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Who Values The Status of The Entrepreneur?

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Tinbergen Institute Discussion Paper

Who Values The Status of The Entrepreneur?

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Who values the status of the entrepreneur?

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Abstract

Parker and Van Praag (2009) showed, based on theory, that the group status of the profession ‘entrepreneurship’ shapes people’s occupational preferences and thus their choice behavior. The current study focuses on the determinants and consequences of the group status of a profession, entrepreneurship in particular. If the group status of entrepreneurship is related to individual choice behavior, it is policy relevant to better understand this relationship and the determinants of the status of the entrepreneur. For reasons outlined in the introduction, this study focuses on (800) students in the Netherlands.

We find that the status of occupations is mostly determined by the required level of education, the income level to be expected and respect. Furthermore, our results imply that entrepreneurship is associated with hard work, high incomes, but little power and education. Moreover, we find evidence that individual characteristics, such as entrepreneurship experience, vary systematically with the perceived status of occupations, thereby contributing ammunition to a fundamental discussion in the literature. Finally, we find a strong association between the perceived status of the entrepreneur and the estimated likelihood and willingness to become an entrepreneur.

1. Introduction

Recent research has revealed the relevance of (inter)personal factors for developing preferences for occupational choice. For instance, the empirical studies by Falck et al. (2008) and Nanda and Sørensen (2008) address identity and peer group effects as determinants of the choice for entrepreneurship, respectively. Parker and Van Praag (2009) showed, based on theory, that the group status of the profession ‘entrepreneurship’ shapes people’s occupational preferences and thus their choice behavior. Moreover, the fact that the group status of entrepreneurship enters individuals’ utility functions, leads to a spillover effect: While people base their occupational decisions on their own relative utility from entrepreneurship versus employment, their decisions may affect, at the same time, the group composition and thereby the group status of the profession.

This chapter addresses the following explorative questions empirically: Does perceived occupational status affect occupational choice or preferences, and more in particular, the choice and preferences for entrepreneurship? What are the determinants of occupational status? Which (job)

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characteristics affect status? And what individual characteristics determine an individual's view on the status of the entrepreneurial profession? Are the individual determinants of their perceived status of the entrepreneurial profession related to the determinants of the choice and preferences for entrepreneurship? We answer these questions based on an analysis of data gathered through questionnaires among a (valid) sample of 800 Dutch students.

Answering these questions is instructive; if it is indeed the case that individual choices for entrepreneurship are affected by perceived status, one can affect choices by changing status. More in particular, the study of the occupational or personal determinants of status may reveal where to start changing status and preferences (also given the spillover effects as discussed by Parker and Van Praag, 2009 and the peer group effects discussed by Nandra and Sorensen, 2008).

The motivation for the focus on *students* is based on recent studies that collectively have demonstrated (1) that the preference for entrepreneurship is not high among more highly educated individuals (Van Der Sluis et al., 2008) whereas (2) the relative private returns to education are higher for entrepreneurs than for employees (Van Der Sluis et al. (2004), Van Der Sluis et al., 2007), Van Der Sluis and Van Praag, 2007), apparently also in the Netherlands (Parker and Van Praag, 2006) and (3) the economic benefits from entrepreneurship are large (Versloot and Van Praag, 2007; Parker, 2004), but a large fraction of the total contribution is derived from a small fraction of the population of entrepreneurs (Parker, 2009; Henrekson and Johanson, 2008), and finally (4) people who tend to generate high incomes as entrepreneurs are also –on average– the ones that are able to have their firms grow (Van Der Sluis et al., 2008). Hence, since these performance measures (income and growth) are correlated positively, one can quite safely assume that higher education levels do not only lead to higher incomes but also to higher growth and the creation of economic benefits. Therefore, from a policy perspective, it is important to find instruments to motivate this group to become entrepreneurs, and one such instrument might be status. This may be of particular relevance in European countries such as the Netherlands: The evidence shows that the desirability of becoming an entrepreneur is lower in Europe than in the US, especially among people with higher levels of education (CBS, 2008, 2007). This motivates the choice for sampling *Dutch* students.

This chapter is organized as follows. Section 2 will introduce the theoretical notion of (group) status. In particular we shall develop this notion in relationship to professions and entrepreneurship. Needless to say this introduction is partly based on studies outside the field of economics and business. Section 3 will discuss the dataset, variables and empirical methodology. Section 4 discusses the results, whereas Section 5 concludes.

2. Professional status: the development of a concept

A little history of the concept 'status' and its determinants

Max Weber (1864-1920) introduced the term 'status' as part of his three component theory of stratification (social class, social status and religion). He defined status as "*An effective claim for social esteem*". He defined occupations as status groups, i.e. a group of persons who successfully claimed a specific social esteem within a larger group.

Max Weber had also explicit ideas about the determinants of where to rank a profession according to status, i.e. the determinants of status. He argued that occupational status depends, above all, on the amount of training required and the opportunities for earnings (Weber, 1978 [1922], p.144). Individual factors, however, would play no role: The status of occupations is uniform and set (Balkwell et al., 1982). Weiss and Fershtman (1998) show that, consistent with the early Weber, people who rank occupations according to status, do so, irrespective of their own individual attributes, such as education, age, income or their country of residence. Furthermore, status rankings of occupations correlate strongly across countries and persist over time (Treiman, 1977). Any variance in the subjective evaluations of occupational status of different occupations is best explained by observable characteristics of the occupations themselves, specifically by the mean income and education in each occupation (Fershtman and Weiss, 1993, p. 948).

Brown (1955) identifies eleven possible occupation-related determinants of occupational status, based on North-Hatt (1947): i) necessity to the public welfare, ii) respect, iii) cleanness of the job, iv) education or training needed, v) talent or skills needed, vi) income, vii) leisure time/vacations, viii) personal reverences (“Do you know people that perform the occupation, and is that a positive association?”), ix) rich history, x) hard work needed and xi) the social or altruistic level of the job. Villemez (1974) adds ‘power’ as the twelfth occupation related determinant.

