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**Self-Employment and The
Intergenerational Transmission
of Human Capital**

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Self-Employment and The Intergenerational Transmission of Human Capital*

Nathalie Colombier[†], David Masclét[‡]

Résumé / Abstract

Nous étudions dans cet article les déterminants du travail indépendant à partir de l'enquête européenne des ménages (ECHP). Plus particulièrement, nous étudions le rôle joué par l'environnement familial de l'individu. L'originalité de cette étude est de montrer que les parents ne se contentent généralement pas de transmettre à leurs enfants des compétences spécifiques à un métier donné mais également certaines aptitudes managériales non spécifiques à une profession particulière, facilitant ainsi l'accès au statut d'indépendant quel que soit le métier exercé. Nos résultats montrent sans ambiguïté qu'au-delà de la transmission d'un « savoir-faire » favorisant l'accès à un métier spécifique, dans un grand nombre de cas, les parents travailleurs indépendants facilitent également l'accès de leurs enfants au statut d'indépendant et cela bien souvent, quel que soit le métier envisagé. Un autre résultat intéressant de notre étude est qu'il existe des différences importantes au sein des travailleurs indépendants selon qu'ils ont bénéficié ou non de transmissions intergénérationnelles de la part de parents travailleurs indépendants. On observe par exemple que le niveau d'éducation formelle est davantage discriminant pour les premières générations de travailleurs indépendants (ceux dont les parents ne sont pas travailleurs indépendants) que pour les secondes générations de travailleurs indépendants (ceux dont les parents sont travailleurs indépendants).

Mots clés : capital humain, capital social, liens intergénérationnels, travail indépendant

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We use the European Community Household Panel Survey (ECHP) to investigate the determinants of self-employment. More precisely, we consider the influence of immediate social environments and social networks on the choice of self-employment. We conjecture that self-employment is correlated across generations because parents may transmit two classes of informal human capital to their offspring: (1) specific skills for a specific occupation and (2) general managerial skills such as the capacity to acquire autonomy, irrespective of the specific occupation. Our data allow us to dissociate those individuals who are first-generation self-employed from second-generation self-employed (i.e. those whose parents are self-employed), and, among second-generation self-employed, those individuals whose parents are in the same occupation as their offspring. Consistent with our assumptions, we show that having parents who are self-employed increases the probability of being self-employed, even when the individuals do not have the same occupation as their parents. We also observe strong differences between first and second generation self-employed workers. First-generation self-employed are generally younger and more educated than second generation self-employed. Finally our results indicate that first-generation self-employed report higher job satisfaction than second-generation self-employed.

Keywords: *human capital, intergenerational links, self-employment, social capital*

Codes JEL : J00, J21, C23

1. Introduction

"As years pass on, the child of the working man learns a great deal from what he sees and hears going on around him..."[13,172]

A.Marshall

Why do some people choose self-employment over more traditional wage-employment? Why do so few workers choose self-employment? The literature on self-employment has grown rapidly in the past few years. One reason for the interest in self-employment is its potential to generate new jobs and encourage innovation in the economy. Several empirical studies have shed light on the fact that education, earnings, job satisfaction, liquidity constraints and personal characteristics help in explaining the decision to become self-employed (Fuchs, 1982; Rees and Shah, 1986; Pickles and O'Farrell, 1987; Borjas and Bronars, 1989; Evans and Jovanovic, 1989 ; Evans and Leighton, 1989; Holtz-Eakin et al., 1994 ; Carrasco, 1999). Previous researches have also investigated the influence of the immediate social environment and social network on the choice of self-employment (Lentz and Laband, 1983, 1990; Laferrère and McEntee, 1996, Dunn and Holtz-Eakin, 1990, 2000; Blanchflower and Oswald, 1998). These studies suggest that individuals are more likely to be self-employed when their parents are themselves self-employed. Two possible explanations are generally given in the literature to explain this correlation.

The first explanation relies on access to financial capital to explain the decision to become an entrepreneur and is based on the idea that entrepreneurs would be more able than others to transfer financial capital to their offspring (Evans and Jovanovic, 1989; Evans and Leighton, 1989; Meyer, 1990; Holtz-Eakin, Joulfaian and Rosen, 1994a, 1994b; Blanchflower and Oswald, 1998). For example, sons may inherit financial and physical capital such as stock, buildings, and machinery². The family acts essentially as a substitute banker (Laferrere, 1998) and in this way may have a significant impact on the net benefits of self-employment and be the critical factor that convinces someone to become their own boss. The consequence of these financial transfers to family members is to relax capital market constraints. If immediate social networks provide financial support so as to reduce the costs of self-employment (Allen, 2000), those with more effective social networks may have a greater incentive to attempt self-employment, *ceteris paribus*.

A second explanation is that the self-employed would be more able to transmit informal human capital to their offspring (Lentz and Laband, 1990; Altonji and Dunn, 1991; Solon 1992;

² As suggested by Lentz and Laband, the self-employed may also transmit other non human capital to their offspring such as reputation (the value of the family name) and a network of contacts (parents' business connections). However a reasonable assumption is that these transfers are probably only positive if the child works in the same occupation as the father (or the mother).

Zimmerman 1992, Dunn and Holtz-Eakin, 2000, 1990). For example, a shop owner can employ his son after school or during the summer to help him run the shop. Farming is also another good example of this intergenerational transfer of knowledge. Such transfers are facilitated when the work place is connected to the home to some extent as in the case of farming. As a consequence, the farmer's son acquires familiarity with machinery and the managing of the farm over the entire course of his life. As the child receives continued exposure to the family business, he picks up a working knowledge of how to run a business enterprise, while the child of a non-self-employed father/mother acquires only general occupational skills via college³. Finally Dunn and Holtz-Eakin (2000) observe that the transmission of wealth exerts only a small positive effect while the effect of the transmission of human capital is large. Thus previous literature indicates that human capital transmission plays a strong role in the probability of becoming self-employed and that the transfer of financial capital is proportionately of less importance than the transfer of human capital.

After controlling for personal characteristics, as well as human and financial capital, this article investigates the influence of immediate social environment on the choice of self-employment by distinguishing among second-generation self-employed, those individuals whose parents are in the same occupation as their offspring from others. Indeed, we conjecture that self-employment is correlated across generation, irrespective of the specific occupation of the parents because parental self-employment not only results in the transmission of specific skills for a particular self-employed career in self-employment but also in general managerial skills such as for example the ability and the capacity to acquire autonomy. Following the seminal work of Lentz and Laband (1990), our study will focus on the transmission of informal human capital to family members by distinguishing two classes of informal human capital transfers (1) the transmission of career-specific skills such as practical "*know how*" for a particular self-employed career in self-employment and (2) the transmission of general managerial skills such as "*a way of thinking*" (ability, diligence, autonomy, willingness to bear risks) that are not specifically related to a particular occupation.

³ Over 100 years ago, Alfred Marshall wrote (1920, 249) "It is obvious that the son of a man already established in business starts with very great advantages over others. He has from his youth up special facilities for obtaining the knowledge and developing the faculties that are required in the management of his father's business - he learns quietly and trade buys and to which it sells; he gets to know the relative importance and real significance of the various problems and anxieties which occupy his father's mind; and he acquires a technical knowledge of the process and machinery of trade".

⁵ Several theoretical research studies emphasize the importance of unobservable factors such as attitudes toward risk and preferences for autonomy in the decision between self-employment and working for others. Partly drawing on Frank Knight's (1921) classic work, Kihlstrom and Laffont (1978) and Rees and Shah (1986) posit that less risk adverse individuals are more likely to choose self-employment. In addition, models by Rees and Shah (1986), and Blanchflower and Oswald (1998) examine other aspects of self-employment namely "the flexibility associated with hours worked and the independence entailed," and "the non pecuniary utility from being independent and one's own boss". However, there exists very little empirical evidence on the importance of these characteristics in the self-employment decision. In particular, we do not know whether attitudes toward risk or preferences for autonomy play a major role, or only a minor role, relative to those of human and social capital.

We refer to the first type of transfer which is defined below as the "*Intergenerational Transmission of Career-Specific Human Capital Hypothesis*" (SCH).

Hypothesis 1 : ("Intergenerational Transmission of Career-Specific Human Capital")

The probability of becoming self-employed for individuals increases with the parental transfer of career-specific human capital.

This hypothesis suggests that immediate social networks provide social support through the transmission of practical know-how and experience for a specific occupation that is typically not taught in school. If formal education is one means of acquiring valuable human capital, specific managerial skills and abilities are not generally taught in school. Offspring may acquire such informal business experience from their parents. These specific skills are generally connected to the specific nature of the father's occupation.

In addition to *Intergenerational Transmission of Career-Specific Human Capital* that is strongly correlated with the choice of a specific career, we conjecture that parental self-employment also results in the transmission of general managerial skills such as for example the ability and the capacity to acquire autonomy irrespective of the specific occupation of the parents. As pointed out by Lentz and Laband (1990) and Dunn and Holtz-Eakin (2000), there are several personal attributes, attitudes or preferences related to such matters as diligence, discipline and independence that are passed on within families⁵. We refer to this explanation as the *Intergenerational Transmission of General Managerial Skills Hypothesis* (GCH).

Hypothesis 2 : (Intergenerational Transmission of General Managerial Skills Hypothesis)

The immediate social environment also transmits general managerial skills which foster self-employment.

