HAL
open science

Gender and family background as predictors of entrepreneurial drive in France

J.P. Boissin, B. Branchet, Servane Delanoë, Veronica Velo

To cite this version:

J.P. Boissin, B. Branchet, Servane Delanoë, Veronica Velo. Gender and family background as predictors of entrepreneurial drive in France. 2009, 22p. halshs-00528785

HAL Id: halshs-00528785

https://shs.hal.science/halshs-00528785v1

Submitted on 22 Oct 2010

HAL is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.

www.cerag.org
Centre d'Etudes et de Recherches Appliquées à la Gestion_ U.M.R. C.N.R.S. 5820

CAHIER DE RECHERCHE n°2009-11 E4

Gender and family background as predictors of entrepreneurial drive in France

BOISSIN Jean-Pierre
BRANCHET Bénédicte
DELANOE Servane
VELO Veronica

Unité Mixte de Recherche CNRS / Université Pierre Mendès France Grenoble 2
150 rue de la Chimie – BP 47 – 38040 GRENOBLE cedex 9
Tél. : 04 76 63 53 81 Fax : 04 76 54 60 68

Gender and family background as predictors of entrepreneurial drive in France

Objectives: This study analyzes the role played by gender and personal environment (proximity to business and entrepreneurship) in the definition and establishment of *professional values* and *vision of entrepreneurship* amongst Higher Education students in France.

Prior work: The theory of planned behavior proposed by Ajzen (1991) investigates the effect that attitude, subjective norm and perceived behavioral control have on intentions to undertake targeted behaviors. Researchers using this or similar frameworks have shown the importance of attitude in forming the intention of students to engage in entrepreneurial ventures (Fayolle et al., 2006; Kolvereid, 1996). Demographic aspects such as gender, social background or parental experience have also been shown to affect attitude (Ajzen & Gilbert Cote, 2008; Kolvereid, 1996). However, more research is needed on the interactions between these variables. In addition, in France the low representation of women in entrepreneurship is apparent not only among company founders but also in students' entrepreneurial intentions which are lower for females than for males (APCE, 2007; Boissin & Emin, 2007; Novelli, 2008). Given the recognized importance of women entrepreneurship for a country's economy (Allen et al., 2008; EC, 2000), this gender gap also warrants further research.

Approach: In this article, we study the impact of gender and personal environment on two behavioral beliefs, professional values and vision of entrepreneurship, which constitute the basis for the 'attitude toward the behavior' antecedent of intention identified in Ajzen's (1991) theory of planned behavior. We use a quantitative methodology based on a questionnaire administered to a sample of 941 French students from different post-secondary institutions delivering human and social sciences degrees, including universities and Business Schools located in France.

Results: The results, based on chi-square tests, suggest that professional values are slightly influenced by the entrepreneurial role model. They are likewise impacted by the opinion held about business creations that have been “witnessed” personally by the students, in terms of success or failure of the venture. Furthermore, gender plays a role in the intensity of effects of the entrepreneurial role model on professional values. However, we detect very little, if any, impact of these variables on beliefs corresponding to the vision of entrepreneurship. Finally, we verify that the entrepreneurial role model limits the tensions between professional values and visions of entrepreneurship.

Implications: For researchers, being able to differentiate between role models perceived as successful or not adds to the understanding of these models' influence. For practitioners, the influence of role models appears stronger for female students than for males. Putting students in contact with entrepreneurs before they make their career choices could influence their entrepreneurial beliefs, and ultimately their entrepreneurial intentions, positively.

Value: By relying on a large standardized database, this study investigates the interactions of elements impacting students' attitude toward entrepreneurship in a level of detail that few studies have been able to achieve.

Keywords: students, entrepreneurship, intentions, attitude, beliefs

The authors would like to thank Sarah Setton for her suggestions that improved the quality of English of this paper.

Entrepreneurship has been recognized an important component of economic growth by contributing to the diffusion of innovation, productivity and employment gains . Among the factors influencing one's propensity to get involved in entrepreneurial activities the impact of gender and of parental experience are under the special scrutiny of scholars . In addition, students' intentions to follow entrepreneurial paths are being studied with the objective of finding ways to enhance such undertakings .

Based on the premise that "the stronger the intention to engage in a behavior, the more likely should be its performance" academics have been relying on intention-based frameworks to analyze the impacts of various antecedents on students' career preferences . The use of such models to study new venture creation has been deemed especially appropriate in the case of students populations who very rarely create straight out of school, but rather a few years later . In these models, three major antecedents to intentions are usually studied: perceived behavioral control, attitude toward the behavior, and subjective norm . In the words of Ajzen, perceived behavioral control reflects "people's perception of the ease or difficulty of performing the behavior of interest" (p. 183), while attitude toward the behavior is "the degree to which a person has a favorable or unfavorable evaluation or appraisal of the behavior in question", and subjective norm "the perceived social pressure to perform or not to perform the behavior" (p. 188).

In this paper we focus on behavioral beliefs affecting attitude toward entrepreneurship. Specifically, we analyze the professional values of students (the professional characteristics they value for their future career) and their vision of entrepreneurship (which characteristics they think will be fulfilled by an entrepreneurial career) in light of their (1) exposure to entrepreneurial individuals, (2) gender and (3) perception of their entrepreneurial role models' experiences as successes or failures. Entrepreneurial family background and gender have been found to influence not only students intentions, but also engagement in nascent entrepreneurship and actual business start-ups at later stages . Their effects on entrepreneurial intention and/ or activity are thought to be both direct and indirect via their impact on attitudes and perceived control of venture creation requirements . In this paper, based on the premise that "most social attitudes are acquired, not innate" we take the view that attitudes can be altered. Our results should therefore provide insight to educators and advisors on how to adapt their messages to the profiles of the students or entrepreneurs they are facing. For aspiring or established entrepreneurs, understanding how their environment may have biased their perception of entrepreneurship could help them adjust their current beliefs.

1. Study context

In this section, we will first examine how our research questions are positioned within the literature. To accomplish this, we successively call upon the Theory of Planned Behavior, works on parental experience and role model influence on entrepreneurship and studies linking gender and entrepreneurship. We then, formulate three groups of hypotheses which constitute the core of this work and which will be examined in the results section.

1.1 Entrepreneurship, theory of planned behavior and attitudes

Entrepreneurship research uses intention models to study what might impact one's plan to become an entrepreneur. Before undertaking venture creation, individuals usually think about it, engage in more or less formal planning and then only start the venture. Intentionality precedes the behavior and could be considered a good predictor and earlier indicator of future entrepreneurial activities (Krueger & Carsrud, 1993; Krueger, Reilly, & Carsrud, 2000). Ajzen's theory of planned behavior which seeks to identify antecedents of a variety of intentional behaviors is presented below (Ajzen, 1991).

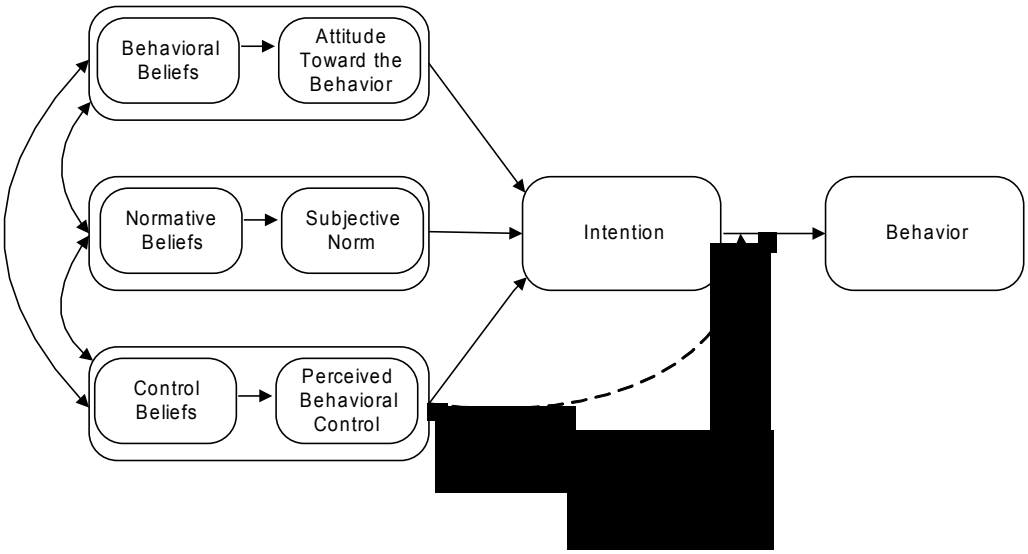


Figure 1: Ajzen Theory of Planned Behavior - http://people.umass.edu/aizen/tpb.diag.html – accessed July 08

