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*Gender and Career Paths in French
Universities – An E-mail Survey*

AND

Building Networks in French Academia

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About the Project

The normative concept of gender equity which exists in European societies is contrasted by a reality in which women in top-level positions are by no means a common occurrence.

Against this background, the European Research Training Network Women in European Universities, funded by the European Commission, is a joint research project of partners in seven European countries.

Its scientific programme aims at assessing the professional status of women in academia and at analysing the reasons for the under-representation in positions of authority in European Universities.

The network structure includes regular conferences and meetings to provide a forum to present outcomes, exchange knowledge and to discuss about research planning as well as findings and outcomes.

The **Training Paper Series** are essays authored by the doctoral students of the project in every research phase. They give an introduction to the research topic and an overview of the findings in the research country of the doctoral student.

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INTRODUCTION

Analysis of the available statistical data for France (see Latour & Le Feuvre, 2002), illustrates beyond doubt the unequal position of women within French universities. Even if they have represented more than half of all students for over 15 years, women still only account for under 15% of Full Professors. Once they have decided to embark on an academic career, women stand almost the same chances as their male counterparts of obtaining a Ph.D, of being qualified by the CNU and of being recruited to the junior grades of a tenured academic position, at least in most disciplinary fields. However, there is clear evidence of a “glass ceiling” that is preventing women from reaching the top-ranking academic positions on a parity with men.

The different phases of the E.U. Research and Training Network “Women in European Universities” (HPRN-CT-1999-000074), aimed to provide contextual and statistical analysis of women in each of the Higher Education systems of the countries involved in the project. Under the third step of the “Women in European Universities” project, this paper presents the French results of a questionnaire survey, which was undertaken in France. This study focuses on how gender could influence academic career paths in French universities. It was decided to distribute the questionnaire by e-mail. Email addresses were collected with the help of Alena Krizkova, Juan Martin Fernandez and Beata Zawadzka, all three of whom were PhD. students of the WIEU network working at the University of Toulouse Le-Mirail during the survey period.

The purpose of this paper is to explore different hypothesis generally advanced in scientific literature to explain the under-representation of women in top-ranking positions of Academia, and the gender asymmetry of career paths. The first section presents the methodological organisation of the French study through the availability, quality and reliability of our sample. In order to test traditional theoretical approaches, section two focuses on declared motivations for working in academia of male and female professors, and section three presents their working conditions and various aspects of combining an academic career with family life.

1. SURVEY METHODOLOGY

1.1. An E-mail survey

In France, this stage of the WIEU project was carried out on the basis of an email survey. The main reason for the choice of such a method was the cost constraint. A face-to-face or even a mail or phone survey would have been too much costly. A second constraint was the protection of personal data, which is strictly regulated in France. It was impossible to obtain access to a national list of professors with valid telephone and mail addresses. Moreover, even with a mail or phone list we would have faced numerous problems. According to French data protection rules, it would have been impossible to get private phone numbers and/or postal addresses. As French academics often work from home or in several different institutions or buildings they are notoriously difficult to reach in their own offices. These are the reasons why we carried out an E-mail survey. An E-mail survey also enabled the French doctoral students from the WIEU project, who were living in different countries at the time of the survey, to work together and participate to all the phases of the process.

Hence, the first challenge was to build a sample on a basis of a list of email addresses. As for mail or phone addresses we had no access to a national list of email addresses. We had to collect all the addresses by ourselves, one after the other.

1.2. Collecting Addresses and Building a Sample

The network requirements about the population defined a set of disciplines, which were integrated into our sample. Although we were only supposed to focus our research on Full-Professors we also decided to add tenured Associate Professors (*Maîtres de Conférence*) to our population. This decision was taken on the basis of the doctoral research program of French students.

In 2000, there were 37 135 tenured academics (Full-Professors and Associate Professor) working in Law, Economics, Sciences, Literature and Social Sciences in France, 31,5% of whom are Full-Professors. On the basis of these figures we decided to collect 2400 addresses from several disciplines (Law, Economics and Management, Literature, Political Sciences, Mathematics, Physics Chemistry, Engineering and Computing Sciences, Biology, Psychology, Philosophy, Sociology, History and Geography) and different universities (Table 1). The choice of these 31 universities was based on the following criteria: Paris/Province, old/new universities, multi- mono-disciplinary institutions.

Table 1: List of Surveyed Universities

AIX-MARSEILLE 1	LILLE II	PARIS VII
AIX-MARSEILLE 2	LILLE III	PARIS VIII
ARTOIS	LIMOGES	PARIS XII
BORDEAUX 1	UNIVERSITE DU LITTORAL	PARIS XIII
BOURGOGNE	MONTPELLIER 1	PAU ET DES PAYS DE L'ADOUR
BRETAGNE SUD	PARIS I	PERPIGNAN
CLERMONT-FERRAND I	PARIS II	RENNES 1
CLERMONT-FERRAND II	PARIS III	TOULOUSE I
FRANCHE COMTÉ	PARIS IV	VALENCIENNES
GRENOBLE 1	PARIS V	
LILLE I	PARIS VI	

2543 addresses were collected directly from the universities' websites by a group of 4 doctoral students. After a first check for over-lapping references, 2520 addresses remained. A cluster sampling followed the cleaning phase, in order to check the representivity of the sample in terms of discipline, gender and status. The sample contains 29% of women and 30% of Full Professors, as against 30,5% and 31% for the whole population. In terms of discipline, the sample is also quite reliable apart from a slight under-representation of some of the social science disciplines. At this stage, 2126 addresses were retained. As 223 addresses turned out to be false, 1903 tenured academics received our questionnaire.

We used special software to create a web questionnaire. Respondents received a letter presenting the aim of the survey and encouraging them to fill in the HTML questionnaire, which was sent as an attached file.

1.3. Response Rate and Technical Problems

The first wave of the survey was conducted in January 2003. In February, a second mail was sent to the people who had not answered or expressed their explicit refusal to respond during the first wave. The survey was closed on March 15th. During the first wave we received 307 replies, of which 197 contained completed questionnaires. The remaining responses came from respondents expressing their refusal to answer or indicating technical problems. The main motive for refusal was that the questionnaire was too long. Filling up the questionnaire took around 40 minutes, a problem we had foreseen ourselves. The technical problems were also numerous, some were linked to the age of the computers used by some respondents or to the special firewalls and anti-virus

programmes used by some universities. Respondents who were willing to take part in the survey, but who experienced technical problems received a paper version of the questionnaire by post. After the end of the second wave, we had received 409 replies (not including the messages concerning technical problems), including 45 new refusals to add to the first 30. Finally, we collected 334 completed questionnaires.

The gross answer rate (completed questionnaire and refusal) is 21%. The net answer rate (only completed questionnaire) is 17,5%. This could be regarded as a good result taking into account the low response rate generally reached for a postal survey.

1.4. Reliability of the Sample

The next stage of the data analysis concerned cleaning up the database and coding the completed questionnaires. By cleaning up we mean that we removed from the sample any very incomplete questionnaires and deleted duplicate questionnaires. We also removed the questionnaires with “weird” replies (some French academics obviously have a strange sense of humour!). Recoding was a huge task. Although the software we used allowed us to create an automatic database, we nevertheless had to recode the entire questionnaire in order to harmonize answers. At the end of this process, we had 303 respondents in our sample. This is the basis we will make further analyses on.

In order to check the reliability of our sample, we compared the main figures of our sample to the statistical data gathered during the second step of the WIEU research project (Latour & Le Feuvre; 2003). We will first take the whole population (Professors and Maître de Conférences) together, before going on to analyse the reliability of the sample of the Full-Professors alone.

1.4.1. Reliability of the Total Sample

In terms of structure by discipline (Table 2a), we do not have any possibility to compare the reliability of the sample because of the lack of data for the global population at this level. In order to evaluate the reliability of the sample we will aggregate the disciplines into the three sub-sections usually used for French official statistical data (Table 2b).

Table 2a – Structure of the Sample by Disciplines

	Frequencies
Law	3,5
Economics and management	17,9
Literature	4,2
Political Sciences	0,7
Mathematics	22,5
Physics	4,2
Chemistry	4,6
Engineering and Computing Sciences	9,1
Biology	13,0
Psychology	6,7
Philosophy	1,8
Sociology	1,8
History and Geography	10,2
Total	100,0

In terms of discipline, our sample presents a certain bias. Law and Economics Professors are over represented whereas Literature and Social Science Professors are under represented. As far as the Sciences are concerned, the sample gives a reliable image of the overall population. In so far as Literature and Social Science respondents were under represented in the list of email addresses we used to send the questionnaire, we expected these disciplines to be under represented in our final sample. This is indeed the case. E-mail addresses in these disciplines were more difficult to find than for the other disciplinary fields, mostly because of the low level of development of web pages in the Literature and Social Science based universities. All further analysis, when presented at the global level of the sample, will suffer from this bias, which is minimal.

Table 2b. Structure of the Sample by Sub-Groups of Disciplines

	Sample	Frequencies
Law and Economics	14%	20,7
Literature and Social Sciences	31%	23,0
Sciences	55%	56,3
Total	100%	100,0

In terms of gender, our sample is more feminised than the global population (Table. 3). During the definition of our sampling method, there was

some fear that our method would lead to an under representation of female respondents. The opposite is actually the case. One could propose the following hypothesis. Women felt more concerned than men by the themes of the questionnaire. Such a hypothesis is supported by the fact that men more frequently than women expressed their refusal to answer to the questionnaire, often arguing that they were not concerned.

Table 3. Percentage of Male and Female Respondants by Sub-Groups of Disciplines

	Global Population			Sample		
	Male	Female	Total	Male	Female	Total
Law and Economics	69%	31%	100%	56,5%	43,5%	100%
Literature and Social Sciences	59%	41%	100%	41,4%	58,6%	100%
Sciences	77%	23%	100%	63,9%	36,1%	100%
Total	69,5%	30,5%	100%	56,8%	43,2%	100%

Women are over represented in each discipline and the difference is proportionally higher in the “hard” Sciences. Beyond this bias, the rate of feminisation among disciplines is the same for the sample and the population.

The differences between the spread within each gender by discipline is influenced by the structure of the sample in terms of disciplines (Table 4). As expected, our sample presents an under representation of women and men in Literature and Social Sciences and over representation in Law and Economics. For the Sciences, our sample gives a perfect image of the population. The reliability of our sample could have been improved by adding more respondents from Literature and Social Sciences, which is what we did during the second wave of the survey, but we still encountered a lower rate response rate from these disciplinary fields than from the others.

Table 4. Male Repartition and Female Repartition by Groups of Disciplines

	Global Population		Sample	
	Male	Female	Male	Female
Law and Economics	14.8%	15%	21.5%	21.8%
Literature and Social Sciences	25.9%	42.3%	17.8%	33.1%
Sciences	59.3%	42.7%	60.7%	45.2%
Total	100.0%	100.0%	100.0%	100.0%

1.4.2. Reliability of the Sample of Full-Professors

The first question concerned the share of Full-Professors among respondents. On that point, our sample is very close to the population's characteristics (Table 5), even if we have a slight over representation of Full-Professor within the whole sample.

Table 5- Share of Professors among Academic Staff

	Global Population	Sample
Full Professors	31,5%	34,5%
Maîtres de Conférences	68,5%	65,5%
Total	100,0%	100,0%

In terms of spread of the Full-Professors by discipline, we face the same problem linked with the under representation of respondents from the Literature and Social Science disciplines (Table 6). This bias produces a limited over representation of Full-Professors in Law and Economics and an under representation in Literature and Social Sciences.

Table 6 – Repartition of Full Professors by Groups of disciplines

	Law and Economics	Literature and Social Sciences	Sciences	Total
Global Population	15,0%	31,0%	54,0%	100%
Sample	21,0%	24,8%	54,3%	100%

The source of the statistical distortion is confirmed by the fact that the share of Full-Professors among academic staff is a little higher in our sample than in the population (Table 7).

Table 7- Share of the Full-Professors among Academic Staff by Groups of Disciplines

	Law and Economics	Literature and Social Sciences	Sciences	Total
Global Population	34,0%	31,0%	30,0%	31,4
Sample	34,9%	37,1%	33,3%	34,5%

We can also compare the sample and the population in terms of the spread of male and female academics among disciplines. It appears that the two main problems are an over representation of female Full-Professors in the Sciences and an under representation of the same group in the Literature and Social Science disciplines, whereas we have too many male Professors in Law and Economics and too few in Literature and Social Sciences.

Table 8 – Male and Female Full Professors by Sub-Groups of Disciplines

	Law and Economic		Literature and Social Sciences		Sciences		Total
	Male	Female	Male	Female	Male	Female	
Global Population	16.0%	16.0%	26.0%	51.0%	58.0%	33.0%	100%
Sample	23.9%	16.7%	19.4%	43.3%	56.7%	40.0%	100%

1.4.3. Too Many Women?

Although, up until now, our sample could be regarded to a certain extent as reliable, we now have to stress its main limit: over feminisation (Table 9).

Table 9 – Percentage of Women by Sub-Groups of discipline

	Law and Economics	Literature and Social Sciences	Sciences	Total
Global Population	31,3%	41,0%	23,3%	56,8%
Sample	43,5%	58,6%	36,1%	43,2%

This over representation of women is very high in the case of Full-Professors (Table 10).