If GCH is correct, one would expect that the coefficient associated with parental self-employment in occupations different from their offspring would be positive and significant. The results described later in the text are consistent with the assumptions of transmission of both career-specific skills and general managerial skills. In particular, they show that having parents who are entrepreneurs increases the probability of being self-employed, even when the offspring have a different job than their parents. After controlling for parental self-employment, we also observe strong differences in individual characteristics and occupation between first and second-generation self-employed. Indeed we observe that first-generation self-employed are generally more educated than second-generation self-employed and that financial transfers seem less binding for sons of entrepreneurs than for sons of salaried workers. Finally our results indicate that first-generation self-employed report higher job satisfaction than second-generation self-employed.

The paper is organized as follows. The theoretical model is presented in section 2. Section 3 presents the data set used. Section 4 analyses the role of the intergenerational transmissions of human

capital in the probability of being self-employed. Section 5 investigates the differences between first and second generation self-employed. The final section summarizes the study conclusions.

2. Theoretical Framework for Analysis

We consider a theoretical model in which individuals choose between self-employment and salaried work. Following Evans and Jovanovic (1989); Holtz-Eakin, Joulfaian and Rosen (1994a,b) and Dunn and Holtz-Eakin (2000), we assume that utility depends on income (Y_i) and a vector (Z_i) of personal characteristics. Salaried work will yield an individual an income of $w_i + rA_i$ where w is the wage, A_i represents assets and r is the net rate of interest. Self-employment will yield an individual a gross payoff equal to y with:

$$y = \theta f(k)\varepsilon \quad (1)$$

where $f(.)$ is a production function using capital k invested in the business, θ is the entrepreneurship ability and ε is an independent random element with mean of 1 and finite variance.

An entrepreneurs' net income is given by :

$$y + r(A - k) \quad (2)$$

where $(A - k)$ is the amount available to earn capital income after investing k in business. $k - A$ is the amount of capital financed by borrowing if $k > A$.

Following the example of Dunn and Holtz-Eakin (2000), we assume that immediate social capital s influences the individual's ability to be an entrepreneur given by $\theta(s)$, the amount of capital invested in business, $k(s)$ as well as access to capital assets, $A(s)$ ⁶. As noted above, it is possible to distinguish two classes of human capital transfers : (1) general-managerial skills and (2) career-specific skills. Having distinguished between these two types of self-employed human capital, we can thus dichotomize the individual's ability to be an entrepreneur as $\theta_g(s)$ and $\theta_s(s)$ where $\theta_g(s)$ is the "general-entrepreneurship ability" and $\theta_s(s)$ is the "career-specific ability". Under such assumptions, an individual will choose self-employment if its expected utility is higher, that is if :

$$E\left\{U\left[\left[\theta_g(s) + \theta_s(s)\right]f(k_i^*(s))\varepsilon + r(A_i(s) - k_i^*(s)); Z_i\right]\right\} > E\left\{U\left[w_i + r(A_i(s)); Z_i\right]\right\} \quad (3)$$

⁶ Lentz and Laband (1990) show that the probability that an individual becomes self-employed increases when the parents are also self-employed because of a probable transmission of informal human capital (managerial expertise, job specific knowledge). See Coleman 1988 for a discussion of the relationship between human and social capital. Other studies have examined access to financial resources through one's social network and more precisely through one's immediate social environment (Altonji, Hayashi and Kotlikoff(1992); Cox (1990) ; Cox and Jappelli (1990) ; Engelhardt and Mayer (1995)).

Equation 3 indicates that the decision to become self-employed depends on several factors such as personal characteristics, resources, and ability. Moreover it sheds light on the fact that immediate social environment contributes to these factors through the transmission of ability, financial capital and specific personal attributes.

As noted by several authors, parental self-employment can positively affect the probability of offspring to becoming self-employed. This propensity may derive from the transmission of specific skills and non specific abilities, and if so be possible that $\theta(s)$ would be higher for individuals whose parents are self-employed. Moreover the probability that an individual is self-employed is higher when his parents are both self-employed and in the same occupation compared to the case where his parents are self-employed but not in the same occupation. Indeed parents who are self-employed but not in the same occupation as their offspring can only transmit "general human capital" $\theta_s(s)$. By contrast the self-employed who share occupations with their parents may benefit from both general and specific skills.

3. Descriptive Analysis

The econometric analysis described in this section draws upon the European Community Household Panel Survey (ECHP). The European Union funded dataset, coordinated by Eurostat, is a cross-national longitudinal survey that focuses on household income and living conditions. The survey was conducted from 1994 to 2001 in 12 members states (Belgium, Denmark, Germany, Greece, Spain, France, Italy, Ireland, Luxembourg, The Netherlands, Portugal and the United Kingdom). The data come from a standardized questionnaire and are designed to be cross-nationally comparable.

One of the features that makes the ECHP a valuable source of information is that the ECHP provides microdata at the individual and household level on a wide range of topics such as employment, social life, and education. This survey consists of a sample of 60,500 households or approximately 130,000 adults aged 17 years and over in 1994, across the twelve member states. Individuals were queried periodically between 1994 and 2001. In contrast to other panel data, the large sample size of the ECHP provides a number of observations on individuals which is large enough to allow a credible examination of the probability of being self-employed. Because of the longitudinal nature of the data, individuals who were members of a household at the time of the first survey wave followed during all subsequent surveys.

For the French panel of the survey, the first year initial sample was about 7300 households. All individuals living in these households and who were aged 17 or more in 1994 were interviewed. These "panel individuals", as well as their children if aged 17 years old or more were followed over time even if they changed address. Moreover, changes in household are also accounted for. For example, in case of the break up of couples new partner were also interviewed.

In order to facilitate the comparison of our work with previous studies, we have restricted our sample to workers who were either self-employed or salaried. In particular, we excluded workers who were retired, in school or in the military, as well as workers who were unemployed. In addition, we required that workers be between the ages of 16 and 64. These restrictions reduce the sample to 50579 workers. Of these individuals, 5871 workers, (i.e. approximately 11.6% of the sample) are self-employed. We classified a worker as self-employed if he or she answered yes to the direct question on whether they were self-employed. Table 1 presents summary statistics for these data (see Table A in the appendix for variable definitions).

[Table 1 : about here]

Table 1 provides information on the characteristics of entrepreneurs and employees. It presents means and standard deviations of a number of variables for self-employed and salaried workers as well as for the whole sample. Differences between salaried (WS) and self-employed (SE) workers can be determined readily by interpretation of the table. Table 1 shows that on average SE workers are eight years older than WS workers. Table 1 also shows differences in human capital characteristics. SE are generally less educated than WS. Indeed, 72% of self-employed have not graduated from high school, while 58% of salaried failed to graduate. However among self-employed whose level of education is beyond high school, more than 42% attained a post-graduate degree. Among salaried workers with a beyond high school education, only 29% have a post graduate degree.

Table 1 also indicates that the earnings of self-employed workers are higher than those of salaried workers. Personal incomes were initially measured in French francs. A self-employed worker's annual income is on average 19941 euro compared to 12358 euro for a salaried worker⁷. Even if the difference in income between the two populations is not highly significant, the level of taxes (Taxable income, Inhabited Dwelling Tax and Land Tax) are significantly higher for the self-employed, and this fact underscores an under-reporting problem associated with net profit. Several studies have shown that the self-employed generally underestimated their income (Aronson, 1991; Hamilton, 200). Table 1 also indicates that the self-employed are more likely to be property owner than salaried workers. In addition, Table 1 shows that the self-employed accumulate more assets than salaried workers.

Finally, table 1 presents social capital differences between salaried and self-employed individuals. It shows that the self-employed are more likely to be married and less likely to have children than are salaried workers. The last line of Table 1 reports parental self-employment. Not surprisingly, it shows that both parents of 37% of self-employed are themselves self-employed, while the figure is only 11.5% for the salaried workers.

⁷ Individuals who reported nonpositive self-employment earnings were not considered in the analysis (Evans and Jovanovic, 1989). As indicated by standard deviation, there is a strong heterogeneity among self-employed earning. Additional analysis indicate that for example a farmer's annual income is on average 11154.8 euro compared to 36425 euro for a professional self-employed.

A. Social capital, transmission of Human Capital and Self-Employment

Previous research have highlighted the determining role of social capital in access to self-employment. Table 2 and Table 3 present the first steps taken to analyze the intergenerational linkages related to self-employment. Table 2 focuses on social capital variables separated into weak and strong links. According to Granovetter's definition (1973), contacts with family members and close friends are strong ties while contacts with colleagues are weak ones. Empirical evidence suggests that strong family ties are most important for business founders, while weak ties are less relevant (Brüderl and Preisendörfer, 1998).