Scholars are reminded that when undertaking attitude-based studies, the principle of compatibility should be borne in mind: "we can expect a strong attitude-behavior correlation only to the extent that the measures of attitude and behavior involve exactly the same action, target, context and time" . Ajzen's theory of planned behavior and other intention models have therefore been adapted to the singularity of entrepreneurship . Perceived behavioral control is closely related to self-efficacy which Bandura defined as "people's judgments of their capabilities to organize and execute courses of action required to attain designated types of performances. It is concerned not with the skills one has but with judgments of what one can do with whatever skills one possesses". Specific entrepreneurial self-efficacy scales with tasks directly applicable to entrepreneurship are being developed to enable the measurement of this construct in entrepreneurial contexts . Subjective norm in entrepreneurial contexts has been related to the encouragement one thinks s/he may (or may not) receive from one's close circle of friends, family or mentors when engaging in an entrepreneurial venture and the importance s/he places on this encouragement. Last but not least, attitude toward the behavior has been found to influence career choices, both when measured as the general attractiveness of an entrepreneurial career (in itself or as opposed to salaried employment) and when evaluated as the importance for the person of elements commonly associated with entrepreneurship career such as autonomy for example .

Intention-based models have served to measure determinants of students' entrepreneurial intentions in a variety of cultures. As suggested by Ajzen (1991) depending on the country or type of individuals studied, various elements of the model have been found to bear varying impact on entrepreneurial intentions . For example, the impact of social norm appears to vary between countries . In addition, some international studies emphasize the predominance of the impact of perceived control on intentions . In France however, attitude has been shown to be the most important antecedent of entrepreneurial intention , thus warranting a specific focus on underlying beliefs generating it. In this paper we therefore direct our attention toward two types of beliefs: professional values and vision of entrepreneurship and analyze the potential influence of role models and gender on them.

1.2 Parental experience and role models' influence on entrepreneurship

"The family, particularly the father or mother, plays the most powerful role in establishing the desirability and credibility of entrepreneurial action for an individual" . However, parental role models are not the only ones influencing entrepreneurial intentions, as more remote models such as other relatives or friends have also been shown to impact intentions . Parental business exposure has been found to impact entrepreneurial intention directly and indirectly through the mediation variables of attitudes toward business ownership, perceived family support and entrepreneurial self-efficacy . However, contradictory results are put forward concerning the effect of the presence of entrepreneurial parents for nascent entrepreneurship. For example, in Sweden, they were found to increase the chance of entering a nascent venture process by enabling easier access to initial resources , while no such effect came up in a recent US-based study . In the UK, the influence

of parental entrepreneurial experience was found to strongly influence their children's career choices with "strong inter-generational occupational patterns among self-employed and small business owners" .

In many studies, parental experience is treated as a dichotomous variable indicating the presence or absence of entrepreneurial parents . Only a few exceptions differentiate between the mother and the father, but such studies lead to results requiring further investigation. For example, it was shown that independence appeared to be a more important personal motive and profit growth a less important business objective for those having "wider family also engaged in self-employment" than for those having no family involvement or only the mother self-employed .

The impact of parental experience has been found to be depending on the perception of the students of their parents' or relatives' experience of business ownership as a success or failure . However, it has also been offered that even role models' experiences regarded as unsuccessful could contribute to increase students' intent if it leads them to believe that they "can profit from and avoid errors made by parental role models" . These authors suggest that regardless of its performance, the mere presence of an entrepreneurial role model has an impact on individuals' career preferences. In fact, just knowing someone who started a business in the last two years has elsewhere been found to increase the likelihood of being a nascent entrepreneur .

1.3 Gender and entrepreneurship

The impact of gender on entrepreneurship has been studied at the country level . It has also been analyzed at the individual level for persons at various stages of their careers from students not yet involved in the professional world , to people engaged in nascent ventures , academic founders of companies or actual business owners . Studies converge in observing that, regardless of whether it is measured at the intention or at a later involvement stage, women's attraction and participation in entrepreneurship are lower than men's. In France for example, in 2006 women accounted for 29% of company founders vs. 47% of the working population . France is known for its low participation of females in entrepreneurship . However, this gender gap is also present in a variety of countries from various cultural backgrounds and it has been suggested that "finding ways to empower women's participation and success in entrepreneurship is critical for more sustainable and successful development in all countries" . Several explanations have been offered to explain this under-representation of women, including the need for women to overcome "cultural conditioning and learning experiences" and their lower self-confidence in being able to start businesses as reflected in lower entrepreneurial self-efficacies for females than for males . Initial entrepreneurship research was primarily based on the observation of male entrepreneurship . Given the historical under-representation of women among entrepreneurs characteristics first attributed to successful entrepreneurship were typically masculine and it looks as though this cultural effect remains true today . As a result, current models applied to parts of the phenomenon such as nascent entrepreneurship, actually seem to provide explanatory power for male entrepreneurs, but only very limitedly for female entrepreneurs . Gender-differentiated analyses are therefore being tried to generate better understanding of female entrepreneurship. It has for example been shown that, during startup and company development, women use their networks in a different manner from men or that they sometimes differ from men in the professional values they prioritize . Gender-identity analysis of career satisfier preferences has linked masculinity to status-based satisfiers (which include earnings, prestige and social status, leadership etc.) and femininity to employee relationship (such as working with friendly and congenial people or teamwork) and contribution-to-society satisfiers (such as contributing to society and helping others) . Finally, linking to the parental influences discussed previously, having entrepreneurial parents has been found to influence girls' entrepreneurial intentions but not boys' . Such differences are therefore expected to appear in the professional values and the vision of entrepreneurship expressed by female and male students.

1.4 Core Hypotheses

In this study, the questions were asked in a way that enables detailed investigation of the interaction between professional values and vision of entrepreneurship on one side, and gender and role model impact on the other side. Specifically, the students were asked to indicate the profession of each of their parents among a list of nine choices. In addition, they were asked if (a) one of their parents and (b) another close person had created a company, and, if applicable, whether they considered these startups to be successes or failures. Such a design enables the test of the following series of hypotheses relating to professional values, vision of entrepreneurship and tensions (or divergence) between professional values and visions of entrepreneurship:

H1a: Professional values of students will be different depending on their entrepreneurial role model: mother, father, other close person or none.

H1b: Vision of entrepreneurship of students will be different depending on their entrepreneurial role model: mother, father, other close person or none.

H1c: Tensions between professional values and vision of entrepreneurship will be lower for students with parental role model than for those with other role model and for those with no role model.

H2a: Impact of entrepreneurial role model on professional values will be more important for female students than for males.

H2b: Impact of entrepreneurial role model on vision of entrepreneurship will be more important for female students than for males.

H2c: Impact of entrepreneurial role model on tensions between professional values and vision of entrepreneurship will be more important for female students than for males.

H3a: Professional values of students with entrepreneurial close relatives and friends viewed as successful will be different from those with entrepreneurial close relatives and friends viewed as unsuccessful.

H3b: Vision of entrepreneurship of students with entrepreneurial close relatives and friends viewed as successful will be different from those with entrepreneurial close relatives and friends viewed as unsuccessful.

H3c: Tensions between professional values and vision of entrepreneurship of students with entrepreneurial close relatives and friends viewed as successful will be lower than those with entrepreneurial close relatives and friends viewed as unsuccessful.

In the following section we explain the methodology that we chose to study these hypotheses and we briefly detail the main characteristics of the sample used here.

