valuing *work* more than *family* (again with a small percentage – 6%), *leisure time* (42%) and *politics* (82%). *Traditional Survival* maintains the largest proportion of individuals valuing *work* more than *friends and acquaintances* in spite of decreasing that percentage (60% to 40%). *Traditional Self-expression* appears to be the group with the highest percentage of individuals valuing *work* more than *religion* (69%)

Regarding the values associated with an entrepreneurial culture, results fluctuate over time and by the country's culture group.

The *Rational Self-expression* group shows higher percentage for *use initiative* (48%), *achieving something* (56%, along with *Traditional Survival*), *responsible job* (44%) and *meeting abilities* (63%, along with *Rational Survival*). Besides *meeting abilities*, *rational survival* presents a higher percentage of individuals mentioning *useful for society* (46%) and *meeting people* (48%). The only work value mentioned the most by the *Traditional Self-expression* group was *chances for promotion* (41%).

The values not associated with entrepreneurship, in the 2nd wave, are more mentioned by the *Traditional Self-expression* group (63% to *job security*, 49% to *good hours* and 33% to *generous holidays*), *Traditional Survival* (55% for *respected job* and 42% to *not too much pressure*), *Rational Self-expression* (70% for *pleasant people*), and *rational survival* (81% for *good pay*).

If we look at the 4th wave and the values associated with an entrepreneurial culture, those that are more mentioned by culture' groups differ from the 2nd wave. The *Traditional Survival* group presents the highest percentage of individuals mentioning the work values associated with entrepreneurship as important features in a job, namely *use initiative* (54%), *achieving something* (68%), *responsible job* (55%), *interesting job* (73%), *meeting abilities* (71%), *meeting people* (54%), *learning new skills* (62%) and *have a say* (51%). The only work value related to entrepreneurship that was not mentioned the most by the *Traditional Survival* group was *useful for society* (more mentioned by *Traditional Self-expression* with 48%). The only value related to entrepreneurship that is consistent over time is *achieving something* (with *Traditional Survival* and *Rational Self-expression* assigning 56% in the 2nd wave and *Traditional Survival* assigning 68% in the 4th wave). The *Traditional Survival* group also presents the highest percentage of individuals mentioning the work values not

associated with an entrepreneurial culture, such as *good pay* (94%), *not too much pressure* (59%), *job security* (82%), *generous holidays* (46%), *family friendly* (64%) and *people treated equally* (75%). The *good hours* and *pleasant people* work values are both mentioned the most by the *Traditional Survival* and *Traditional Self-expression* groups (64% and 76% respectively).

Table 5: Life dimensions and work values by country culture over time: means

Dimensions	Variables	Wave (# 105,999	TSV	TSE	RSV	RSE
Life Dimensions	Work vs Family	2 nd	0.062	0.055	0.089	0.070
		4 th	0.039	0.039	0.066	0.054
	Work vs Friends & Acq	2 nd	0.602	0.356	0.461	0.343
		4 th	0.404	0.293	0.364	0.252
	Work vs Leisure time	2 nd	0.565	0.435	0.476	0.390
		4 th	0.390	0.329	0.415	0.322
	Work vs Politics	2 nd	0.863	0.842	0.733	0.750
		4 th	0.798	0.758	0.816	0.690
	Work vs Religion	2 nd	0.397	0.530	0.709	0.691
		4 th	0.361	0.481	0.677	0.694
Work Vales	Use initiative	2 nd	0.38	0.40	0.35	0.48
		4 th	0.54	0.46	0.44	0.47
	Achieving something	2 nd	0.56	0.48	0.48	0.56
		4 th	0.68	0.56	0.60	0.56
	Responsible job	2 nd	0.31	0.37	0.32	0.44
		4 th	0.55	0.47	0.44	0.43
	Interesting Job	2 nd	0.50	0.53	0.61	0.63
		4 th	0.73	0.66	0.72	0.64
	Meeting abilities	2 nd	0.52	0.52	0.57	0.57
		4 th	0.71	0.59	0.64	0.51
	Useful for Society	2 nd	0.41	0.40	0.46	0.38
		4 th	0.47	0.48	0.41	0.34
	Meeting people	2 nd	0.29	0.38	0.48	0.47
		4 th	0.54	0.47	0.49	0.43
	Chances for promotion	2 nd	0.27	0.41	0.30	0.31
	Learning new skills	4 th	0.62	0.52	0.53	0.45
	Have a say	4 th	0.51	0.40	0.39	0.34
	Good Pay	2 nd	0.78	0.77	0.81	0.68
		4 th	0.94	0.87	0.90	0.68
	Not too much pressure	2 nd	0.42	0.35	0.37	0.27
		4 th	0.59	0.50	0.42	0.29
	Job security	2 nd	0.50	0.63	0.52	0.57
		4 th	0.82	0.76	0.74	0.57
	Good hours	2 nd	0.35	0.49	0.48	0.41
		4 th	0.64	0.64	0.57	0.41
	Generous holidays	2 nd	0.25	0.33	0.32	0.24
		4 th	0.46	0.41	0.36	0.22
	Pleasant People	2 nd	0.61	0.65	0.69	0.70
		4 th	0.76	0.76	0.73	0.72
	Respected Job	2 nd	0.55	0.40	0.41	0.37
	Family friendly	4 th	0.64	0.59	0.58	0.36
Other values	People treated equally	4 th	0.75	0.66	0.61	0.55

In brief, in the 2nd wave, values associated with entrepreneurship are mentioned the most by *Rational Self-expression* (RSE) and *Rational Survival* (RSV) groups, whereas values not associated with entrepreneurship are more mentioned by the *Traditional Self-expression* (TSE) group. In the 4th wave, *Traditional Survival* (TSV) is the group mentioning both entrepreneurial and non-entrepreneurial values the most.

Regarding the control variables (cf Table 6), *entrepreneurs* have on average a medium income slightly higher than *non-Entrepreneurs*, are mainly man and younger (especially in 4th wave). The educational level is similar between the two groups but entrepreneurs present a higher value for this variable.

Looking at *non-entrepreneurs*, in the 2nd wave, they have an average income, age around 44 years of age and gender balanced. In the 4th wave, there is a little decreased in the average income but it is still at the average level, the women's presence decreases a little bit in this group and individuals are on average older than in the 4th wave.

Table 6: Control variables (total =105999 individuals)

Employment Status	Wave	Educational Level		Gender** *	Age
		Income*	Educational level**		
Entrepreneur	2 nd	2.17		0.342	43.29
	4 th	2.16	5.18	0.348	43.95
Non Entrepreneur	2 nd	2.01		0.535	43.74
	4 th	1.93	4.96	0.567	46.69

Note: * Variable values: 1 - low; 2 medium; 3 high; ** Variable values: 1 is the Lowest and 8 the highest; *** Variable values: 1 - female; 0 – male.