[Table 2 : about here]

In table 2, we decompose the variable "Both parents SE" into the variables "Father SE" and "Mother SE". These variables respectively indicate whether the father or the mother is self-employed. In addition we also consider the following variables : "father with same occupation", "mother with same occupation" that indicate whether the father or the mother has the same occupation as the offspring. The variables "Father SE with same occupation" and "Mother SE with same occupation" indicate that, respectively the father or the mother is self-employed and practices the same profession. Table 2 shows that self-employed are more likely to have one or both parents who are self-employed. Moreover, 47% of self-employed workers have a father who is in the same profession while such is the case for only for 31% of salaried workers. This result is consistent with other studies. For example Lentz and Laband (1990) observe that among 1805 independent businessmen surveyed in 1979, 52.2 per cent of business owners had parents who were also business owners. Table 2 also presents the results for the variables relative to weak links. These variables consider whether the individuals were involved in Associations and/or had civic responsibilities. Affirmative responses were coded 1 in a dummy variable. In addition individuals were asked the frequency of their contacts with their family (variable Talkfam) and with their friends (variable Talkfriends). Table 2 indicates that self-employed are more likely to belong to an association and more likely to be active in association and civic groups than salaried workers. Finally, the variable neighborhood shows that about 52% of self-employed meet often with their neighbors against 43% of the salaried workers do so.

Table 3 shows selected year-by-year self-employment rates for sons based on the self-employment histories of their parents.

[Table 3 : about here]

As shown in the first column of table 3, the rate of self-employment for sons decreases steadily between 1994 and 2001. The rate decreases from 13% in 1994 to 10% in 2001. Consider, for example,

the entries for 1994 shown in the first row of the table. The figures show that 27% of those sons whose fathers were self-employed during the survey were themselves self-employed in 1994. In contrast, among sons whose fathers were not self-employed during the survey, the rate was only 7%. The next two columns display similar comparisons using mothers' self-employment experiences. In 1994, the self-employment rate among sons of self-employed mothers was 30% while the rate was only 9% for sons of mothers who were not self-employed.

B. Transmission of Financial capital

The data do not allow us to identify directly the parental transmission of financial capital. However the data provide information on the inheritances of sons and this information serves as a proxy for financial capital transmission. The key question in the survey is "Have you ever inherited from another person". Information about the distribution of inheritances and gifts is reported in Table 4.

[Table 4 : about here]

The first column in table 4 gives the proportion of workers who received an inheritance /gift, for each size of inheritance. The second and the third columns give the proportion of the employed and the self-employed who received an inheritance/ gift. Table 4 reveals a strong positive relationship between the size of inheritances/gifts and the incidence of self-employment. Results show that individuals who have received inheritances or gift are more likely to run their own businesses. A possible interpretation of this result is that children who become self-employed tend to inherit family firms. However Blanchflower and Oswald have shown that such result must be carefully interpreted since the receipt of an inheritance is not an entirely random event. According to the authors, individual who receive inheritance may be those who are, for unmeasured reasons, better suited for self-employment.

4. Self-employment Probit on self-employment Probability Using ECHP Data

A. Intergenerational transmissions

In order to estimate how individual characteristics, financial, human capital and social capital affect occupational choice, a Probit model is estimated. We assume that each individual has to choose between salaried work and self-employment by comparing differences in utilities of the two options and chooses the option with the higher utility.

$$y_{it}^* = x_{it}\beta + v_{it} \text{ with } i = 1, \dots, n \text{ and } t = 1, \dots, T \quad (4)$$

The latent variable associated with the binary choice of being self-employed is y_{it}^* . An individual is assumed to be self-employed ($y_{it} = 1$) if the utility in self-employment is higher than the utility of salaried employment. The variable x_{it} is a socio-economic characteristics vector affecting self-

employment propensity. It is well known that a spurious correlation between y_{it}^* and y_{it} can arise because of temporally persistent unobservable variables that determine the choice of self-employment. To control for this, we have to model explicitly any unobserved individual heterogeneity. This is done by decomposing the error term in (4) as:

$$v_{it} = \varepsilon_i + u_{it} \tag{5}$$

where ε_i is an individual-specific unobservable effect and u_{it} is a random error. The value of (1) is estimated using a random effects probit model, assuming that $u_{it} \sim N(0, \sigma_u^2)$ and $E(u_{it} x_{it}) = 0$ for all i and t .

Table 5 shows the Probit estimates of being self employed. The independent variables include several demographic characteristics such as gender, age marital status, education, indicators of wealth and financial transfers and experience, as well as information on social capital. We consider strong links (parents) and weak links (friends, neighborhood). Having variables for both the father's and the mother's occupation makes it possible to control for the occupation and/or the self-employed status of the individuals father. The theory makes clear that the appropriate test for financial capital is to omit earnings variables. For this reason, we used a proxy to express wealth. The key question in the survey is "to your knowledge, what would represent your household's wealth if you had to estimate it?". Such variables should be interpreted cautiously because of potential endogeneity, since wealth may also result from an individual's occupational status.

Only the variable "mother is self-employed" is included in the first specification while only the variable "father is self-employed" is included in the second specification. A third estimation considers both variables : "father is self-employed" and "mother is self-employed" that are included as independent variables for social capital. These variables make it possible to control for the effect of social capital on the probability of being self-employed. Among studies that investigated how parents' self-employment affects the probability of an individual becoming self-employed, most consider parental self-employment without discriminating between parents who are in the same occupation as their offspring and those that are not. In order to examine this effect, we distinguish two types of self-employed in a fourth specification : 1) those whose parents were self-employed with a similar occupation, including those who inherited the business from their parents. 2) those whose parents were owner-managers of an enterprise but not with the same occupation as their offspring. Such variables allow us to discriminate between the transmission of informal specific human capital and the intergenerational transfer of general human capital. Indeed, the self-employed who fall into the first category might have received both valuable industry-specific human capital as well as general managerial human capital. In contrast individuals who fall into the second category have only received a transfer of general human capital, irrespective of the specific career. A reasonable assumption is that a father who is self-employed but not in the same occupation as his offspring, should not be able to transfer specific practical know-how or experience to their offspring. In contrast, he could only

transmit general abilities for self-employment to his offspring. In addition, variables that capture weak ties are included in the fourth specification.

[Table 5 : about here]

The results show strong effect of individual characteristics on occupational choice. Indeed being a man increases the probability of being self-employed. In addition the probability of being self-employed increases with age. This result confirms other empirical and theoretical analysis that shed light on the fact that being self-employed requires abilities that need several years of experience in the labor market to develop the need to save before starting a business (Lucas, 1988 ; Calvo and Wellisz, 1980, Laferrere, 1998. Another explanation might be that by doing salaried work, people discover their own preferences for self-employment.

Human capital is also a determinant of career choice. The effect of education on the probability of being self-employed is positive and statistically significant. The second idea implied is that having a technical education increases the probability of being self-employed. These results are consistent with Rees and Shah (1986). Moreover Evans and Leighton (1989) find that the probability of being self-employed increases with the number of years of education. However, there is no consensus on the impact of human capital on the probability of being self-employed. Indeed, on the contrary de Wit (1993) observes that a high level of education tends to reduce the probability of being self-employed. Moreover Lentz and Laband (1990) argue that most of the competence required to be self-employed is not necessarily obtained through the formal education system. This idea suggests that the competence needed for self-employment would depend on the informal transmission of human capital through the immediate social environment.

We turn now to the influence of the financial capital variables. Our results show that personal wealth increases the probability of being self-employed⁸. Table 5 shows that having personal assets increases the probability of being self-employed. In addition, Table 5 shows that the likelihood of being self-employed is higher if a person has received intergenerational financial transfers. Table 5 reveals that the impact of the variable related to large inheritance is positive and significant at the 5% level. The findings from these different variables are consistent with the existence of capital constraints. These results are similar to those obtained by Evans and Jovanovic (1989), Evans and Leighton (1989), Meyer (1990) Holtz-Eakin et al. (1994a, b) and Blanchflower and Oswald (1998).

We turn next to the investigation of the role of social capital on the probability of being self-employed. We observe that being married increases significantly the probability of self-employment. Several studies have shown that being married tends to result in more stability and to relax the liquidity constraint (Pickles and O'farrell (1987); Taylor (1996), Lindh and Ohlsson (1996); Van Praag

⁸ Because of endogeneity problem, variables refereeing to work earnings are not included in the estimation.

and Van Ophen (1995))⁹. However the coefficient for the variable "having children" is negative and significant for specifications (1) and (2). This result is similar to those obtained by Dolton and Makepeace (1990). The authors postulate that family responsibilities have negative impact on risk-taking and as a consequence would reduce the probability of being self-employed.

We also observe that having self-employed parents has a strong and highly significant effect on the probability of being self-employed. Having parents self-employed strongly affects the probability of being self-employed. These results are consistent with Laferrere (1998), who finds strong similarities. De Wit and van Winden (1989), Lentz and Laband (1990), Taylor (1996), Dunn and Holtz-Eakin (2000), Dunn and Holtz-Eakin (2000) and others get similar results¹⁰. We also investigate in the fourth specification whether self-employed parents affect the probability of their offspring being self-employed differently depending on whether parents work in the same field as their offspring. These results are given by the variable "father self-employed and having the same job", "father self-employed and not having the same job" "mother self-employed and having the same job", "mother self-employed and not having the same job".

The results show that after taking account of other social and financial characteristics, both variables "father self-employed in the same job" and "mother self-employed in the same job" significantly affect the probability of being self-employed. The statistically significant high positive coefficient for "father self-employed but not in the same job" variable also confirms our expectation that parents not only transmit informal human capital for a specific job but also transmit attributes which favor self-employment such as the ability to be independent. However, this coefficient is not significant for the variable ""mother self-employed not in the same job". This analysis provides strong evidence of the role of immediate social capital in the probability of being self-employed, showing that the probability of being self-employed increases when parents are themselves self-employed. Finally our results do not provide evidence of a "weak link effect". The variables concerning weak links have no statistically significant effect.