Table 10 – Percentage of Women Full-Professors by Sub-Groups of discipline

	Law and Economics	Literature and Social Sciences	Sciences	Total
Global Population	16,7%	27,5%	10,4%	16,3%
Sample	23,8%	50,0%	24,0%	30,9%

Faced with such a situation, we could either decide to add more men to the sample or to remove some women. We decide to opt neither for the first, nor for the second solution. We kept the sample as it was with the bias. Such a decision is determined by the data analysis we will run in the following pages of this paper. We focus primarily on gender differences on several questions like motivations for academic jobs, reconciliation of work and family, sexual harassment. All these topics will be covered at the level of the whole sample, without paying too much attention to differences in terms of status. To analyse this point we would have to improve the quality of the sample by increasing its dimension or by weighting the cluster according to the characteristics of the population.

2. Motivations for working in Academia

2.1. Perceptions of Women's Position in French Universities

In order to test the degree of information and receptivity of men and women to the under-representation of women in Full Professor positions, Table 11 shows the reactions of our sample to some of the possible explanations of their under-representation:

Table 11 : Perceptions of women's position in the academe

	Agreement	Males n=163		Females n=124	
		MC N=94	Prof. n=66	MC n=88	Prof. n=32
Combining work and family is more difficult for a women	Disagree or strongly disagree	23.8	14.8	17.6	6.9
	Agree or strongly agree	61.9	70.5	72.9	82.8
Women are easily accepted as Professors in my field	Disagree or strongly disagree	38.4	33.8	52.3	36.7
	Agree or strongly agree	40.7	44.6	30.2	40.0
Women have to achieve more than men to receive the same degree of recognition in my field	Disagree or strongly disagree	51.2	42.6	25.9	19.0
	Agree or strongly agree	26.7	36.1	56.5	74.2
It is as easy for a woman to become a full professor as it is for a man	Disagree or strongly disagree	33.3	27.7	52.4	74.2
	Agree or strongly agree	43.7	53.8	29.8	12.9

Source : WIEU (2003)

We note that men and women (without distinction of status) tend to agree with the first two propositions, but their interpretations are significantly different for the last two :

There seems to be a strong consensus about the idea that women have more difficulties than men in conciliating an academic career and family life. Surprisingly, it is women who are the most successful in their career – Full Professors – who most strongly agree with this assertion. Considering the accessibility of women to Full Professor position, opinions are more divided, but the majority of people think that women are now more "easily allowed" into this old male bastion, with the exception of MDC, who are more sceptical.

These are numerous men who think that gender does not influence the evaluation of academics, whereas women think the opposite, especially when they are themselves Full Professors. The least that we can say is that academics are stable in their opinions and that a very strong gender dichotomy on the matter exists: being recognised in their field and to becoming a Full Professor, appears to be more difficult for women.

2.2. A Blind Choice?

The respondents were asked the following question “*Some people say that they had no preconceived ideas about undertaking an academic career, they took what was offered. Was this the case for you? “*. Only 25,3% of the professors knew exactly the situation they would have to face whereas 13,2% just took what was offered. These figures limit the interpretation of all the next comments about motivations. Expressing their motivation, respondents certainly gave us a certain description of their relationship to work but not to the specific academic work that they confessed themselves they knew little about before starting their first job. Men seem to have had more preconceived ideas of their future work than women. Perhaps because the later were less integrated to academic life during their studies (see Table 12).

Table 12 - “Some people say that they had no preconceived ideas, they took what was offered. How it was in your case? “

	Evaluation	Groups of disciplines			Total
		Law and Economics	Literature and Social Sciences	Sciences	
Male	Totally or rather untrue	51.4%	51.7%	49.5%	49.5%
	Rather or totally true	28.5%	20.7%	35.1%	31.1%
Female	Totally or rather untrue	33.3%	15.9%	33.4%	34.2%
	Rather or totally true	37%	33.3%	38.9%	36.7%

2.3. Motivations for Entering Academia

Respondents had to answer to the following question: “ *Thinking back, which of the following reasons were important to you in choosing an academic career?*”.

The reasons proposed were:

- to follow my specific interest/self-fulfilment
- to be autonomous in my work
- to teach
- financial reasons
- prestigious job
- professional advancement
- to be able to combine family and employment
- job security
- to do a socially meaningful work

Respondents had the possibility to answer this question using a 5 levels scale from 1- Not at all important to 5- Very Important. We will now analyse for each items the results from the survey on the basis of answers from the whole groups of respondents, Full-Professors and *Maîtres de conférences*.

The profession of Professor is often regarded as a vocation implying a great level of non-material motivations. According to that point of view, one can expect that the overwhelming majority of respondents would answer that following their specific interest and the aspiration of self-fulfilment were their major motivations. As showed in Table 13, this is indeed the case. For 57,8% of men and 66,4% of women this reason is regarded as “very important”. These figures are particularly high in Literature and Social Sciences, notably for women. One could make the following hypothesis about the differences in the figures for the Sciences and the other groups of disciplines: Scientists, be they physicians, biologists or chemists, have more opportunities to develop their interests outside academia, particularly in private-funded research institutions. In the case of Literature and Social Sciences, and in the French case, it seems that academia offers a rare opportunity to specialise in research.

Table 13– Motivation: “To follow my specific interest/self-fulfilment”

		Groups of disciplines			Total
	Evaluation	Law and Economics	Literature and Social Sciences	Sciences	
Male	Not or not very important	2.9%	-	3.1%	2.5%
	Rather or very important	91.5%	89.3%	84.7%	87%
Female	Not or not very important	11.1%	-	1.9%	3.3%
	Rather or very important	88.9%	97.6%	88.9%	91.8%

Being autonomous is a very important motivation too (Table 14). The figures are comparable for men and women, but it appears that this dimension is more important for respondents in Law and Economics than for the others. Here also, one can make the hypothesis that, in Law and Economics, respondents often have the opportunity to get a job in the private sector or in other administrative research institutes. In that case, and taking into account that wages are lower in academia than in private companies, people entering professorships are unlikely to have financial motivations. Such a hypothesis is reinforced by the figures on financial motivations, which appear to be less important in Law and Economics than in other fields.

Table 14- Motivation : “to be autonomous in my work”

		Groups of disciplines			Total
	Evaluation	Law and Economics	Literature and Social Sciences	Sciences	
Male	Not or not very important	-	-	1%	0.6%
	Rather or very important	94.3%	93.1%	88.6%	90.6%
Female	Not or not very important	-%	-	3.8%	3.3%
	Rather or very important	96.3%	95.1%	90.7%	91.8%

For 62,1% of men and 64,4% of women to be able to teach was an important or very important motivation. These figures imply a strong teaching ethos

among the academic staff and for the both genders. But, it appears that teaching was a less important motivation than the desire to follow specific interests. To a certain extent, expectations in terms of research and intellectual fulfilment seem higher than in terms of teaching per se.

Table 15- Motivation : “to teach”

	Evaluation	Groups of disciplines			Total
		Law and Economics	Literature and Social Sciences	Sciences	
Male	Not or not very important	36.4%	3.6%	11.2%	15.1%
	Rather or very important	57.6%	71.5%	61.2%	62.3%
Female	Not or not very important	3.8%	10.3	7.6%	7.6%
	Rather or very important	61.5%	69.2%	62.3%	64.5%

Taking into account the length of studies, university professors are not well paid. Hence, one can expect that this point was not a major motivation for starting a career in academia. This was confirmed by the survey. Financial reason was a very important motivation for just a few respondents (Table 16).

Table 16- Motivation : “Financial reasons”

	Evaluation	Groups of disciplines			Total
		Law and Economics	Literature and Social Sciences	Sciences	
Male	Not or not very important	62.9%	48.3	44.8%	49.4%
	Rather or very important	5.7%	13.8%	8.4%	9.4%
Female	Not or not very important	59.2%	35.9%	51%	47.9%
	Rather or very important	18.5%	10.3%	15.7%	14.6%

Also, as expected, this is a stronger motivation for women than for men. Such a situation has to be connected with the alternative opportunities for both

genders. On the private market, women would have lower incomes than men and by comparison the wage gained as a professor seems more acceptable.

Only 19,9% of men and 9,2% of women, evaluate the prestige of the job as an important or very important motivation. This seems to be more taken into account in the case of Literature and Social Sciences where jobs in academia are often more prestigious than the ones in the private sector. The difference between genders can perhaps be explained by the fact that men pay more attention than women to the prestige of the job as a counterpart of losses in terms of salary in comparison with the private sector, losses which are relatively higher for men than for women.

Table 17- Motivation : “Prestigious Job”

	Evaluation	Groups of disciplines			Total
		Law and Economics	Literature and Social Sciences	Sciences	
Male	Not or not very important	51.5%	34.5%	51.5%	48.5%
	Rather or very important	17.4%	31.0%	17.5%	19.9%
Female	Not or not very important	37%	71.8%	75.9%	65.8%
	Rather or very important	18.5%	5.2%	7.4%	9.2%

At the global level, personal advancement does not seem to be a crucial motivation. It played an important or very important role in the decision of only 15,5% of men and 20,3% of women. Women tend to see a better possibility for personal advancement in a career in academia. These figures are to be explained by the very institutionalised career path. The opportunities of progression are totally codified and known. The bigger weight given by women to this item reflects the fact they have promotion opportunities within academia, which they think perhaps are more difficult to get in the private sector.

Table 18 - Motivation: Personal advancement

		Groups of disciplines			Total
	Evaluation	Law and Economics	Literature and Social Sciences	Sciences	
Male	Not or not very important	74.2%	37.9%	53.7%	55.3%
	Rather or very important	5.8%	17.2%	16.9%	14.5%
Female	Not or not very important	53.9%	60.5%	59.3%	58.5%
	Rather or very important	34.6%	15.8%	16.7%	20.3%

Results for this item are quite surprising. The structure of answers of women and men are comparable. For 18,6% of men and 21% of women this was not important. For 28,6% of women and 32,8% of women this was very important. At this stage and on the only basis of these figures it seems difficult to propose any explanation. Interpretation depends on what men and women understood by “combine family and employment”. The relationship of this item with the notion of autonomy at work should be assessed. That depends also on the expectations people had in terms of working hours.

Table 19 - Motivation: “to be able to combine family and employment”

		Groups of disciplines			Total
	Evaluation	Law and Economics	Literature and Social Sciences	Sciences	
Male	Not or not very important	25.7%	17.2%	16.4%	18.6%
	Rather or very important	51.5%	48.2%	57.8%	54.4%
Female	Not or not very important	14.8%	23.1%	22.6%	21%
	Rather or very important	70.4%	46.2%	60.4%	33.6%

French professors are civil servants and so occupy tenured positions throughout their working life. For the overwhelming majority of respondents, job security was an important motivation (see table 20). The figures are comparable for men and women.

Table 20: Motivation: “Job Security”

	Evaluation	Groups of disciplines			Total
		Law and Economics	Literature and Social Sciences	Sciences	
Male	Not or not very important	20%	20.6%	22.6%	21.8%
	Rather or very important	40%	44.8%	51.6%	47.8%
Female	Not or not very important	11.1%	25.7%	15.1%	17.6%
	Rather or very important	48.1%	51.3%	50.9%	50.4%

The social value of the profession, the opportunity to have a meaningful job is a strong motivation. Again, the figures are comparable for men and women (Table 21)

Table 21 - Motivation: social value of profession

	Evaluation	Groups of disciplines			Total
		Law and Economics	Literature and Social Sciences	Sciences	
Male	Not or not very important	31.4%	17.2%	12.5%	17.5%
	Rather or very important	51.4%	58.6%	57.3%	56.3%
Female	Not or not very important	3.7%	15.0%	14.4%	11.7%
	Rather or very important	74%	60.0%	53.9%	60.5%

Although nearly a third of the professors surveyed declare they do not have a precise idea of what is a university career before being employed (31% of the men and 37% of the women), certain motivations emerge in a clear way through the answers, in the importance and the scale of importance. Autonomy in work and the opportunity to follow their specific interests emerge as the principal elements of motivation for approximately 90% of the men and women. Arriving in 3rd and 4th position, the desire to teach and doing a socially meaningful job played a significant role for more than 60% of the academics.

Table 22 - Reasons for choosing an academic career

	Level of importance	Males n=163		Females n=124	
		MC N=92	Prof. n=65	MC n=86	Prof. n=32
1. To be autonomous in my work	Not or not very	-	1.5	2.2	-
	Rather or very	87.2	95.4	91.1	100
2. To follow my specific interest	Not or not very	3.1	1.5	4.4	1.0
	Rather or very	83.3	92.3	88.9	100
3. To teach	Not or not very	17.0	12.3	8	6.7
	Rather or very	57.4	69.2	65.9	60
4. To do a socially meaningful work	Not or not very	19.6	15.6	14.5	6.3
	Rather or very	53.3	64.1	56.6	78.1
5. To be able to combine family and employment	Not or not very	18.7	20.6	17	33.3
	Rather or very	62.6	49.2	60.2	53.3
6. Job security	Not or not very	20.4	25	14.9	25.8
	Rather or very	52.7	43.8	50.6	51.6
7. Prestigious job	Not or not very	57.1	42.6	66.3	64.5
	Rather or very	17.6	26.2	10.1	6.5
8. Financial reasons	Not or not very	51.6	50.0	50.0	41.9
	Rather or very	14.3	14.0	12.8	19.4

Source : WIEU (2003)

Secondly, nearly 55% of the men state that they have chosen this work to be able "to combine family and employment"; this percentage is very close to that of the women having given this motivation (58%). In parallel, the job security was a motivation for half (50.4%) of the women and for almost as many of the men (47.8%). If the financial considerations played a lesser role in the motivations of the two sexes, other results of the survey show that the women declare themselves less often dissatisfied by their level of salary than the men: a third of the women, half of women MC and 41% of the men Full Professors, say they are not content with this precise point.