2 Methodology and sample

We chose a quantitative methodology. Primarily using the variables identified in Ajzen's Theory of planned behavior as well as the works of Kolvereid, we built a questionnaire on behavior beliefs containing 23 items regarding professional values for the future and entrepreneurial vision, and enriched by individual context variables: gender, a parent who is currently an entrepreneur, a parent, close friend or close relative having created a business and, in the event of a "close contact" with a creation, we solicited an opinion about this creation (successful, unsuccessful). Variables concerning each type of professional expectation were developed via two distinct questions: one concerning professional life values ("For each of the following elements, indicate the importance it holds for you in terms of the quality of your professional life"), the other concerning values related to business creation ("In your opinion, creating your own business would allow you to…"). These correspond to an evaluation (in terms of degrees ranging from favorable to unfavorable) made by a person concerning the creation of a business.

Answers to questions about beliefs were solicited using a seven-point Likert scale. But, in the following analyses, because we use χ^2 tests that have sensitivity to few respondents, we chose to aggregate answers into three groups. Positive answers are based on the initial answers "absolutely (important)" and "(important)". Negative answers bring together the initial answers "absolutely not (important)" and "not (important)". Neutral (=) answers fit with the initial answers "neutral", "rather (important)" and "rather not (important)".

This study was undertaken in the context of a wider research program organized around an International Observatory of Student Entrepreneurial Intentions which has a dedicated website. The program is supported

by nearly fifty international partners, corresponding to more than 20 countries and has gathered a total sample of more than 12 000 usable answers (http://cerag-oie.org).

In this paper, we use the answers to our questionnaire from 941 students, collected between 2005 and 2009, in Grenoble and Rennes, France. All of these students are in Human and Social Sciences and are enrolled in universities and business schools; these different sources allow us to have, a priori, a student population with diversified socioeconomic backgrounds.

Some characteristics of our sample are summarized in the next table. Forty-four percent of the responding students are men. On average, they are 22.7 years old with a standard deviation of 2.5 years. Sixty-three percent are in their third or fourth year of undergraduate studies and 84 % are between their third and fifth year.

	% of people
Men	44 %
Having already worked for a company	96 %
Having already had a course on how to create a company	36 %
Coming from an urban background	60 %

Table 1

Almost all of the students (96 %) have already worked for a company and 24 % are financing their studies by working in a company. Seventy-one percent of the students are or were members of an association or a club; 43 % of these have or have had responsibilities in these associations (as president, treasurer, secretary-general …).

Only 36 % of the students have already studied how to create a company, most frequently by having followed courses on company creation or having had a class project in company creation. Thirty-seven percent of the students who have had a course in this field attended it in their third year of undergraduate studies, 31 % in their second year.

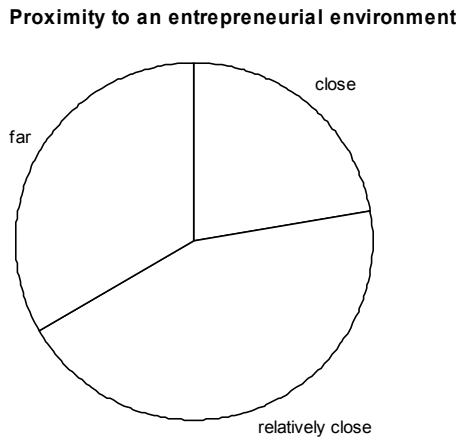
Thirty percent of the students have a father who is a farmer, craftsman, tradesman, a self-employed head of a company, or a self-employed professional. Fifteen percent of the students have a mother in the above categories. In total, 35 % of the students have at least one parent who is an entrepreneur.

As can be seen in the next graph, 33 % of the students have had no contact with a “closely related” person who has started a business. On the other hand, 29 % of them have a parent (at least one) who launched a business.

Graph 1

Among those who know someone who has started a business, 90 % think that these creations were successful and 10 % consider that they were unsuccessful. This last figure rises to 14 % for those who only know a parent (and no close friend or other relative) who has started a business (this situation of “isolation” seems quite strange and could perhaps be explained by a greater degree of dissatisfaction with the business creation). This figure remains at 10 % in the two other cases (parent and close friend, only close friend).

To measure proximity with an entrepreneurial environment, we created a new synthesizing variable comprised of four initial variables: if their parent has ever started a business, if their close friend or other relatives has done the same, if their father or mother are self employed heads of a company or self employed professionals. We can thus define a degree of global proximity with an entrepreneurial environment (“close” is defined by the personal knowledge of a business creator among parents and close relatives or friends, “far” is defined by a lack of knowledge of this type of actor and “relatively close” gathers all intermediate positions). As illustrated in the next graph, 22 % of the students are close to an entrepreneurial environment, 44 % of them are relatively close and for 33 % of them, their current environment is far removed from this notion which, as a result, can be only understood theoretically.



Graph 2

It seems that proximity has very little, if any, influence on student judgments about business creations they “know”: 90 % of the students who we qualified as close to an entrepreneurial environment consider that the business creations that have been launched by their parent(s) or close friend(s) are successful while 89 % of the students who are relatively close to this notion hold this opinion.

3 Results

This section is divided in three parts, each dedicated to one of the three sets of hypotheses formulated in section 1: the first one concerns the influence of the entrepreneurial model, the second studies the impact of gender on the influence of the entrepreneurial role model on the students' beliefs and the third explores the effect of the positive or negative “sense” of the opinion held concerning business creations known first-hand. Each of these three groups of hypotheses is further sub-divided into the study of professional values, the vision of entrepreneurship and finally, tensions which potentially exist between these two belief groups.

In the following analysis, we present radar graphs to simultaneously illustrate the differences in beliefs for two or more modalities in the population. The graphs are built on the frequencies of agreement on the different items (proportion of students with the observed characteristic who agree with the belief). The beliefs are identified using numbers, the meanings of which are given in the tables accompanying the graphs.

We then perform χ^2 tests with a significance level (type I error: the probability of concluding for dependence when there is independence) of 10 and 5 %. This type of test applies for two categorical variables from a single population. It is used to determine whether there is a significant association between the two variables. Here, we use chi-square tests for independence to determine whether some characteristic variables (having a father entrepreneur, knowing a business creator …) are related to entrepreneurial beliefs, otherwise stated, whether the first variable influences the second. So, for each belief, we test whether there is independence

between the belief profile and certain characteristics of the answering student. In the following tables, for each large family of belief (professional values and vision of entrepreneurship) we give the percentage of items belonging to this large family and for which the χ^2 test indicates that the observed variable has an effect on the level of this item of belief (dependent relation).

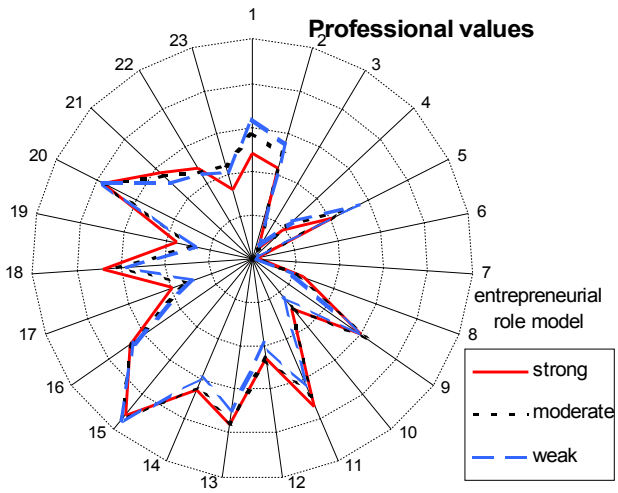
3.1 Entrepreneurial behavioral beliefs and entrepreneurial role model: H1 hypotheses

In order to approach the entrepreneurial role model to which each interrogated individual has been exposed, we use the global proximity to entrepreneurial environment variables described previously. We can thus globally approach the entrepreneurial role model via three modalities: close or strong, moderately close or strong, and far from entrepreneurship or weak. We also examine certain partial aspects of this entrepreneurial role model by observing the father's profession, the mother's profession, if one of their parents has ever created a business or if they know a close friend or relative who has ever created a business.

3.1.1 H1a: Professional values of students will be different depending on their entrepreneurial role model: mother, father, other close person or none.