4.2. Estimation results: propensity to entrepreneurship and work values

The impact of life and work values on the propensity for entrepreneurship was assessed through the estimation of logistic regressions (cf. Chapter 3). We estimate one model for each wave: Model 1 (2nd wave) and Model 2 (4th wave). For each wave, 4 models were estimated: the baseline (A models), without interaction effects; incomplete versions with interaction effects of culture and life dimensions (B models) and culture and work values (C models); and the complete (D models) version, which include all the relevant variables. Models' goodness of fit, based on Hosmer and Lameshow test and percentage of observation correctly estimated, indicates that the models represent the reality well.⁶

⁶ Correlations matrixes can be seen in Appendix A1, tables A1 and A2.

The estimates of the models are robust and do not change greatly in significance and signs with the introducing of new/additional variables. Thus, the interpretation of the estimates is based on the complete models (Model 1D and 2D, in Table 7).

Regarding the hypothesis 1, “***Compared to non-entrepreneurs, entrepreneurs are more likely to top rank work as the most important thing in life, before family, friends, leisure time, politics and religion***”, results partially corroborates it. Indeed, *work* stands as the most important life value when compared to *leisure time* and *politics*, regardless the wave of the European Values Survey, for *entrepreneurs* than *non-entrepreneurs*. In dynamic terms, *work* increases in importance for *Entrepreneurs* (as compared to *non-entrepreneurs*), emerging as more important than *friends and acquaintances* and *religion*; however, compared to *non-entrepreneurs*, *entrepreneurs* seem to value relatively more the *family* than *work* in the most recent period (2008-2010).

In this period (2008-2010), an individual who values *work* over all the other dimensions shows a higher propensity to become an entrepreneur and the ones who value *work* more *family* show a lower propensity. These results are consistent along the models, with exception of *work* versus *politics* that turn out to be not significant (model 2D). Regarding this latter life dimension, when individuals belong to a *rational survival* group that values *work* more than *politics* they have higher propensity to become entrepreneurs. The individuals who value *work* more than *leisure time* have a higher propensity to become entrepreneurs, a tendency that is enhanced when these individuals belong to *traditional self-expression* countries.

The second hypothesis, “***Compared to non-entrepreneurs, entrepreneurs tend to give more importance to work values that favor an entrepreneurial culture***”, also received mix support. In the earlier period (1990-1993), work values associated to entrepreneurial culture do not permit, in general, to distinguish *entrepreneurs* from *non-entrepreneurs*. The exception is *chances for promotion* which is, unexpectedly, less indicated by *entrepreneurs* as a relevant characteristic in a job than by *Non-entrepreneurs*. In the latter period, 2008-2010, work values associated to the entrepreneurial culture such as *use initiative*, *achieving something*, *meeting abilities*, *have a say*, tend to be more valued by *entrepreneurs*. In contrast, *interesting job* and *useful for society*, a priori related to entrepreneurial culture, are more valued by *non-entrepreneurs*. Surprisingly, *not too much pressure*, *respected job* and *family friend*

are more valued by *entrepreneurs* than by *non-entrepreneurs*. As expected, values traditionally associated with *non-entrepreneurs*, most notably, *job security*, *good hours*, *generous holidays* (4th wave), *pleasant people* are indeed more valued by them. Also, *people treated equally* emerges as more valued by *non-entrepreneurs*.

It is important to note that work values not associated with an entrepreneurial culture presents very similar results along with the models and the timeframe. For both waves, *good pay* and *people treated equally* are not significant and *job security*, *good hours* and *pleasant people* are negatively associated with entrepreneurship. Surprisingly, and as mentioned before, *not too much pressure*, *respected job* and *family friendly* are positively associated with entrepreneurship. The only work value inconsistent between the waves was *generous holidays* showing no differences in the later period and being negatively associated to entrepreneurship in the earliest period. Countries' culture does impact on the propensity for becoming an entrepreneur. Compared to countries that belong to the default category *Traditional Survival* (TSV), countries that are included in the remaining categories (*Traditional Self-expression* – TSE; *Rational Survival* – RSE; *Rational Self-Expression* – RSE) show a higher propensity to entrepreneurship in the most recent years (2008-2010) and in the last model (2D). Specifically, in the period, one individual that is located in a country classified as *Rational Self-Expression* (RSE) presents an odds for entrepreneurship 3 times higher than that located in a country classified as *Traditional Survival* (TSV).

The results are consistent over time the only difference is the *Traditional, Self-expression* (TSE) group where no differences were founded in the 2nd wave. Country culture also interacts with life and work values influencing the impact of values perceptions on the propensity for entrepreneurship. In 1990-1993 individuals who value *work* more than *leisure time* and *politics* have a higher propensity to become entrepreneurs. Regarding *leisure time*, this propensity is reinforced when the individual belongs to a *rational survival* country. However, in case of *politics*, when an individual belongs to *traditional self-expression* or *rational survival* countries this tendency is reverted and the individual becomes be less likely to become an entrepreneur.

Table 7: Logistic Regression of the propensity for entrepreneurship in 1990-1993 (2nd wave of the EVS) and 2008-2010 (4th wave of the EVS)

