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Academic labour markets: how they work[1]

The academic profession has frequently been studied with a variety of approaches, perspectives, methodologies, and theories. When I decided to develop empirical comparative studies on the academic profession, after working on university government (Friedberg and Musselin 1989), on university-state relationships and on various styles of steering higher education (Friedberg and Musselin 1993, Musselin 1997 (and 1999) and 2001), a huge choice was at hand to enter the world of academics. But I also had some constraints. This research had to be relevant and coherent with my previous work which always tried to look at and to understand the interplay of national structures and characteristics, taking into account the dual nature of higher education systems which are composed of institutions on the one hand but also include in profession(s) and professionals on the other. Thus looking at the academic profession, I had some questions on the impact of the national rules, of institutional strategies and of disciplinary dynamics on the academic profession.

This is the reason why I chose to work on recruitments in that they are at the crossroads of different (conflicting) logics. First of all the professional logic: when recruitments are decided, academics deal with the frontiers of their discipline as well as with its standards, norms, and requisites. But such decisions take place within a department and more broadly within a higher education institution which needs, objectives, context, situation etc. impede on the process and on the choices : as we shall see, no recruitment decision is made per se. Furthermore the informal and formal rules organizing the decision-making process depend very much on the country in which they take place and greatly vary from one country to the other (cf. Enders (2000) for instance). This is of course the case in countries like France and Germany in which the recruitment procedures are determined, guaranteed and protected by the public authorities but also in countries like the United States: each university can determine its

[1] An early version of this article was presented at the project conference in Münster, October 2002.

own procedures but they nevertheless follow rather similar patterns from one institution to the other.

These various influences, professional, institutional and national are thus very visible and at work during the hiring process and confer a very heuristic interest to the study of such decisions.

But from my point of view, recruitments can not be studied without simultaneously looking at them as parts of a larger entity: the sphere of academic careers (or labour market). I have not enough place to further develop this point but I would like to at least mention here the two consequences this has on this research. First, it means that while understanding recruitments decision-making one should not forget analysing and qualifying the main characteristics and dynamics of the labour market in which it takes place. In this perspective I privilege three main dimensions:

1/ the selection principles at work all along the career trajectory: selection can for instance rely on tournaments (Lazear and Rosen 1981) among many candidates. But in some cases, it can on the contrary rely on the satisfaction of criteria by one candidate.

2/ the existence of tenure and the required time to achieve it: the length of the pre-tenure period can be very short as in France or very long as in Germany: in both cases, it carries different conceptions about the socialization of young academics;

3/ the balance between internal and external labour markets[2], according to Doeringer's and Piore's (1970) definition: while there was no internal labour markets and only external ones in Germany until recently, there exists some poorly regulated internal labour markets in France, and incentive-based internal labour markets in the United States, and in these two countries external labour markets are career boosters (with a much stronger effect in the United States than in France).

Second it also means that one has to explore the role of recruitments within the specific career dynamics of each country and thus to reconstruct the professional model on which such processes are built and which they maintain (Musselin 2002b and forthcoming). It would of course need much more than a paragraph to argue the two points I shall quickly sum up here and I ask the reader of these

[2] The definition given by P.B. Doeringer and M.J. Piore is the following: "the labour market [is] an administrative unit, such as a manufacturing plant, within which the pricing and the allocation of labour is governed by a set of administrative rules and procedures" (1971: 1-2) and the external labour market of conventional economic theory [is] where pricing, allocating and training decisions are controlled directly by economic variable" (1971: 2).

lines to kindly accept this too hasty presentation, but I think that, this contribution being exclusively centred on recruitment decision-making, it was necessary to signal that it would be wrong to deduce from this presentation that such processes are completely autonomous: they partly are but they are at the same time embedded in larger dynamics which I will largely ignore here by commodity but are nevertheless at work.

One of the reason why I will concentrate on recruitments is that such decisions generally are neglected in the study of academic labour markets[3], as well as in the study of labour markets in general[4]. A quick overview of the main theoretical and empirical perspectives which have been developed on academic labour market clearly reveals that they never look carefully at this crucial moment but concentrate on two rather separate questions according to the discipline under consideration, sociology or economics. Building on the existing literature on academic labour markets and careers I will suggest exploring different ways in order to take into account the two main processes at work in recruitments: judgment and market.