2.4. Measures of Satisfaction

Evaluations are rather positive in terms of self-fulfilment, autonomy, opportunity to teach, conciliation of employment and family and job security. Criticisms mostly concern the salary, the low prestige of the job and the opportunity for personal advancement. These trends are true for both men and women, but women express poorer evaluations than men in terms of self-fulfilment, and better evaluation in terms of income and job prestige (Table 23 to 32).

Answers to the first set of questions can be regarded as expressing motivations but also expectations. We thought that it would be interesting to measure the level of dissonance between expectations and evaluation of the current situation. Statistically, that means building an index s_{ij} for each respondent j : $s_{ij} = \text{answer for evaluation } i - \text{answer for motivation } i$, $i = \text{an item}$ (self-fulfilment, job security,...). A global index S for the item is $S_i = \frac{1}{N} \sum_{j=1}^N s_{ij}$ where N is the number of respondents in the sample.

Table 23 : Difference between the evaluation of the current situation and the expectation - Global index of satisfaction according to sex.

Items	Si	
	Males	Females
Self interest	-,3665	-,6612
Autonomy	-,3208	-,4180
Teach	,6387	,5000
Incomes	-9,4937E-02	,2308
Prestigious Job	,1000	,5333
Professional Advancement	-,1975	9,483E-02
Combine family and work	-4,9689E-02	-,2393
Job security	1,1750	1,2101
Meaningful job	6,250E-03	-,1261
Index of global satisfaction	0,58	1,29

A negative index S reflects disappointment and lower is S higher is the disappointment, the dissonance between what was expected and what was already experienced. In fact, men and women found in academia a better situation than the one they expected and women more so than men. The main points of relative disappointment are the dimension of self-fulfilment, autonomy, two fields where men and women expressed strong expectations which were partly (see table 23) but not totally satisfied (see Table 24-25).

Table 24 - Index of satisfaction by item and disciplines.

	Groups of discipline		
	Law and Economics	Literature and Social Sciences	Sciences
Self interest	-,3871	-,6812	-,4727
Autonomy	-,4603	-,4203	-,3049
Teach	,8167	,4769	,5399
Incomes	4,839E-02	1,493E-02	-6,2500E-03
Prestigious	,1774	5,882E-02	,3476
Professional Advancement	-,1148	1,538E-02	-,1438
Combine work & family	-1,6393E-02	-7,4627E-02	-,2134
Job security	1,2903	1,1029	1,2037
Meaningful job	-4,8387E-02	4,348E-02	-5,5556E-02
Global satisfaction index	1,3158	,3051	,7517

Table 25 - Index of satisfaction by gender and groups of disciplines

Groups of disciplines	Males	Females
Law and Economics	2,0606	,2917
Literature and Social Sciences	-1,3478	1,3611
Sciences	,5349	1,7609

These results are in accordance with the answers about the evaluation of the whole career progress. Less than one third of the respondents evaluate their career progress as unsatisfying (see Table 26 and 27).

**Table 26 - All in all, how satisfied are you with your career progress?
Answer by Gender**

	1 Unsatisfied	2	3	4	5 Very satisfied	No opinion	Total
Males	13,6%	16,7%	37,0%	23,5%	6,8%	2,5%	100,0%
Females	12,3%	16,4%	39,3%	18,9%	9,0%	4,1%	100,0%
Total	13,0%	16,5%	38,0%	21,5%	7,7%	3,2%	100,0%

**Table 27 - All in all, how satisfied are you with your career progress?
Answer by Gender and Disciplines**

Groups of discipline		1	2	3	4	5	No	Total
		Very unsatisfied				Very satisfied	opinion	
Law and Economics	Males	14,3%	17,1%	51,4%	11,4%	5,7%	,0%	100,0%
	Females	7,4%	18,5%	40,7%	14,8%	11,1%	7,4%	100,0%
	Total	11,3%	17,7%	46,8%	12,9%	8,1%	3,2%	100,0%
Literature and Social Sciences	Males	28,6%	10,7%	35,7%	21,4%	3,6%	,0%	100,0%
	Females	15,0%	17,5%	30,0%	20,0%	10,0%	7,5%	100,0%
	Total	20,6%	14,7%	32,4%	20,6%	7,4%	4,4%	100,0%
Sciences	Males	9,1%	18,2%	32,3%	28,3%	8,1%	4,0%	100,0%
	Females	12,7%	14,5%	45,5%	20,0%	7,3%	,0%	100,0%
	Total	10,4%	16,9%	37,0%	25,3%	7,8%	2,6%	100,0%

The most disappointed are the men in literature and social sciences as showed in Table 15 and “confirmed” in Table 27. If they had the choice more than 80% of the respondents would choose to undertake an academic career again (Table 28-29).

Table 28 - If you could decide: Would you choose an academic career again?

	Yes	No	Total
Males	85,5%	14,5%	100,0%
Females	83,3%	16,7%	100,0%
Total	84,6%	15,4%	100,0%

Table 29 - If you could decide: Would you choose an academic career again? Answer by gender and disciplines

Groups of disciplines		Yes	No
Law and Economics	Males	88,6%	11,4%
	Females	92,6%	7,4%
	Total	90,3%	9,7%
Literature and Social Sciences	Males	71,4%	28,6%
	Females	87,5%	12,5%
	Total	80,9%	19,1%
Sciences	Males	88,5%	11,5%
	Females	75,5%	24,5%
	Total	83,9%	16,1%

The main criticism concerns salary. Only 1,8% of men and 6,6% of women rated their salary as being very satisfying (Table 30-32). It seems that, again, women criticise their salary less than men because in comparison to the private sector their wages in academia are more satisfying than for men. This is confirmed by the figures by disciplines. Women in Literature and Social Sciences, the respondents having the narrowest opportunities outside academia, are the most satisfied with their salary levels (Table 30).

Table 30: How would you rate your own academic salary? Answers by disciplines.

Law and Economics	1- Very unsatisfying	21,0
	2	33,9
	3	32,3
	4	11,3
	5- Very satisfying	0
	No opinion	1,6
	Total	100,0
Literature and Social Sciences	1- Very unsatisfying	18,6
	2	20,0
	3	37,1
	4	17,1
	5- Very satisfying	5,7
	No opinion	1,4
	Total	100,0
Sciences	1- Very unsatisfying	9,4
	2	25,2
	3	33,3
	4	27,0
	5- Very satisfying	4,4
	No opinion	,6
	Total	100,0

Table 31: How would you rate your own academic salary? Answers by gender.

Males	Very or rather unsatisfying	36.2%
	Rather or very satisfying	21%
Females	Very or rather unsatisfying	33.1%
	Rather or very satisfying	29.7%

Table 32: How would you rate your own academic salary? Answers by disciplines and gender

		Law and Economics	Literature and Social Sciences	Sciences
Males	Very or rather unsatisfying	62.8%	51.7%	38.8%
	Rather or very satisfying	8.6%	13.8%	27.6%
Females	Very or rather unsatisfying	42.3%	29.3%	31.5%
	Rather or very satisfying	15.4%	29.3%	37%

3. WORKING CONDITIONS IN FRENCH UNIVERSITIES

3.1. Working Hours

Regarding the distribution of the working time between the various tasks of tenured academic staff, Table 33 reveals the narrow gap recorded on the proportion of their working time that women devote to teaching and the time devoted to this activity by men (only 6% more, on average, for the women). The gap is quite similar (in an inverse way) with regard to the share of the working time devoted to research. It may be the case that the statutory regulation of the teaching hours in French universities explains the limitation of the gender specialisation observed in others countries (Vazquez-Cupiero, 2002). In the same way, our results seem to contradict the hypothesis according to which the progression of women careers results from their administrative task over-load (Dagenais, 1998), since the men claim to devote a slightly more significant share of their working time to these activities than the women. This result shows the ambiguity that surrounds the administrative offices in French universities. They are sometimes associated with the prestigious status of director of departments and UFR (where the men are over-represented), sometimes associated the relatively devalued pedagogic activities (which would be entrusted to the

women). Without more information on the precise nature of the administrative offices filled by men and women, it is obviously impossible to interpret these results in a meaningful way.

Table 33 - Share of work by sex

	Males n = 160	Females n = 119
At Home	32.3 %	34.9 %
At the University	63.4 %	59.5 %
In Teaching	38.1 %	44.0 %
In Research	41.1 %	36.3 %
In Administrative tasks	20.0%	16.9 %

Source : WIEU (2003)

Finally, it is noted that the proportion of working time spent on the different tasks the academic profession vary little according to gender. Men and women carry out two thirds of their occupations in the buildings of the university. We thus find no confirmation in these data of more important working time at home for the women, even if they are over-represented in the disciplinary fields which do not require access to collective technical equipment, in particular for research activities.

Men and women spend 2/3 of their working time at the university and 1/3 at home. Men tend to spend more time at university than women and the most important difference concerns Literature and Sciences (Table 34a-34b). When it comes to the repartition of working hours by disciplines, as expected, it is in the Sciences that academics work the shortest time at home (35).

Table 34a : share of work at home

	Males	Females
0-25%	57,4	49,2
26-50%	21,6	27,0
51-75%	11,1	14,8
76-100%	9,9	9,0
Total	100,0	100,0

Table 34b : share of work at home by disciplines

		Groups of discipline			Total
		Law and Economics	Literature and Social Sciences	Sciences	
share of work at home	0-25%	35,5%	26,1%	73,9%	53,9%
	26-50%	32,3%	29,0%	18,3%	23,9%
	51-75%	19,4%	24,6%	4,6%	12,7%
	76-100%	12,9%	20,3%	3,3%	9,5%

Table 35 : share of work at home by disciplines and gender

		Groups of discipline			Total
		Law and Economics	Literature and Social Sciences	Sciences	
male	0-25%	16,1%	6,5%	77,4%	100,0%
	26-50%	25,7%	20,0%	54,3%	100,0%
	51-75%	38,9%	44,4%	16,7%	100,0%
	76-100%	25,0%	43,8%	31,3%	100,0%
	Average	21,6%	17,3%	61,1%	100,0%
female	0-25%	11,7%	20,0%	68,3%	100,0%
	26-50%	33,3%	39,4%	27,3%	100,0%
	51-75%	27,8%	50,0%	22,2%	100,0%
	76-100%	36,4%	63,6%		100,0%
	Average	22,1%	33,6%	44,3%	100,0%

In terms of tasks, men use less time for teaching and more for research than women. Whereas men spend more time doing research than teaching it is the opposite for women (See Table 36 to 39). It seems necessary to underline that French academic careers and opportunities of promotion are above all determined by research outcomes.

Table 36: share of work in teaching

Male	0-25%	19,9
	26-50%	67,7
	51-75%	11,2
	76-100%	1,2
	Total	100,0
Female	0-25%	13,4
	26-50%	60,5
	51-75%	24,4
	76-100%	1,7
	Total	100,0

Table 37 - share of work in research

Male	0-25%	17,6
	26-50%	60,4
	51-75%	19,5
	76-100%	2,5
	Total	100,0
Female	0-25%	26,7
	26-50%	59,5
	51-75%	11,2
	76-100%	2,6
	Total	100,0

Table 38 - share of work in administrative tasks

Male	0-25%	76,7
	26-50%	21,2
	51-75%	-
	76-100%	2,1
	Total	100,0
Female	0-25%	80,4
	26-50%	17,9
	51-75%	1,8
	76-100%	---
	Total	100,0

Table 39 - Mean share of time by place or type of tasks and gender

	At home	At University	Teaching	Research	Administrative tasks
Male	32,33	63,40	38,14	41,07	20,01
Female	34,91	59,50	44,00	36,31	16,94

3.2. Stress and Burn-Out

As they are more involved in teaching activities than men it seems normal that women express a stronger feeling of overload with teaching (Table 40). This feeling is stronger for men and women in Literature, Social Sciences and in Sciences than in Law and Economics (Table 41).