		Model 1A	Model 2A	Model 1B	Model 2B	Model 1C	Model 2C	Model 1D	Model 2D	
Variables		2 nd wave (1990-1993)	4 th wave (2008-2010)	2 nd wave (1990-1993)	4 th wave (2008-2010)	2 nd wave (1990-1993)	4 th wave (2008-2010)	2 nd wave (1990-1993)	4 th wave (2008-2010)	
H1	Work more important than ... (dummy variable: 1 affirmative; 0 otherwise)	Family	-0.012	-0.171**	-0.007	-0.17**	-0.011	-0.164**	-0.005	-0.164**
		Friends and Acquaintances	0.016	0.194***	0.012	0.193***	0.012	0.193***	0.009	0.192***
		LeisureTime	0.314***	0.277***	0.412***	0.311***	0.315***	0.276***	0.399***	0.301***
		Politics	0.267***	0.100**	0.449***	0.062	0.255***	0.098**	0.418***	0.056
		Religion	-0.061	0.122***	-0.059	0.120***	-0.066	0.121***	-0.065	0.120**
H2	Work values – mentioned as an important feature in a job (dummy variable: 1 mentioned; 0 otherwise)	Good Pay	-0.035	-0.005	-0.035	-0.004	-0.046	-0.015	-0.046	-0.015
		Not too much pressure	0.184***	0.368***	0.182***	0.366***	0.183***	0.372***	0.181***	0.371***
		Job Security	-0.358***	-0.456***	-0.357***	-0.456***	-0.349***	-0.447***	-0.348***	-0.447***
		Respected Job	0.169***		0.165***		0.154***		0.151***	
		Good Hours	-0.248***	-0.110**	-0.249***	-0.108***	-0.249***	-0.110***	-0.249***	-0.108***
		Generous Holidays	-0.042	-0.131***	-0.043	-0.131***	-0.047	-0.112***	-0.046	-0.112***
		Pleasant people	-0.411***	-0.318***	-0.41***	-0.319***	-0.393***	-0.326***	-0.392***	-0.326***
		Family friendly		0.170***		0.170***		0.170***		0.169***
		Use initiative	0.228***	0.289***	0.231***	0.289***	0.197	0.16***	0.203	0.159***
		Achieving Something	0.148**	0.264***	0.146***	0.265***	-0.099	0.187***	-0.100	0.188***
	Related to Entrepreneurs	Responsible Job	-0.039	-0.126***	-0.035	-0.127***	-0.167	-0.087	-0.165	-0.088
		Interesting Job	-0.063	-0.121***	-0.060	-0.120***	-0.148	-0.272***	-0.133	-0.271***
		Meeting abilities	0.049	0.148***	0.052	0.148***	0.118	0.258***	0.12	0.258***
		Meeting people	0.180***	0.050	0.179***	0.050	0.122	0.067	0.125	0.068
		Chances for promotion	-0.330***		-0.327***		-0.477***		-0.469***	
		Useful for society	-0.119*	-0.161***	-0.121**	-0.162***	0.002	-0.106*	-0.005	-0.108*
		Learning new skills		0.058		0.057		0.032		0.032
		Have a say		0.195***		0.195***		0.183***		0.181***
		Other		-0.259***		-0.259***		-0.260***		-0.259***
			People treated equally		-0.259***		-0.259***		-0.260***	

(...)

	Variables	Model 1A	Model 2A	Model 1B	Model 2B	Model 1C	Model 2C	Model 1D	Model 2D
		2 nd wave (1990-1993)	4 th wave (2008-2010)	2 nd wave (1990-1993)	4 th wave (2008-2010)	2 nd wave (1990-1993)	4 th wave (2008-2010)	2 nd wave (1990-1993)	4 th wave (2008-2010)
H3	TSE*Leisure Time			-0.135	-0.235			-0.107	0.250***
	RSV*Leisure Time			-0.561***	-0.066			0.542***	-0.047
	RSE*Leisure Time			-0.032	-0.040			-0.019	-0.014
	TSE*Politics			-0.437**	0.311			-0.419**	0.302
	RSV* Politics			-0.396	0.326*			-0.421*	0.316*
	RSE* Politics			-0.115	-0.007			-0.075	0.004
	TSE*UseInitiative					-0.179	0.162	-0.194	0.152
	RSV*UseInitiative					0.033	0.182	0.045	0.187
	RSE*UseInitiative					0.148	0.305***	0.148	0.304***
	TSE*AchievingSmt					-0.177	0.116	-0.177	0.123
	RSV*AchievingSmt					0.415*	0.285**	0.425*	0.279*
	RSE*AchievingSmt					0.518***	0.125	0.516***	0.124
	TSE*ResponsibleJob					0.228	-0.104	0.231	-0.098
	RSV*ResponsibleJob					0.162	0.097	0.197	0.092
	RSE*ResponsibleJob					0.114	-0.109	0.109	-0.107
	TSE*InterestingJob					0.026	0.371**	0.012	0.37**
	RSV*InterestingJob					0.024	0.415***	-0.016	0.413***
	RSE*InterestingJob					0.183	0.284***	0.172	0.283***
	TSE*MeetingAbilities					-0.075	-0.258	-0.075	-0.261
	RSV*MeetingAbilities					-0.202	-0.061	-0.175	-0.061
	RSE*MeetingAbilities					-0.069	-0.270***	-0.067	-0.270***
	TSE* ChancesProm					0.439***		0.433**	
	RSV*ChancesProm					0.534**		0.523**	
	RSE*ChancesProm					-0.022		-0.029	

(...)

		Model 1A	Model 2A	Model 1B	Model 2B	Model 1C	Model 2C	Model 1D	Model 2D
Variables		2 nd wave (1990-1993)	4 th wave (2008-2010)	2 nd wave (1990-1993)	4 th wave (2008-2010)	2 nd wave (1990-1993)	4 th wave (2008-2010)	2 nd wave (1990-1993)	4 th wave (2008-2010)
H3	Interaction Variables	TSE_UsefulSoc				0.087	0.089	0.089	0.095
		RSV_UsefulSoc				-0.172	0.444***	-0.143	0.435***
		RSE_UsefulSoc				-0.285*	-0.021	-0.280*	-0.022
		TSE_MeetingPeople				0.388**	-0.247	0.384**	-0.262
		RSV_MeetingPeople				-0.337	-0.139	-0.38	-0.143
		RSE_MeetingPeople				0.000	0.063	0.000	0.063
		TSE_LearningNS					-0.004		-0.009
		RSV_LearningNS					-0.08		-0.083
		RSE_LearningNS					0.072		0.073
		TSE_HaveSay					-0.199		-0.19
		RSV_HaveSay					0.157		0.165
		RSE_HaveSay					0.041		0.042
Country Culture (default: Traditional Survival Values - TSV)	Traditional Self-Expression (TSE)	0.258***	-0.315***	0.696***	-0.47***	-0.038	0.353***	0.386	0.492***
	Rational Survival Values (RSV)	-1.311***	-0.507***	-0.707	0.752***	1.472***	0.874***	0.865***	1.117***
	Rational Self-Expression (RSE)	-0.555***	-0.115***	-0.442	-0.093	0.975***	-0.400***	0.893***	0.396***
Individual characteristics	Age (in log)	0.136*	0.041	0.147**	0.043	0.141**	0.043	0.149**	0.045
	Gender (1: female; 0: male)	-0.802***	-0.861***	-0.800***	-0.862***	-0.804***	-0.862***	-0.801***	-0.863***
	Human capital [default: low income (2 nd wave)/education (4 th wave)]								
	Medium income/education level	0.241***	0.070*	0.241***	0.070**	0.245***	0.069	0.246***	0.069
	High income /education level	0.470***	0.054	0.470***	0.053	0.475***	0.047	0.474***	0.045
Constant		-2.908	-2.575	-3.155	-2.568	-2.658	-2.467	-2.878	-2.453
Number of observations									
Goodness of fit	Hosmer and Lameshow test - <i>p-value</i>	0,658	0,045	0,258	0,139	0,025	0,175	0,092	0,387
	% correct	94,9	94,0	94,9	94,0	94,9	94,0	94,9	94,0

Note: ***(**)[*] statistically significant at 1% (5%) [10%].