It might be argued that self-employed men behave differently than self-employed women. Table 6 shows the coefficients of a Probit equation for both male and female self-employment.

[Table 6 about here]

Table 6 provides interesting information about differences between men and women. Table 6 shows that a large inheritance has a significant positive effect on the probability of a man becoming self-employed. However this variable is not significant for women. In contrast, having children negatively

⁹ As suggested by Clark (2005), the coefficient associated with the variable "married" might also be positive because two people can pool their (independent) risks.

influences women in their choice of self-employment. If both men and women are influenced by having self-employed parents, our results indicate that women are more likely to be influenced by their mother than by their father. The opposite result is observed for men. Moreover, the coefficient associated with mother self-employment in occupations different from her son has no statistically significant effect on son's probability of self-employment but it does matter for daughters, suggesting that intergenerational transfers are stronger along gender lines. Dunn and Holtz-Eakin (2000) get similar results.

B. Occupational Inheritance among the Self-Employed

In this sub-section a distinction is made among the different kinds of self-employed workers - farmers, artisans, professionals, shopkeepers and managers. We might suspect that the percentage of offspring sharing an occupation with a parent would be higher for some occupations than for others. For example and as suggested by several authors, most farmers have a father who is also a farmer.

Table 7 provides information on differences between first and second generation self-employed, by occupation.

[Table 7 : about here]

Table 7 indicates that 32% of the self-employed are farmers, 23% are artisans, 20% shopkeepers, 12% professionals and only 3% are managers. Table 7 also shows that a large part of second generation self-employed are farmers while they represent only 7% of first generation self-employed. Finally, we observe that the proportion of male artisans, shopkeepers and professionals is higher for first generation self-employed.

In order to provide a more detailed analysis of the intergenerational transmission of informal human capital, Table 8 repeats the analysis of Table 5, taking into account the father's occupation.

[Table 8 : about here]

Column 1 of Table 8 provides results similar to those given in table 5. The results show that being a man increases the probability of being self-employed and that the probability of being self-employed increases with age. Moreover, we observe that having an intermediate level of education tends to increase the probability of being self-employed and that having a technical education also increases the probability of being self-employed. Financial capital also has a significant positive effect on the probability of being self-employed. We turn next to the investigation of the role of the father's occupation. The second model excludes farmers. The four other models exclude respectively artisans, shopkeepers, professional workers and managers. We find in all cases father's occupation has a

¹⁰ Other studies have pointed to a positive effect of the grand parents being entrepreneurs (Zarca, 1993a and 1993b).

significant positive effect on the probability of being self-employed. The most striking thing about these results is that the coefficient estimates for all father's occupations are positive and significant, even for occupations that have been omitted. For example, column 2 indicates that having a father who is a farmer has a positive and significant influence on the probability of becoming self-employed in a non-farming occupation. Under our assumptions, this result seems to indicate that parents transmit not only specific career human capital, but also a predisposition and non-specific ability for self-employment¹¹. One might suspect that such results reveal similarities between different occupations. In order to examine this hypothesis, we consider in columns 8 and 9, a distinction between manual occupations such as farmer or artisan and other occupations such as shopkeeper, professional worker and manager. Some of the above conclusions must be somewhat mitigated. Some occupations have more influence than others on the probability of being self-employed and there are similarities between occupations. For example, having a father who is an artisan or a shopkeeper positively affects the individual's probability of being a farmer whereas having a father who is a manager or professional has no influence on this probability. Having a father who is a farmer or artisan does not increase the probability of being a professional worker. These results indicate in a sense a form of specificity in the transmission of general managerial skills since such transfers are effective only between occupations that are sufficiently close to each other.

5. Differences between First and Second Generation Self-Employed

A. Individual Characteristics of First Generation and Second Generation of Self-Employed

In this section we investigate whether the characteristics of second-generation self-employed (i.e. those whose parents are self-employed) differs from first generation self-employed (i.e. those whose parents are not self-employed). One might suspect differences in characteristics between first and second generation. For example, we may expect second generation self-employed to be more successful than non-follower since the followers inherit informal human capital from their parents. Table 9 compares the individual characteristics of first and second generation self-employed.

[Table 9 : about here]

¹¹ Using the 1991-1992 French Household Survey of Financial Assets, Laferrere (1998) failed to provide evidence of the existence of a preference for self-employment when sons were self-employed in different occupations as their fathers. A possible explanation for such difference might be due to the fact that entrepreneurs who took over a family business (whether or not they were self-employed) were excluded in Laferrere's analysis.

As indicated in Table 9, first-generation self-employed workers are generally younger than those of the second generation self-employed. We also observe a higher percentage of men among second generation self-employed and that first generation self-employed are generally more educated than second generation self-employed. This result is consistent with the results of Lentz and Laband (1990) who find that followers possess lower level of human capital obtained in the market. The authors explain this result by suggesting the idea that there is relatively less need for second-generation self-employed to acquire formal training since they have the opportunity to accumulate equivalent training through the occupation of his father. By contrast first-generation self-employed, who receive less informal human capital than second generation self-employed, would tend to compensate this short coming by more formal education. Finally the table reveals that incomes of second generation of self-employed are higher than those of first generation for managers and professional. On the contrary the incomes of first generation self-employed significantly exceeds those of second generation self-employed for farmers, artisans and shopkeepers.

Table 10 provides a probit estimation of the probability of being self-employed as a function of the self-employment status of the father.

[Table 10 : about here]

Table 10 shows differences on the probability of self-employment between the self-employed whose parents are self-employed and those whose parents are not self-employed. Consistent with our previous results the coefficient for the variable “men” is only significant for second-generation self-employed. Moreover, we observe that the effect of formal education is stronger for first generation self-employed. This seems to confirm the idea that informal managerial human capital acquisition through parental transfer would substitute for more formally acquired schooling and that followers may decide not to go to university since they do not find it useful. In addition, financial capital plays a stronger role for first generation self-employed. The positive effect of parental wealth is stronger and statistically significant when one's father is not self-employed. Lafererre (1998) gets a similar result. Moreover being married positively affects the probability of being self-employed only in the case of first generation self-employed.

B. Job Satisfaction Differences between First and Second generation self-employed workers

Our previous results showed that individuals are more likely to be self-employed when their parents are themselves self-employed. The main reason is that informal human capital transmission plays a strong role in the probability of becoming self-employed. In addition our results also indicate strong differences between first and second generation self-employed. If the intergenerational transmission of informal human capital facilitates access to self-employment, one may ask to what extent this comparative advantage induces higher satisfaction in self-employed sons.

Our aim in this section is to investigate whether, *ceteris paribus*, the self-employed report higher/lower levels of job satisfaction than do employees and whether second-generation entrepreneurs are happier than others self-employed¹². The ECHP survey provides a valuable data source for such non pecuniary utilities. After asking each individual how satisfied they were with a range of items, such as pay, working conditions or job security, type of activity, the following encompassing question was asked: "How satisfied or dissatisfied are you with your job as a whole?". Preliminary questions were asked about the individual components of utility. A cross tabulation of the responses to the job satisfaction question are reported in Tables 11 and 12.

[Table 11 : about here]

Table 11 shows that the self-employed somewhat more satisfied than salaried workers overall. For example, 14.56% of the self-employed say that they are very satisfied, whereas the figure is 9.23% for employees. In order to provide more detailed information on satisfaction, Table B in appendix 2 repeats the analysis of Table 11, taking into account hours of work, work activity, working conditions, distance from residence, pay and job security. It indicates that the self-employed are more satisfied than salaried workers with their hours of work, work activity, working conditions and with the distance from their residence. They seem to be as satisfied as salaried worker concerning pay. The self-employed appear to be less satisfied than salaried workers with job security and hours of work. To control for other characteristics, ordered probit equations are estimated in Table 12 for job satisfaction, activity satisfaction and labor conditions satisfactions. Dummy variables for self-employment, gender, status, marital status qualifications, age and age squared are included as controls in Table 12.

[Table 12 about here]

Table 12 presents our findings from five ordered Probit regression models. All models include several sociodemographic variables such as education, gender, age, age-squared, marital status as well as variables related to financial capital. Consistent with results reported by Clark (2003), Table 12 indicates that men are more satisfied. The results also provide some evidence that entrepreneurs get higher utility than employees. Model 1 indicates a positive and highly significant effect on all reported satisfaction levels. This result is consistent with literature that typically suggests a job satisfaction advantage associated with self-employment. In a significant study, Blanchflower and Oswald (1998), using cross sectional data from 1981 and 1991, find that the self-employed are more satisfied with their job than employees. It provides strong evidence that the self-employed get higher utility than conventional employees. However as the authors admitted in their paper, it may be possible that reported satisfaction levels are subject to several important biases. For example "self-employed people may be intrinsically more optimistic than others...".

Model (3) includes variables for activity where farmers are treated as the omitted reference category. Table 12 shows that professional workers report higher satisfaction. Using the National Survey of Families and Households, Bradley and Roberts found similar results. The second specification also includes weak links. It indicates that having friends increases job satisfaction. Models (4) and (5) restrict the analysis to the self-employed. The negative coefficient for age and the positive coefficient for age-squared reveal, *ceteris paribus*, that well-being for the self-employed is U-shaped with respect to age. Some simple algebra shows that the age of minimum well-being is 49 in the ordered probit. Similar results were obtained by Clark (2002), Clark and Oswald (2002) and Clark and Senic (2004) for French data. Finally, our results indicate that first generation self-employed report higher level of satisfaction than second-generation self-employed.