Table 40 - Taking into consideration your work at the university, how often do you feel overload with teaching

Male	1- Never	9,9
	2	14,9
	3	23,6
	4	29,8
	5 – Very often	18,6
	No opinion	3,1
	Total	100,0
Female	1- Never	8,5
	2	18,6
	3	20,3
	4	20,3
	5 – Very often	30,5
	No opinion	1,7
	Total	100,0

Table 41- Taking into consideration your work at the university, how often do you feel overload with teaching

Law and Economics	1- Never	12,9
	2	16,1
	3	30,6
	4	25,8
	5 – Very often	12,9
	No opinion	1,6
	Total	100,0
Literature and Social Sciences	1- Never	7,5
	2	19,4
	3	19,4
	4	22,4
	5 – Very often	29,9
	No opinion	1,5
	Total	100,0
Sciences	1- Never	8,6
	2	15,2
	3	20,5
	4	27,2
	5 – Very often	25,2
	No opinion	3,3
	Total	100,0

In comparison with teaching, it seems that tenured academics are more willing to accept the workload of research, whereas the main black point remains the often criticised load of administrative work. The feeling of being overloaded by administrative task is higher for women than for men (see Tables 42 to 45).

Table 42 - Taking into consideration your work at the university, how often do you feel overload with research

Male	1- Never	28,5
	2	18,4
	3	20,9
	4	16,5
	5 – Very often	12,7
	No opinion	3,2
	Total	100,0
Female	1- Never	20,9
	2	20,0
	3	24,3
	4	19,1
	5 – Very often	13,9
	No opinion	1,7
	Total	100,0

Table 43 - Taking into consideration your work at the university, how often do you feel overload with research

Law and Economics	1- Never	33,3
	2	23,3
	3	23,3
	4	13,3
	5 – Very often	6,7
	No opinion	100,0
	Total	18,8
Literature and Social Sciences	1- Never	0
	2	18,8
	3	18,8
	4	20,3
	5 – Very often	21,9
	No opinion	1,6
	Total	100,0
Sciences	1- Never	24,7
	2	17,3
	3	24,0
	4	18,0
	5 – Very often	12,0
	No opinion	4,0
	Total	100,0

Table 44 - Taking into consideration your work at the university, how often do you feel overload with administrative work

Male	1- Never	9,6
	2	11,5
	3	16,7
	4	19,9
	5 – Very often	39,7
	No opinion	2,6
	Total	100,0
Female	1- Never	7,8
	2	16,4
	3	13,8
	4	13,8
	5 – Very often	44,8
	No opinion	3,4
	Total	100,0

Table 45 - Taking into consideration your work at the university, how often do you feel overload with administrative work

Law and Economics	1- Never	8,5
	2	16,9
	3	10,2
	4	20,3
	5 – Very often	44,1
	No opinion	100,0
	Total	4,7
Literature and Social Sciences	1- Never	0
	2	17,2
	3	12,5
	4	15,6
	5 – Very often	46,9
	No opinion	3,1
	Total	100,0
Sciences	1- Never	10,7
	2	10,7
	3	18,7
	4	17,3
	5 – Very often	38,7
	No opinion	4,0
	Total	100,0

Table 46 - Taking into consideration your work at the university, how often do you feel overload with serving on committees

Male	1- Never	45,1
	2	15,0
	3	12,0
	4	7,5
	5 – Very often	3,8
	No opinion	16,5
	Total	100,0
Female	1- Never	39,1
	2	15,2
	3	14,1
	4	8,7
	5 – Very often	10,9
	No opinion	12,0
	Total	100,0

Table 47 - Taking into consideration your work at the university, how often do you feel overload with serving on committees

Law and Economics	1- Never	38,8
	2	12,2
	3	16,3
	4	12,2
	5 – Very often	8,2
	No opinion	12,2
	Total	100,0
Literature and Social Sciences	1- Never	37,5
	2	16,1
	3	12,5
	4	8,9
	5 – Very often	7,1
	No opinion	17,9
	Total	100,0
Sciences	1- Never	46,3
	2	15,7
	3	12,4
	4	5,8
	5 – Very often	5,8
	No opinion	14,0
	Total	100,0

As a result of the feeling of overload numerous professors said they experienced symptoms of overwork. Here the gender difference is important, women are more often subject to feeling overworked than men (Table 48 and 49)

Table 48 -How often in the past year have you experienced symptoms of overwork such as exhaustion, anxiety, or feeling burnt out?

Male	1- Never	9,9
	2	17,9
	3	29,0
	4	30,2
	5 – Very often	9,9
	No opinion	3,1
	Total	100,0
Female	1- Never	5,8
	2	13,2
	3	33,1
	4	23,1
	5 – Very often	23,1
	No opinion	1,7
	Total	100,0

Table 49 : How often in the past year have you experienced symptoms of overwork such as exhaustion, anxiety, or feeling burnt out?

Law and Economics	1- Never	6,5
	2	11,3
	3	27,4
	4	33,9
	5 – Very often	16,1
	No opinion	4,8
	Total	100,0
Literature and Social Sciences	1- Never	10,3
	2	16,2
	3	30,9
	4	22,1
	5 – Very often	19,1
	No opinion	1,5
	Total	100,0
Sciences	1- Never	7,8
	2	17,5
	3	31,8
	4	27,3
	5 – Very often	13,6
	No opinion	1,9
	Total	100,0

3.3. Combining Work and Family Life

Insofar as it has become a frequently used term in public policies and the media, we used the term of "reconciliation of work and family life" in this questionnaire, while knowing it does not constitute an operational concept for analysis (Junter-Loiseau, 1999). From this point of view, studying the marital status of the academics allows us to moderate the hypothesis of "family life sacrifice" on the part of women who made a success of their professional career (Table 14). The rate of single persons among the men and the women is almost the same (13.2% among women MC, against 10.4% at the men of the same status). If status effect exists, Full Professors are less often divorced than their male and female MC counterparts. This, undoubtedly, corresponds to a generation effect (MC being on average younger than the Full Professors). Nothing suggests think that the women who have become Full Professors succeeded by "sacrificing" marriage.

In addition, we observed that the Full Professors divorced more often than their MCF colleagues (25% of the men Full Professors experienced a divorce, against 15% of the men MC; 17% of the women Full Professors, against 10% of women MC). However, there are definitely more men Full Professors living currently in couples. The gap is particularly marked compared to the women Full Professors (91% against 75%).

Table 50 : Family Situation

		% of male n=161		% of female n=122	
		MCF n=96	Prof. n=66	MCF n=91	Prof. n=32
Single		10.4	6.1	13.2	9.4
Married / living together		83.3	90.9	80.2	75.0
Separated / divorced		6.3	1.5	6.6	12.5
Divorced in the past		14.9	25.0	10.3	16.7
Number of children	0	14.6	13.4	21.7	12.5
	1	19.8	13.4	12.0	15.6
	2	30.2	40.3	38.1	43.8
	3	16.7	19.4	12.0	21.9
	4 et +	9.4	4.5	5.4	3.1

Source : WIEU (2003)

In any case, a more chaotic marital history on the part of the female Full Professors (compared to female MC) does not seem to have had an influence on the number of children they have. Full Professors are more often mothers or fathers of large families (3 children or more) than their MC colleagues. In the same way, there are fewer childless women Full Professors than in any of the other categories.

As has been suggested in previous studies on the « elite reproduction » of female engineers (Marry, 1990), homogamy seems to be particularly high among academics. Firstly, less than 10% of the men have a partner who stays at home. If the women generally live with men who have a social status higher than or similar to theirs, the men very often live with a partner who is a teacher, even if it is in the secondary or the primary education. We are nevertheless surprised by the strong rate of academic partnerships, especially for the female Full Professors. Although a third of the men Full Professors live with a colleague, this proportion increases to almost 43% amongst the women who have reached the status of Full Professor (10% more than female MC and almost 25% more than men MC). This result provides an interesting topic of research

for the qualitative phase of the WIEU project, in particular with regard to the weight of the relations with male colleagues for the female academic careers.

Table 51 : Profession of husband/wife/partner

	Males n=143		Females n=102	
	MCF n=96	Prof. n=67	MCF n=92	Prof. n=32
Civil servant or manager in a higher position	7.3	13.1	39.2	32.1
Civil servant or manager in a middle position	14.6	8.2	1.4	3.6
Faculty member	18.3	23.0	32.4	42.9
Teacher	22.0	27.9	6.8	-
White collar worker	9.8	1.6	1.4	3.6
Blue collar worker	-	-	1.4	3.6
Agricultor	-	-	-	-
Business person	-	-	-	3.6
Professional	7.3	4.9	2.7	3.6
Housekeeper	9.8	9.8	2.7	-

Source : WIEU (2003)

Still on the topic of "reconciliation", Table 52 shows that there are fewer women than the men who stopped their occupation for longer than 6 months. If the military service is the principal reason of interruption for males (Table 53), only a few academic women took any parental leave.

Table 52 : Interruptions during the career

		% of male n = 186		% of female n = 90	
		MC n=96	Prof. n=90	MC n=58	Prof. n=32
% of people		21.9	32.8	18.9	21.9
How many times ?	1 time	15.6	19.4	17.4	18.8
	2 times	3.1	4.5	-	3.1
	4 times	-	1.5	-	-

Source : WIEU (2003)

Independently from the career interruptions for family reasons, another factor that is often quoted to explain more limited female careers is related to the assumption of responsibility for childcare. Table 54 shows in a rather obvious way that close to one third of the men Full Professors delegated the care of their children to their partner and very few (less than 10%) had taken an equal share. Such a delegation appears less frequent with the men MC, not really frequent on the part of women MC and non-existent among women Full Professors. Less than 10% of the women Full Professors declare they have the primary care responsibility (more than the women MC), since academics are very massively using public or private day care services. These practices reflect the relatively high level of collective assumption that women are responsible for children in French society (Le Feuvre & Andriocci, 2001). Obviously, existence of the collective childcare structures neither mean that women are released from this "mental pressure" (*charge mentale*) (Haicault, 1984) to take care of the children, nor that these services allowed them to do freely all the activities related with an academic career, like for example travelling to participate to conferences.

Table 53 : Children Cared for:

	% of male n=115		% of female n=83	
	MC n=64	Prof. n=51	MC n=58	Prof. n=25
primarily by myself	7.8	3.9	5.2	8.0
primarily by my partner	18.8	31.4	5.2	-
equal share between me and my partner	21.9	9.8	8.6	4.0
primarily by a combination of family members	1.6	-	3.4	4.0
primarily in privately financed care	37.5	39.2	53.4	48.0
primarily in publicly financed care	12.5	15.7	24.1	36.0

Source : WIEU (2003)

Moreover, women declare more often than men that taking care of children limited their professional investment (Table 54). More than half of the men Full Professors declare that this occupation (child care) has had no or very little negative effect on their academic activities, whereas only 34% of the women Full Professors are in this case. However, these family constraints seem to weigh more on the MC (men and women) than on the Professors. So a little more than half of the women MC declare that their professional investment was limited by the children, which is also the case for 35% their male counterparts.

Table 54 : Family and Professional Conciliation

	Evaluations : from 1 = Never to 5 = very often	% of male n=140		% of female n=87	
		MCF n=76	Prof. n=64	MCF n=58	Prof. n=29
The issue of the children's after-school-hours impair your ability to perform your job	1	11.8	25.5	4.7	6.9
	2	23.7	27.3	12.5	27.6
	3	25.0	25.5	32.8	37.9
	4	23.7	12.7	25.0	17.2
	5	11.8	5.5	23.4	6.9
Have you ever experienced problems in reconciling your job with your family or personal life?	1	5.5	12.5	1.2	3.3
	2	25.9	14.1	15.5	20.0
	3	28.6	35.9	23.8	23.3
	4	29.7	25.0	40.5	33.3
	5	14.3	10.9	19.0	20.0
To what extent do you yourself take care of domestic work in your household?	Not at all	3.2	9.1	-	-
	less than half	35.8	39.4	8.9	9.7
	half	37.9	39.8	20.0	25.8
	more than half	12.6	13.6	42.2	48.4
	completely	10.5	3.0	28.9	16.1

Source : WIEU (2003)

It is interesting to note that, for both men and women, these difficulties of "reconciliation" are experienced more by the MC than by the Full Professors. It would obviously be necessary to control these results by age, length of work experience and marital status, but we can already stress that the difficulties of "reconciliation" do not seem to be more significant for the female Full Professors than for the female MC and thus cannot be mobilised to explain why certain women would "voluntarily" give up becoming Professors, because of fear of seeing the "reconciliation" difficulties increase.

Finally, the last question of Table 54 confirms that the declared mobilisation of women on domestic activities is definitely much higher than that of their male colleagues and this, in particular for female MC (nearly 30% of this category declare that they are solely responsible for housework, whereas "only" 16% of the female Professors are in this situation). Although approximately 40% of the men declare « equal » practices as regards the sexual division of domestic labour (without notable difference according to the status), we can nevertheless wonder up to what point this domestic overload of the women weighs on the career paths of the two sexes.

3.4. Lack of Support Networks for Women?

Academics interviewed often insist on the role played by another professor in the development of their career paths. These "mentors" supported them, recommended or directly engaged them for their first academic position. Privileged relations, built during the preparation of the DEA (master) or the Ph.D., seem to play a determining role in their career. Thus, we can say that academic careers are built, at least partly, on networks facilitating access to both economic resources (research contracts, participation in the conferences, etc.) and to specific academic resources (introduction to « key people », composition of juries, etc cf. FG4 Latour & Portet; 2003). Having networks among academic staff appears as quite fundamental to having a chance to become an academic and having the opportunity to be promoted. There is no doubt that the role of the "mandarin" is still very significant nowadays, even if, as observed by Henri Mendras (1995), these "bosses" are increasingly numerous, and operate in an increasingly competitive context.