Moreover, the propensity to become an entrepreneur is positively associated with work values that are reinforced by some country culture groups (when compared with the *Traditional Survival*, the default group): individuals from *Rational Survival* group or *Rational Self-expression* who mention *achieving something* and the individuals from *Traditional Self-expression* that mention *meeting people*.

In the most recent period (2008-2010), the propensity to become an entrepreneur is also reinforced when individuals that mention *use initiative* and *achieving something* belong to *Rational Self-expression* and *Rational Survival* group respectively. Additionally, individuals that mention *meeting abilities* only have a higher propensity to become an entrepreneur when they do not belong to a *Rational Self-expression* country.

In this vein, hypothesis 3, “***Countries’ culture impacts on the perception entrepreneurs have of values***”, is corroborated by our data.

Individual characteristics (age, gender and educational level) emerge as more relevant for explaining individuals’ propensity for becoming entrepreneurs in the earlier period (1990-1993) than in the latter one (2008-2010). In the 2nd wave, men, senior and more educated (proxied by higher income level) individuals are more likely to be entrepreneurs. In the 4th wave, only men are more likely to be entrepreneurs (age and education failed to emerge statistically relevant).

Conclusions

As pointed out in the literature there are a few international comparative studies of entrepreneurship on work values, and less so with a longitudinal perspective. As highlighted by Morris and Schindebutte (2005), longitudinal comparisons are crucial to analyze the changes over time on values and the corresponding implications for entrepreneurship.

According to several authors (e.g., Nam, 1998; Sverko, 2001; Harpaz and Fu, 2012) work tends to be of high importance in people's life, with entrepreneurs being the individuals who are more committed to work (Bird and Jellinek, 1988), typically working long hours and putting businesses ahead of their family and personal life.

Our study concluded that 'Compared to *non-entrepreneurs*, *entrepreneurs* are more likely to ***top rank work as the most important thing in life***, before *friends*, *leisure time*, *politics* and *religion*, but not *family*. Thus H1 of this study was partially corroborated.

Results have also shown that in the 2nd wave, 1990-1994, the entrepreneurship propensity is higher when an individual values *work* more than *leisure time* and belongs to *Rational Survival* country group. Conversely, although an individual who values *work* more than *politics* show a higher propensity to entrepreneurship, this tendency disappears when the individual belongs to *Traditional Self-expression* or *Rational Survival* countries. The entrepreneurship propensity increases in the 4th wave when an individual values *work* more than *politics* (potentiated when the individual belongs to *rational survival* countries) and *work* more than *leisure time* (potentiated when individuals belong to *Traditional Self-expression* countries). Also, in the most recent period (2008-2010), *work* increases in importance for *entrepreneurs* (as compared to *non-entrepreneurs*), emerging as more important than *friends and acquaintances* and *religion*; however, compared to *non-entrepreneurs*, *entrepreneurs* seem to value relatively more *family* than *work*. This is in line of some empirical studies on the importance of work in people's life (England, 1991; Harpaz and Fu, 2012) which confirms the high importance of work ranked as the second most important life sphere.

According to the literature (e.g., Eden, 1973; Hammermesh, 1990; Chay, 1993; Noseleit, 2008; Hirschi and Fischer, 2013; Aziz et al., 2013), some work values can

be associated to an entrepreneurial culture: *use initiative, have a say, responsible job* (related with the need for autonomy); *achieving something, chances for promotion, meeting people* (related with the need for achievement); and *interesting job, meeting abilities, useful for society, learning new skills* (related with self-realization). Thus, it was conjectured that '***Compared to Non-Entrepreneurs, Entrepreneurs tend to give more importance to work values that favor an entrepreneurial culture***'. This conjecture (H2) was partially corroborated.

In the second wave (1990-1993) only *use initiative* and *achieving something* were more mentioned by *entrepreneurs* compared with *non-entrepreneurs*. In this period no work value was positively associated with entrepreneurship, with *chances for promotion* being surprisingly and negatively associated with the entrepreneurship propensity. Interestingly, when individuals belong to a *Rational Survival* country (ex. Bulgaria or Latvia) and mention *achieving something* or *chances for promotion* as an important feature in a job, these individuals have a higher propensity to become entrepreneurs compared with individuals from a *Traditional Survival* country (ex. Poland, Romania). In the same way, individuals from *Traditional Self-expression* countries (ex. Portugal, Spain) that mention *chances for promotion* or *meeting people* as important features in a job are more likely to become entrepreneurs. Finally, and for this same period, individuals who belong to *Rational Self-expression* countries (ex. Germany, Denmark), and mention *achieving something* or *useful for society* as important attributes in a job, present a higher entrepreneurship propensity than the remaining individuals.

In the latter period, 2008-2010, and besides *use initiative, achieving something*, other values associated with an entrepreneurial culture and more valued by entrepreneurs, such as *meeting abilities* and *have a say*, are positively related with the entrepreneurship propensity. The entrepreneurial *interesting job* and *useful for society* related values were not mentioned by entrepreneurs nor identified by the model as indicators of entrepreneurship propensity. In fact, individuals mentioning these values were less likely to become entrepreneurs. When we include the cultural interaction, it is observed that individuals from *Rational Survival* countries who mention *achieving something, interesting job* or *useful for society* as important job attributes show a higher propensity to be entrepreneurs. This is also true for individuals from *Traditional Self-expression* who mention *interesting job* as an

important work value. Also, individuals from *Rational Self-expression* countries that mention *use initiative* and *interesting job* are more likely to become entrepreneurs. However, when they mention *meeting abilities* the propensity to entrepreneurship is lower than individuals from the default group (*Traditional Survival*).

According to literature, culture influences work values and many authors explain how some societies can have specific values depending on their culture. For example, Welzel (2013) refers to an earlier study (Inglehart and Welzel, 2005), which demonstrates that people in ‘stressed’ societies emphasize ‘survival values’ (e.g. discipline, uniformity, authority), while people in ‘prospering’ societies emphasize ‘self-expression’ values (e.g. creativity, diversity, autonomy).

Our results show that life dimensions differ among culture groups and *Rational Survival* and *Traditional Survival* countries value work more than other dimensions. The only exception is *religion* in the 4th wave (2008-2010), which is more valued by *Traditional Self-expression* countries. Additionally, work values also differ among countries’ cultural groups. In the 2nd wave, 1990-1993, values associated with entrepreneurship are mentioned the most by entrepreneurs located in *Rational Self-expression* and *Rational Survival* country groups. In the 4th wave, 2008-2010, *Traditional Survival* is the group (including, for instance, Poland, Romania) where *entrepreneurs* mention both entrepreneurial and non-entrepreneurial related values the most. Interestingly, *chances for promotion* is more mentioned by *Traditional Self-expression* group in both waves.