However, other studies have shown that, in addition to job characteristics, individual characteristics do determine the perceived status of occupations (Hendrickx et al., 1998; Katz, 1992). How the ranked status of entrepreneurship is affected by professional and individual characteristics is a matter of empirical study that has not yet been performed.

Status of professions in economics

Only recently have economists also become interested in concepts such as social status due to the recognition that economic theory fails to explain a number of socio-economic phenomena by ignoring possible interdependencies of preferences across people (Bisin and Verdier, 1998). The social status of a profession is possibly affected by other peoples’ preferences or behavior (Parker and Van Praag, 2009). In turn, status itself may affect peoples’ preferences.

Frank (1984, 1988) was one of the earliest economists recognizing the importance of status. Frank (1984) claimed that a person’s status among his peers is no less important than his absolute income level in determining his sense of wellbeing.

For not too long has status been incorporated in *models* as a determinant of individual utility (and thus of behavior), see for instance, Fershtman and Weiss, 1993; Weiss and Fershtman, 1998; Ederer and Pataconi, 2007; Clark et al, 2007; Kwon and Milgrom, 2007; Grund and Sliwka, 2007 and Parker and Van Praag, 2009.

How to measure the status of a profession

There are traditionally two ways of measuring status. The first is based on the occupational prestige study by North and Hatt (1947). Their study, performed at the National Opinion Research Centre and known as the NORC study, analyzed public attitudes regarding the prestige of 90 selected occupations. The 1989 NORC general social survey includes an evaluation of the status of occupations (Hodge, Siegel and Rossi, 1964). Respondents rank occupations according to their social standing. We call this subjective status measurement.

This original NORC study was extended by Duncan (1961) who developed an objective rather than a subjective measure of occupational status, the so called socioeconomic index (SEI). This was accomplished by linking the prestige scores from the NORC study to the income and education information in the census, thus producing a formula to calculate and predict prestige solely based on education and income for all occupations (Nakao and Treas, 1994; Hodge, 1981), leading to the 1989 Total based SEI index.

Consistent with Weber (and Weiss and Fershtman, 1998), the status of a profession is operationalized, in most economics studies, by the mean income in the profession (Ederer and Pataconi, 2007, Kwon and Milgrom, 2007, Parker and Van Praag, 2009).

Status and entrepreneurship

Status and *entrepreneurship* has been little studied so far. Besides the theoretical study by Parker and Van Praag (2009), we know only one empirical study addressing part of the central questions of this chapter. Malach-Pines et al., (2005) show that the perception of high-tech entrepreneurs as cultural heroes, i.e. as having a high social status, amongst MBA students in a particular country is correlated with the level of entrepreneurial activity in that country as well as with the average risk taking propensity and willingness to engage in entrepreneurial activity of the sampled MBA students in a country. The sample includes three countries: The United States, Hungary and Israel.

Positioning of this study

In this empirical application the status of the profession ‘entrepreneurship’ is studied as well as its determinants and the association between an individual’s status rank and her willingness and plans to become an entrepreneur. In terms of the determinants of status, both characteristics of the profession and of the individual may determine a person’s rank of the entrepreneur among other professions. The possible profession related determinants presented to the respondents are based on Brown (1955) (except iii, viii and xi) and Villemez (1974). The possible individual determinants of status rank that we analyze source from the entrepreneurship literature. In terms of the measurement of status, we conform to the method of the original (1989) NORC study. Thus, respondents simply state their perceived status of the entrepreneur and of 19 other occupations. Hence, we will test empirically which are determinants of the perceived status of the occupation ‘entrepreneur’ relative to nineteen other professions that are in the choice set of students.

The current study differs from that of Malach-Pines et al. (2005) in several ways: The analysis is not limited to high tech entrepreneurs¹; the unit of analysis is the individual student, not the country as in Malach-Pines et al.; and, unlike Malach-Pines et al., we analyze the determinants of entrepreneurial status, which might be a relevant instrument for conceiving policy measures to stimulate entrepreneurship, if we find evidence that status and entrepreneurial activity are indeed positively related. In the next section, we discuss the data and the methodology used.

3. Data and methodology

Sample

Our quantitative analysis is based on a sample of students in the Netherlands taken in 2007. Questionnaires were distributed among students in university libraries, at exams, through email and websites. We recollated 818 complete questionnaires. Below, we discuss the variables collected through this questionnaire along with their basic descriptive statistics.

Questionnaire and its core questions

A questionnaire was developed including survey questions of a subjective nature.² The core question, question 19, the ranking question, is asked to establish the ranking of the occupation ‘entrepreneur’ within a selection of 20 occupations, listed in random order:³

19. Please rate the following occupations according to their ‘status’, in other words which occupations in your opinion have a very low status (1) or a very high status(10)?

Occupation	1	2	3	4	5	6	7	8	9	10
University Professor										
Policeman										
Physician										
Mailman										
Actuary										
Management Consultant										
Lawyer										
Marketing manager										
Architect										
Teacher (High school)										
Journalist										
Electrician										
Computer programmer										

¹ Also the wording ‘high-tech’ in the specification by Malach Pines et al. (2005) might induce individuals to rate the entrepreneur as having higher social status.

² Bertrand and Mullainathan (2001) discuss some of the problems attached to using subjective survey data. We have set up the questionnaire with extreme caution in order to minimize the problems they address.

³ Other occupations are randomly selected varying from barber to university professor in accordance with the original NORC questionnaires

Entrepreneur																				
Engineer																				
Barber																				
Real estate agent																				
Accountant																				
Mayor																				
High court judge																				

Each occupation was graded by each respondent on a scale from 1 to 10. Based on this, a ranking was made. The average grade of the entrepreneur is 7.0, whereas the average rank is 8. Twelve percent of the individuals assigned the highest rank to the entrepreneur, whereas 22 percent put the entrepreneur in the top 3 of the ranking.