6. Conclusion

The aim of the present study was to investigate and measure the impact of social networks in the transmission of informal human capital which favor self-employment and to what extent an individual's choice to be self-employed is conditioned by their social environment. This paper presents a model of entrepreneurial choice. Several interesting results emerge. Our investigation of data from the ECHP suggests important roles for the intergenerational transmissions of informal human capital. Our results show that having parents who are self-employed has a strong highly significant effect on the probability of being self-employed even when offspring do not occupy the same job as their parents. The empirical results reported above also indicate strong differences between first and second generation self-employed. The results indicate that first generation self-employed are generally more educated than second generation self-employed. This result seems to confirm the idea that the acquisition of managerial informal human capital through parental transfers would be substitute for formally acquired schooling. Finally the study shows that first generation self-employed are generally more satisfied with their job than are second-generation self-employed.

A number of topics remain for future research. A further examination of the reasons for differences between first and second generation self-employed is called for. Such analysis would explicitly consider how immediate social environment might affect the level of satisfaction.

References

- Allen, D. (2000), "Social Networks and Self-Employment", *Journal of Socio-Economics*, vol. 29: pp.487–501.
- Altonji, J. G. and Dunn T.A. (1991), "Relationships among the Family Incomes and Labor Market Outcomes of Relatives", In R. Ehrenberg (ed.), *Research in Labor Economics*, Vol. 12, Greenwich, CT: JAI Press Inc.: 269-310.
- Aronson, R. (1991), "Self-employment: A Labor Market Perspective", Ithaca, n° 4, ILR Press, 156 pages.
- Benz M and Frey B. (2004), "Being Independent Raises Happiness at Work.", *Swedish Economic Policy Review*, 11(2° : 97-134.
- Blanchflower, D. and Oswald, A. (1998), "What makes an entrepreneur", *Journal of Labor Economics*, vol. 16(1) : pp. 26–30.
- Blau, D. (1987), "A Time Series Analysis of Self-Employment in the United States", *Journal of Political Economy*, vol. 95(3) : pp. 445–467.
- Blau, P.M. and Duncan O.D. (1967), "The American Occupational Structure", New York: John Wiley and Sons, Inc.
- Borjas, G. and Bronars, S. (1989), "Consumer Discrimination and Self-Employment", *Journal of Political Economy*, vol. 97 no 3: pp. 581–605.
- Brüderl, J. and P. Preisendörfer (1998), "Network support and success of newly founded businesses", *Small Business Economics* 10 : pp. 213-225.
- Calvo, G. and Wellisz S. (1980): "Technology, Entrepreneurs and Firm Size", *Quarterly Journal of Economics*, vol. 85 : pp. 663—678.
- Carrasco, R. (1999), "Transitions To and From Self-employment in Spain : An Empirical Analysis", *Oxford Bulletin of Economics and Statistics*, vol. 61 no 3: pp. 315–341.
- Clark, A.E. (2003), "Unemployment as a Social Norm: Psychological Evidence from Panel Data", *Journal of Labor Economics*, vol. 21 : pp.323-351.
- Clark, A.E., Oswald A.J. and Warr, P.B. (1996), "Is Job Satisfaction U-shaped In Age?", *Journal of Occupational and Organizational* , vol.69 : pp.57-81.
- Clark, A.E and Oswald A.J (forthcoming), "The (Unexpected) Structure of Rents on the French and British Labour Markets", *Journal of Socio-Economics*.
- Clark, A.E and Senic C. (1996), "Satisfaction and Comparison Income", *Journal of Public Economics* , vol.61 : pp.359-81.
- Cressy, R. (1996), "Are Business Startups Debt-Rationed ?", *The Economic Journal*, vol. 106: pp. 1253–1270.
- Dolton, P.J. and Makepeace, G.H. (1990), "The Earnings of Economics Graduates", *Economic Journal*, Royal Economic Society, vol. 100(127) : pp. 237-50.
- Dunn, T. and Holtz-Eakin D. (2000), "Financial Capital, Human Capital, and the Transition to Self-Employment: Evidence from Intergenerational Links", *Journal of Labor Economics*, vol. 18(2) : pp. 282-305.
- Evans, D. and Leighton, L. (1989), "Some Empirical Aspects of Entrepreneurship", *American Economic Review*, vol. 79: pp. 519–535.
- Evans, D. and Jovanovic, B. (1989), "An Estimated Model of Entrepreneurial Choice under Liquidity Constraints", *Journal of Political Economy*, vol. 97: pp. 808–827.
- Fairlie, R. and Meyers, B. (1996), "Ethnic and Racial Self-Employment Differences and Possible Explanations", *Journal of Human Resources*, vol. 31 no 4: pp. 757–793.
- Fuchs, V.R. (1982), "Self Employment and Labor Force Participation of Older Men", *Journal of Human Resources*, vol. 17(3) : pp.339-357.
- Granovetter, M. (1973), "The Strength of Weak Ties", *American Journal of Sociology*, vol. 78: pp. 1360–1380.

- Greene, W. (1993), "Econometric Analysis", MacMillan, New-York.
- Hamilton B.H.(2000), "Does entrepreneurship pay? An empirical analysis of the return to self-employment", *Journal of Political Economy*, 108(3): pp. 604–631.
- Hotz-Eakin, D., Joulfaian, D. and Rosen, H. (1994a), "Entrepreneurial Decisions and Liquidity Constraints", *RAND Journal of Economics*, vol. 25(2): pp. 335–347.
- Hotz-Eakin, D., Joulfaian, D. et Rosen, H. (1994b), "Sticking it Out : Entrepreneurial Survival and Liquidity Constraints", *Journal of Political Economy*, vol. 102(1) : pp. 53–75.
- Kanbur, R. (1982), "Entrepreneurial Risk Taking, Inequality, and Public Policy: An Application of Inequality Analysis to the General Equilibrium Effects of Progressive Taxation", *Journal of Political Economy*, vol. 11 no 11: pp. 1–21.
- Kawaguchi, D. (2003), "Human Capital Accumulation of Salaried and Self-Employed Workers", *Labour Economics*, vol. 10 no 1: pp. 55–71.
- Kihlstrom, R. and Laffont, e. J. (1979), "A General Equilibrium Entrepreneurial Theory of Firm Formation Based on Risk Aversion", *Journal of Political Economy*, vol. 87: pp. 719–748.
- Laband D.N. and Lentz, B.S. (1983), "Like Father, Like Son: Toward and Economic Theory of Occupational Following", *Southern Economic Journal*, vol. 50(2) : pp. 474-493.
- Laferrere, A. and McEntee P. (1995), "Self-employment and Intergenerational Transfers of Physical and Human Capital: An Empirical Analysis of French Data", *The Economic and Social Review*, vol. 27(1) : pp. 43-54.
- Lentz, B. and Laband, D. (1990), "Entrepreneurial Success and Occupational Inheritance Among Proprietors", *Canadian Journal of Economics*, vol. 23: pp. 563–579.
- Lindh, T. et Ohlsson , H. (1998), "Self-Employment and Wealth Inequality", *Review of Income and Wealth*, vol. 44(1) : pp. 25–42.
- Lucas, R. (1988), "On the mechanics of Economic Development", *Journal of Monetary Economics*, vol. 22: pp. 3–42.
- McFadden, D. (1974), "Conditional Logit Analysis of Qualitative Choice Behavior", Academic Press, New-York, pp. 105–142, frontiers of econometrics édition. 23
- Meyer, B.D (1990), "Why are there so few Black Entrepreneurs?", NBER Working Paper 3537.
- Michalos, A.C. (1986), "Job Satisfaction, Marital Satisfaction, and the Quality of Life: A Review and Preview", In: Andrews, F. (Ed.) *Research on the Quality of Life*, Institute for Social Research, University of Michigan, pp.57-83.
- Pickles, A. R. et O'Farrell, P. (1987), "An Analysis of Entrepreneurial Behaviour from Male Work Histories", *Regional Studies*, vol. 21(5) : pp. 425-444.
- Rees, H. and Shah, A. (1986), "An empirical Analysis of Self-Employment in the UK.", *Journal of Applied Econometrics*, vol . 1(1) : pp. 95-108.
- Solon, Gary R. 1992. "Intergenerational Income Mobility in the United States," *American Economic Review*, 82(3) : 393- 408.
- Taylor, M. (1996), "Earnings, Independence or Unemployment : Why become Self-employed?", *Oxford Bulletin of Economics and Statistics*, vol. 58 no 2: pp. 253–266.
- Van Praag, M. C. and Van Ophem, H. "Determinants of Willingness to Start as anEntrepreneur." *Kyklos*, 1995, 48(4) : pp. 513-540.
- Wit, G. d. and Winden, F. v. (1989), "An Empirical Analysis of Self-Employment in the Netherlands", *Small Business Economics*, vol. 1: pp. 263–272.
- Wit, G. de (1993a), "Determinants of Self-Employment", Physica Verlag.
- Wit, G. de (1993b), "Models of Self-Employment in a Competitive Market", *Journal of Economic Surveys*, pp. 367–397.