Table 55 : Supporting people during the career

		% of male n=163		% of female n=164	
		MC n=96	Prof. n=67	MC n=92	Prof. n=32
Head of Faculty / Department	M	16.7	26.9	13.0	15.6
	F	3.1	6.0	2.2	-
Head of Research Centre	M	47.9	52.2	47.8	50.0
	F	4.2	11.9	10.9	9.4
Colleagues in your institution	M	53.1	49.3	45.7	50.0
	F	27.1	17.9	42.4	32.5
A professor in your institution	M	21.9	43.3	41.3	25.0
	F	8.3	4.5	6.5	9.4
Colleagues in other institutions	M	29.2	28.4	23.9	28.1
	F	12.5	16.4	17.4	34.4
Partner	M	3.1	6.0	53.3	46.9
	F	45.8	47.8	1.1	3.1

Source : WIEU (2003)

While recognising the largely invisible character of the network support and their uneasily measurable influences on career paths, we nevertheless wished to explore this track in our questionnaire. Tables 55 and 56 show the results of questions relating to this topic. We asked them to identify the characteristics

(statute, localisation and sex) of the people who first help them (Table 55) and, second those of the people who were an obstacle during their careers (Table 56).

Table 56 : Open opposition from people during your career

	% of male n=163		% de female n=164	
	MC n=96	Prof. n=67	MC n=92	Prof. n=32
Head of Faculty / Department	16.3	7.4	26.1	18.8
Head of Research Centre	9.4	3.0	16.3	12.5
Male colleagues in your institution	11.5	13.4	19.6	12.5
Male colleagues in other institutions	12.5	13.4	21.7	18.8

Source : WIEU (2003)

We observe that variations of “supports” are not really significant between the men and the women and according to the status. However, concerning the Full Professors, the men declare a rate of support in their career more significant on behalf of male directors of department and male professors of another university than their female counterparts, whereas the men directors of the research teams are an equal source of support for both men and women. The fact that these sources of support are mainly male obviously reflects the over-representation of men in these positions. The variations are sufficiently important (-17.3% with regard to the Directors of department/UFR and -13.4% for Professors from other universities) to require a more thorough analysis with the help of qualitative data. A contrario, the female professors declare a rate of support higher than their male colleagues from people with whom a hierarchical relation does not exist (colleagues from their own university or other ones). In this case, the role of women colleagues seems to be definitely more significant for the women and for the men.

Surprisingly enough, the support to women MC is overall more significant than those of their male counterparts. With the exception of Heads of Department or Faculties, the other categories of "mentors" grant more support to women MC and the latter are or were particularly helped by women in their university. This result is quite difficult to interpret because at the same time women MC report the highest rate of "opposition" in the course of their careers. For example, they declare a stronger level of opposition than their male MC counterparts from Heads of department and Research centres and from male colleagues. Each time, they report a stronger opposition than those declared by female Full Professors, who themselves declare more support than the men Professors (except with regard to male colleagues of the same establishment).

Once more, these first results demonstrate the necessity to go further in the analysis with the help of interviews and qualitative data.

4. CONCLUSIONS

French male and female academics seem to share similar motivations for entering academia. Although they admit to having a very vague idea of what an academic career might entail before they started, the ability to work autonomously and to follow their own centres of interest were the major determining factors in their choice of career. When it comes to their actual experiences, the men and the women are equally dissatisfied with the amount of administrative work they have to do, but 80% of them would choose an academic career again.

The preliminary results of the questionnaire survey presented here do not provide any clear-cut confirmation of the idea that the unequal career paths of male and female academics can be explained by the fact that they are drawn into different aspects of academia in the course of their careers. The differences in the proportion of their working time that men and women spend on teaching, research and administrative tasks are too small to provide a convincing explanation of the “glass ceiling” that women evidently encounter within academia in France.

Likewise, women are no more likely than their male counterparts to work from home, in relative isolation from the daily interactions between colleagues and students. Indeed, the fact that women claim to have received higher levels of support from their colleagues than the men would seem to suggest that they spend more time in interaction with the peers.

France is renowned for its comprehensive provision of relatively affordable, full-time childcare services. Given the very low levels of parental leave taken by the women academics in our study, there is reason to believe that they make extensive use of these services in order to resume their professional activities rapidly after the birth of a child. Indeed, if “work-family reconciliation” is a problem for French academics, it seems to affect male Senior Lecturers almost as often as their female counterparts. Cultural models are changing over time and there is ample evidence to suggest that French men of the younger

generations aspire to spending more “quality time” with their children than was the case for the previous generations.

The enigmatic character of the French system lies in the fact that the number of women who succeed in crossing the barriers to become MC is constantly increasing. As Nicky Le Feuvre and Emmanuelle Latour have observed elsewhere: “They are teaching, undertaking research and management activities, in almost the same proportions as their male colleagues, but they experience lower and slower rates of access to the superior positions of the academic hierarchy than most of their male colleagues” (Latour & Le Feuvre, 2003).

In the light of the results from the other national research projects carried out under the WIEU programme, it would seem that, despite a common under-representation of women among top-rank positions in academia, that the most determining factors in explaining the “glass ceiling” are not necessarily identical in all the countries. That is the reason why an international comparison, built on common research processes, is particularly interesting. Although the questionnaire data recorded for France obviously need more detailed analysis, the preliminary results are all the more interesting in that they fail to provide clear-cut confirmation of some of the most frequently cited explanations for the career differentials in academia in other national contexts. (see Latour & Le Feuvre, 2003).

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TRAINING PAPER IV

Emmanuelle Latour / Stéphane Portet

Building Networks in French Academia

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INTRODUCTION

The three first reports of the European Union Research and Training Network “Women in European Universities” (HPRN-CT-1999-000074) set out the general functioning of the French university system (FG1), the analysis of the position of women and men within academic staff (FG2), as well as different elements that were pointed out in a survey about academic career, motivation and working conditions (FG3). This fourth report offers a more qualitative approach to the analysis of the academic hierarchy. In order to understand the various internal selection mechanisms in the academic promotion process, we carried out 13 biographical interviews with men and women, *Maîtres de conférence*¹ and Full Professors, from different disciplines. Through a strategic analysis of the interview material, we tried to tease out some of the logics and rationalities that are specific to the interactions that underlie the action of academics in France.

Beyond structural peculiarities and many “objective” organisational constraints of the French university system (selection interviews with recruitment boards, “Agrégation”² competition, etc. cf. FG2), the accounts of their university careers allowed us to determine the modes of regulation of an “internal and unofficial” promotion system based on support and relational networks. Even though the richness of collected data allows us to consider many facets and dimensions of the experiences of academics, here we choose to focus on the relational dimension between peers and superiors within the University hierarchy.

The first part of the paper is devoted to an introduction to the reasons why the concept of networks seems to us to be particularly operative in articulating the many relationships that link the actors in this working universe. Between strong and weak ties, to keep in touch with their horizontal relations as well as with their vertical relations may contribute to better professional opportunities for academics. In order to test the reality of this theory in the French case, the second part expounds many hypothesis that came out of former WIEU surveys, and the research methodology used for gathering and analysing the interviews

¹ Senior lecturer

² Highest competitive examination for secondary school teachers in France

material. Lastly, with the help of interview citations, we will illustrate the strategies used by the social actor and the actresses to begin and progress in their academic careers.

1. Networks in recruitment at the University

"Had I wished to see my work to be continued rather than the way of living, rather than a change in the way of living that would make all these questions superfluous, this is not so clear for me. (That is why I will never be able to set up a school)"³.

Wittgenstein, 1947

1.1. Spinning the web

Being a recognised scientific authority is with no doubt the highest aspiration in an academic career, firstly, because being recognised is supposed to be based on values and criteria specific to the quality of work; secondly, because economically and statutorily speaking the prestige that comes out of it is one of the most rewarding. However, the mechanisms that permit to enter this logic are not based solely on the intellectual value of an individual. This authority is acquired through *the recognition of peers*, already on top of the professional hierarchy, and who have the power to define those who correspond to their specific "criteria of excellence".

In France, the qualification step which permits candidates to apply for university vacancies depends on a centralised institution: the National Council of Universities (Conseil National des Universités), but recruitments are made within the universities, according to disciplines or groups of disciplines (Research and Teaching Units, called in French "[Unités d'Enseignements et de Recherches](#)" – [UFR](#)). Juries are made of academics of the universities having vacancies and also of some external personalities. These mechanisms of selection rest above all on *relational networks* that give economic/financial support (for research projects, publication, conference organisation, etc.) and academic support. The need to have privileged relations and supporters among

³ "Souhaitais-je voir mon travail continué par d'autres plutôt que la manière de vivre, plutôt qu'un changement dans la manière de vivre qui rende toutes ces questions superflues, cela n'est pas du tout clair pour moi. (C'est pourquoi je ne pourrai jamais fonder une école)"

academic system members is fundamental to having a chance to be part of the system oneself.

"In 1982, I defended my PhD, completed under the supervision of Madeleine Rébérioux. My future, within university, was not under favourable auspices. I had no support in the Parisian circle, and was not a welcome visitor in Provincial universities. Being a former student of the Ecole Normale and not of the Ecole Normale Supérieure, did not make things any easier. But the passion I had for research gave me the desire to persevere, with the energy of despair". These words of Gérard Noiriel (2003:270), one of the most prolific and most imaginative historians of the latest period seem to underline the networking logic that underlies an academic career in France.

Nowadays, building a network forms an integral part of the activity of any young researcher. As we will show, on the basis of the analysis of some interviews carried out with professors, acquaintances play an essential role in the accession to the coveted Professorships. But this logic of co-optation seems to us to be very different from the network logic as it is developed in current sociological theory.

A network is not only an address book or a sum of privileged relationships; it is above all a mode of organization, a strategy. The relationship of the individual to the network is more instrumental than the traditional relation master/aspirant characteristic of the "traditional" French University. The "*connectionist*" mode of existence of the University is supported by an evolution in the ways of doing science. The network has emerged as a scientific object. In sociology, it has been analysed in the sociology of social networks (Granovetter 1973, Degenne and Forsé 1994), but also the sociology of sciences (Latour 1993). It is also developed in the work of Luc Boltanski (1999) or Manuel Castel (1998) and in the sociology of the family, the political sociology (Sawicki 1997) or the sociology of Soviet Communism (Wedel 1986). The notion of network is also used in economics (economy of transactions and conventions), in philosophy, physics, biology and especially, in computing. The development of Internet, the network of networks, gave a new dimension to the *planet of relations* (Bressand and Distler 1995). At the same time, it offered a new tool for network development. The network logic extends to the widest spheres of social life and even to the ones which are supposed to be an alternative to the global capitalist world such as Systems of Local Exchanges or the *alterglobalist 'movement of*

movements". Networks are everywhere and everyone builds networks, above all young researchers. It remains to illustrate the impact and function of networks for recruitment to the Academia.

1.2. Too many networks?

The recent sociology of networks, which was developed by Degenne and Forsé (1994), among others, gives an original point of view in the social structure analysis. Instead of stressing an individual conception in terms of categories previously constructed through the aggregation of similar attributes, it puts forward inductive processes, in an attempt to retrace a set of relations that may show steadiness in individual and group behaviours. To avoid an explicative process based on determinist causality, we tried to identify through an empirical analysis the set of relations between units belonging to a peculiar structure. The *post hoc* making of a group clearly enables us to understand how the structure compels the behaviour of individuals and at the same time shows the importance of interaction between individuals. Even though the process in network terms is linked most of the time to the study of the relationships between individuals, the unit analysis may also be a family, a firm, and even a university department. The essential topic of this perspective remains above all the relationship between elements that make sense solely within a defined social structure. Thus, a social structure is considered to be at the same time the framework of relationship network and a bonding condition in this network that has influence on the choices, behaviour, opinion, etc. of individuals.

Using again the terminology popularised by Granovetter (1972), one could say that networks are based on strong ties (frequent and/or emotionally intense) and weak ties. These weak ties constitute the bridges connecting a network to another one. The multiplication of networks, the short-term configuration of research activities by project, in particular international projects, involve the predominance of weak ties in the relationship between researchers. In the case of young researchers, to the general instability and permanent recombining of research activities, one has to add the statutory barrier, that of the distance that it is deemed suitable to maintain between young researchers and those who are able to support or demolish their career. This distance, this separation, in the most conservative networks, often finds an organizational form in sub-networks; of professors, post-doctoral students and finally of doctoral students. This pyramidal organization of the network tends to limit the development of strong

ties between people of different statuses, a thousand miles from the ideal of collaborative team work. Thus, it seems difficult for young researchers to be in a position to develop strong ties. But where is this really a problem? Does not quantitative sociology assume "*the strength of weak ties*"? (Granovetter; 1973).

According to this approach, it is through weak ties that a candidate to an academic position is most likely to see his/her aspirations satisfied. Indeed, the weak ties mobilize people whose resources and information have much more chance of being different from the ones with whom a doctoral student may have strong ties. The information available from strong links is often known already, due to the proximity of life-styles with the members of this kind of network. Thus, if we assume that weak ties characterize the kind of networks that young researchers are able to build during their doctoral studies, there is a good reason to believe that these relationships could constitute determining resources in the access to an academic position. However, such an approach requires us to treat academia as a labour market. This is a disputed assumption. It is often said that, due to the high level of local recruitments (Frévilles; 2001), French academia is at best to be seen as an internal labour market. However, localism seems to be based on the domination of strong links. Does that mean that the connectionist strategy in which the young researchers invest is an illusion?