The two rankings of occupations discussed in the previous section are used as a benchmark, i.e., the NORC (1989) and the Total Based SEI index (1989). Please note that these measures result from different decades, continents and sub-populations. As shown in Table 1, the entrepreneur ranks higher in our study than in the others whereas, in general, the patterns in each of the rankings are quite similar. Nevertheless, we may conclude from Table 1 that the ranking of occupational status is not universal and will probably divert across countries and/or over time and may therefore depend on individual characteristics as well (see the discussion in Section 2).

Table 1 Occupational Status and reference rankings

Rank	Occupation	Status	Std	NORC (1989)	Total 1989 SEI Index
1	High court judge	8.7	1.36	Physician	Physician
2	Physician	8.5	1.25	Lawyer	University professor
3	University prof	8.3	1.47	University professor	Lawyer
4	Lawyer	7.9	1.34	Architect	Actuary
5	Mayor	7.7	1.68	Engineer	Engineer
6	Engineer	7.6	1.51	High court judge	High court judge
7	Architect	7.4	1.39	Mayor	Architect
8	Entrepreneur	7.0	1.55	High school teacher	Management consultant
9	Accountant	6.9	1.55	Accountant	High school teacher
10	Marketing manager	6.7	1.53	Management consultant	Accountant
11	Management consultant	6.7	1.51	Computer programmer	Computer programmer
12	Actuary	6.1	1.64	Journalist	Journalist
13	Journalist	6.1	1.57	Police man	Marketing manager
14	Real estate agent	5.9	1.67	Marketing manager	Entrepreneur
15	High school teacher	5.6	1.60	Entrepreneur	Real estate agent
16	Computer programmer	5.5	1.63	Electrician	Police man
17	Police man	5.3	1.84	Real estate agent	Mayor
18	Electrician	4.4	1.70	Mailman	Mailman
19	Barber	3.8	1.66	Actuary	Electrician
20	Mailman	3.7	1.69	Barber	Barber

Question 20 establishes the occupation-related determinants of occupational status:⁴

⁴ Its descriptives will be discussed in the results section.

20. *What is occupational status dependent on according to you? (multiple answers possible)*
- Income*
 - Required Education/training*
 - Public importance*
 - Respect*
 - Talent*
 - Amount of spare time*
 - Rich history of occupation*
 - Power*
 - Hard work*
 -

Dependent variables

Three variables are considered endogenous and used as dependent variables in the regression analyses. The first is the perceived status of the entrepreneur, measured in three ways, all relative to the status of other occupations. The first measure of status positions the status rank in the average of the percentile in the sample distribution of the rank and is estimated by means of OLS. The second measure of status is a dummy variable that takes on the value one if an individual ranks entrepreneur first and zero otherwise. The third measure is a dummy variable taking on the value one for individuals who rank the entrepreneur in the status top three and zero otherwise. The latter two measures are estimated in a probit regression. The descriptive statistics for the status measure have been provided before.⁵

The second dependent variable measures the willingness of individuals to become an entrepreneur. It is a dummy variable (estimated in a probit equation) taking on value one if the respondent answers ‘entrepreneur’ to the question “If you could choose, would you rather be an entrepreneur or an employee?” and zero if they answer ‘employee’. The majority of the respondents, i.e., 61 percent, turn out to be willing to become an entrepreneur.

The third dependent variable measures the perceived likelihood of becoming an entrepreneur. It is the answer, on a 10-points scale, to the question: “What is the likelihood that you will become an entrepreneur within the next ten years?” The distribution of this likelihood variable, estimated by means of OLS, is shown in Table 2.

Table 2 Sample frequencies of the subjective likelihood to become an entrepreneur

Stated Likelihood of becoming an entrepreneur (scale 1-10) in percentages			
1	12.7%	6	11.5%
2	11.9%	7	12.1%
3	14.5%	8	9.2%
4	10.1%	9	3.7%
5	9.7%	10	4.6%

Explanatory variables

We are particularly interested in the similarity and differences of the determinants of the perceived status of entrepreneurship and the common factors found in the literature that determine (i) the likelihood of entrepreneurship and (ii) the performance of entrepreneurs. Hence, the questionnaire includes the most important potential determinants of likelihood and performance as derived from the entrepreneurship literature. We further assess to what extent one’s willingness and likelihood to become an entrepreneur are associated with these factors as well as with the perceived status of entrepreneurship. Thus, we use entrepreneurial status both as a dependent and an independent variable. Factors are categorized into human capital, social capital and peer group effects, attitudes and background variables. We lack information on financial capital.

⁵ The correlations between the various measures of status range from 0.56 to 0.72. They will therefore not be inserted simultaneously as explanatory variables into regression equations.

Human capital

Human capital is measured along various dimensions, see Table 3 for sample averages. The first is education. We measure whether students are enrolled in a vocational or academic program. First year students are distinguished from Bachelor and Master students respectively. An individual's education level has been found to be associated positively with entrepreneurship performance, whereas the empirical results on the relationship with the likelihood to become an entrepreneur have been found to be ambiguous (Van der Sluis et al., 2008). Five education fields are distinguished: economics and business; social sciences; health; science and technical studies; and humanities (including law). Previous studies found that science and technical orientations lead to better performance as an entrepreneur (Van Praag and Cramer, 2001; Hartog et al., 2008).