Table 1 . Summary Statistics of individual characteristics for self-employment

Variable	Whole sample	Self-employed (SE)	Salaried (WS)
Gender (men)	0.552 (.497)	0.676 (0.468)	0.536 (0.499)
Age	39.4 (10.75)	46.3 (10.58)	38.5 (10.44)
<i>Human capital</i>			
- Education Level			
Less than high school	0.597 (.490)	0.720 (.450)	0.581 (.493)
Degree	0.113 (.317)	0.084 (.277)	0.117 (.321)
Baccalaureate/ master degree	0.036 (.186)	0.026 (.159)	0.037 (.189)
Postgraduate	0.065 (.247)	0.078(.268)	0.063 (.244)
Technical training	0.350 (.477)	0.368 (.482)	0.348 (.476)
<i>Financial capital</i>			
Individual Income	84516.82 (62861)	131612.3 (32809.1)	81566.07 (64744.22)
income taxation	18221(34074)	32328 (66522)	16645(27785)
Building tax	2731 (2015)	2832 (2531)	2718 (1940)
Land Tax	2794 (2637)	3550 (3543)	2676 (2438)
Owner	0.537 (0.499)	0.723 (0.447)	0.512 (0.499)
Assets≤100.	0.227 (0.419)	0.096 (0.294)	0.244 (0.429)
100<assets≤500	0.231 (0.421)	0.186 (0.389)	0.236 (0.425)
500<assets≤1000.	0.275 (0.446)	0.268 (0.443)	0.276 (0.447)
assets>1000	0.261 (0.439)	0.433 (0.495)	0.238 (0.426)
<i>Social Capital</i>			
-Marital status			
Married	0.755 (0.430)	0.761 (0.426)	0.755 (0.430)
Children	0.598 (0.490)	0.525 (0.499)	0.608 (0.488)
Not married without child.	0.095 (0.293)	0.076(0.266)	0.098 (0.296)
Married without child.	0.203 (0.402)	0.253 (0.435)	0.196 (0.397)
Married with children	0.553 (0.497)	0.508 (0.499)	0.559 (0.496)
Not married with children	0.046 (0.209)	0.017 (0.128)	0.049 (0.217)
Other	0.103 (0.305)	0.146 (0.353)	0.098 (0.297)
Both Parents Self-Employed	0.146 (0.353)	0.370 (0.483)	0.114 (0.318)

Note : Numbers in parentheses are standard deviations.

Table 2 . Social Capital Variables Divided into Strong and Weak Links

Variable	Whole sample	Self-employed	Salaried
-Strong links			
Both Parents SE	0.146 (0.353)	0.370 (0.483)	0.114 (0.318)
At least one parent SE	0.299 (0.457)	0.602 (0.490)	0.256 (0.437)
Father SE	0.277 (0.447)	0.580 (0.493)	0.234 (0.423)
Mother SE	0.179 (0.384)	0.413 (0.492)	0.147 (0.354)
Father Same Occupation	0.330 (0.470)	0.477 (0.499)	0.308 (0.462)
Mother Same Occupation	0.516 (0.499)	0.380 (0.485)	0.535 (0.498)
Father SE and Same Occupation	0.068 (0.252)	0.381 (0.486)	0.023 (0.151)
Mother SE and Same Occupation	0.047 (0.211)	0.293 (0.455)	0.012 (0.110)
- Weak Links-			
Association	0.269 (0.443)	0.308 (0.462)	0.264 (0.441)
Representation	0.179 (0.384)	0.244 (0.429)	0.170 (0.376)
Talkfriends	0.974 (0.158)	0.976 (0.152)	0.974 (0.159)
Talkfam	0.956 (0.205)	0.957 (0.202)	0.956 (0.206)
Friends	0.679 (0.467)	0.664 (0.472)	0.681 (0.466)
Neighborhood	0.439 (0.496)	0.517 (0.499)	0.430 (0.495)

Note : Means. Numbers in parentheses are standard deviations

Table 3. Self-Employment rates and intergenerational links in self-employment.

Year	Sample size	Self-employment rate				
		All sample	Father SE	Father not SE	Mother SE	Mother not SE
1994	7454	0.131 (0.338)	0.274 (0.446)	0.079 (0.270)	0.306 (0.461)	0.094 (0.293)
1995	6958	0.121 (0.326)	0.263 (0.440)	0.072 (0.259)	0.293 (0.455)	0.086 (0.281)
1996	6870	0.120 (0.324)	0.264 (0.441)	0.073 (0.261)	0.285 (0.451)	0.089 (0.285)
1997	6462	0.117 (0.321)	0.263 (0.441)	0.072 (0.258)	0.283 (0.451)	0.089 (0.285)
1998	6107	0.114 (0.317)	0.259 (0.438)	0.071 (0.257)	0.280 (0.449)	0.088 (0.283)
1999	5830	0.109 (0.311)	0.251 (0.434)	0.069 (0.253)	0.266 (0.442)	0.086 (0.281)
2000	5532	0.107 (0.309)	0.251 (0.434)	0.069 (0.253)	0.274 (0.446)	0.084 (0.278)
2001	5366	0.103 (0.303)	0.237 (0.425)	0.0681 (0.252)	0.254 (0.435)	0.083 (0.276)

Note : Numbers in parentheses are standard deviations

Table 4. Size of inheritance/Gift

Size of inheritance/gift	% of the whole sample	% of Self-employed	% of Salaried
0 KF	0.963 (.189)	0.957 (.203)	0.964 (.187)
15 KF - 69 KF	0.015 (.122)	0.014 (.119)	0.015 (.123)
70KF-349KF	0.014 (.116)	0.016 (.124)	0.013 (.115)
>=350KF	0.005 (0.071)	0.007 (.084)	0.005 (0.068)

Note : Numbers in parentheses are standard deviations

Table 5 . Probit Regressions on Self-employment Probability

Variable	(1)	(2)	(3)	(4)
Constant	-12.539*** (.337)	-13.486*** (.387)	-12.443*** (.346)	-15.017*** (.555)
Gender (men)	1.119*** (.111)	.7919*** (.138)	2.339*** (.157)	0.490*** (.148)
Age	.122*** (.006)	.141*** (.006)	.098*** (.005)	.162*** (.008)
<i>Human capital</i>				
Degree	.280** (.129)	.387** (.154)	-.093 (.144)	.225 (.199)
Baccalaureat/ Master Degree	.552*** (.196)	0.924*** (.208)	.992*** (.209)	-.328 (.279)
Postgraduate	.381*** (.145)	0.444** (.225)	.256** (.136)	1.067*** (.196)
Technical Training	.243*** (.091)	.490*** (.099)	.214* (.119)	.604*** (.129)
<i>Financial Capital</i>				
Assets	.175*** (.016)	.1707*** (.016)	.123*** (.017)	.092*** (.024)
InheritanceM	.451*** (.186)	.420** (.210)	.285 (.191)	.169 (.277)
InheritanceH	.675** (.292)	.528* (.310)	.603** (.313)	.845** (.384)
<i>Social Capital</i>				
<i>-Strong links</i>				
Married	.174* (.097)	.247** (.102)	.306*** (.156)	.591*** (.139)
Children	-.300*** (.084)	-.385*** (.100)	-.101 (.083)	.138 (.122)
Mother SE	2.765*** (.337)		1.902*** (.136)	
Father SE		2.843*** (.121)	1.417*** (.114)	
Father SE Same Profession				6.452*** (.286)
Mother SE Same Profession				3.372*** (.246)
Father SE not Same Profession				.708*** (.198)
Mother SE not Same Profession				.260 (.218)
<i>-Weak links</i>				
Neighbors				.083 (.090)
Friends				-.055 (.112)
Asso				.054 (.112)
Repca				-.140 (.114)
Observations	42560	42872	41577	27916
Log likelihood	-4988.7059	-4976.5215	-4845.9701	-3392.1779
Sigma_u	3.830917	3.842012	3.877239	4.559385
rho	.9362079	.9365525	.9376286	.9541032

Note : Numbers in parentheses are standard deviations. *** 1% significance level, ** 5% significance level, * 10% significance level,

Table 6. Probit Regressions for the self-employment of Men and Women

Variable	Men	Women
Constant	-13.938*** (.762)	-12.881*** (.754)
Age	.104*** (.007)	.125*** (.009)
<i>Human capital</i>		
Degree	-.152 (.239)	-1.777*** (.287)
Baccalaureate/ Master Degree	1.720*** (.445)	-.320 (.353)
Postgraduate	.257** (.206)	1.006*** (.305)
Technical Training	.102 (.156)	.314* (.187)
<i>Financial capital</i>		
Assets	.125*** (.027)	.165*** (.036)
InheritanceM	-.004 (.414)	.556 (.376)
InheritanceH	2.428*** (.611)	-.930 (1.056)
<i>Social Capital</i>		
<i>-Strong links</i>		
Married	.432** (.219)	.332* (.186)
Child	.137 (.167)	-.825*** (.177)
Father SE Same Profession	8.036*** (0.572)	2.471*** (.348)
Mother SE Same Profession	4.916*** (.484)	4.067*** (.381)
Father SE not Same Profession	1.161*** (.198)	-.355 (.233)
Mother SE not Same Profession	-.489 (.250)	.485** (.246)
<i>-Weak links</i>		
Neighbors	.056 (.116)	.006 (.136)
Friends	.139 (.127)	-.009 (.145)
Asso	-.000 (.131)	.151 (.156)
RePCA	.104 (.148)	-.571*** (.211)
Observations	15541	12375
Log likelihood	-1932.222	-1400.0519
Sigma_u	6.303205	4.912328
Rho	.9754483	.9602085

Note : Numbers in parentheses are standard deviations. *** 1% significance level, ** 5% significance level, * 10% significance level,

Table 7. Summary Statistics of Self-Employed by Occupation

	All Self-employed	First generation self- employed	Second generation self-employed
Farmer	32.36	7.56	47.35
Artisan	23.82	29.95	20.43
Shopkeeper	20.77	27.01	17.37
Professional man	12.56	20.86	7.10
Manager	2.88	3.08	2.70

Note : percentage of the population.