In general, the professional values to which students give the greatest importance are, principally, having an interesting job (94 % of all students agree), then realizing their dream (75 %) and having opportunity for career progress (73 %). To a lesser extent, receiving compensation based on merit and being autonomous in their job (67 % for each) are important. They are also in agreement as concerns the low value placed on not having too much professional responsibility (60 %) and to having a simple, not complicated job (56 %). They hesitate on the importance of taking risks (70 %), of not having a stressful job (63 %), of having power (61 %) and of not having too much work (60 %).

Globally, as illustrated by graph 3, we observe a slight difference related to professional values between students who have a strong entrepreneurial role model and those who have a weak one (slight verification of hypothesis H1a). The most significant differences (that is to say beliefs where the entrepreneurial role model has an impact) are related to having job security (47 % of the students with a strong entrepreneurial role model agree, versus 63 % of those with a weak one), free time for leisure or for family and friends (41 % versus 55 %), and, with an inverse order of agreement, to having power (35 % with a strong entrepreneurial role model agree, as versus 27 % for those with a weak one) and being one's own boss (39 % versus 30 %). More generally, the entrepreneurial role model impacts 39 % of the proposed professional values (type I error of 10 %): see table 3.



Graph 3

number	beliefs
1	To have job security
2	To have a fixed income
3	Not to have too much work
4	Not to have a stressful job
5	To have free time for leisure, family, and friends
6	To have a simple, not complicated job
7	Not having too much professional responsibility
8	To take risks
9	To work daily with other people
10	To be a member of a respected social group
11	To receive compensation based on merit
12	To have high earnings
13	To have opportunity for career progress
14	To have a challenging job
15	To have an interesting job
16	To be autonomous in your job
17	To be your own boss
18	To have responsibilities
19	To have power
20	To realize your dreams
21	To use your creativity
22	To take part in all aspects of a project from start to finish
23	To do something useful for the community

Table 2

In a more detailed yet partial view, the fact of knowing a business creator among close friends or relatives has an influence on almost half of the proposed items (with a type I error of 10 %), and particularly on having power (32 % of students knowing a business creator among close friends positively value this item, versus 24 % for those not knowing a business creator), having responsibilities (65 % versus 55 %) and not having too much work (38 % of those with a relative business creator give little importance to this belief, versus 26 % for those who do not have a relative who is a business creator). Table 3 presents, for each isolated variable corresponding to a particular aspect of the entrepreneurial role model (column 1), the proportion of items related to professional values that are significantly influenced by this variable. We take into account two values of significance level and give, in the last column, the beliefs on which the variable has the greatest impact depending on its modalities.

	Dependent items with significance level of 10 %	**Dependent items with significance level of 5 %**	**The most dependent items**
Entrepreneurial role model	39 %	26 %	To have job security, not to have too much work, to have power
Father entrepreneur	26 %	17 %	To do something useful for the community, to have job security, a fixed income, not to have a stressful job
Mother entrepreneur	35 %	22 %	To be a member of a respected social group, not having too much professional responsibility, to have a fixed income
At least one parent entrepreneur	30 %	22 %	Not to have a stressful job, to have job security, free time, a fixed income
Parent creator	30 %	22 %	To have job security, free time
Close relative or friend creator	48 %	39 %	To have power, responsibilities, not to have too much work
Relationship with a creator	43 %	26 %	To have job security, power, not to have too much work

Table 3

Without being overly important, the influence of each observed variable on professional values is quite slight. To have job security and to have power are the two beliefs showing the greatest dependence on the entrepreneurial role model. We can deepen the comparison for variables having the same number of

categories, as can be seen in Table 4. For the concerned variables with two modalities (yes / no), we consider the statistics calculated for the χ^2 tests over the critical value at significance level of 10 % (we discard the statistics below that threshold). The higher this statistic for a given belief, the stronger the relation, otherwise interpreted, the greater its effect on the belief. In order to define an order of importance for the effects on beliefs we use the sum of the retained statistics and the mean and standard deviation calculated on these; only "mother entrepreneur" poses a problem with this process and its rank is not evident. Table 4 ranks, grosso modo (with the exception of "mother entrepreneur") the entrepreneurial role model variables with a quite slight effect on professional values from the lowest (father entrepreneur) to the highest (close relative creator). A relationship with a business creator also has a greater impact in the modification of professional values than the fact of having a parent entrepreneur.

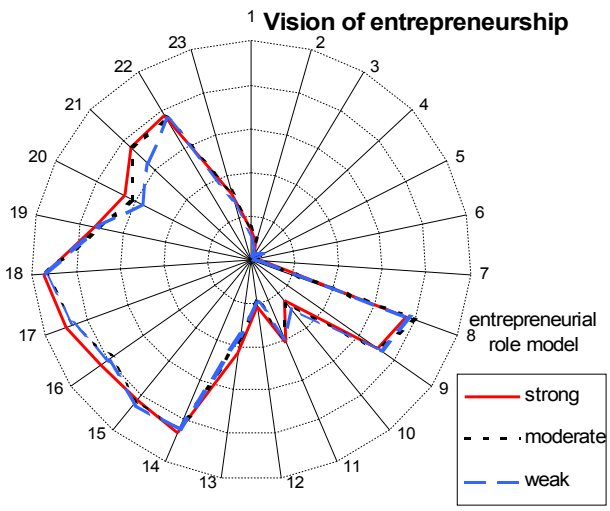
values of χ^2 statistics above the critical value at significance level of 10 %				
	number	sum	mean	standard deviation
Father entrepreneur	6	43	7.2	1.4
Mother entrepreneur	8	59	7.4	3.1
At least one parent entrepreneur	7	58	8.2	1.9
Parent creator	7	62	8.9	4.1
Close relative or friend creator	11	100	9.1	3.9

Table 4

3.1.2 H1b: Vision of entrepreneurship of students will be different depending on their entrepreneurial role model: mother, father, other close person or none.

Let us now turn to the vision of entrepreneurship. On average, students think that creating a business will, above all, allow them to have responsibilities (93 % of the students agree), to be their own boss, to have a challenging job, to have an interesting job and to be autonomous in their job. All of the above cited items are agreed to by more than 80 % of the students and are concerned with responsibilities and autonomy. In a general way, what confounds the students (around 70 % in this case) is having high earnings and being a member of a respected social group, that is, external signs of recognition related to the tangible work of the entrepreneur. Students are also rather in agreement in their estimation that creating a business is unlikely provide them with not having too much work, not having too many professional responsibilities or a stressful job (more than 65 % of students think so).

The entrepreneurial role model induces some very slight differences in these average results as can be seen in graph 4. Hypothesis H1b is thus not verified.



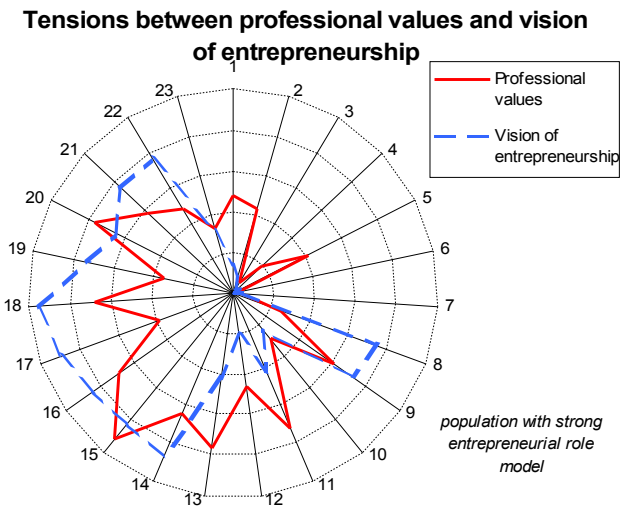
Graph 4

Please refer to Table 2 for significance of numbers (beliefs).