Table 3 Sample averages of the human and social capital variables

Education variables	
Education Level	
• Professional or vocational Bachelor	83%
• University (Bachelor or Master phase)	17%
Education Stage	
• First year	27%
• Bachelor	50%
• Master	23%
Education Field	
• Economics and business	62%
• Social sciences	15%
• Health	8%
• Science and technical studies	7%
• Humanities (including law).	8%
Experience variables	
Dummy for entrepreneurship experience (1= 'yes'; 0= 'no')	6%
Number of different jobs ever held:	
• 0-1	9%
• 2	17%
• 3	23%
• 4	17%
• 5	12%
• 6-7	14%
• 8 or more	8%
Social capital and peer group variables	
Respondent knows someone who started up a business in the past 2 years	71%
The number of entrepreneurs in one's environment	
• None	4%
• Very few	17%
• Few	26%
• Average	35%
• Many	16%
• Very many	2%

The second measure of human capital included as a potential explanatory factor is experience. In general, empirical evidence indicates that the success of entrepreneurship is positively related to (the variety of) previous general labor market and, in particular, to entrepreneurship experience (e.g., Davidsson and Honig, 2003; Lazear, 2005; Van Der Sluis et al., 2008). Respondents

have indicated whether they are or have been an entrepreneur and how many different previous jobs they have held.

Social capital and the peer group

Social capital is expected to have a positive relationship with entrepreneurship choices and outcomes: it can provide networks that facilitate the discovery of opportunities, as well as the identification and collection of resources (Birley, 1985; Greene and Brown, 1997; Uzzi, 1999; Davidsson and Honig, 2003). We concentrate on the effect of an entrepreneurial environment (see also Gianetti and Simonov 2004; Nanda and Sørensen, 2008) which is indicated by a dummy variable and a count variable based on the following two questions respectively (see Table 3 for statistics):

32. Do you know somebody in your surroundings that started as an entrepreneur in the last two years?
 33. How many entrepreneurs are there in your environment (friends/acquaintances/family)?
 None Very few Few Normal Many Very many

Attitudes

Various studies have shown that attitudes, like risk attitude, locus of control; need for achievement; self-efficacy and self-esteem, are intimately related to entrepreneurship choices and outcomes.

Risk aversion is usually shown to be negatively related to the choice for entrepreneurship. We measure risk attitude based on survey questions in two manners: the reservation price for a ticket in a hypothetical lottery (see Cramer et al., 2002)⁶ and a measure based on Dohmen et al. (2005) which is the answer to: “Are you generally a person who is fully prepared to take risks or do you try to avoid taking risks?”⁷ *Internal locus of control beliefs* have been shown to relate positively to the choice for and performance in entrepreneurship. The first measure used here is similar to Grilo and Thurik (2005), whereas the second is a simplified Rotter (1966) test derived from Pettijohn (1999). The measure for *need for achievement* we use is based on the validated Ray-Lynn AO scale (Ray, 1979). *Self-efficacy* and *self-esteem* measures are based on the self-assessed expectancy of finding a job after graduation (see Oosterbeek and Van den Broek, 2008). Based on Boyd and Vozikis (1994), it is expected that self-efficacy and esteem are positively related to the development of entrepreneurial intentions and behaviour.

Background

The usual control variables are used in this study, i.e., gender, age, nationality (of the respondent and her parents, see Fairlie, 2005), parental education levels and entrepreneurial experience, see Table 4.

Table 4 Sample averages of background characteristics

Background characteristics	
Percentage female (dummy)	46%
Age (in years)	
• 19 or younger	32%
• 20-21	28%
• 22-23	19%
• 24-26	21%
Nationalities	
• Respondent not Dutch	7%
• Mother not Dutch	15%
• Father not Dutch	12%
Parental education levels	
• Mother has a (vocational) Bachelor or Master degree	44%

⁶ A drawback of this measure is that it reflects the attitude towards upside risk only.

⁷ Dohmen et al. (2005) claim that this is the best predictor of risk taking behavior in different contexts.

• Father has a (vocational) Bachelor or Master degree	57%
Parental entrepreneurship experience	
• Mother	16%
• Father	37%

We are not only interested in what determines entrepreneurial status, willingness and the perceived likelihood of becoming an entrepreneur, but also in the interrelations between the endogenous variables, i.e. whether the perceived entrepreneurial status is related to one's willingness to become an entrepreneur and the likelihood of becoming an entrepreneur. Based on Malach-Pines et al., 2005, the relationships between perceived status, willingness and likelihood of becoming an entrepreneur are expected to be positive. Table 5 shows the correlations of the endogenous variables acknowledged in this study. They are significantly positive. The regression analysis in the next section will show whether and to what extent these correlations hold conditional upon the inclusion of the independent and control variables.

Table 5 Correlations between the endogenous variables

		I	II	III
I.	Status ranking of the entrepreneur among other professions	1.00	0.206	0.235
II.	Willingness to become an entrepreneur [dummy]		1.00	0.567
III.	Perceived likelihood of becoming an entrepreneur [1-10]			1.00

4. Results

Which job characteristics determine the status of occupations?

It turns out that the job characteristic which, according to this sample, is the strongest determinant of the status of professions is the education level required, see Table 6. 76% of the respondents rate this as the most relevant status criterion. This supports the views by Max Weber, as well as the more recent theoretical study by Parker and Van Praag (2009). The same holds for the income level that has been mentioned as a determinant of occupational status by almost half of the respondents. Respect and public importance are also important determinants of occupations, as suggested by the literature.

Table 6 Occupation related determinants of the status of occupations*

Determinant	% agreed that this determines occupational status
Education required	76%
Respect	63%
Income level	49%
Public importance	47%
Talent	42%
Power	32%
Hard work	32%
Rich history	15%
Leisure time	1%
Other	3%

*These are the answers to the question:

20. *What is occupational status dependent on according to you? (multiple answers possible)*
 Income Required Education/training Public importance Respect Talent Leisure time
 Rich history of occupation Power Hard work Other,

The next question we like to answer and which is most related to the previous question is:

Which perceived occupational status determinants are important for the status of entrepreneurship?