After developing this first point I shall be able to present some of the main results derived from the empirical work led on twenty-two academic departments, eleven in mathematics (five in France (de Oliveira 1998), four in Germany (Fresse 1999) and two in the United States) and eleven in history (same repartition as for mathematics, cf. Blangy and Musselin (1996) and Fresse (1998)) covering twenty universities which all are “research universities”, only public ones in France and Germany (19 cases) and well reputed private institutions in the United-States (3 cases, cf. Musselin (2000)). In each department, in-depth interviews were led with several academics who served on hiring committees and they were asked questions about how they read the dossiers, the criteria used to eliminate or select candidates, the way the committee works and the nature of the decision-making process, etc. Further interviews were also led with the department chair, some deans, vice-presidents or ministerial officers when they also intervene in the hiring process[5].

3 With the exception of the precursory work of T. Caplom and R. McGee (1958) even if they did not really look at recruitment decisions as such.

4 From this point, the study led by F. Eymard-Duvernay and E. Marchal (1997) is an exception. It concentrates on the way recruitments occurred in firms and on the judgment activity developed by recruitment firms. Usually, labour markets are studied through what they produced (aggregated results) or through their regulation characteristics, but not through the various “single” decision-makings with produce them.

5 In France, these various studies were completed with interviews led at the CNU (Conseil National des Universités), cf. Hanin (1994) and Blanchet and Musselin (1996). This is a centralised structure made of discipline-based commissions which also play a role in the French recruitment processes. They assess that the individual candidates are qualified enough

I shall first present the conclusions that can be drawn on the mechanisms by which the "best" candidates are selected in each of the three countries: relying on a previous publication (Musselin 2002a) I shall point out that everyone is looking for the "best" but that what is meant by "the best" varies from one department to the other. Secondly, I shall describe how the "price" of a candidate is set, once s/he has been selected.

In a concluding point I shall try to identify the possible impacts of the observed practices on gender bias.

1. Academic recruitments as an example of « economy of quality »

As mentioned above, recruitments have not been studied as such in the various works led on academic careers, despite the huge number of publications dealing with this issue in sociology and in economics as well. In a first section I shall briefly summarize the main perspectives developed by this two rather antagonistic and mostly separated approaches[6].

1.1. A quick overview of the existing literature

a) The purity of the scientific judgment : a central issue for the sociological approach

The main stream of the sociological works on academic careers derives from the sociology of science and the Mertonian tradition. In this perspective careers and recruitments are considered as part (among other elements[7]) of the scientific reward system and the latter is central in the constitution of an autonomous and pure Science because it is the way by which the scientific ethos[8] is learnt, transmitted and diffused.

The main question raised about careers and recruitments is thus the following: looking at a specific career system, can it be assessed that its patterns respect the

to be allowed to apply to an academic position. We thus led interviews with some of the members of the two commissions in charge of history (one for modern history and one for antic and medieval times) and of the two commissions in charge of mathematics (one for pure mathematics and the other one for applied mathematics).

[6] With the exception of Youn and Zelterman (1988) and Youn (1992).

[7] For instance, awards, publications, prizes…

[8] Usually defined by four norms : universalism, communalism, organised scepticism and disinterestedness. Cf. for instance Merton (1962).

scientific ethos? The more controversial point which has often been investigated was the respect of the universalist norm, i.e. whether the recruited academics are selected on the intrinsic scientific quality of their work and publications or whether they were chosen on ascriptive elements (particularistic factors such as gender, social origin, the doctoral program they come from, their mentor...). While some authors strongly state that universalisms overwhelms recruitment decisions and the American reward system more broadly (for instance: Cole and Cole 1973 ; Hargens and Hagstrom 1967 and 1982), others argued against such conclusions and argued that particularism prevails (cf. for instance Crane 1970; Long, Allison and McGinnis 1979; Reskin 1979; Long and Fox 1995).

With the development of the "strong programme" (Bloor 1976) and its anti-mertonian approach, the study of careers and recruitments experienced no renewal. This issue even was ignored by this competing sociological approach. Abandoning (and even fighting against) the conception of Science as a community, questions such as socialisation, access to the academic profession, careers, reward, simply disappeared from the research agenda of this emerging sociological and anthropological perspective of science.

b) A-typical labour markets : the economic approach

On the contrary, it became more and more present on the research agenda of some North-American economists who mostly concentrated on the several « anomalies » displayed by academic labour markets compared with other labour markets. The precious and rich contribution written by A. Siow (1995) on this perspective is certainly the more complete presentation and discussion of these anomalies. It can be organised into four themes. First the peer review system: in other words why is the decision left in the hands of the peers, and even more strange, why does the decision rely on the recommendations made by peers external to the recruiting institution (role of the recommendation letters for instance)? The second anomaly deals with the existence of the « up or out » system and the need to explain why universities refusing to promote a young academic decide to fire him/her rather than leaving him/her on his/her previous position? A further question explored by the economists deal with the fact that in academia salary increase rates diminish with seniority. But the biggest enigma for economists is the existence of tenure which can be summed up by the following interrogation : why give a protected position and a salary increase to someone whose scientific productivity will decline and who will be in a situation that can prevent "shirking" (see for instance Carmichael (1988) and Alchian (1977) for two very different perspectives and arguments)?