Table 8. Probit Regressions on Self-Employment Probability by fathers Occupational

Variable	All self-employed	Self-employed except farmers	Self-employed Except artisans	Self-employed Except shopkeeper	Self-employed Except profess.	Self-employed Except managers	Self-employed except farmers& artisans	Self-employed except shop. & prof managers
Constant	-12.753*** (.328)	-11.503*** (.344)	-13.297*** (.398)	-11.432*** (.383)	-12.942*** (.349)	-12.722*** (.336)	-10.911*** (.475)	-13.94*** (.5654)
Gender (men)	1.294*** (.123)	1.091*** (.111)	.738*** (.104)	.434*** (.091)	1.119*** (.107)	1.660*** (.117)	-.134 (.098)	.5428*** (.123)
Age	.122*** (.005)	.092*** (.005)	.137*** (.005)	.049*** (.005)	.131*** (.005)	.111*** (.005)	.045*** (.006)	.0858*** (.007)
<i>Human capital</i>								
Degree	.147 (.134)	.002 (.166)	.141 (.133)	.349*** (.133)	.434** (.185)	.236* (.137)	.295** (.124)	.2725 (.2097)
Baccalaureate / Master Degree	.993*** (.194)	0.998*** (.229)	.536** (.224)	.749*** (.232)	1.172*** (.246)	.977*** (.201)	0.495* (.277)	1.041*** (.325)
Postgraduate	.5300*** (.149)	0.665*** (.148)	.844*** (.154)	.328** (.137)	-.0508*** (.189)	.654*** (.148)	0.391*** (.136)	.4043* (.2297)
Technical Training	.380*** (.089)	.379*** (.094)	.183* (.103)	.450*** (.097)	.631*** (.099)	.281*** (.096)	.129 (.114)	.4976*** (.1149)
<i>Financial Capital</i>								
Assets	.1500*** (.016)	.188*** (.017)	.152*** (.018)	.105*** (.016)	.129*** (.018)	.197*** (.018)	.111*** (.019)	.0947*** (.0221)
InheritanceM	.408** (.189)	.353* (.205)	.499** (.208)	.325 (.248)	.319 (.204)	.515** (.204)	.506* (.260)	.0315 (.3066)
InheritanceH	.519* (.304)	.521* (.308)	.619* (.349)	.744** (.336)	.118 (.398)	.420 (.346)	.608* (.353)	.0824 (.6359)
<i>Social Capital</i>								
<i>-Strong links</i>								
Married	.129 (.097)	-.055 (.104)	-.080 (.108)	-.109 (.111)	.018 (.105)	.054 (.102)	.251** (.117)	-.0974 (.1953)
Child	-.245*** (.094)	-.081 (.088)	-.438*** (.098)	.037 (.098)	-.399*** (.099)	-.209** (.090)	-.115 (.114)	-.0571 (.1143)
Father SE farmer	3.32*** (.157)	0.877*** (.176)	3.701*** (.136)	4.119*** (.137)	3.462*** (.140)	3.573*** (.165)	0.170 (.151)	4.49*** (.1869)
Father SE artisan	1.494*** (.144)	1.542*** (.144)	.531*** (.188)	4.119*** (.137)	1.735*** (.169)	1.431*** (.143)	.686*** (.183)	1.320*** (.2118)
Father SE shopkeeper	2.601*** (.186)	2.733*** (0.141)	2.863*** (.1653)	3.977*** (.177)	2.026*** (.168)	2.719*** (.137)	3.632*** (0.186)	.7416*** (.190)
Father SE professional	1.773*** (.2956)	1.780*** (.283)	2.033*** (.3239)	3.646*** (.293)	1.697*** (.385)	1.660*** (.326)	3.971*** (.270)	.8880 (.5486)
Father SE Manager	1.079*** (.328)	1.014*** (.247)	1.5787*** (.2125)	3.009*** (.234)	1.724*** (.222)	1.141*** (.2402)	3.346*** (.264)	3.510*** (.3155)
Observations	42872	40584	38007	39944	40188	39919	39529	39482
Log likelihood	-4936.3454	-4148.5898	-3788.3284	-3663.0133	-4420.9765	-4647.7961	-2577.7793	-2216.972
Sigma_u	3.885874	3.754934	4.051618	4.270976	3.811632	4.004746	3.991398	4.568928
rho	.9378883	.9337728	.9425802	.9480283	.9356024	.9413076	.9409376	.95428

Note : Numbers in parentheses are standard deviations. *** 1% significance level, ** 5% significance level, * 10% significance level,

Table 9 . Summary Statistics of Self-Employed Sons by Occupation and by father's Self-Employed Status

Variable	All self-employed		Self-employed Farmers		Self-employed Artisans		Self-employed Shopkeeper		Self-employed Professional		Self-employed Manager	
	Father is self-employed	Father is not self-employed	Father is self-employed	Father is not self-employed	Father is self-employed	Father is not self-employed	Father is self-employed	Father is not self-employed	Father is self-employed	Father is not self-employed	Father is self-employed	Father is not self-employed
Gender (men)	.71798 (.450)	.6112 (0.468)	.68745 (.463)	.446281 (.499)	.8821138 (.322)	.781457 (.4137)	.5789474 (.4943)	.5751634 (.49485)	.5724138 (.4964)	.5611111 (.4969)	.9285714 (.259)	.8 (.404)
Age	48.147 (10.68)	44.90 (10.58)	50.78 (10.51)	43.504 (10.72)	46.926 (10.35)	47.63355 (7.912)	48.70 (10.582)	45.749 (9.2138)	47.22759 (9.6499)	43.96389 (8.564)	48.628 (8.35)	49.155 (7.991)
<i>Human capital</i>												
<i>Education Level</i>												
Less than high school	.8003 (.3998)	.613 (.4870)	.9048 (.293)	.6694 (.472)	.92276 (.267)	.89403 (.308)	.84473 (.3626)	.7755 (.4176)	.020689 (.14283)	.10833 (.3112)	.54285 (.5017)	.5555 (.502)
Degree	.06453 (.24574)	.104 (.305)	.02359 (.1518)	.04310 (.203)	.0103 (.101)	.01559 (.12402)	.06842 (.2527)	.0691 (.2540)	.041379 (.1998)	.225433 (.4184)	.22857 (.4229)	.0888 (.287)
Baccalaureate/ Master Degree	.0178 (.1325)	.0373 (.189)	.0138 (.116)	.086206 (.2818)	.0082 (.0906)	.017817 (.13243)	.03157 (.1751)	.03794 (.1912)	.04137 (.1998)	.0491329 (.2164)	0 (0)	.0666 (.2522)
Postgraduate	.0511 (.220)	.1187 (.323)	.0056 (.0752)	0.001 (.001)	0 (0)	.040089 (.1963)	.03157 (.1751)	.0066 (.0816)	.3586 (.4812)	.39884 (.49036)	.2 (.4028)	.2666 (.4472)
Technical Training	.3782 (.4850)	.332 (.471)	.3677 (.482)	.474 (.5014)	.59297 (.4917)	.579064 (.4942)	.378947 (.4857)	.31919 (.46668)	.01379 (.11703)	.066474 (.2494)	.32857 (.4730)	0 (0)
<i>Financial capital</i>												
Income	109898.2 (129047)	160546.6 (474409)	74805.87 (71739.38)	79819.37 (93885.83)	106154.1 (112960.9)	126250.9 (514160.6)	90986.64 (100458.5)	96031.7 (93283.09)	272416 (220433.7)	223699.5 (253648.7)	153121 (126288.9)	1175460 (2369348)
Taxable income	28619 (57936)	37711 (77493)	17612.63 (30750.25)	17612.63 (30750.25)	22045.3 (32784.88)	24235.89 (30435.51)	22009.39 (27077.7)	21313.09 (27547.6)	80949.75 (87746.47)	82273.81 (115966.1)	75030.71 (105564.6)	118983.3 (204664.8)
<i>Social Capital</i>												
<i>-Marital status</i>												
Married	.7643 (.42446)	.8023 (0.398)	.740207 (.438)	.702479 (.4590)	.7926829 (.4057)	.83443 (.3720)	.692105 (.46223)	.80392 (.3974)	.82758 (.3790)	.82777 (.37809)	.87142 (.3371)	.8888 (.31782)
Children	.4993 (.5000)	.5946 (0.4910)	.43405 (.4958)	.619834 (.4874)	.5853659 (.4931)	.5165563 (.5002)	.4236842 (.49479)	.583878 (.49345)	.5586207 (.49827)	.7194444 (.4498)	.5857143 (.496)	.3111111 (.46817)

Note : Numbers in parentheses are standard deviations.