As discussed, the status attached to the profession of the entrepreneur is measured in three ways, corresponding to the columns in Table 7. The individual answers (in dummy form) to question 20 (see Table 6) are included as independent variables into these regressions. Table 7 shows that the more individuals perceive status to be determined by income levels or hard work, the higher they value the status of the entrepreneur. In addition, the more value one attaches to education or power for the determination of status, the lower the entrepreneur's status is valued. It thus seems that entrepreneurship is associated with hard work, high incomes, but little power and education.

Table 7 Perceived entrepreneur status and occupation-related determinants of status

	(i)	(ii)	(iii)
Dependent variable: Entrepreneur status	Rank (1-20)	Ranked first	Ranked top3
Regression	OLS*	Probit	Probit
<i>Occupational determinants of professional ranking</i>			
Education required	-.030 (.019)	-.078*** (.031)	-.107*** (.037)
Respect	.005 (.016)	.024 (.023)	-.009 (.030)
Income level	.025 (.016)	.051** (.023)	.049 (.031)
Public importance	.011 (.015)	-.023 (.023)	.033 (.029)
Talent	.006 (.015)	-.023 (.025)	-.020 (.029)
Power	-.034** (.017)	-.035 (.023)	-.062** (.029)
Hard work	.039** (.016)	.039 (.026)	.042 (.032)
Rich history	-.004 (.022)	.042 (.037)	.028 (.044)
Leisure time	-.021 (.105)	.222* (.161)	.133 (.160)
Number of observations	818	818	818
(Pseudo) R-squared	0.017	0.035	0.020

Probit regressions report marginal effects. The results are based on robust standard errors shown in parentheses. *(*)[*] indicates that the estimated coefficient is significant at the 10%(5%)[1%] confidence level.

*Equivalent results are obtained when estimated by ordered probit.

Does the perceived status of the entrepreneur profession differ systematically across individuals? If so, which individual characteristics determine an individual's view on the status of the entrepreneurial profession?

In Table 8, the status of the entrepreneur profession –according to the same three measures as in Table 7- is estimated again. The independent variables included into the regressions are individual characteristics this time, rather than profession related characteristics. Table 8 shows the results when the human capital, social capital, attitude and background characteristics as discussed in the previous section are included as potential determinants. The coefficients which were insignificantly different from zero in all of the three equations have been omitted. The reported results have been obtained while omitting these regressors from the equations.

Table 8 Perceived entrepreneur status determined by individual-specific characteristics

	(i)	(ii)	(iii)
Dependent variable: Entrepreneur status	Rank (1-20)	Ranked first	Ranked top3
Regression	OLS*	Probit	Probit
Human capital			
Education level			
Education Stage (Benchmark is First Year)			
• Bachelor	-.012 (.018)	.016 (.026)	-.058* (.034)
• Master	-.039 (.025)	-.035 (.033)	-.093** (.040)
Education Field (Benchmark is Econ. and Bus)			
• Social sciences	.065*** (.020)	-.090*** (.021)	-.151*** (.028)
• Health	-.085*** (.025)	-.080** (.026)	-.145*** (.036)

Dummy for entrepreneurship experience	.060** (.026)	.022 (.043)	.044 (.056)
Number of different jobs ever held			
Social capital and peer group variables			
Respondent knows someone who started up a business in the past 2 years			
The number of entrepreneurs in one's environment	.028*** (.006)	.032*** (.010)	.062*** (.013)
Attitudes			
Risk aversion ⁸			
Internality of locus of control (Grilo/Thurik, 05) ⁹	.034** (.015)	.035 (.019)	.091*** (.029)
Need for Achievement			
Self-efficacy			
Self-esteem			
Background characteristics			
Female (dummy)	-.037** (.016)	-.020 (.022)	-.076*** (.029)
Age (in years)	.006** (.003)	.004 (.004)	.010** (.005)
Nationality			
Parents' nationality			
Parental education levels			
Parental entrepreneurship experience			
Number of observations	818	818	818
(Pseudo) R-squared	0.096	0.074	0.116

*See notes below Table 7.

There are, indeed, individual factors associated with the status of the entrepreneurship profession. We find weak support for a decline in the perceived occupational status of the entrepreneur when individuals proceed further in their educational trajectories (from first year, to bachelor to master). Moreover, there is strong evidence for differences across students of various fields. Whereas students in economics & business attach similar status to the entrepreneur as students in the fields of science, technical studies and humanities, students in health and social sciences attach lower value to the status of the entrepreneur. Students who have been entrepreneurs themselves attach a higher value to the status of the entrepreneur (although this effect is only significant in one of the four equations). Previous job variety is no determinant of the perceived status of the entrepreneur.

Variation across individuals in terms of their social capital and peer group is associated with systematic variation across these individuals in terms of the perceived occupational status of the entrepreneur. In particular and very significantly and consistently so, the more entrepreneurs the student has in her direct personal environment, the higher she perceives the status of the entrepreneur. We cannot attribute any causality to this strong relationship though.

Attitudes that the literature shows to determine entrepreneurial spirit or performance are not related to the perceived status of the entrepreneurial profession. The only exception is one's locus of control beliefs (as measured in Grilo and Thurik, 2005). The more internal someone's locus of control beliefs, the higher is the perceived status of the entrepreneur.

Finally, individual background characteristics associated with the entrepreneur's perceived status ranking are gender and age. Male students have entrepreneurs in higher esteem than female students, whereas older students are more positive about entrepreneurship status than younger students.

We conclude that the human and social capital determinants of the status of the entrepreneur are mainly (positively) related to the knowledge and familiarity one has of/with

⁸ Two measures of risk aversion are found to be insignificantly related to the perceived status of the entrepreneur: the first based on a lottery (Cramer et al., 2001) and the second based on Dohmen et al., 2005.

⁹ The other locus of control-measure (measure 2) is insignificantly related to the perceived status of the entrepreneur.

entrepreneurship. Entrepreneurship experience and entrepreneurs in one's environment increase the perceived status (rank) of the entrepreneur. Moreover, students in fields where the probability of becoming an entrepreneur is higher (economics and business; science and technical studies) perceive the status of the entrepreneur as higher.