Countries’ culture also impacts on the propensity for being an entrepreneur, thus the third hypothesis (***Countries’ culture impacts on the perception entrepreneurs have of values***) is corroborated by our data. Indeed, compared to countries that belong to *Traditional Survival* (TSV), countries included in the remaining categories (*Traditional Self-expression* – TSE; *Rational Survival* – RSE; *Rational, Self-Expression* – RSE) show a higher propensity to entrepreneurship in the most recent years (2008-2010).

Summarizing, the main outcomes of the present study include:

1. The importance attributed by individuals to work values and life dimensions is a good indicator of entrepreneurship propensity.

2. The work values more associated to entrepreneurship propensity might not be directly related to those often associated with entrepreneurial culture and include: *use initiative, achieving something, meeting abilities* and *have a say*.
3. The interaction between work values or life dimensions and country's culture was identified and it is an important determinant of the entrepreneurship propensity.

Our study adds some enlightenment about the work values associated with the propensity to become an entrepreneur. As discussed, country culture impacts on entrepreneurial propensity depending on the mentioned work values. Our study suggests that *use initiative, achieving something, meeting abilities* and *have a say* work values should be promoted in a society when the aim is to foster entrepreneurial dynamics, that is, the creation of new businesses.

But, how can that be done?

Several authors have already made important contributions in this regard. At a societal level, Thomas (2013) states that having entrepreneurial role models is crucial to enhance business creation since it allows individuals to look up to them and seek to become one of them. According to this author, the 'social legitimation approach' conveys that higher entrepreneurial activity is found in societies where the entrepreneur has a high social status. Such cultural context tends to foster indirectly values such as *use initiative* and *achieving something*.

In a complementary way, Ngosiane (2010) highlights the importance of reformulating the courses of study in order to promote an entrepreneurial culture by including in the study structure both generalist and specialized skills, such as writing a business plans, preparing a proposal to present to investors, knowing the steps to register a company or becoming familiar with accounting procedures. With such a curriculum, *use initiative, having a say, meeting abilities* or *achievement something* would be more encouraged, valued and endorsed. Yet, there is the need to inculcate these practices since childhood so they can be crystalized and consolidated over time.

This work contributed with the identification and definition of the values associated with entrepreneurship in the work set which can be used to define specific strategies at governmental level to ensure these values are encouraged in order to promote entrepreneurship. Furthermore, the results obtained through the comparison of the four-culture country groups in Europe may help to narrow down strategies to

promote the work values associated with an entrepreneurial culture and propensity, according to each group. This finding reinforces how important the political strategies and initiatives to identify and motivate what are the values associated with entrepreneurship in the different European cultures can be. In this sense, it becomes possible to provide concrete data to political decision-makers to take informed and validated strategies and actions on these matters.

Despite the novelty of the present study, a major limitation must be mentioned. The dataset used is not focused on entrepreneurship, and thus there is no variables directly related with entrepreneurship, most notably new business creation. The proxy used for entrepreneurship was “self-employment” which is only a part of the process of business creation. Other longitudinal studies are needed that can address a wider range of work values, a wider variability of respondent’s age and more demographic variables with interest for entrepreneurship topic (such as entrepreneur social status, type of business, etc.). Moreover, studies that can include other countries outside Europe would be useful to understand culture variability in a more encompassing way.