Table 10. Probit Regressions of Self-Employment by Father's Self-Employment status

Variable	Father is self-employed	Father is not self-employed
Constant	-13.787*** (.721)	-15.334*** (.667)
Men	1.455*** (.189)	-.175 (.149)
Age	.191*** (.011)	.168*** (.010)
<i>Human capital</i>		
Degree	-.337 (.338)	.8133*** (.222)
Baccalaureate/ master degree	-1.589*** (.442)	-.341 (.309)
Postgraduate	-.834** (.329)	.4598** (.216)
Technical Training	.605*** (.172)	.31711** (.155)
<i>Financial capital</i>		
Assets	.206*** (.032)	.152*** (.0303)
InheritanceM	.076 (.419)	.4616 (.374)
InheritanceH	-.696 (.894)	1.050** (.459)
<i>Social Capital</i>		
-Strong links		
Married	.314 (.211)	.601*** (.173)
Child	-1.101*** (.197)	.155 (.177)
<i>Weak links</i>		
Neighbors	.010 (.1408)	.144 (.114)
Friends	-.226 (.1467)	.121 (.114)
Country	-.1324 (.2497)	-.255 (.1576)
Asso	-.1768 (.1472)	.048 (.1277)
Repca	.3370 (.188)	.1254 (.140)
Observations	8231	20511
Log likelihood	-1642.1152	-2185.9444
Sigma_u	5.180585	4.5465
Rho	.9640785	.953858

Note : Numbers in parentheses are standard deviations. *** 1% significance level, ** 5% significance level, * 10% significance level,

Table 11. Overall Job Satisfaction

Variable	Whole sample	Self-employed	Salaried
Job satisfaction			
Dissatisfied	14.76	14.79	14.76
Rather satisfied	28.84	24.47	29.41
Satisfied	46.03	45.17	46.15
Very satisfied	9.85	14.56	9.23

Table 12. Ordered Probit on Overall Job Satisfaction

Variable	All (1)	All (2)	All (3)	SE (4)	SE (5)
Self-employed	.424*** (.036)		.3871*** (.0375)		
SE farmer		.111*** (.064)			
SE artisan		.486*** (.067)		.11034 (.1046)	
SE shopkeeper		.512*** (.073)		.14275 (.1081)	
SE professional		.540*** (.092)		.2910** (.1413)	
SE Manager		.514*** (.201)		.2628 (.2104)	
Gender (men)	.088*** (.023)	.092*** (.023)	.0961*** (.0234)	.1930** (.0837)	.184** (.0846)
Age	.001 (.006)	.002 (.006)	.0006 (.0066)	-.0934*** (0.031)	-.0908*** (.0312)
Age ² /1000	-.075 (.083)	-.068 (.083)	-.0642 (.0835)	.7283** (.3556)	.7187** (.353)
<i>Human capital</i>					
Degree	.093*** (.029)	.092*** (.029)	.0545* (.029)	.1985 (.1318)	.1931 (.133)
Baccalaureate/master degree	-.009 (.048)	-.009 (.049)	-.0252 (.0482)	.0760 (.218)	.0647 (.2190)
Postgraduate	.376*** (.039)	.377*** (.039)	.3310*** (.0404)	.1215 (.1322)	.1279 (.133)
Technical Training	-.005 (.021)	-.001 (.021)	.0062 (.021)	.1197 (.082)	.1134 (.0822)
<i>Financial Capital</i>					
Assets	.017*** (.004)	.016*** (.004)	.0134*** (.003)	.0351*** (.0123)	.0330*** (.0124)
InheritanceH	-.002 (.081)	-.008 (.081)	-.0107 (.081)	.0578 (.237)	.0605 (.238)
<i>Activity</i>					
Artisan			.0282 (.0318)		.1268 (.1040)
Shopkeeper			-.0036 (.0399)		.1451 (.1093)
Professional			.4403*** (.0458)		.2848** (.1440)
Manager			.175*** (.041)		.3067 (.2082)
Married	.022 (.022)	.020 (.022)	.0229 (.022)	-.157* (.0892)	-.1627* (.0885)
Child	-.020 (.019)	-.019 (.019)	-.0220 (.019)	.1510* (.0802)	.1558* (.0799)
<i>Social Capital</i>					
<i>-Strong links</i>					
Father SE				-.2722*** (.0830)	-.2753*** (.0835)
<i>-Weak Link</i>					
Neighbors		.062*** (.015)	.0618*** (.0146)		.0544 (.0525)
Friends		.075*** (.015)	.0734*** (.015)		.1762*** (.0550)
Threshold 1	-1.526*** (.125)	-1.448*** (.126)	-1.444*** (.126)	-4.613*** (.6768)	-4.394*** (.6770)
Threshold 2	-.4893*** (.125)	-.410*** (.126)	-.4065*** (.126)	-3.391*** (.6746)	-3.168*** (.675)
Threshold 3	1.453*** (.125)	1.534*** (.126)	1.5377*** (.126)	-1.371** (.6730)	-1.150*** (.6736)
Observations	47434	47385	47385	4091	4091
Log likelihood	-51799.12	-51710.081	-51657.75	-4108.894	-4101.2785
rho	.480*** (.006)	.479*** (.006)	.475*** (.006)	.4885*** (.0203)	.4820*** (.0204)

Appendix 1: Table A

The detailed definitions of the variables used in the regression analysis are presented below.

Variable	Definition
Individual characteristics	
1. Gender (men)	Equals 1 if the worker is a man and 0 otherwise.
2. Age	Age
Human capital	
Education Level	
3. Educa0	Less than high school graduate
4. Educa1	Degree
5. Educa2	Baccalaureate or/and master degree
6. Educa3	Postgraduate
7. Technical formation	Technical formation (binary variable)
Financial capital	
8. Income	Annual individual income (in French francs)
9. Tax income	Household Tax income (in French francs)
10. Inhabited House Duty	Inhabited House Duty (in French francs)
11. Land Tax	Land Tax (in French francs)
12. Owner	Equal 1 if the worker owns his/her house
13. InheritanceM	Low level of inheritance <350KF
14. InheritanceH	High level of inheritance >=350KF
15. Assets ≤ 100.	Equal to 1 if the net family assets are ≤ 100 (in thousand of French francs)
Social Capital	
-Marital statute	
16. Married	Equal 1 if the worker is married
17. Children	Equal 1 if the worker has one or more children
-Strong links	
18. Both Parents SE	Equal 1 if both parents are self-employed
19. At least one parent SE	Equal 1 if at least one of the parent is self-employed
20. Father SE	Equal 1 if the father is self-employed
21. Mother SE	Equal 1 if the mother is self-employed
22. Father same job	Equal 1 if the father exerts the same profession
23. Mother same job	Equal 1 if the mother exerts the same profession
24. Father SE and same job	Equal 1 if the father exerts the same profession and is self-employed
25. Mother SE and same job	Equal 1 if the mother exerts the same profession and is self-employed
-Weak links-	
26. Association	Equal 1 if the worker belong to an association
27. Representation	Equal 1 if the worker exerts a civic or an associative representation
28. Talkfriends	Equal 1 if the worker spoke with her/his friends last week
29. Talkfam	Equal 1 if the worker spoke with a family member (except household members) last week
30. Friends	last week
31. Neighborhood	Equal 1 if the worker often meet her/his friends
	Equal 1 if the worker often meet her/his neighbors

Appendix 2. Table B. Job Satisfaction by Evaluation Variable

Variable	Whole sample	Self-employed	Salaried
Self-employed are More Satisfied than salaried Employees			
<i>Hours of work</i>			
Dissatisfied	21.48	20.09	34.76
Rather satisfied	26.46	26.13	29.55
Satisfied	43.83	45.19	30.83
Very satisfied	7.71	8.14	3.69
<i>Work Activity</i>			
Dissatisfied	11.12	5.1	11.75
Rather satisfied	20.44	16.32	20.87
Satisfied	50.50	52.09	50.34
Very satisfied	17.43	25.33	16.61
<i>Working Conditions</i>			
Dissatisfied	21.36	17.21	21.8
Rather satisfied	27.05	26.31	27.13
Satisfied	43.32	45.33	43.11
Very satisfied	7.76	9.98	7.53
<i>Distance from Residence</i>			
Dissatisfied	16.4	7.72	17.01
Rather satisfied	18.07	12.31	18.67
Satisfied	39.50	37.26	39.73
Very satisfied	25.77	41.50	24.12
Self-employed and Salaried Workers Equally Satisfied			
<i>Pay</i>			
Dissatisfied	43.35	52.49	42.4
Rather satisfied	30.49	22.98	31.27
Satisfied	23.22	19.98	23.56
Very satisfied	2.39	3.28	2.30
Self-employed are Less Satisfied than salaried Employees			
<i>Job Security</i>			
Dissatisfied	25.12	33.44	24.26
Rather satisfied	22.90	23.73	22.81
Satisfied	37.10	32.67	37.57
Very satisfied	14.26	8.87	14.83
<i>hours worked</i>			
Very dissatisfied	24.9	42.94	23.01
Rather satisfied	27.37	26.79	27.44
Satisfied	41.44	26.36	43.02
Very satisfied	5.75	2.74	6.07