Is the perceived entrepreneur status associated with the willingness and subjective likelihood of becoming an entrepreneur?

Table 5 already showed that the status ranking of the entrepreneur is positively correlated with the individual's willingness and likelihood of becoming an entrepreneur. The next question is: Are the determinants of the perceived status of the entrepreneur also associated with an individual's willingness and subjectively assessed likelihood to become an entrepreneur within 10 years time? We address this question by including these individual determinants into regressions explaining an individual's measured willingness and likelihood to become an entrepreneur by means of a probit and OLS regression respectively. Table 9 shows the results.

Table 9 Are individual factors –determinants of status- associated with an individual’s willingness and likelihood to become entrepreneur?

Dependent variable:	Likelihood (1-10)	Likelihood (1-10)	Willingness	Willingness
Regression	OLS	OLS*	Probit	Probit
Status included as a regressor	No	Yes	No	Yes
Status ranking of the entrepreneur	No	1.127*** (.386)	No	.301*** (.086)
Human capital				
• Bachelor	-.315 (.196)	-.301 (.195)	-.053 (.046)	-.052 (.046)
• Master	-.856*** (.259)	-.811*** (.257)	-.093 (.062)	-.082 (.062)
Education Field (Benchmark is Econ. and Bus)				
• Social sciences	-.727*** (.234)	-.654*** (.238)	-.082 (.053)	-.064 (.053)
• Health	-.572 (.366)	-.476 (.368)	-.069 (.069)	-.043 (.070)
Dummy for entrepreneurship experience	2.797*** (.336)	2.729*** (.340)	.291*** (.053)	.284*** (.055)
Social capital and peer group variables				
The number of entrepreneurs in one’s environment	.695*** (.074)	.663*** (.075)	.117*** (.016)	.110*** (.016)
Attitudes				
Internality of locus of control beliefs (Grilo and Thurik, 2005) ¹⁰	.428*** (.161)	.390** (.160)	.010 (.037)	.001 (.037)
Background characteristics				
Female (dummy)	-.783*** (.173)	-.741*** (.172)	-.169*** (.037)	-.161*** (.037)
Age (in years)	.022 (.029)	.015 (.029)	-.005 (.007)	-.007 (.007)
Number of observations	818	818	817	817
(Pseudo) R-squared	0.291	0.295	0.115	0.126

*See notes Table 7.

There are several individual determinants of status that also determine an individual’s stated likelihood and willingness of entrepreneurship. Three observations stand out. First, the determinants of the status rank attached to entrepreneurship coincide to a large extent with determinants of the perceived likelihood of becoming an entrepreneur and to a somewhat lesser extent with the determinants of willingness. Second, these determinants explain almost thirty percent of the variance in the stated likelihood of becoming an entrepreneur (see the R-squared, first column), which is quite high in such a cross-section. Third, the status ranking of the entrepreneur is significantly and strongly associated with the likelihood and willingness to become an entrepreneur, also when controlling for all these other relevant factors. This means that the unexplained variance across individuals in the status rank of the entrepreneur profession (Table 8) is significantly related to an individual’s willingness and stated likelihood of becoming an entrepreneur.

5. Conclusion

“Traditional economics has been based on methodological individualism.” (Akerlof, 1997, p. 1005). Nowadays, economists have demonstrated and acknowledged that individuals’ utility depends on the utility or the action of other individuals, i.e., social interaction plays a determining role (Akerlof, 1997; Akerlof and Kranton, 2000). The group status of a profession is just one example. Status has only

¹⁰ The other locus of control-measure (measure 2, based more directly on the measure proposed by Rotter), is found to be insignificantly related to the perceived status of the entrepreneur.

recently begun to play a part in economic models as a determinant of utility (see, for instance, Fershtman and Weiss, 1993; Weiss and Fershtman, 1998; Ederer and Pataconi, 2007). Empirical evidence shows that this avenue of search for the determinants of utility is fruitful (Clark et al., 2007; Kwon and Milgrom, 2007).

Parker and Van Praag (2009) develop a model along these lines where the occupational status of entrepreneurs plays a role in the occupational choice of individuals between wage employment and entrepreneurship. Since each individual's choice for entrepreneurship affects the social status of the group, an individual's choice for entrepreneurship has externalities and affects other peoples' choices.

The current study focuses on the determinants and consequences of the group status of a profession, entrepreneurship in particular. If the group status of entrepreneurship is related to individual choice behavior, it is policy relevant to better understand this relationship and the determinants of the status of the entrepreneur. For reasons outlined in the introduction, this study focuses on students in the Netherlands.

Our measurement of status and its possible determinants are based on the existing theoretical and empirical literature, both within and outside the field of entrepreneurship and economics. The most important findings can be summarized and interpreted as follows:

First, the status of occupations as perceived by Dutch students is mostly determined by the required level of education, the income level to be expected and respect. This is consistent with Max Weber (1978 [1922]) and with Fershtman and Weiss, 1993, p. 948) who pinpoint education and income as the strongest determinants of occupational status. Given the assumed causality implied in this relationship, we can conclude that attracting people with higher levels of education to a profession would improve the status attached to that profession.

Second, the more individuals perceive status to be determined by income levels or hard work, the higher they value the status of the entrepreneur. On the contrary, the more value one attaches to education or power for the determination of the status of an occupation, the lower the entrepreneur's status is valued. It thus seems that entrepreneurship is associated with hard work, high incomes, but little power and education. Since education is one of the main drivers of the perceived status of occupations, it seems useful, if raising the status of entrepreneurs is deemed desirable, to communicate that entrepreneur success is indeed associated with education. Thus, people would realize that successful entrepreneurs have higher levels of education which would, in turn, according to these results lead to a higher perceived status of the entrepreneurial profession.