1.3. The Inbreeding University?

In his recent report to the Senate (2001:74), Yves Fréville denounces an excessively "*inbreeding university*" in France. The survey carried out on 768 French academics for the Senat project showed that 57% of them were recruited in the university where they had completed their doctoral thesis. In certain disciplines or sections of the National Council of Universities more than 80% of recruitments are local ones. This weight of localism also appears in the statistical survey we carried out. In 2003, 31,6% of the Professors and Maîtres de Conférences (Senior Lecturers) currently work at the University in which they completed and defended their doctoral thesis. These figures do not, strictly speaking, measure local recruitment (they do not take account of locally recruited staff who may have moved on to a different university at some point after recruitment). However, it appears that local recruitments are on the decrease. Thus, in the sample of our research project, 41,1% of the academic staff who obtained their position after 1998 currently work in the university

where they defended their PhD, but this is the case for 57,8% of the tenured academic staff appointed before 1980. Such data should however be analysed carefully because they may also point out a more important mobility of academics appointed in 1998. Nevertheless it seems that part of the local recruitments can be explained by the existence, until recently, of a pool of university staff who were recruited to “Assistant lecturer” positions in the 1960’s-70’s. Since this rank no longer exists in the academic hierarchy, most of the old “Assistants” have been progressively integrated to tenured positions as *Maîtres de conférences* throughout the late-1980s.

If one can make the assumption of less localism in recruitment, that does not mean that it has totally disappeared. The pre-selection process starts from the position of temporary teaching and research assistant (ATER⁴). In 1999, 37,6% of the newly recruited MDC⁵ had previously been ATER. Unfortunately, we have not been able to access data concerning the national or local dimension of recruitment to ATER positions. Nevertheless, it seems recent reforms to the recruitment process, combined with political policy initiatives in favour of decentralization, have given rise to more inter-institutional mobility around the recruitment to ATER positions. To a certain extent, network ties seem to play an even more important role in access to ATER positions than they do in access to the tenured posts at MDC level.

Lastly, underestimating the importance of networking strategies would mask the importance of weak ties, not only in gaining access to a tenured position, but also in gaining visibility in the academic world. Networks play an essential role in access to information (and to people) in areas as important as participation in conferences and publications. Networks and weak ties that are part of them act as levers that enable the recently qualified doctor to strengthen his/her position in the university, in his/her research team. So, weak ties strengthen strong ties.

⁴ Attaché Temporaire d’Enseignement et de Recherche : Temporary Teaching and Research Assistant

⁵ MDC : Maître de Conférence, i. e. Senior lecturer

2. Qualitative approach of French Academic Networking

2.1. Working Hypothesis

If accepts the hypothesis that vertical and horizontal networks play a decisive role in mapping out an academic career, three major questions about the construction of such networks are worthy of further investigation:

- Which specific relational and support networks facilitate entry to an academic career?
- Which networking strategies implemented by the *Maîtres de Conférences* throughout their career are most likely to lead to their promotion to positions of Full Professor?
- On the contrary, which strategies lead to other models of academic career development, off the professorial track?

2.1.1. Beginning an Academic career

According to statistics, only one fifth of doctoral candidates become tenured academics. No doubt that some of them choose different professional fields, but for those who want to continue, the selection procedure is quite ruthless, at least in some disciplinary fields (cf. FG2). In the last pages of his report entitled “How to become a sociologist?” (1995), Henry Mendras gives doctoral candidates advice on how to enter academia:

« Once you have your doctorate, then comes the most difficult obstacle to overcome and the most difficult for the future: to land a position as Maître de Conférences in a university. (...). At university, the doctoral candidate becomes ATER (Assistant Temporaire d’Enseignement et de Recherche), then if he behaves well with his oldest colleagues, he will be elected Maître de Conférences as soon as there will be a vacancy in his/her university or in one where he/she has. Then he/she will become a Civil servant, assured of his/her retirement pension and of all the attentions of the Republic. Here is our mandarin apprentice, doctor and Civil servant. He/she only has to (...) respect rites of passage and to conform to the habits of an academic life with no mishap and full of satisfactions »

Candidates who received most of their training in the same university generally have had, because of this, much more time to weave ties with influential people. They consequently have more chances of being recruited. The status of

the *protector* seems to play an important role in the career evolution of the *protégé*. If the protector climbs up the hierarchy, all the assistants who contributed to his/her research will benefit of a his/her newfound “fame” too. Thus, the role of the doctoral supervisor consists not only of accompanying the intellectual development of the doctoral student, but equally of providing political support. He/she guides them in the choice of their subjects, encourages them in their work, urging them « not to drag out too much », then he/she « places » them in his department, or if this is not possible, in one of his/her colleagues who will do the same thing in return at a later date. Thus, in analysing the accounts of the academics we interviewed, we will pay particular attention to the role and status of the person or people who supported them at the beginning of their career.

2.1.2. Getting Promotion

Here we refer to the concept of organizational system as the concrete action system that comes within the complex playing of interactions between social actors (alliances, resistances compromises, etc.) and the constraints of a given organization (rules, hierarchy, etc.). However the concept of strategy does not permit to dissociate the actor's actions from the organizational context in which they take place. If the actor acts without having necessarily a clear and coherent project, his/her rationality is set out as occurring when taking others actor's behaviour into account in the understanding of a context of specific opportunities. This way strategies can be made out only compared to the relation structure of the power.

According to Pierre Bourdieu (1980), the activities of modern societies became differentiated into many spaces, which are relatively independent of each other and have their own logic; an approach in terms of *Champ*⁶ permits us to identify microcosms, which are subject to specific social rules. Each *champ* has its own rules and stakes, irreducible to the rules and stakes of other *champs*. So, each *champ* is relatively independent inasmuch as fights that take place inside it have their own internal logic, even if the result of conflicts in access to economic, social, political, etc. resources that are external to the *champ* count in the internal balance of power. A *champ* is a social space structured by the balance of powers between the dominant and subordinate, who vie for access to the specific type of capital (be it economic, cultural, political, or scientific), which particularly valued within that particular *champ*.

By scientific capital, Bourdieu (1977) means a particular form of symbolic capital based on the acknowledgement (the credit) all the peers (and competitors) give, on the basis of professional skills that, beyond the knowledge they brings to the *champ*, create authority and contribute to the definition of the rules concerning what will benefit the *champ* in terms of prestige. The two types of scientific capital, which are based on two types of specific power are called on the one hand "institutional" and "institutionalised" capital, earned through political strategies that enable appointments to distinguished jobs inside scientific institutions (directors of research centres, board membership in

⁶ field

universities or other scientific institutions, recruitment board membership, etc.), jobs that have power over the means of production and of reproduction by the allocation of resources, contracts or jobs, for example ; and on the other hand the capital of personal prestige, which is based on the acknowledgement on the part of the « established » peers, which can only be gained through a recognized contribution to scientific « progress ».

So the *champ* is a space where various agents occupying various positions fight for access to various kinds of capital. Thus, understanding the actions and words an individual who belongs to a specific *champ*, necessarily implies understanding of objective relationships that make up the structure of the *champ*. Likewise, a specific habitus (system of incorporated values) corresponds to each *champ* ; only those who have integrated the habitus characteristic to the *champ* are in a position to play the game and to believe in (the importance) of it. But only the position he/she occupies in this structure, compared to the scientific capital he/she has, determines or guides his/her decisions. Even if each agent of the *champ* is characterized by his/her social trajectory, his/her habitus and his/her position in the *champ*, the strategies of the agents can only be understood if they are compared to their position in the *champ*. Among invariant strategies we can notice the opposition between strategies of preservation and the strategies of subversion (of the existing balance of power). The former strategies are used by the dominant members of the *champ*, and the second by the subordinates (and, more specifically by the « new entrants » to the *champ*). This opposition may take the form of a conflict between « elder » and « modern », « orthodox » and « heterodox », « conservative » and « reformer » people.

The accumulation of scientific capital is, thus what lies at the heart of each individual's career chances. We can thus identify several different strategic options for recruitment and promotion, based on:

- The exploitation of the formal rules of academic institutions;
- The management of information and of internal communication, membership of decision-making bodies, relationships with people with access to internal resources, etc;
- The possession of a rare level of scientific skill, which would be hard to replace and can be exchanged for a series of advantages and privileges (remuneration, working conditions, etc.);

- The management of relationships and exchanges with the external environment, through economic, political or scientific external support networks.

In view of this analytical typology of academic career strategies, we now turn to the examples of our interviewees, in an attempt to understand which strategies were used by whom.

2.1.3. Breaking the mould

In critical response to rational theory, Pierre Bourdieu questions the ability of individuals to maintain an intellectual relationship with action. In his opinion, individual social actors become embroiled in the emergencies and automatic reflexes of daily life and can not develop the same skills of thought than an « external observer who would be in a position of fully thinking » (meaning the sociologist). The practical logic of an individual is linked to knowledge inscribed in the body, principally in an unconscious manner. But the notion of *social game* tries to exceed the traditional opposition between the action of the individual and the social determinism: Even if each agent has a more or less favourable position, even if some are destitute and duffer the game, Bourdieu admits that others can employ strategies to improve their position. Certainly the individual singularity of the *habitus* enables different social experiences, but at the same time, the weight of values and cultural standards makes the social advancement process highly difficult and painful.

As Bernard Lahire (1999) has stressed, the concept of *champ* focuses on the producers rather than on the nature of the production (and the practical specificities, behaviours and life conditions that are characteristic of it), apart from what the institution considers as such, and the dynamism of reception of this production, reducing « consumers » to initiated or layman, rather than to full performers and creators of meaning. We realize that we are dealing with actors solely from the point of view of their professional activities, born so to speak in this situation : « You don't enter the game through conscious choice, you are born into it ». Even if Bourdieu regrets the lack of autonomy of the scientific field, which he sees as being harmful to the advancement of pure scientific enquiry (“science for the sake of science”), the autonomy of the scientific *champ* (viewed as totally independent from external or even internal political and economic pressures) is nothing but utopia. We should thus consider academia

not as a microcosm obeys to specific rules, but as a complex organizational system whose stakes are both external and internal, where the identity of the players can not be limited to their status as academics.

Thus, the social actor is a multi-faceted individual. The resources he/she inherits through the phase of primary socialisation certainly limit (or enhance) chances of social advancement, but the sources from which he learns are different and heterogeneous. With the evolution of his/her socialisation, the individual lives various experiences, in succession or simultaneously, which build up a multiple ways of thinking and behaving, which are based on the “index notebooks” that socialisation provides and which may be operationnalised according to his/her choices and context. Thus, the idea of a multi-faceted actor offers a more open-minded and complex conception of the logics of action.

Through these theoretical approaches we can distance ourselves from the determinist frameworks often used to analyse the reproduction of academic elites. In the analysis of the interview data, we will pay particular attention to the ways in which the definition of their professional priorities and the career strategies adopted may differ from an ideal-typical model of the linear, upwardly mobile career model. The very existence of individuals with atypical profiles, who do not seem, at first sight, to the « university mould », neither in terms of their family background, nor in terms of their professional practice, may imply that French academia is more “democratic” than is usually assumed in the research literature. The qualitative approach adopted in this paper should enable us to provide a proviso to the somewhat stereotypical conception of the academic world as being based on a pyramidal hierarchy, under the influence of networks which favour individuals from privileged social backgrounds and those who adopt all the trappings of the “*mandarin*”.

2.2. Methodology

Although the WIEU project is primarily interested in women’s position within European universities, we chose to interview as many men as women. To ignore the other side of social reality, from the perspective of the dominant social group, would do nothing but harm our understanding of the specific power stakes and prestige of this professional environment. The comparison of

the male and female career paths will enable us to establish the degree to which gender influences academic working conditions and career chances.

We were interested in comparing academics own perceptions of their professional environment. We therefore started the interviews by asking them to retrace their own educational and professional career trajectory. We thus started considered our interviewees as privileged witnesses of their own social reality. At the same time, we tried to bring out « spontaneous » evaluations on their part concerning the position of women in this traditionally male-dominated professional environment.

These interviews gave us the opportunity to meet welcoming, sometimes even friendly people, who were always curious about our research objectives (which were only revealed at the end of the interview) , but who worked in rather different environments. We discovered offices that were sometimes austere and narrow, sometimes modern, some of them were even luxurious. According to their discipline our to the university, academic working conditions seemed rather variable.

By profession, academics are people who are have a good mastery of the spoken word. They try to control the grammatical correctness of their sentences, the effects of the humour or provocation and quite systematically auto analyse their own utterances. However, during our interviews, we noticed a regular evolution of their behaviour. As the interview progressed, the life-story format of the interview progressively transformed their attitude. Although they were entrenched behind their desks (and status) at the beginning of the interview, they progressively became less ceremonious and more attentive and puzzled by the interview topics. We were keen to keep them to the topics of the interview guide, whilst creating the space for them to develop their own ideas and sometimes even to share their confidences. We tried to behave in an attentive and empathetic way, avoiding expressing our own opinions when asked and nodding when they gave us theirs.