It would be too long to present here the various and contradictory answers developed by the economists to explain (and sometimes justify) these anomalies. Let us just point out that economists in a way also testified for the exceptionalism of the academic profession, but from a more critical perspective than the sociologists!

A further approach developed by some economists consisted in investigating the relationships between scientific productivity and salaries or in identifying which factors are more important in order to be recruited. In both cases, they adopt the same proceedings. They consider the aggregate results (salary scales, recruited candidates) and test and rank the relevance of some explanatory factors. For instance what first explains a salary increase for an historian: a book or an article ? Or, what first explain the recruitment of a candidate[9] : his/her mentor ? his/her publications ? his/her gender ?

1.2. Judgment and market

Rather curiously, neither the economists nor the sociologists mention a further anomaly about academic recruitments, i.e. the fact that the recruitment decision on the candidate is clearly separate from the determination of the candidate's "price[10]". In the three countries under study, a first phase is dedicated to the evaluation of the candidates, their selection and the ranking of a few of them. This first step involves the peers and is mostly in the hands of a hiring commission. It is only when a candidate is identified as the "best" that his/her price will be set: this second step is led by the academic and/or ministerial leadership and involves bilateral relationships. In other words, the price is not the operator of the adjustment between supply and demand, quality plays this role and price is set after the adjustment occurs. But neither the sociologists nor the economists ever looked at recruitment procedures that way. They mostly focused on the scientific judgment component (trying to assess whether or not it respects the universalistic norm or to identify the dominant explanatory factors) and in such a case they did not look at the "price". Furthermore, when the economists analysed the salaries they neither considered them as part of the recruitment process but as a possible indicator for productivity.

9 They thus most of the time comforted the tenants of the particularistic patterns when they show that publications is a poor explanatory factor for recruitments (for instance: Tuckman and Leahey 1975 ; Hamermesh, Johnson and Weisbrod 1982 ; Diamond 1986).

10 I use the term "price" rather than salary" because the negotiation which occurs after the ranking of the candidates does not only concern the salary but may also deal with start-up funds, annual books budgets, social security, spouse's work...

What I suggest is to consider recruitments as a twofold procedure which first entails a collective judgment and secondly a price determination process. From this point of view, academic labour markets are very closed to the choice of lawyers by their clients, which L. Karpik (1989) described and analysed as an economy of quality. Having no indication about the competences of the various lawyers available on the market[11], clients mobilised a market-judgment to control the uncertainty on the quality of lawyers and to choose one among many, i.e. they use their personal networks to obtain information and advice. It is only once they have chosen a lawyer that they will negotiate the honoraria. But as shown by L. Karpik, while being the only one knowing his/her competency, the lawyer will not use this typical situation of asymmetry of information to ask for a high fee (cf. the market for lemons of Akerlof 1970) but s/he will set his/her honoria according to professional norms and informal rules.

Even if the academic labour market is not completely identical to the market for lawyers[12], their proximity allows for some similar questionings which I thus address in my empirical fieldwork.

A first set of interrogations deals with the management of the uncertainty on quality, which entails two different aspects. On the one hand, how is quality defined: as stressed by L. Karpik (1989 and 1996) and later by Callon et al. (2001) the content of quality is not invariable and intangible. As a consequence, rather than considering that scientific quality is the shared absolute norm and rather than assessing that recruiters respect (or not) this absolute, one should begin with trying to explore the content given to quality in recruitment situations. On the other hand, one has to observe how the qualities searched for, are evaluated and the problems raised by this evaluation.

A second set of interrogations concerns the understanding of the determination of the price of an academic. More specifically, is the price set dependant of the assessed quality or not ?

These are the two perspectives I will develop now in the second part of this text which will be centred on empirical results.

[11] Advertising is prohibited for lawyers in France.

[12] In many ways (cf. the article in which I tried to point these differences out: Musselin 1996) and especially in the fact that recruiters have more information in their hands on academic labour market than on markets for lawyers.

2. Some empirical results

Following the design I suggested above, I shall distinguish two sets of results. In the three first sections I shall focus on judgment and describe how candidates are evaluated and how their qualities are "discovered" and assessed. Because I already published a paper on these aspects (Musselin 2000a et 2000c), I shall present the results in a rather synthetic way. In a last section I shall explain how the price is set, once the "best" candidate has been selected.