Third, our results indicate, in relation to the discussion in the literature as to whether individual characteristics –such as human capital, social capital, attitudes and, background variables, vary systematically with the perceived status of occupations by individuals, that there is indeed such systematic variation. We find weak support for a decline in the perceived occupational status of the entrepreneur when individuals proceed further in their educational trajectories. The strongest human and social capital factors associated with the status of the entrepreneur are (positively) related to the knowledge and familiarity one has of/with entrepreneurship. Entrepreneurship experience and entrepreneurs in one's environment increase the perceived status (rank) of the entrepreneur. Moreover, students in fields where the probability of becoming an entrepreneur is higher (economics and business; science and technical studies) perceive the status of the entrepreneur as higher than students in other fields (such as social sciences and health).

Fourth, we find support for a strong association between the perceived status of the entrepreneur by any individual student and her estimated likelihood and willingness to become an entrepreneur. Both the variation in the systematic determinants of the status of the entrepreneur and the unexplained residual vary systematically with willingness and likelihood of becoming an entrepreneur.

Given the relatively high private (Van der Sluis et al., 2004, 2007; Parker and Van Praag, 2006) and presumably social returns to education (Versloot and Van Praag, 2007; Parker, 2004, 2009; Henrekson and Johanson, 2008; Van Der Sluis et al., 2008) for entrepreneurs relative to employees, it is important, from a policy perspective, to find instruments to motivate students to become

entrepreneurs, and one such instrument might be status. As the results suggest, although the causality of any of the relationships established is unclear, offering students more entrepreneurial environments, either within or outside their schools, will go together with a higher esteem of the entrepreneurial profession. This, in turn, may then lead to more willingness and a higher likelihood of becoming an entrepreneur for the average student. This, then, would have a positive external effect (as in Parker and Van Praag, 2009): the more highly educated individuals opt for a certain profession, the higher will be its status (also caused indirectly by a higher average income level resulting from the returns to education) and the more desirable it becomes for other (highly educated) individuals. Thus, a virtuous circle has resulted. The clear implication of this study is to pay more (positive) attention to entrepreneurship in universities and colleges.¹¹

This policy implication is obtained under some untested assumptions and these form the main limitations of this study (besides the already discussed subjective nature of some of the key survey information). The first untested assumption is that education causes status (and higher income levels and thus even higher status) and not the other way around, albeit consistent with theory. Second, and more far fetched, we implicitly assume that more entrepreneurs in one's environment (and more own experience as such) cause a higher status attached to the entrepreneur instead of the other way around. Third, and this will, so far, also remain a question mark, we assume that the perceived status of a profession causes the willingness and likelihood of choosing this profession, instead of the other way around. If it were the other way around, the manipulation of the status of the entrepreneur would have little behavioral consequences (although its underlying determinants that codetermine willingness and likelihood would still be worthwhile to affect). Getting more insight in the causalities of these relationships should probably be the subject of future studies in this seemingly fruitful area of entrepreneurship and status.

References

- Akerlof, G. A. (1997) Social distance and social decisions, *Econometrica* 65(5) 1005-1027
- Akerlof, G. A. and R. E. Kranton (2000) Economics and identity, *Quarterly Journal of Economics* 115(3) 715-753
- Balkwell, J.W., F.L. Bates and A.P. Garbin (1982) Does the degree of consensus on occupational status evaluations Differ by Socioeconomic Stratum? Response by Guppy, *Social Forces* 60(4) 1183-1189
- Bertrand, M. and S. Mullainathan (2001) Do people mean what they say? Implications for subjective survey data, *The American Economic Review* 91(2) 67-72
- Birley, S. (1985) The role of networks in the entrepreneurial process, *Journal of Business Venturing* 1 107-117
- Bisin, A. and T. Verdier (1998) On the cultural transmission of preferences for social status, *Journal of Public Economics* 70 75-97
- Boyd, N.G. and G.S. Vozikis (1994) The influence of self-efficacy on the development of entrepreneurial intentions and actions, *Entrepreneurship Theory and Practice* 2 63-77
- Brown, M.C. (1955) The status of jobs and occupations as evaluated by an urban negro sample, *American Sociological Review* 20(5) 561-566
- CBS (2007, 2008) Het Nederlandse ondernemingsklimaat in cijfers Centraal Bureau voor de Statistiek, Voorburg, www.cbs.nl.
- Clark, E.A., N. Kristensen and N. Westergård-Nielsen (2007) Job satisfaction and co-worker wages: status or signal?, *IZA Discussion paper* 3073, IZA, Bonn.
- Cramer, J.S., J. Hartog, N. Jonker and C.M. Van Praag (2002) Low risk aversion encourages the choice for entrepreneurship: An empirical test of a truism, *Journal of Economic Behaviour and Organization* 48 29-36

¹¹ Especially in the Master phase the willingness and likelihood to become an entrepreneur as well as the perceived status attached to this profession seem to stale.