The going back and forth between personal recollection and perception of their occupation of course urge to look for relationships of cause and effect between a kind of socio cultural determinism and their current positions, but it also brings up to date contradictions between what appears to be different

« logics of action ». This dynamism created by the articulation of different logics of actions permitted us to collect the subjectivity and complex reflexivity of each actor.

Naturally, qualitative research is not devoid of bias. The status (student) and sex (female) of the interviewer must have influenced the interviewees. For “reasons of convenience“, all the interviews took place in the interviewees office at the university. In order not to focus the whole of the interview on the gender dimension of academic careers, they were told that the interview was a contribution to an international analysis of academic careers in general. No mention was made of gender at the outset. The topic of gender relations inside the university was only mentioned at the end of the interview. What the interviewees thought about the influence of gender on their own career paths was quite subtle and difficult to detect. Instead of displaying « politically correct » opinions on this point, all the interviewees were thus faced with a logical reflection about their own career paths and working environment from a gender perspective. What had been said or not said in each interview before this point was discussed and it would have been difficult for the interviewees to hide their opinions or to change their point of view on the subject at this late stage of the interview.

The main objectives of the interviews was:

- To collect information about family background and the type of socialization and educational values received in childhood.
- To determine the different career’s strategies and ambitions, perceptions of academia, both as far as teaching and research activities were concerned
- To understand their vision of women’s position in the university environment

Because of the requirements of the research schedule, interviews were carried out over a three-month period, from February to April 2003. We only needed to contact 15 potential interviewees to obtain 13 interview appointments. Only two people refused because their timetables could not be fitted into the fieldwork period. The choice of interviewees was made randomly through the universities’ phone books, with contacts renewed until a quite sample was reached, according to the following criteria :

- *The choice of the three universities of Toulouse : the university of Law (UT1), of Human Sciences (UT2) and of Applied Sciences (UT3) were selected :*
UT1 : 4 people, UT2 : 5 people, UT3 : 4 people
- *Similar proportions of men and women were interviewed :*
6 women et 7 men.
- We also take care of totalise an equivalent number of Professors and *Maitres de Conférences*, always in a concern to collect the perception of the groups of « dominants » and of « dominated » from the point of view of social and scholar hierarchy :
6 Professors and 7 MDC
- The age bracket of the interviewed people was between 32 and 62 years old, with an average of 52 years, which permitted us to question people who were at the end as well as at the beginning of their career.

N°	Males	Females	Ages	MDC	Prof.	Disciplines	Universities
N°1		X	39	X		Law	UT1
N°2	X		49	X		Law	UT1
N°3		X	57		X	Law	UT1
N°4	X		55		X	Law	UT1
N°5	X		53	X		Sociology	UT2
N°6		X	54		X	Sociology	UT2
N°7	X		58	X		Sociology	UT2
N°8	X		54		X	Sociology	UT2
N°9	X		62		X	Sociology	UT2
N°10		X	54	X		Biochemistry	UT3
N°11	X		32	X		Computer science	UT3
N°12		X	41		X	Computer science	UT3
N°13		X	55	X		Computer science	UT3

2.3. Career paths

The discussions were essentially about their motivations towards their profession and also about the routes of access to the statutory jobs. The first thing one notices is the originality of the career paths. We selected among our starting sample 2 Professors and 2 *Maîtres de Conférences*, 3 men and a woman, all of them are more than 50 years old. None of them followed a straight path from their master's degree to their Ph. D and from their Ph. D to their first academic appointment. Their career paths were as follows :

	Mr. B.	Mr. D	Mr. C.	Mrs F.
Sex	Male	Male	Male	Female
Age	54	53	58	54
Profession of Parents	Father : Chief Superintendent Mother : Secondary school sports teacher	Farmers	Father : Farmer and Pilot Mother : Head teacher in a primary school	Father : Secondary school Teacher Mother : Housekeeper

	Mr. B.	Mr. D	Mr. C.	Mrs F.
Sex	Male	Male	Male	Female
Age	54	53	58	54
Diplomas	“Grande Ecole” “Agrégation” in Philosophy (25 years old) “Habilitation” (35 years old)	Ph.D. in Sociology (34 years old)	MA in Sociology (28 years old)	Ph.D. in sociology (39 years old) “Habilitation” (49 years old)
Professional Supports	“Grandes Ecoles”	Colleagues	Head of department	Partner (academic)
Statute	Professor	MDC	MDC	Professor

The first thing which appears in these interviews is the originality of the itineraries which the people interviewed describe. None of them followed a straight and direct path from the Master to the PhD and from the PhD to the Professorship. Their career paths are as follows:

Mr. C: A level → Math-sup (Bordeaux) ---/---⁷ → First Degree (DEUG) in Sciences (Bordeaux) ---/ ---teacher (Hautes-Pyrénées) ---/--- First Degree subject? (Bordeaux) ---/--- Bachelor Degree (Toulouse) → Research Contract for R.L. → Master studies ---/--- Voluntary service in Greece → Master degree → Sociologist for a public agency and research contract with R.L. → Assistant → Doctoral studies (never completed) → appointment as MCF

Mrs. F: Failure at A level → BTSS trilingual secretariat → Secretary ---/--- Moves to Toulouse with her Husband → Master in Sociology → Craftsman activity and lecturer at the University → DEA → Doctoral Thesis → MCF → Habilitation → Professor

Mr. D: A Level → Master → Technical Engineer at the University and Contracts of research (until the nomination as MDC) → Training and part-time lecturer → Doctoral Thesis Technical job at the University → MDC

⁷ The sign ---/--- means an incomplete stage or an interruption

Mr. B: A Level → Ecole Normale Supérieure → Agrégation → Teaching position in secondary school (7 years) and Doctoral candidate → Assistant → State Doctoral Thesis → Professor

But, beyond the multiplicity of the itineraries, a certain number of regularities appear.

3. How to build Networks

3.1. What they owe to ...

Interviewed academics often insist on the role played by another professor in the development of their career paths. These "mentors" supported them, recommended or directly engaged them for their first academic position. Privileged relations, tied during the preparation of the DEA (master) or the Ph.D., seem to play a determining role in their career. Thus, we can say that academic careers are built, at least partly, on networks facilitating at the same time access to economic resources (research contracts, participation in the conferences, etc.) and access to specific academic resources (introduction to « key people », composition of juries, etc).

All the academics interviewed were recruited in the University in which they had studied, just like the majority of the staff of this department of sociology. Even Mr. B, the Parisian of the group, who stresses that "*Contrary to a great number of my colleagues here (He's) not from the Region*" defended his thesis in this university. All were integrated into the University before their recruitment, either as a teaching assistant, or as a research assistant, a part-time lecturer or in the case of Mr. D, as a technical employee. All of them stress the essential role of this proximity in the access to their position. Thus, Mrs. F while she started a craft activity tried to maintain the contact with university: "*at the same time as I did all that, I preferred to keep the contact with university and like C., being an assistant, was always very present, and well, I had this opportunity to get some lectures which, honestly, was linked at the time to the fact that I lived with C, it is necessary to go back up in the time and to take into account what the context was. We were still a little group here... thus, when there were lectures to propose to somebody, one suggested someone he knew.*"

Thus, I had lectures to give and had been lecturer for about 14 years, at the same time, I continued a craft activity ".

During their career, the majority have benefited from the support of a person who will be determining. For two of them it is the same person, R.L., the director of the department who had given them the opportunity to enter the university world (Mr C and Mrs F). Thus, Mr. B, a former student of the Ecole Normale Supérieure and philosopher, was attracted to his university by R.L:

" From 73, I got in touch here with the boss, called R.L, who proposed to me some lectures to give and who was my supervisor (...) L. took me as his assistant, we can say " took me" because at that time the role of bosses was very important... L. thus took me as his assistant in 79 and from this time I had a relatively fast career " (Mr B.). After that, whereas Mr. B finishes his thesis in 6 months time, the problem of his appointment as a Professor appears, it is still R.L who " will manage to have get a Professorship ".

For the others, the years of collaboration end up paying: *" I finished my Bachelor Degree here. Having finished it, I had the opportunity to read the small ad of a Professor who was looking for somebody to conduct a survey. It was L., who became afterwards the founder of the institute of social sciences here. I saw this ad, I visited L., it was during my Bachelor Degree and L. was not yet a Prof., he was a teacher of philosophy at a local secondary school, or maybe he already had a post at the National Center for Scientific Research. Thus, I did this work for him, it was a research on the geographic background of the students in the academy of Toulouse. I spent days, because at this time nothing was computerized, in the secretariats of all the universities, to copy out all the index cards, it was hard work, well, I did that, which enabled me to get to know people, I gave him something good, with maps, because I met a cartographer in a ministry, this ministry was interested in this study. Thus he helped me to make a great cartographic report and as a result, maybe, I don't know, some days later, it was the beginning when the ministry, which, at this time, was maybe called of the construction, started urban studies. Because after the war, cities had developed, there were lots of urban problems and all these people there said to themselves that probably sociologists had the solution and the magic power to transform all that. Thus, L. asked me if I was interested in working with him on these urban studies because there would be research contracts ... Naturally I said yes, and at the same time, as I finished my*

Bachelor degree and as I had to do my Master, I took as topic for my Master, a subject which overlapped to this contract on the city of Toulouse in town planning and other things. (...). While I was in Greece, L. and K. said to me: " a town-planning agency is starting activity here in Toulouse, when you will come back from Athens, would you like to be a sociologist at the town planning agency? I said why not, that interested me, I found that interesting the things I had done about the city, I said why not. (...) Then I worked for the town-planning agency, but it turned out that the agency was just next to the University where I was one year before, two years before... Thus when I went to work, or when I came back from work, or during the working hours I used to go to the university, which of course meant that I still had the opportunity to meet L., yes because there were other contracts, other research projects and he asked me if I wanted to participate. (...) Then we did a study on that and I had been interested in questions of methodology in sociology, because one has a lot of problems of methods in sociology! L. found this method good, so we did a big study there with this methodological basis I had experimented with the friends of my wife, who were also mine because we had the same student lives. At the end of one or two years, he asked me, L., if I would like to be an assistant at the University, there was a post in the University".

The relationships of these two people with L, who shaped their careers are remarkable in their differences. For Mr. C, one feels a strong complicity, based on hours of common work, implying a certain affection: " *L. did recherche on phenomena which could have interested me, but which did not really interest me and then during several years, I remained marginal..... **While continuing to have very good relationships with L..** , but I remained marginal with regard to research for example on " naturism ", which could have interested me" . Mr. C seems to be a sure collaborator, devoted, and to whom the Professor L must find a position in which C. could realize his vocation for research. The quality of work of Mr. C is valued, because it helped Mr. L to develop his own research activities. In this way it built up a relationship based on shared knowledge and research experiences. In the case of Mr. B., the relationship seems to be much more contained. He stresses this by saying: " *L was somebody very warm and very reserved at the same time*". Mr. B., a former student of the Ecole Normale Supérieure, was regarded as successful, he benefited from the support which was due to this kind of people. His past academic achievements proved skills that others will be able to develop over a number of years. His situation of*

qualified secondary teacher (Agrégé) allowed Mr. B to get lecture opportunities, in addition to his work in secondary schools, from the very beginning of his doctoral studies, under the supervision of L. Contrary to the others, it is not L who offered Mr. B. his post as assistant. The decision came from Mr. B himself, *"in the years 77-78-79 my personal life changed a little, I wanted again to change and then I said to L. that I would apply for a post of assistant. He also supported me for a candidature to the National Center For Scientific Research, but because of my post in the secondary education it was almost impossible and it turned out that an assistant post became vacant in 1979"*. The relationship between L and B seems to be a more related to administrative considerations than to the will to see a specific research programme continued. By supporting Mr. B, R.L. makes sure the Institute he founded continues to develop.

" (...) being an assistant in 79, having defended my thesis in 80, that is 6 months later, I was the only one here to have a State Thesis and so to be entitled to become a Professor. L. had managed to have a professorship created because he was the only professor, which was very heavy for him and thus, I, the last one arrived, the youngest, became a professor. Crudely speaking I overtook my colleagues, which was then a source of extreme difficulties because R.L. who was at the end of his career, he was 62-63 years old, who would have been able to stay 4-5 years more, had had enough. He had founded the department, the research centre, he was in charge of that for 10-12 years and he was a tired, he decided to stop everything. As I was the only professor I had to cope with all his responsibilities, thus in two years time I jumped from the situation of the last one arrived, an assistant, the nice one whom nobody disturbs, to director of the department " (Mr B.).

It is symptomatic to see that Mr. B does not mention any intellectual complicity with the person who shaped his career. He is not the prototype of the "dauphin", at least with regards to research.

Mr. B and Mr. C constitute two types of completely divergent careers. Between these two poles, is the case of Mr. D. Like all the others, he was integrated into the university during and after his thesis, as a part-time lecturer but more especially as a technician. After the defence of his thesis in 1978, he got more and more involved in the research activities undertaken by Mr. B.