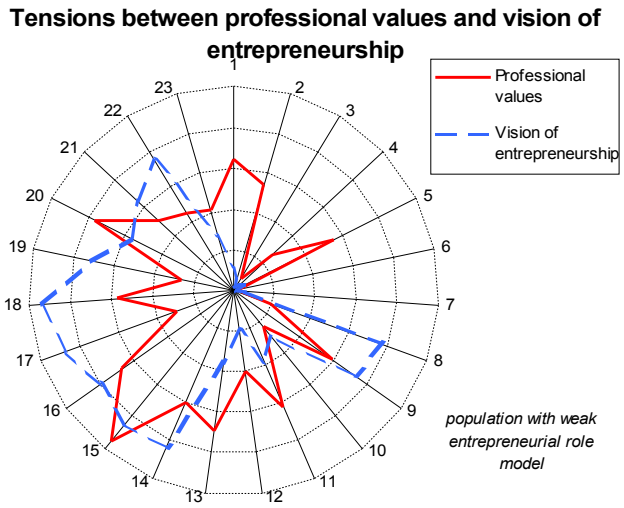
Using χ^2 tests and observing the greater differences, very few beliefs on vision of entrepreneurship are significantly changed with a change in entrepreneurial role model: the stronger the entrepreneurial environment (role model) in which the students are, the more often they think that creating a business can allow them to use their creativity (roughly 77 % of the students adhere to this model versus 65 % of students who are in a weak environment), to realize their dreams (65 % versus 56 %) and to have opportunity for career progress (43 % versus 36 %). Taken individually, the variables which compose the entrepreneurial role model also have very little influence on these beliefs. The most influenced beliefs are thinking that creating a business will allow them to have job security (17 % of students having a father entrepreneur hold this level of belief versus 11 % for those whose fathers are not entrepreneurs; we again find the same figures for those who have a parent who has already created a business and for those who do not have a parent creator) or that this will allow them to use their creativity, to realize their dream and to have opportunities for career progress. These last three beliefs are, above all, influenced by the fact of knowing, or not, a close friend or relative who has already created a business. The figures are globally of the same level with those we cited at the beginning of the paragraph for the global effect of the entrepreneurial role model and with the same differences between, on the one hand, students with a strong entrepreneurial role model and those with a weak one, and, on the other hand, students who know a close relative entrepreneur and those who do not.

3.1.3 H1c: Tensions between professional values and vision of entrepreneurship will be lower for students with parental role model than for those with other role model and for those with no role model.

We now bring together for comparison the professional values and the vision of entrepreneurship for the two extreme modalities, strong and weak, of the entrepreneurial role model. This comparison, illustrated in graph 5 (students with a strong / close entrepreneurial role model) and graph 6 (students with a weak / far model) allows us to show the tensions between these two large types of beliefs.



Graph 5



Graph 6

Please refer to Table 2 for significance of numbers (beliefs).

As we developed in the previous analysis, the beliefs related to vision of entrepreneurship are weakly influenced by the entrepreneurial role model while the professional values are slightly more influenced by this one. Nonetheless, for each item we calculate the sum of the squares of the differences between the frequencies of approval as professional values and as vision of entrepreneurship, successively for each modality of entrepreneurial role model. The results of this calculation are given in Table 7.

Entrepreneurial role model	Sum of squares of the differences
strong	1.6
moderate	2
weak	2.3
Total sample	2

Table 7

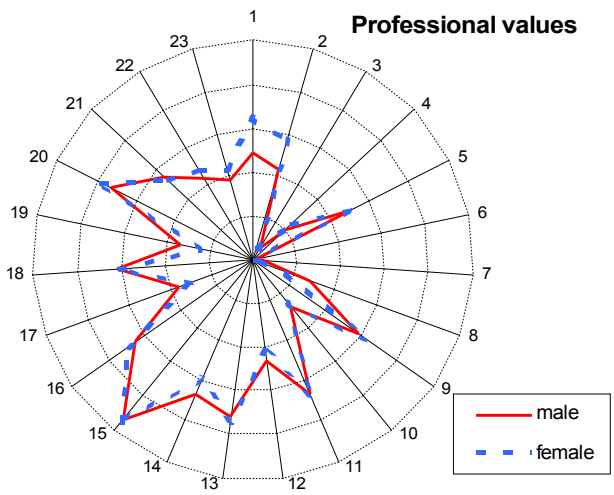
The tensions between professional values and vision of entrepreneurship are that much higher (the differences between the two are greater) when the entrepreneurial role model is weaker and thus less powerful. Hypothesis H1c is thus verified. For the students with strong entrepreneurial role model, the main differences between what they expect for their future professional life and what they think creating a business can allow them are being their own boss and taking risks (cf. Table 8). For those with a weak role model, in addition to these two items for which they also experience great tensions, having job security, having a fixed income, having free time and having power are the points of the greatest differences between professional values and vision of entrepreneurship.

Squares of differences	Entrepreneurial role model	
	strong	weak
To have job security	0,1	0,3
To have a fixed income	0,1	0,2
Not to have too much work	0,0	0,0
Not to have a stressful job	0,0	0,0
To have free time for leisure, family, and friends	0,1	0,2
To have a simple, not complicated job	0,0	0,0
Not having too much professional responsibility	0,0	0,0
To take risks	0,3	0,3
To work daily with other people	0,0	0,0
To be a member of a respected social group	0,0	0,0
To receive compensation based on merit	0,1	0,1
To have high earnings	0,1	0,0
To have opportunity for career progress	0,1	0,1
To have a challenging job	0,0	0,1
To have an interesting job	0,0	0,0
To be autonomous in your job	0,0	0,0
To be your own boss	0,3	0,3
To have responsibilities	0,1	0,1
To have power	0,1	0,2
To realize your dreams	0,0	0,0
To use your creativity	0,0	0,0
To take part in all aspects of a project from start to finish	0,1	0,1
To do something useful for the community	0,0	0,0

Table 8

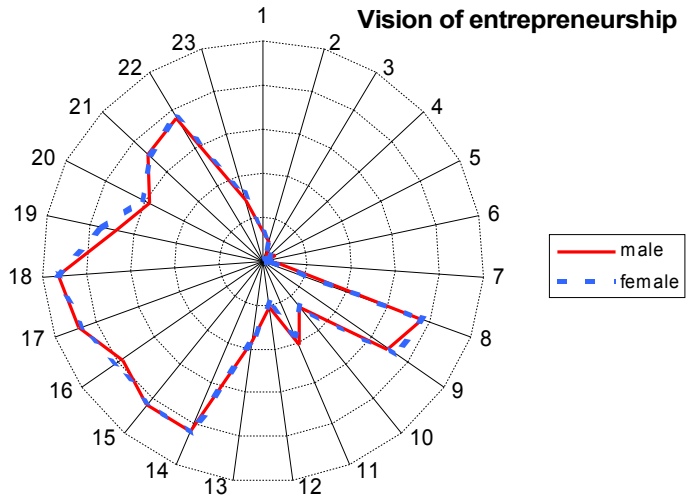
3.2 *Entrepreneurial behavioral beliefs, role model and gender: H2 hypotheses*

The next graphs show that few items concerning professional values, and even less so beliefs surrounding vision of entrepreneurship, are gender dependent. For the large majority of the beliefs, the answers are the same, whether they come from a male or female respondent.



Graph 7

Please refer to Table 2 for significance of numbers (beliefs).



Graph 8

Please refer to Table 2 for significance of numbers (beliefs).

The main differences, for professional values, are situated in the domain of security (having job security or a fixed income) that are preferred by females (respectively 64 % of females agree with the importance of job security versus 49 % of males - and 56 % with having a fixed income versus 42 % of males), risk (27 % of males agree with taking risks versus 17 % of females; 66 % versus 59 % for having a challenging job) and power (having power and being their own boss draw agreement of respectively 33 % and 36 % of males versus 25 % and 29 % of females). These last two, risk and power, are also preferred by males. For vision of entrepreneurship, we notice only two quite slight differences: males (41 %) think more often than females (36 %) that creating a business will allow them to receive compensation based on merit and, on the contrary, females (73 %) think more often than males (68 %) that this can afford them power.

We now examine how gender influences the impact of entrepreneurial role model on these beliefs.

3.2.1 H2a: Impact of entrepreneurial role model on professional values will be more important for female students than for males.