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Appendix

Appendix A1: Matrix of Correlations

Table A 1: Correlation matrix, 2nd wave (1990-1993)⁷

	ENT	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26			
ENT	Pearson r	1	0.005	.026**	.045**	.032**	0.001	-.020**	-.043**	0.006	-.048**	.016**	-.027**	0.011	-.0001	-.022**	-.0005	-.058**	-.027**	-.020**	-.018**	.068**	-.069**	-.026**	0.008	-.087**	-.001	.042**		
	Sig. (2-tailed)		0.413	0	0	0.81	0	0.203	0	0.329	0	0.007	0	0.065	0.812	0	0.369	0	0.001	0.002	0	0	0	0.181	0	0.084	0			
	Pearson r	0.005	1	.135**	.108**	.050**	.115**	-.011*	-.017**	-.041**	-.014*	-.021**	0.011	-.0007	-.0006	-.0005	-.0001	-.0002	-.018**	-.020**	-.0003	-.0003	-.022**	.044**	0.007	-.045**	-.057**	-.016**	-.019**	
	Sig. (2-tailed)	0.413		0	0	0	0	0.044	0.003	0	0.018	0	0.052	0.24	0.289	0.357	0.895	0.754	0.001	0.001	0.568	0.577	0	0	0.2	0	0	0.006	0.001	
1	Pearson r	.026**	.135**	1	.461**	.237**	.195**	0.01	-.024**	0.006	.024**	-.063**	-.030**	-.055**	-.0002	0.008	-.054**	0.009	-.081**	-.019**	0.006	-.067**	-.035**	.076**	-.054**	.092**	-.034**	.018**	0.001	
	Sig. (2-tailed)	0	0	0	0	0	0	0.08	0	0.299	0	0	0	0	0.753	0.167	0	0.116	0	0.001	0.308	0	0	0	0	0	0	0	0.002	0.895
2	Pearson r	.045**	.108**	.461**	1	.260**	.146**	-.029**	-.047**	-.0007	.031**	-.096**	-.031**	-.105**	0.005	0.006	-.056**	-.0002	-.063**	-.026**	.026**	-.048**	0.003	.053**	-.057**	.103**	-.0009	-.0006	-.019**	0.001
	Sig. (2-tailed)	0	0	0	0	0	0	0	0	0.213	0	0	0	0	0.353	0.333	0	0.728	0	0	0	0.563	0	0	0	0	0	0.108	0.279	0.001
3	Pearson r	.032**	.050**	.237**	.260**	1	.217**	.027**	.016**	.054**	.018**	-.0008	-.054**	-.0004	-.0011	-.0006	-.038**	-.021**	-.0007	0.011	-.024**	-.031**	.087**	-.020**	-.031**	-.054**	.016**	.023**	-.012*	0.042
	Sig. (2-tailed)	0	0	0	0	0	0	0	0.005	0	0.002	0.189	0	0.456	0.05	0.334	0	0	0.219	0.051	0	0	0	0	0	0	0	0.005	0	0.042
4	Pearson r	0.001	.115**	.195**	.146**	.217**	1	.039**	-.036**	-.016**	-.029**	-.036**	.048**	-.018**	.012*	.015**	.046**	.024**	.020**	-.014*	-.034**	.020**	-.079**	.084**	.129**	-.206**	-.137**	.026**	.089**	0.001
	Sig. (2-tailed)	0.81	0	0	0	0	0	0	0.006	0	0	0	0.002	0.042	0.007	0	0	0.001	0.015	0	0	0	0	0	0	0	0	0	0	0
5	Pearson r	-.020**	-.011*	0.01	-.029**	.027**	.039**	1	.172**	.230**	.141**	.258**	.103**	.241**	.095**	.114**	.140**	.099**	.189**	.246**	.076**	.094**	.033**	.092**	-.137**	-.076**	-.073**	.014*	.014*	0.018
	Sig. (2-tailed)	0	0.044	0.08	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.018
6	Pearson r	-.0007	-.017**	-.024**	-.047**	.016**	-.036**	.172**	1	.220**	.244**	.322**	.172**	.328**	.139**	.149**	.164**	.204**	.221**	.233**	.230**	.217**	.036**	.074**	-.114**	-.021**	0.006	.038**	-.042**	0.015
	Sig. (2-tailed)	0.203	0.003	0	0	0.005	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.324	0	0
7	Pearson r	-.043**	-.041**	0.006	-.0007	.054**	-.016**	.230**	.220**	1	.204**	.263**	.168**	.228**	.185**	.194**	.164**	.176**	.199**	.278**	.194**	.153**	.048**	-.052**	-.019**	.033**	-.013*	0.005	-.034**	0.001
	Sig. (2-tailed)	0	0	0.299	0.213	0	0.006	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.001	0	0.021	0.411	0
8	Pearson r	0.006	-.014*	.024**	.031**	.018**	-.029**	.141**	.244**	.204**	1	.198**	.267**	.235**	.245**	.281**	.202**	.246**	.216**	.266**	.350**	.264**	0.008	.012*	-.057**	.063**	-.0003	0.001	0.004	0.004
	Sig. (2-tailed)	0.329	0.018	0	0	0.002	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.144	0.039	0	0	0	0.559	0.869	0.518	0.001
9	Pearson r	-.048**	-.021**	-.063**	-.096**	-.0008	-.036**	.258**	.322**	.263**	.198**	1	.158**	.433**	.145**	.172**	.206**	.180**	.251**	.246**	.205**	.243**	.039**	.050**	-.086**	-.040**	.048**	.016**	-.039**	0.001
	Sig. (2-tailed)	0	0	0	0	0.189	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.005	0
10	Pearson r	.016**	0.011	-.030**	-.031**	-.054**	.048**	.103**	.172**	.168**	.267**	.158**	1	.176**	.382**	.387**	.338**	.323**	.239**	.341**	.294**	.305**	-.031**	-.085**	.069**	-.079**	-.069**	-.032**	.124**	0.001
	Sig. (2-tailed)	0.007	0.052	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11	Pearson r	-.027**	-.0007	-.055**	-.105**	-.0004	-.018**	.241**	.328**	.228**	.235**	.433**	.176**	1	.136**	.182**	.187**	.166**	.202**	.285**	.211**	.240**	.066**	.056**	-.093**	-.046**	-.001	.012*	-.012*	0.043
	Sig. (2-tailed)	0	0.24	0	0	0.456	0.002	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.076	0.036	0.043	0.001
12	Pearson r	0.011	-.0006	-.0002	0.005	-.0011	.012*	.095**	.139**	.185**	.245**	.145**	.382**	.136**	1	.314**	.294**	.290**	.198**	.300**	.265**	.210**	-.053**	-.060**	0.006	-.057**	-.035**	-.026**	.078**	0.001
	Sig. (2-tailed)	0.065	0.289	0.753	0.353	0.05	0.042	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.304	0	0	0
13	Pearson r	-.0001	-.0005	0.008	0.006	-.0006	.015**	.114**	.149**	.194**	.281**	.172**	.387**	.182**	.314**	1	.266**	.279**	.197**	.331**	.293**	.285**	-.027**	-.081**	.046**	.012*	-.072**	-.043**	.074**	0.001
	Sig. (2-tailed)	0.812	0.357	0.167	0.333	0.334	0.007	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.029	0	0	0
14	Pearson r	-.022**	-.0001	-.054**	-.056**	-.038**	.046**	.140**	.164**	.164**	.202**	.206**	.338**	.187**	.294**	.266**	1	.247**	.252**	.244**	.227**	.271**	-.070**	0.002	.036**	-.106**	-.014*	-.0005	.061**	0.001
	Sig. (2-tailed)	0	0.895	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.016	0.336	0	0
15	Pearson r	-.0005	-.0002	0.009	-.0002	-.021**	.024**	.099**	.204**	.176**	.246**	.180**	.323**	.166**	.290**	.279**	.247**	1	.204**	.231**	.274**	.242**	-.045**	.015*	.027**	-.023**	.025**	-.0002	.054**	0.001
	Sig. (2-tailed)	0.369	0.754	0.116	0.728	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.011	0	0	0	0.751	0	0
16	Pearson r	-.058**	-.018**	-.081**	-.063**	-.0007	.020**	.189**	.221**	.199**	.216**	.251**	.239**	.202**	.198**	.197**	.252**	.204**	1	.229**	.219**	.278**	-.031**	0.01	.013*	-.083**	.036**	-.0006	.024**	0.001
	Sig. (2-tailed)	0	0.001	0	0	0.219	0.001	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.077	0.021	0	0	0	0.266	0	0
17	Pearson r	-.027**	-.020**	-.019**	-.026**	0.011	-.014*	.246**	.233**	.278**	.266**	.246**	.341**	.285**	.300**	.331**	.244**	.231**	.229**	1	.241**	.222**	.067**	-.036**	-.085**	-.053**	-.053**	-.020**	.033**	0.001
	Sig. (2-tailed)	0	0.001	0.001	0	0.051	0.015	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18	Pearson r	-.020**	-.0003	0.006	.026**	-.024**	-.034**	.076**	.230**	.194**	.350**	.205**	.294**	.211**	.265**	.293**	.227**	.274**	.219**	.241**	1	.298**	.066**	-.056**	.040**	0.003	.016**	-.0003	0.001	0.001
	Sig. (2-tailed)	0.001	0.568	0.308	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.821	0	0	0	0.595	0.005	0.584	0.001	0.001
19	Pearson r	-.018**	-.0003	-.067**	-.048**	-.031**	.020**	.094**	.217**	.153**	.264**	.243**	.305**	.240**	.210**	.285**	.271**	.242**	.278**	.222**	.298**	1	-.043**	.049**	.046**	-.059**	.073**	-.0003	0.009	0.001
	Sig. (2-tailed)	0.002	0.577	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.64	0.108	0.001
20	Pearson r	.068**	-.022**	-.035**	0.003	.087**	-.079**	.033**	.036**	.048**	0.008	.039**	-.031**	.066**	-.053**	-.027**	-.070**	-.045**	-.031**	.067**	-.0001	-.043**	1	-.211**	-.408**	-.041**	0.006	-.040**	-.0004	0.001
	Sig. (2-tailed)	0	0	0	0.563	0	0	0	0	0	0.144	0	0	0	0	0	0	0	0	0	0	0.821	0	0	0	0	0.311	0	0.512	0.001
21	Pearson r	-.069**	.044**	.076**	.053**	-.020**	.084**	.092**	.074**	-.052**	.012*	.050**	-.085**	.056**	-.060**	-.081**	0.002	.015*	0.01	-.036**	.066**	.049**	-.211**	1	-.490**	-.019**	.016**	.072**	-.048**	0.001
	Sig. (2-tailed)	0	0	0	0	0	0	0	0	0	0.039	0	0	0	0	0.733	0.011	0.077	0	0	0	0	0	0	0	0.001	0.004	0	0	0
22	Pearson r	-.026**	0.007	-.054**	-.057**	-.031**	.129**	-.137**	-.114**	-.019**	-.057**	-.086**	.069**	-.093**	0.006	.046**	.036**	.027**	.013*	-.085**	-.056**	.046**	-.408**	-.490**	1	.025**	-.0008	-.021**	.031**	0.001
	Sig. (2-tailed)	0	0.2	0	0																									