Facing difficulty to manage his activities as a librarian and his teaching and research activities, he asked for a post of assistant which he obtained in 1983. Thereafter, he was appointed MDC in 1992 and then Professor in 1998. The career of Mr. D. is based on regular stages: the thesis, assistant position, MDC, Habilitation and Professorship. He did not benefit from the direct support of a person, but rather from a long history and presence within the department, 23 years before obtaining a position of MDC, 5 years to obtain a position of assistant. The absence of mentor seems to have slowed down his career.

The last case, Mrs. F, Professor, who has no Baccalaureate, owes a lot to her husband, of whom she was the student, but she was also helped by the intervention of people from outside her University. One of these people was a member of her PhD viva board, a well-known sociologist. This person offered her support by contacting a prestigious publisher who agreed to publish her thesis. This publication without any doubt constitutes a significant moment in Mrs. F.'s career.

3.2. Why I am what I am

Many ways of climbing the academic hierarchy exist: by “academic excellence” (measured through a non-university qualification), by taking on administrative responsibilities, by obtaining recognition of scientific prestige, or by the acknowledgement of a “mandarin”. The most remarkable difference in opinion and attitude between these four interviewees is their conception regarding the difference of status and of the stakes of promotional success. We are going to study the ways in which they dealt with an official system of recognition and prestige, integrated the “rules of the game” and developed symmetric or alternative personal conceptions of working in academia.

All of the interviewees had benefited from the support of people who were already inside academia and they were all aware of that, but only Mrs. F seems to doubt of the legitimacy of her career. For Mr. B, his State thesis justifies his appointment as a Professor, at an age (35 years) where others were only just finishing their doctoral thesis. Although it appears that R.L. gave him his position, the “excellence” of the career of Mr. B. makes a simple coincidence of this episode. If Mr. B. became a Professor it is because of the quality of his work. Mr. C., who never finished his thesis, legitimates his access to the

University by the definition of innovative research methods, which were valued by his peers. Mr. D. sees in his appointment the position of MDC a logical result of a long term investment in research teams, a legitimacy through activity (Boltanski 1999), a kind of reward for good and faithful services: "*And then I began to complain because there were more and more students (Mr D. was then a librarian and gave lectures), the workload in the library became heavier and heavier and I said to myself: " I must try to do something else!" (..) and I obtained an assistant position: 83! (...) The last part of my life of teacher and researcher... now I've been a MDC, since 1994, I asked for one year of sabbatical leave to prepare my habilitation, because teaching at the same time is not easy, just to compile all that I had already written in order to have the habilitation! "*

Each of these men sees good reason for his "success", even if Mr C. and Mr B. are aware of the atypical nature of their entry to academia.

On the other hand Mrs. F, the only woman of the group, presented herself, as simply lucky: "*In any case I think that I'm the only one to teach without having a Baccalaureat! "* are her last words of the interview. She regards her situation as being abnormal. She owes her lecturer job to her partner, "*I had this opportunity to get some lectures which, honestly, was linked at the moment with the fact that I lived with C "*, she owes her thesis "*to a 'lenient' viva committee, her publication to "this chance that Mr. M. who was member of the committee, immediately said: " you must publish"... and the rest of her career is still a question of luck: "The progress of my career was made, I would not say without my knowing, but let's say that I was very, very, very lucky. I did not have to fight at all, as it is the case nowadays to obtain a post, because in fact, I was a tenured assistant. Then, for my nomination as MDC I do not remember any more. I wonder if I was appointed as MDC just in the basis of length of service, I do not remember, it seems to me that it was at the time of this reform when the assistants disappeared and became lecturers... Having been a MDC, I prepared my habilitation, which I defended in 92. Habilitation, which I made in the form of a thesis, because I considered that I had enough work to make a synthesis, which was the most common procedure at that time. Thus, I made this work rather in the form of a thesis, which then was again published by the PUF (...) And the book was published in 94 and at this moment I applied for a professorship and I was lucky to be selected (...) I think that was in 94"*

A career under the sign of luck, " a career perhaps a little bit atypical " says Mrs. F, who, however, has the most traditional career path. The self-perception of careers and self-esteem would seem to be highly gendered.

3.3. When disappear the bosses networks come on

The low proportion of women Professors, whilst their presence is growing inside the *Maîtres de Conférences*' body (Cf. FG2), shows how far the academic hierarchical system is based on logics that escape the career strategies of most women. As seen in FG3, men and women do not benefit from support from the same kind of people. This result is all the more difficult to analyse since female MDC also experience higher rates of « obstruction » than their male colleagues from Heads of Department, Research Centre directors and male colleagues, during their career.

According to our interviewees, rewarding strategies in the advancement to full professorships depend on success in the "race to publish", in networks, geographical mobility and flexibility... factors that are supposed to put women at a disadvantage, for they do not take into account the domestic constraints that women have to face under the contemporary « gender regime » (Acker, 1990) of French society. But this analysis implies that women adhere to achievement models that are different from those of men in way that is sufficiently homogeneous to make it a characteristic of their "gender class".

On the other hand, the lack of support and « obstructing » behaviour on the part of people who are usually important in providing access to network resources would seem to contribute to explaining the mechanisms of the « glass ceiling » in French academia. The opposition women have to face seems to indicate the presence of people (or of networks of people) guarding the doors and values of the particularly andocentric traditional university culture.

Apparently, the people surveyed did not have the same access to the results of the famous survey carried out in Sweden by Christine Wennerås and Agnes Wold (1997), which showed that the mode of evaluation of the candidatures for post-Doc. adopted by the Swedish Council of medical research (MRC) was strongly biased. Let us recall that, according to this investigation, three factors appeared to be determining in the attribution of a note given for "scientific competences": The scientific productivity of the candidate; gender (the men

were evaluated better than the women with equal productivity); personal relations with one of the members of the evaluation committee (the candidates having had, for example, one of the appraisers as Ph.D. director were noted better than the others, with equal productivity). The additional points of ability granted to the male candidates, because of their sex, corresponded to twenty additional scientific publications in the best the scientific journals. Thus, when compared with the "average" male candidate, a scientific woman was to have been 2.6 times more productive to be simply considered as equally qualified (Wennerås and Wold, 1997).

But if this resistance is particularly noticeable in the female population, men who stray from the normative career path can also experience it. The male and female interviewees all mentioned some obstacles they had to face to during their career. Whether it was because of a cultural or sexual or political reason, those who say they have been penalised think it is because they did not "fit the mould".

But whatever the status of the four people of our sample, all of them had, sooner or later, resorted to strategies of distortion to reach their aims. Through the interviews the influence of networks appeared to be undeniable and polymorphous at the same time. They can play at different levels of the career, remaining very important in access to a university career and as source of additional resources in the progression through the academic hierarchy. At the same time they represent horizontal communities of support and collaboration, which can enable a more independence inside a given institution. As the interview with Mr. C. shows quite clearly, not all male academics necessarily aspire to becoming Full Professors one day, their energy might have been spent in defending their own research interests, or even in teaching:

« This period of 1968 passed in my life, which was a real squall and which surely helped to edge me out a little bit. (...) Eventually all this history led me to a little bit outcaste in terms of social relationships, let say outclassed, grown away from it, I don't know how to say...as I not only aimed at a position in hierarchy which I have obtained, and this must be because I was in a military academy, I think I have a kind of aversion for any form of hierarchy. » (Mr. C).

The career of these 4 people illustrates also two periods in the recruitment of professors, the 70'S and the 80-90'S. There was a great change in the local context of this institute of sociology with the retirement in 1982 of " *the boss* " Mr. L., Mr. C and Mr. B, both appointed in the Seventies, owe their nomination directly to Mr. L, Mr. D and Mrs. F appointed in the Eighties and Nineties, after the departure of L, do not quote by name any person as being the one who obtained or facilitated their nomination. They were helped, supported, but by a collective of people, a network of acquaintances. His network of colleagues in the case of Mr. D., the network offered by Mr. M. in the case of Mrs. F. With the end of "*the local*" bosses, the networks are getting more are more effective. The description of these careers shows that if it is difficult to enter a university career without support, this support does not come in the same form or from the same people according to period and local configurations. The presence of a moral and scientific authority makes it necessary to build up "strong - emotional or scientific - ties" with that person. The absence of such an authority opens the way to more diffuse forms of intervention, mobilizing more of the "weak ties" and multiple networks. The multiplication of research centres and the lower levels of power wielded by the "great names" in the different disciplines, leads us to believe that networks are currently becoming a more decisive resource in building an academic career in France.

The young researchers are perhaps not victims of an illusion.

CONCLUSION

The qualitative analysis of careers in French universities, through the semi-structured interviews, shows that there are many types of support networks and their “ties”, be they weak or strong, serve different functions. Such networks seem to rest on horizontal relationships, between peers, as well as on vertical relationships, with superiors who are becoming more and more numerous and whose power base is thus less “mandarin”.

Vertical hierarchy networks seem to carry a particularly strong influence on entry to an academic occupation. The support of a research supervisor who can hand down the rules of the university game and find economic and scientific resources to support and disseminate the research activities of a doctoral student is still of major importance. On the other hand, the advancement process seems to rely more on the addition of weak ties, either horizontal or vertical, which enable academics to progressively acquire peer group recognition and encouragement or support.

An analysis of the role of networks in academic careers of course leads us to the conclusion that these links are also a way to develop scientific communities and collaborations, which go beyond the institutional structure of a single university. Sometimes, these networks may give a person more weight inside his/her institution, but they also serve to grant him/her independence and freedom in his/her research. Although the French university system still remains very hierarchical, the sociology of networks reveals under the top of this pyramid a real ants’ nest of formal and informal networks spinning a web, which doubtlessly extend beyond the walls of a given institution.

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INTERVIEW GUIDE

Functions in the university :

- What are your functions in the university ?
- Which disciplines do you teach ?
- What is your field of research ?
- Have you administrative responsibilities ?

Socio cultural origins :

- Which region are you from ?
- What was the occupation of your parents ?
- Do you have brothers or sisters ? What is your birth rank?
- What is their occupation ?
- When were you born ?
- Are you from a religious family background?

Secondary Education:

- Did you attend to a public or to a private school ?
- Do you remember your behaviour in class ?
- How did you decide on the type of *Baccalauréat*⁸ to take ?
- How would you define your relationship with your school teachers ?

University Education :

- What did you chose to study after the Baccalauréat?
- Do you remember the motivations for your choice?
- In which university did you study ?
- What occupation were you planning on at that time ?
- How did your university studies progress?
- How long have you been teaching in this university ?
- How long did you have to wait before you obtained a post here ?
- How did it come about ?
- Is there anyone you consider as ‘crucial’ in your university or professional path ?
- Did they support you ?

⁸ degree programmes, at the end of the secondary school career, divided into three types : General, Technological and Professional Baccalaureates

Reconciliation of professional and domestic life :

- Are you married?
- When did you meet your spouse ?
- Has the evolution of your career always been compatible with family life?
- Do you have any children ? (age and number) ?
- Did having children influence your career ?

Perception of academia:

- Are you a member of a professional organisation or trade union ?
- What are your personal ambitions ?
- Are there marked differences between the different grades of tenured academic staff?
- Can you describe the way research works?
- Do you choose your own research topics?
- How important is publishing?
- According to you, would things have been different if you were a man/a woman ?
- Would you say that there are a lot of women in your discipline?
(students, *Maîtres de Conférences* and Full Professors)
- From your point of view, what are the reasons for that?
- What is the best memory of your career?

TRAINING PAPERS

- *Research Phase 1: Contextual Analysis* -

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Jessica Bösch	The Integration of Women in Austria's Universities	TP 00/01
Susana Vázquez-Cupeiro	The System of Higher Education in the UK	TP 01/01
Anett Schenk	The System of Higher Education in Sweden	TP 01/02
Stéphane Portet	Higher Education System : Poland's Main Facts	TP 01/03
Lisa McGurk	The French Higher Education System	TP 01/04
Agnieszka Majcher	Women in German Higher Education	TP 01/05
Christian Poulsen	Austria's System of Higher Education	TP 01/06
Jessica Bösch	Women in Spanish Universities	TP 01/07

- *Research Phase 2: Statistical Analysis* -

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Jessica Bösch	Enough Women in Spanish Academia?	TP 02/06
Emanuelle Latour	A Statistical Analysis of Gender Inequality in French Academia	TP 02/07

- *Research Phase 3: Survey* -
- *Research Phase 4: Case Studies* -

Author	Title	Serial no.
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	and Work Situation and Career Perspectives of the Junior Faculty in Austria	
Tanja Kreetz	Female Researchers in Public Non-University Research Institutions in Germany	TP 03/10

and
Work situations and Career Perspectives of
Female Researchers in Austria

Jessica Bösch	Is Academia still an attractive Career Opportunity for both Women and Men? The new employment law in Austria from the new generation of Academics' Perspective	TP 03/11
Dagmar Ortner	Female Immigrants in Austrian Higher Education	TP 03/12
Miranda Leontowitsch and Susana Vázquez-Cupeiro	“Above the Glass Ceiling?” Preliminary Report of Postal Survey of University Professors in the UK and “Merit, Luck, and a good Nanny?” Exploring the Intricacies in the Career Trajectories of Women Academics in Psychology and Engineering	TP 03/13