With χ^2 tests, we calculate, on the one hand for males only, on the other hand for females only, the number of beliefs for which the observed variable (role model and entrepreneurial environment) and the belief (professional values) are dependent. Results are given in Table 10 (in total, there are 23 professional beliefs).

	male		**female**	
	dependent items with significance level of 10 %	**dependent items with significance level of 5 %**	**dependent items with significance level of 10 %**	**dependent items with significance level of 5 %**
Entrepreneurial role model	6	3	10	7
Father entrepreneur	0		6	6
Mother entrepreneur	1	1	5	4
At least one parent entrepreneur	1		7	6
Parent creator	4	1	5	3
Close relative or friend creator	3	2	18	14

Relationship with a creator	5	2	12	8

Table 10

In light of the results presented in this table, it is clear that in our sample, being a female induces having more beliefs influenced by the entrepreneurial role model (10 beliefs dependant at significance level of 10 % for females while only 6 for males) and that this finding holds for each type of role model variable analyzed here. Among these last variables, that with the greatest impact is having a close relative or friend who is a business creator (18 beliefs of 23 are influenced for females, only 3 for males). For females, the most frequently influenced beliefs are not to have a stressful job, to have free time, to have power, to have responsibilities, to have job security and a fixed income. For males, we find, rather, not to have too much work, to have job security and to be one's own boss. We can thus consider that hypothesis H2a is verified.

3.2.2 H2b: Impact of entrepreneurial role model on vision of entrepreneurship will be more important for female students than for males.

We undertake the same exercise for belief of vision of entrepreneurship (there are still 23 items) in Table 11. There is no longer a clear difference between males and females in terms of number of beliefs impacted, and hypothesis H2b is not verified.

	male		**female**	
	dependent items with significance level of 10 %	**dependent items with significance level of 5 %**	**dependent items with significance level of 10 %**	**dependent items with significance level of 5 %**
Entrepreneurial role model	2	1	1	0
Father entrepreneur	0		2	2
Mother entrepreneur	2	1	0	
At least one parent entrepreneur	0		2	1
Parent creator	3	1	2	0
Close relative creator	2	1	2	1
Relationship with a creator	3	1	2	2

Table 11

For males, the belief that is the most dependent is thinking that launching a business will allow them to use their creativity. For females, the most often influenced beliefs are that starting a business can afford them job security and will allow them to do something useful for the community.

3.2.3 H2c: Impact of entrepreneurial role model on tensions between professional values and vision of entrepreneurship will be more important for female students than for males.

To study the impact of entrepreneurial role model on tensions between professional values and vision of entrepreneurship we use, as previously stated, the sum on items of the squares of differences between professional values and beliefs of vision of entrepreneurship. The results are given in Table 12.

	Sum of squares of the differences	
Entrepreneurial role model	male	female
strong	1.5	1.8
moderate	1.8	2.3
weak	1.8	2.8

Total sample	1.7	2.3

Table 12

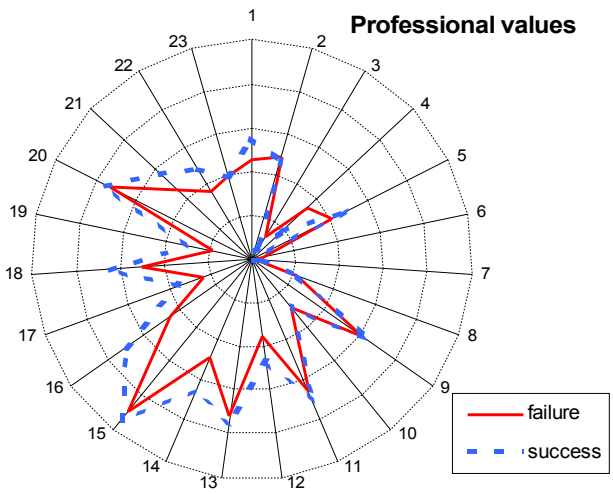
In a general way, the tensions between professional values and vision of entrepreneurship, measured by the sum of squared differences, are greater for females (2.3) than for males (1.7). From another point of view, if we only consider one gender, there is a progression in the tensions when the entrepreneurial role model diminishes (is weaker) and the individuals are globally farther from entrepreneurship. These tensions increase more rapidly for females (differences for a weak entrepreneurial role model 2.8 – differences for a strong one 1.8, thus a difference of 1) than for males (difference of 0.3). Finally, for a given modality of entrepreneurial role model, the tensions are always greater for females than for males. Hypothesis H2c is thus well verified.

3.3 *Entrepreneurial behavioral beliefs and entrepreneurial success opinion: H3 hypotheses*

In this section, we will consider only students who have a parent, a close friend or another relative who has already created a business. This corresponds to more than 600 people (or 65 % of the sample). Among them, on average, 10 % consider that the created businesses were rather unsuccessful and 90 % think that they were rather successful.

3.3.1 H3a: Professional values of students with entrepreneurial close relatives and friends viewed as successful will be different from those entrepreneurial close relatives and friends viewed as unsuccessful

Graph 9 shows the differences in agreement of professional values between students who consider the business creation experience of their close relatives and friends as a success and those who think of it as a failure.



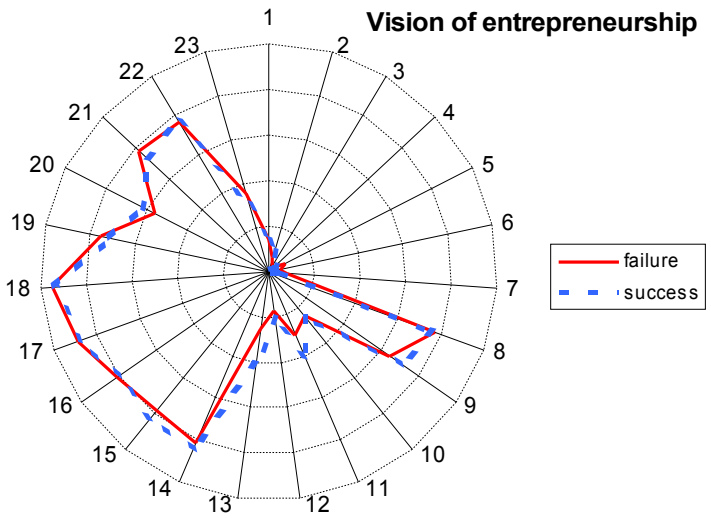
Graph 9

Please refer to Table 2 for significance of numbers (beliefs).

The calculation of χ^2 tests for each item shows that almost half of the beliefs are dependent on this opinion at a significance level of 10 % (35 % at a significance level of 5 %). The beliefs that are the most greatly impacted by this opinion are being autonomous in their job (approved by 70 % of those who think business creations that they know are successes, versus 45 % of those who think that they are failures) and being their own boss (35 % versus 23 %), in other terms, notions of autonomy and independence. Students who think that business creations they know are rather unsuccessful attribute, more often than others, importance for their future professional life to not having a stressful job (19 % for those who consider it as successful versus 34 % for the others who consider it as unsuccessful) and not having too much work (4 % versus 13 %). We thus verify hypothesis H3a.

3.3.2 H3b: Vision of entrepreneurship from students with entrepreneurial close relatives and friends viewed as successful will be different from those entrepreneurial close relatives and friends viewed as unsuccessful

As we showed previously, for other variables (gender, entrepreneurial role model, etc.), the beliefs of vision of entrepreneurship are much less influenced by the opinion students can have regarding the experiences of business creations they know. Graph 10 illustrates this.



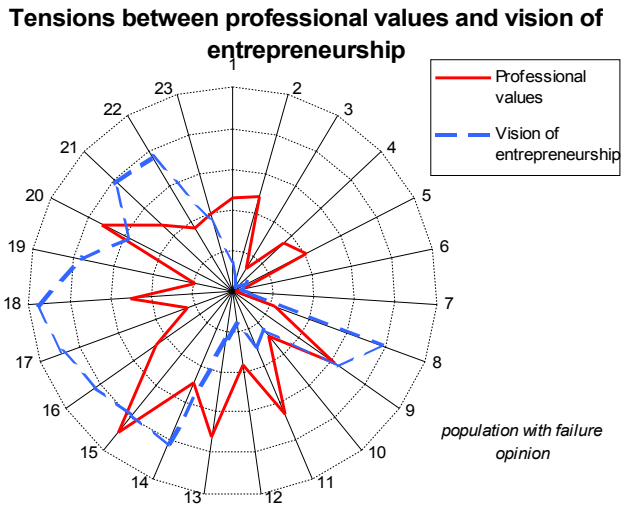
Graph 10

Please refer to Table 2 for significance of numbers (beliefs).