Table A 2: Correlation matrix, 4th wave (2008-2010)⁸

ENT	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28		
Pearson r	1	0.005	.047**	.053**	.019**	.032**	-.0003	.024**	-.038**	-.014**	.033**	-.009*	.029**	.009*	-.0007	.017**	-.024**	-.0003	0.004	.016**	0.007	.029**	-.020**	-.022**	-.034**	0.003	-.0007	-.106**	.016**	0.008
Sig. (2-tailed)		0.21	0	0	0	0.445	0	0	0.001	0	0.032	0	0.03	0.091	0	0.52	0.276	0	0.113	0	0	0	0	0	0.423	0.083	0	0	0.052	
Pearson r	0.005	1	.161**	.114**	.060**	.121**	-.020**	-.014**	-.036**	-.035**	-.017**	-.014**	-.025**	-.013**	-.017**	-.020**	-.034**	-.032**	-.017**	-.078**	-.029**	-.039**	-.011**	.040**	.016**	-.022**	0	0.008	.015**	
Sig. (2-tailed)			0	0	0	0	0	0	0	0.001	0	0	0.007	0	0	0	0	0	0	0	0.007	0	0	0	0	0	0.442	0.009	0	
Pearson r	.047**	.161**	1	.528**	.246**	.203**	.039**	-.0006	0.008	-.020**	-.024**	-.029**	-.016**	-.010*	-.044**	0.007	-.036**	-.018**	-.037**	-.017**	.009*	-.016**	-.014**	-.0006	.054**	-.082**	.026**	-.024**	0.003	-.011**
Sig. (2-tailed)				0	0	0	0	0	0.132	0.054	0	0	0.015	0	0.104	0	0	0	0	0.036	0	0.001	0.167	0	0	0	0	0	0.442	0.009
Pearson r	.053**	.114**	.528**	1	.279**	.201**	.013**	-.034**	0.005	-.040**	-.019**	-.065**	-.0004	0.001	-.054**	.009*	-.026**	0	-.026**	-.013**	.012**	-.0003	-.013**	-.028**	.032**	.033**	-.020**	-.019**	.011**	0
Sig. (2-tailed)					0	0	0	0.002	0	0.248	0	0	0.295	0.864	0	0.021	0	0.981	0	0.001	0.004	0.399	0.001	0	0	0	0	0	0	0.009
Pearson r	.019**	.060**	.246**	.279**	1	.318**	.056**	0	.033**	.021**	-.034**	-.0004	0.001	-.014**	-.010*	0.004	.010*	-.043**	-.0007	-.009*	.017**	-.043**	0.004	.016**	.075**	-.080**	-.127**	.029**	.033**	-.035**
Sig. (2-tailed)						0	0	0.939	0	0	0.363	0.83	0.001	0.013	0.297	0.015	0	0.112	0.029	0	0	0.302	0	0	0	0	0	0	0	0
Pearson r	.032**	.121**	.203**	.201**	.318**	1	-.038**	-.116**	-.083**	-.090**	-.029**	-.078**	-.034**	-.063**	-.0005	-.079**	-.015**	-.139**	-.070**	-.052**	-.141**	-.082**	-.086**	-.044**	.107**	.175**	-.133**	-.098**	.116**	.056**
Sig. (2-tailed)							0	0	0	0	0	0	0.197	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pearson r	-.0003	-.020**	.039**	.013**	.056**	-.038**	1	.220**	.253**	.264**	.120**	.244**	.134**	.138**	.167**	.192**	.155**	.138**	.130**	.166**	.223**	.170**	.188**	.022**	.071**	-.275**	-.102**	-.032**	-.0002	-.027**
Sig. (2-tailed)								0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pearson r	.0445	0	0	0.002	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.624
Sig. (2-tailed)																														0
Pearson r	.024**	-.026**	-.0006	-.034**	0	-.116**	.220**	1	.320**	.421**	.311**	.398**	.276**	.272**	.231**	.357**	.303**	.355**	.309**	.346**	.376**	.345**	.332**	.017**	-.044**	-.241**	-.090**	0.004	-.008*	-.049**
Sig. (2-tailed)																														0
Pearson r	-.038**	-.036**	0.008	0.005	.033**	-.083**	.253**	.320**	1	.305**	.254**	.260**	.265**	.238**	.216**	.313**	.216**	.273**	.228**	.261**	.299**	.267**	.319**	.035**	.033**	-.185**	-.099*	0.006	-.013**	-.068**
Sig. (2-tailed)																														0
Pearson r	-.014**	-.035**	-.020**	-.040**	.021**	-.090**	.264**	.421**	.305**	1	.299**	.407**	.252**	.251**	.254**	.332**	.283**	.318**	.302**	.317**	.385**	.303**	.318**	.040**	-.011**	-.213**	-.094**	.042**	-.010*	-.049**
Sig. (2-tailed)																														0
Pearson r	.033**	-.017**	-.024**	-.019**	-.034**	-.029**	.120**	.311**	.234**	.299**	1	.303**	.440**	.439**	.349**	.400**	.309**	.456**	.408**	.485**	.296**	.496**	.324**	-.030**	-.054**	-.030**	-.066**	-.033**	.022**	.063**
Sig. (2-tailed)																														0
Pearson r	-.009*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sig. (2-tailed)																														0
Pearson r	0.032	0.001	0	0	0.363	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.44	0.808	0
Sig. (2-tailed)																														0
Pearson r	.029**	-.025**	-.016**	-.0004	0.001	-.034**	.134**	.276**	.265**	.252**	.440**	.236**	1	.402**	.342**	.398**	.280**	.371**	.353**	.449**	.313**	.416**	.329**	-.043**	-.026**	-.071**	-.075**	-.019**	.020**	.041**
Sig. (2-tailed)																														0
Pearson r	.009*	-.013**	-.010*	0.001	-.014**	-.063**	.138**	.272**	.238**	.251**	.439**	.258**	.402**	1	.331**	.366**	.259**	.414**	.379**	.431**	.301**	.467**	.293**	-.030**	-.058**	-.033**	-.047**	0.008	.030**	0
Sig. (2-tailed)																														0
Pearson r	-.0007	-.017**	-.044**	-.054**	-.010*	-.0005	.167**	.231**	.216**	.254**	.349**	.247**	.342**	.331**	1	.343**	.275**	.280**	.314**	.372**	.272**	.326**	.287**	-.030**	.026**	-.059**	-.064**	-.0001	.041**	.066**
Sig. (2-tailed)																														0
Pearson r	.017**	-.020**	0.007	.009*	0.004	-.079**	.192**	.357**	.313**	.332**	.400**	.293**	.398**	.366**	.343**	1	.285**	.387**	.349**	.454**	.388**	.392**	.400**	-.032**	0	-.164**	-.035**	0.005	0.007	0.007
Sig. (2-tailed)																														0
Pearson r	-.024**	-.034**	-.036**	-.026**	.010*	-.015**	.155**	.303**	.216**	.283**	.309**	.228**	.280**	.259**	.275**	.285**	1	.281**	.307**	.321**	.281**	.281**	.308**	-.0003	-.032**	-.052**	-.087**	.027**	0.006	.031**
Sig. (2-tailed)																														0
Pearson r	-.0003	-.032**	-.018**	0	-.043**	-.139**	.138**	.355**	.273**	.318**	.456**	.328**	.371**	.414**	.280**	.387**	.281**	1	.412**	.428**	.377**	.439**	.344**	.008*	-.047**	-.153**	0	0.007	-.047**	.034**
Sig. (2-tailed)																														0
Pearson r	0.52	0	0.981	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.04	0	0.949	0.106	0	0
Sig. (2-tailed)																														0
Pearson r	0.004	-.022**	-.037**	-.026**	-.0007	-.070**	.130**	.309**	.228**	.302**	.408**	.327**	.353**	.379**	.314**	.349**	.307**	.412**	1	.413**	.334**	.401**	.312**	-.030**	-.022**	-.094**	-.045**	.035**	-.0002	0.003
Sig. (2-tailed)																														0
Pearson r	0.276	0	0	0	0.112	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.696	0.405
Sig. (2-tailed)																														0
Pearson r	.016**	-.017**	-.017**	-.013**	-.009*	-.052**	.166**	.346**	.261**	.317**	.485**	.312**	.449**	.431**	.372**	.454**	.321**	.428**	.413**	1	.381**	.487**	.384**	-.020**	-.021**	-.119**	-.135**	-.009*	.011**	.040**
Sig. (2-tailed)																														0
Pearson r	0	0	0.001	0.029	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.028	0.007	0
Sig. (2-tailed)																														0
Pearson r	0.007	-.078**	.009*	.012**	.017**	-.141**	.223**	.376**	.299**	.385**	.296**	.350**	.313**	.301**	.272**	.388**	.281**	.377**	.334**	.381**	1	.378**	.400**	0.008	0	-.266**	-.039**	.069**	-.033**	-.012**
Sig. (2-tailed)																														0
Pearson r	0.113	0	0.036	0.004	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.06	0.981	0	0	0	0.004
Sig. (2-tailed)																														0
Pearson r	.029**	-.029**	-.016**	-.0003	-.043**	-.082**	.170**	.345**	.267**	.303**	.496**	.333**	.416**	.467**	.326**	.392**	.281**	.439**	.401**	.487**	1	.376**	-.039**	-.057**	-.132**	-.061**	-.043**	0.004	.036**	0
Sig. (2-tailed)																														0
Pearson r	-.020**	-.039**	-.014**	-.013**	0.004	-.086**	.188**	.332**	.319**	.318**																				