- Davidsson, P., and B. Honig (2003) The role of social and human capital among nascent entrepreneurs *Journal of Business Venturing* 18 301-331
- Dohmen, T.J., A. Falk, D. Huffman, J. Schupp, U. Sunde and G.G. Wagner (2005) Individual risk attitudes: new evidence from a large, representative, experimentally-validated survey, *IZA Discussion Paper* 1730. Bonn: IZA.
- Duncan, O.D. (1961) A socioeconomic index for all occupations *Occupations and Social Status*, New York: Free Press of Glencoe.
- Ederer, F. and A. Pataconi (2007) Interpersonal comparison, status and ambition in organizations, *Economics Series Working Papers* 222. University of Oxford, Department of Economics
- Fairlie, R. (2005) Entrepreneurship among disadvantaged groups: An analysis of the dynamics of self-Employment by gender, race and education. In: S.C. Parker, Z.J. Acs and D.R. Audretsch (eds.), *Handbook of Entrepreneurship*. Kluwer Academic Publishers.
- Falck, O., S. Heblich and A. Luedemann (2008) Identity and entrepreneurship, Unpublished Working Paper
- Fershtman, C. and Y.Weiss (1993) Social status, culture and economic performance, *Economic Journal* 103 946-959
- Frank, R. H. (1984) Are workers paid their marginal products?, *American Economic Review* 15 510-520
- Frank, R.H. (1988) *Passions Without Reason*, New York: Free Press.
- Gianetti, M and A. Simonov (2004) Social interactions and entrepreneurial activity *Working Paper* University of Stockholm, School of Economics.
- Greene, P. and T. Brown (1997) Resource needs and the dynamic capitalism typology, *Journal of Business Venturing* 12(3) 161-173
- Grilo, I. and A.R. Thurik (2005) Entrepreneurial engagement levels in the European Union *International Journal of Entrepreneurship Education*, special issue 1-21
- Grund, Ch. and D. Sliwka (2007) Reference dependent preferences and the impact of wage increases on job satisfaction: Theory and evidence, *Journal of Institutional & Theoretical Economics* 163 313-335
- Hartog, J., C.M. Van Praag and J. Van Der Sluis (2008) If you are so smart, why aren't you an entrepreneur?, *Discussion Paper* 08-073/3, Tinbergen Institute, Amsterdam
- Henrekson, M. and D. Johansson (2008) Gazelles as job creators – A survey and interpretation of the evidence, *Working Paper Series* 733, Research Institute of Industrial Economics
- Hendrickx, J. and H.B.G. Ganzeboom (1998) Occupational status attainment in the Netherlands 1920-1990: A multinomial logistic analysis, *European Sociological Review* 14(4) 387-403
- Hodge, R.W. (1981) The measurement of occupational status, *Social Science Research* 10 396-415
- Hodge, R.W., P.M. Siegel and P.H. Rossi (1964) Occupational prestige in the United States 1925-1963, *American Journal of Sociology* 70 286-302
- Katz, J.A. (1992) A psychological cognitive model of employment status choice, *Entrepreneurship: Theory and Practice* 3 29-37
- Kwon, I. and E.M. Milgrom (2007) Status, pay and wage growth: evidence from M & A's, *Working Paper*, Stanford Institute of Economic Policy Research.
- Lazear, E.P. (2005) Entrepreneurship, *Journal of Labor Economics* 23(4) 649-680
- Malach-Pines, A., H. Levy, A. Utasi and T.L. Hill (2005) Entrepreneurs as cultural heroes: A cross-cultural, interdisciplinary perspective, *Journal of Managerial Psychology* 20(6) 541-555
- Nakao, K. and J. Treas (1994) Updating occupational prestige and socioeconomic scores: how the new measures measure up *Sociological Methodology* 24 1-72
- Nanda, R. and J.B. Sørensen (2008) Peer effects and entrepreneurship, *Harvard Business School Working Paper* 08-051
- North, C.C. P.K. Hatt (1947) Jobs and occupations: A popular evaluation, *Opinion News* 9 3-13
- Oosterbeek, H. and A. Van Den Broek (2008) An empirical analysis of borrowing behaviour of higher education students in the Netherlands *Economics of Education Review*, forthcoming
- Parker, S.C. (2004) *The Economics of Self-Employment and Entrepreneurship*, Cambridge: Cambridge University Press

- Parker, S.C. (2009) *The Economics of Self-Employment and Entrepreneurship*, Cambridge: Cambridge University Press
- Parker, S. C. and C. M. van Praag (2006) Schooling, capital constraints and entrepreneurial performance: The endogenous triangle, *Journal of Business and Economic Statistics* 24(4) 416-431
- Parker, S.C. and C.M. van Praag (2009) Group status and entrepreneurship, *Journal of Economics and Management Strategy*, forthcoming
- Pettijohn, T.F. (1999) *Psychology: A Connected Text*, Dushkin/McGraw-Hill; 4th edition
- Ray, J.J. (1979) A Quick Measure of Achievement Motivation - Validated in Australia and Reliable in Britain and South Africa, *Australian Psychologist* 14(3) 337-344
- Rotter, J.B. (1966) Generalized expectancies for internal versus external control of reinforcement, *Psychological Monographs* 80(1) 1-28
- Treiman, D.J. (1977) *Occupational Prestige in Comparative Perspective*, New York: Academic Press.
- Uzzi, B. (1999) Embeddedness in the making of financial capital: How social relations and networks benefit firms seeking financing *American Sociological Review* 64(4) 481-505
- Van der Sluis, J. and C.M. van Praag (2004) Economic returns to education for entrepreneurs: The development of a neglected child in the family of economics of education?, *Swedish Economic Policy Review* 11(2) 183-226
- Van der Sluis, J. and C. M. van Praag (2007) Returns to education for entrepreneurs and employees: Identification by means of changes in compulsory schooling laws, Working Paper University of Amsterdam.
- Van Der Sluis, J., C.M. van Praag and W. Vijverberg (2008) Education and entrepreneurship selection and performance: A review of the empirical literature, *Journal of Economic Surveys* 22(5) 795-841
- Van der Sluis, J., Van Praag, C. M. and A. Van Witteloostuijn (2007) Comparing the returns to education for entrepreneurs and employees, Working Paper University of Amsterdam
- Van Praag, C.M. and J.S. Cramer (2001) The roots of entrepreneurship and labor demand: individual ability and low risk aversion, *Economica* 68(269) 45-62
- Van Praag, C.M. and P. Versloot (2007) What is the value of entrepreneurship: A review of recent research, *Small Business Economics* 29(4), 351-382
- Villemez, W.J. (1974) Ability versus effort: Ideological correlates of occupational grading, *Social Forces* 53(1) 45-52
- Weber, M. (1922). *Economy and Society*, Translated and reprinted, University of California Press, Berkeley, 1978
- Weiss, Y. and C. Fershtman (1998) Social status and economic performance: a survey, *European Economic Review* 42 801-820