Only four items (out of 23) are significantly dependent on this opinion (χ^2 tests at significance level of 10 %; only 2 items at a significance level of 5 %). The two items apparent at the 5% significance level are having a fixed income (9 % of those who view the business creations they know as successful think that launching a business can allow them a fixed income, versus 6 % of those who view them as unsuccessful) and having opportunity for career progress (respectively 42 % versus 25 %). Hypothesis H3b is thus not verified.

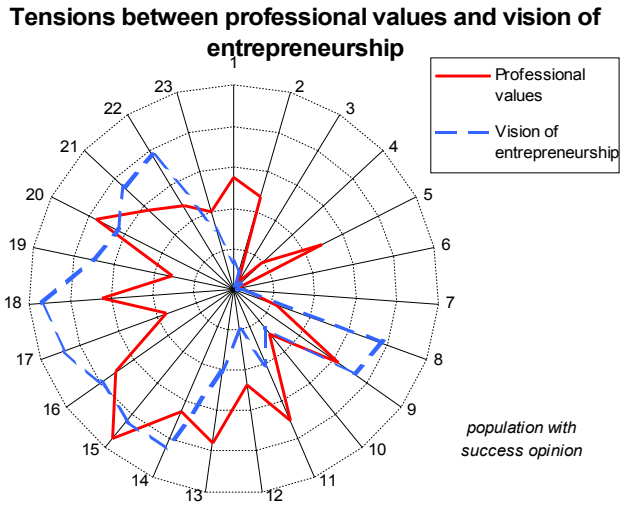
3.3.3 H3c: Tensions between professional values and vision of entrepreneurship of students with entrepreneurial close relatives and friends viewed as successful will be lower than those with entrepreneurial close relatives and friends viewed as unsuccessful

We now compare, as illustrated in the next graphs, the tensions for each belief between what students desire for their future professional life and what they think creating a business can allow them. In both cases, we measure the intensity of the tensions by the sum on items of the squared differences between professional value and vision of entrepreneurship. This figure reaches 1.8 for students who regard the business creations they know as successes versus 2.7 for those who regard them as failures. The tensions are also lower for the first group. We thus verify hypothesis H3c.



Graph 11

Please refer to Table 2 for significance of numbers (beliefs).



Graph 12

Please refer to Table 2 for significance of numbers (beliefs).

For the students who consider the business creations they know as rather unsuccessful, the greatest tensions arise on being their own boss, taking risks and having power, and, to a lesser extent, on having opportunity for career progress and having responsibilities. For the students who view the business creations they know as successful, the main divergences between what they value for their future professional life and what they think launching a business can provide them, are located in taking risks (23 % of these students recognize its importance for their future professional life and 77 % of them think that launching a business could afford them that), being their own boss (35 % versus 88 %) and having power (31 % versus 70 %) - for all three beliefs, business creation engenders greater agreement in light of what they wish for in their professional life - followed by having free time (48 % versus 4 %) and job security (54 % versus 13 %), two qualities which are lacking for them in entrepreneurship.

4 Discussion and conclusion

Our analysis differentiates between two types of behavioral beliefs held by students: professional values (values that the students will be looking for in their future professional life) and vision of entrepreneurship (values that they think would be fulfilled by an entrepreneurial career). Specifically, we study the respective impacts that role models and the perception that students have of the success of entrepreneurs they know have on these beliefs. Such behavioral beliefs are thought to form the basis for the students' attitude toward entrepreneurship. The first thing that is apparent in our results is that, while professional values seem to be somewhat impacted by role models and gender, such an impact is hardly noticeable on the students' vision of entrepreneurship. This leads us to believe that the perception that students have of the demands and rewards associated with an entrepreneurial career seems to be a cultural matter and anchored in the students minds at earlier ages. French students view entrepreneurial careers as potentially providing them with autonomy and responsibilities, but also as somewhat risky, time demanding and unlikely to provide them with job security or a regular income. Our study is limited to students and therefore cannot be generalized to all French people as other groups may perceive entrepreneurship differently. However, the stability in this vision of entrepreneurship across our French students subsamples and cross-country differences highlighted by other studies all point to a strong cultural effect thus requiring country-specific analyses.

From a practical standpoint, what is of most interest to us is the analysis of the discrepancies (or absence thereof) between professional values and visions of entrepreneurship. The premise on which TPB-based studies rely is that the more positive (negative) the attitude, the stronger should be the intention of a person to undertake (or not to undertake) a certain behavior (Ajzen, 1985). The view that we take here is that the more convergent are the professional values and the vision of entrepreneurship held by students, the more positive will be their attitude toward an entrepreneurial career. As a result, we are here looking for levers on which to base actions aimed at reducing the tensions between the two types of beliefs.

Our findings suggest that students who have been confronted with entrepreneurial environments exhibit less tensions between professional values and vision of entrepreneurship. In particular, the items for which proximity with entrepreneurial role models appears to reduce tensions are the ones related to job security, having a fixed income, free time, having a challenging job and power (see table 8). Given the relative stability of the vision of entrepreneurship across our different categories of students, such a reduction comes mainly from an impact on professional values. In general, students exposed to close entrepreneurial role models appear to be more ambitious and less risk averse than their counterparts who do not personally know entrepreneurs. We interpret this reduction in tension between students' professional aspirations and vision of entrepreneurship apparent in our results as possibly reflecting a more realistic view of what an entrepreneurial career entails.

Looking at these results in closer detail, we also highlight a gender effect apparent in the influence of role models. Generally speaking, the divergence between the professional values the students seek and the way they view entrepreneurship seems to be larger for females than for males. Our first observation is therefore that male students view entrepreneurial careers as more likely to fulfill the professional aspirations. Our results suggest that in France, the predominance of a masculine vision of entrepreneurship remains true today. While this result might be disappointing for practitioners who have been seeking for years to promote female entrepreneurship, the good news is that female students seem to be more responsive than males to entrepreneurial role models (see table 12), which provides potential routes for action for people looking to instill entrepreneurial spirit in French female students.

Finally, our results suggest that, while the mere presence of an entrepreneurial role model has some impact on the reduction of the tensions between professional values and vision of entrepreneurship, the perception that students have of their role model's entrepreneurial fate should also be taken into consideration. Having witnessed entrepreneurial failures around them (unsurprisingly) makes students more risk averse. This finding has implications for researchers who should, in their analyses, take into account the perception that individuals have of their entrepreneurial role models. Practitioners on their side should consider exposing these students to successful role models to which they could relate.

From a practical standpoint, our results suggest that programs looking to foster entrepreneurship are well inspired to confront students with role models that can contribute to the evolution of their professional values toward more entrepreneurially-oriented values. Looking to alter the students visions of the risks and rewards associated with entrepreneurship appears to be a much broader task. Our results indicate the possibility of a strong national cultural impact on this vision of entrepreneurship. Further studies across wider population samples and cross-country comparisons are needed to confirm the details of these cultural nuances.

REFERENCES

Abdesselam, R., Bonnet, J., & Le Pape, N. (2004). An Explanation of the Life Span of New French Firms. Small Business Economics, 23(3), 237-254.

Ajzen, I. (1991). The Theory of Planned Behavior. Organizational Behavior and Human Decision Processes, 50, 179-211.

Ajzen, I., & Gilbert Cote, N. (2008). Attitudes and the prediction of behavior. In W. D. Crano & R. Prislin (Eds.), Attitudes and attitude change. New York: Psychology Press.

Allen, E. I., Elam, A., Langowitz, N., & Dean, M. (2008). Global Entrepreneurship Monitor - 2007 Report on Women and Entrepreneurship.

Audretsch, D. B., & Thurik, R. A. (2000). Capitalism and democracy in the 21st Century: from the managed to the entrepreneurial economy. Journal of Evolutionary Economics, 10, 17-34.

Autio, E., Keeley, R. H., Klofsten, M., Parker, G. G. C., & Hay, M. (2001). Entrepreneurial Intent among Students in Scandinavia and in the USA. Enterprise & Innovation Management Studies, 2(2), 145-160.

Autio, E., Keeley, R. H., Klofsten, M., & Ulfstedt, T. (1997). Entrepreneurial intent among students: testing an intent model in Asia, Scandinavia and USA. Frontiers of Entrepreneurship Research, Babson College.