Appendix A2: The 27 selected countries

Austria

Belgium

Bulgaria

Czech Republic

Denmark

Estonia

Finland

France

Germany

Great Britain

Hungary

Iceland

Ireland

Italy

Latvia

Lithuania

Malta

Netherlands

Northern Ireland

Norway

Poland

Portugal

Romania

Slovak Republic

Slovenia

Spain

Sweden

Appendix A3: Cross variables for Self-employment

Table A 3: Cross variable for employment status and kind of job in the 2nd wave

Kind of Job	Self-Employed	Total	%
Employer/manager of establishment ≥ 10 employed	103	617	16,69%
Employer/manager of establishment < 10 employed	651	1663	39,15%
Professional worker	219	2911	7,52%
Middle level non-manual office worker	73	4252	1,72%
Junior level non manual	47	4727	0,99%
Foreman and supervisor	17	1152	1,48%
Skilled manual	194	5925	3,27%
Semi-skilled manual worker	54	3203	1,69%
Unskilled manual	64	3367	1,90%
Farmer with own farm	478	1018	46,95%
Agricultural worker	39	818	4,77%
Member of armed forces	0	260	0,00%
Never had a job	1	2940	0,03%
Total	1940	32853	5,91%

Table A 4: Cross variable for employment status and occupational status (x036c) in the 4nd wave

Occupational status	Self-Employed	Total	%
Higher Controllers	478	7131	6,70%
Lower Controllers	296	10922	2,71%
Routine Nonmanual	32	4935	0,65%
Lower Sales-Service	0	5742	0,00%
Selfempl with empl	758	1115	67,98%
Selfempl no empl	1218	1826	66,70%
Manual Supervisors	0	1422	0,00%
Skilled Worker	0	6992	0,00%
Unskilled Worker	44	9632	0,46%
Farm Labor	0	1907	0,00%
Selfempl Farmer	722	1574	45,87%
Total	3548	53198	6,67%

Table A 5: Cross variable for employment status and occupational status (x036d) in the 4nd wave

Occupational status	Self-Employed	Total	%
Large employers, higher managers/professionals	486	5503	8,83%
Lower managers/professionals, higher supervisory/technicians	229	10516	2,18%
Intermediate occupations	18	5026	0,36%
Small employers and self-employed (non- agriculture)	2084	3135	66,48%
Small employers and self-employed (agriculture)	646	1278	50,55%
Lower supervisors and technicians	1	3809	0,03%
Lower sales and service	22	6235	0,35%
Lower technical	28	6986	0,40%
Routine	34	10710	0,32%
Total	3548	53198	6,67%