Bandura, A. (1986). Social Foundations of Thought and Action. Englewood Cliffs, New Jersey: Prentice-Hall, Inc.

Bird, B. J., & Brush, C. G. (2002). A gendered perspective on organizational creation. Entrepreneurship Theory & Practice, 26(3), 41-65.

Birley, S. (1988). Female entrepreneurs: are they really any different? Journal of Small Business Management, 27(1), 32-37.

Boissin, J.-P., Branchet, B., Emin, S., & Herbert, J. I. (2009). Students and Entrepreneurship: A comparative study France - United States. Journal of Small Business and Entrepreneurship, 22(2), 101-122.

Boissin, J.-P., Branchet, B., Benredjem, R., Schaaper, J. (2009), Intentions entrepreneuriales des étudiants. Une comparaison France – Pays arabes. Paper presented at the conference - À la recherche de l'intention : l'imagination au service de la gestion, Brest, France

Boissin, J.-P., Chollet, B., & Emin, S. (2007). Explaining the intention to start a business among French students: a closer look at professional beliefs. In A. Fayolle (Ed.), Handbook of Research in Entrepreneurship Education (Vol. 2, pp. 266-281): Edward Elgar.

Boissin, J.-P., Chollet, B., & Emin, S. (2008). Les croyances des étudiants envers la création d'entreprise - Un état des lieux. Revue Française de Gestion, 180, 25-43.

Boissin, J.-P., & Emin, S. (2006). Les étudiants et l'entrepreneuriat: l'effet des formations. Paper presented at the XVème Conférence Internationale de Management Stratégique Annecy/Genève, http://www.strategie-aims.com/aims06/Actes06ss.html.

Boissin, J.-P., & Emin, S. (2007). Une moindre fibre entrepreneuriale chez les femmes dès l'Université. In M. Le Berre & A. Spalanzani (Eds.), Regards sur la recherche en gestion (pp. 83-115): Edition L'Harmattan.

Carr, J. C., & Sequeira, J. M. (2007). Prior family business exposure as intergenerational influence and entrepreneurial intent: A Theory of Planned Behavior approach. Journal of Business Research, 60(10), 1090-1098.

Chell, E., & Baines, S. (1998). Does gender affect business 'performance'? A study of microbusinesses in business services in the UK. Entrepreneurship & Regional Development, 10(2), 117-135.

Chen, C. C., Greene, P. G., & Crick, A. (1998). Does entrepreneurial self-efficacy distinguish entrepreneurs from managers? Journal of Business Venturing, 13(4), 295-316.

Cooper, A. C., Gimeno-Gascon, F. J., & Woo, C. Y. (1994). Initial human and financial capital as predictors of new venture performance. Journal of Business Venturing, 9(4), 371-395.

Cotis, J.-P. (2007). Entrepreneurship as an engine for growth: evidence and policy challenges. Paper presented at the GEM Forum - Entrepreneurship: Setting the Development Agenda, London, UK.

Davidsson, P., & Honig, B. (2003). The role of social and human capital among nascent entrepreneurs. Journal of Business Venturing, 18(3), 301-331.

De Clercq, D., & Arenius, P. (2006). The Role of Knowledge in Business Start-up Activity. International Small Business Journal, 24(4), 339-358.

De Noble, A. F., Jung, D., & Ehrlich, S. B. (1999). Entrepreneurial Self-Efficacy: The development of a measure and its relationship to entrepreneurial action. Frontiers of Entrepreneurship Research.

Delmar, F., & Davidsson, P. (2000). Where do they come from? Prevalence and characteristics of nascent entrepreneurs. Entrepreneurship & Regional Development, 12(1), 1-23.

Eddleston, K. A., & Powell, G. N. (2008). The role of gender identity in explaining sex differences in business owners' career satisfier preferences. Journal of Business Venturing, 23(3), 244-256.

Emin, S. (2004). Les facteurs déterminant la création d'entreprise par les chercheurs publics : application des modèles d'intention. Revue de l'Entrepreneuriat, 3(1), 1-20.
Emin, S., Boissin, J.-P., & Chollet, B. (2005). Le faible attrait des étudiants pour l'entrepreneuriat - éléments d'analyse pour l'action. Paper presented at the XIVème Conférence Internationale de Management Stratégique, Pays de Loire, Angers 2005, http://www.strategie-aims.com/angers05/AIMS2005.htm.
Fayolle, A., Gailly, B., & Lassas-Clerc, N. (2006). Assessing the impact of entrepreneurship education programmes: a new methodology. Journal of European Industrial Training, 30(9), 701-720.
Gray, C. (1998). Enterprise and Culture. London and New York: Routledge.
Greve, A., & Salaff, J. W. (2003). Social Networks and Entrepreneurship. Entrepreneurship Theory & Practice, 28(1), 1-22.
INSEE. (2008). INSEE Resultats n°34 Economie: Créations et créateurs d'entreprises - Première interrogation 2006, profil du créateur.
Kickul, J., Wilson, F., Marlino, D., & Barbosa, S. D. (2008). Are misalignments of perceptions and self-efficacy causing gender gaps in entrepreneurial intentions among our nation's teens? Journal of Small Business and Enterprise Development, 15(2), 321-335.
Kim, P. H., Aldrich, H. E., & Keister, L. A. (2006). Access (Not) Denied: The Impact of Financial, Human, and Cultural Capital on Entrepreneurial Entry in the United States. Small Business Economics, 27(1), 5-22.
Kolvereid, L. (1996a). Organizational employment versus self-employment: reasons for career choice intentions. Entrepreneurship Theory & Practice, 20(3), 23-31.
Kolvereid, L. (1996b). Prediction of employment status choice intentions. Entrepreneurship Theory & Practice, 21(1), 47-57.
Krueger, N. F. J., & Carsrud, A. L. (1993). Entrepreneurial intentions: Applying the theory of planned behaviour. Entrepreneurship & Regional Development, 5(4), 315-330.
Krueger, N. F. J., Reilly, M. D., & Carsrud, A. L. (2000). Competing models of entrepreneurial intentions. Journal of Business Venturing, 15(5/6), 411-432.
Mathews, C. H., & Moser, S. B. (1995). Family background and gender: implications for interest in small firm ownership. Entrepreneurship & Regional Development, 7(4), 365-378.
OECD. (1996). The Knowledge-Based Economy. Paris, France: OECD, Organisation for Economic Co-Operation and Development.
Rosa, P., & Dawson, A. (2006). Gender and the commercialization of university science: academic founders of spinout companies. Entrepreneurship & Regional Development, 18(4), 341-366.
Scherer, R. F., Adams, J. S., Carley, S. S., & Wiebe, F. A. (1989). Role Model Performance. Effects on Development of Entrepreneurial Career Preference. Entrepreneurship Theory & Practice, 13(3), 53-71.
Scherer, R. F., Brodzinski, J. D., & Wiebe, F. A. (1990). Entrepreneur career selection and gender: a socialization approach. Journal of Small Business Management, 28(2), 37-44.
Shapero, A., & Sokol, L. (1982). The Social Dimensions of Entrepreneurship. In C. A. Kent, D. L. Sexton & K. H. Vesper (Eds.), Encyclopedia of Entrepreneurship (pp. 72-90). Englewood Cliffs, NJ, USA: Prentice-Hall, Inc.
Thirion, B., & Demoly, E. (2003). L'impact sur l'emploi des créations d'entreprises: INSEE Première N°917.
Tkachev, A., & Kolvereid, L. (1999). Self-employment intentions among Russian students. Entrepreneurship & Regional Development, 11(3), 269-280.
Van Auken, H., Fry, F. L., & Stephens, P. (2006). The influence of role models on entrepreneurial intentions. Journal of Developmental Entrepreneurship, 11(2), 157-167.
van Gelderen, M., & Jansen, P. (2006). Autonomy as a start-up motive. Journal of Small Business and Enterprise Development, 13(1), 23-32.
Verheul, I., Van Stel, A., & Thurik, R. (2006). Explaining female and male entrepreneurship at the country level. Entrepreneurship & Regional Development, 18(2), 151-183.
Volery, T., & Servais, I. (2001). Global Entrepreneurship Monitor - 2000 French Executive Report.