2.1. Judgments

When asking recruiters about how they evaluate candidates, it is very quickly obvious that they are not only looking at scientific competences. The latter are very important and always taken into account but the assessment of the candidates' collegiality is also taken carefully into account. Every interviewee, in all the departments under study came to explain that s/he wonders whether s/he wants to have this or this candidate as a colleague. Furthermore, most of them explained that they pay attention to the pedagogical abilities of the applicants.

If we now turn to the selection process it is everywhere characterized by a screening process which mobilises two main factors. First of all eliminatory factors that, following F. Eymard-Duvernay and E. Marchal qualification (1997), I shall call "criteria" : each time they appear in a candidate applications they lead to the elimination of some dossiers. Criteria are not very numerous, but they are efficient (they allow for an important reduction of the number of dossiers) and consensual (there is no discussion about these criteria because there are shared and recognized by the recruiters). These criteria are not the same from one country to another and from one discipline to another. For instance in the United States, the four departments eliminated applicants working on a subject already covered by one of the department faculty member; in France, historians (but not mathematicians) eliminate candidates who did not succeed the "agrégation[13]".

But many dossiers resist these criteria. In order to select among them, recruiters also use "signs". A sign is s factor whose occurrence is considered as positive (or negative) but which is neither sufficient to choose (or to eliminate) someone. An applicant will be thus have to collect many different positive signs to be selected.

13 Highly selective concourse to be a high school teacher.

A lot of these signs deal with the scientific activity because the dossiers contain a great deal of information on this dimension. Among them publications are not neglected but they are one aspect among many others. Many signs in fact "rely on what L. Karpik (1996) called a 'judgement device[14]' (*dispositif de jugement*). Some are based on impersonal trust, such as the number of publications, the number of articles in international journals (ranked according to the citation index for instance)… Others are based more on personal trust, depending on the reputation the recruiters have of the place where the candidate prepared her/his dissertation or *Habilitation*, to the members of the defence committee, to the centres where he/she had a post-doc… It thus appears that the scientific quality of a candidate first of all does not depend on only one fact but is based on a combination of different positive signs, and second that reputation is much more deduced from the presence of such factors than by assessing the scientific production of the candidates" (Musselin 2000a: 247).

In Germany and in the United States, the job talk, which a very limited number of candidates are invited to give, plays also an important role in assessing the relevance and the quality of the research led by the candidate. Because it comes rather late in the process and after an already selective process, its role is more to confirm the real interest of the candidate than to eliminate many others but it can be decisive in the final ranking of the candidates.

There is of course less information in the dossier about the candidates' personality. To decide whether an applicant seems to be a future "good colleague" recruiters rely on two groups of signs. One is the interpersonal network and is more common in France and in Germany. A candidate already working in the department (as it is often the case in France where local candidates can apply) and appreciated by all, a person who previously collaborated well elsewhere with one of the hiring commission member, an applicant with whom some trusted colleague of another university was very satisfied, etc. will collect positive signs. It is also accepted to place a phone call and seek more information about someone.

A second range of signs is collected when the candidates came on campus. Such interactions are very short in France where they consist only in an audition that lasts no more than 30 minutes, but is crucial from this point of view. They are longer in Germany and in the United States over cups of coffee, informal and formal discussions and, in the United States, a diner with the candidate often

[14] L. Karpik (1996) distinguishes between those based on personal trust (network of friends for instance) and those based on impersonal trust (guides, rankings, labels…).

completes the one or two days visit spent by each of the candidates remaining on the short list.

There are more signs on teaching activities in the dossiers but they generally are very indirect. Except in the American case where teaching records can at least indicate whether the candidate is appreciated by his/her students or not, most information about teaching relate whether s/he already taught or not and whether one can assume s/he should be able to teach on broader subjects than his/her research object[15].

Here again, the audition in France and above all the job talk in Germany and in the United States are ways to build one's opinion on the teaching capacities. "One looks at the structure of the speech, how the candidate uses the blackboard… Some departments even ask the candidates to prepare a talk for graduate students rather than for confirmed faculty members, in order to better appreciate their pedagogical qualities" (Musselin 2000a: 249).

None of these signs on research, teaching and collegiality, is ever sufficient by itself for a candidate to remind the final short list, but their accumulation by some applicants is progressively decisive and will lead to the ranking of the three to five best candidates.

2.2. Control over quality and regimes of judgment

In order to qualify and analyse what I just described above I will refer here to the typology proposed by F. Eymard-Duvernay and E. Marchal who distinguished four regimes of judgment on labour markets: the institution regime (competencies are assessed in reference to qualification rules); the market regime (competence is stable and goods are homogeneous); the network regime (competence is « documented by work (…) that the recruiter knows from his/her peers » (1997: 33, translated by us)) ; the interaction regime (judgement occurs during an interaction between the recruiter and the candidate).

We saw that there is a great variety of signs collected by the recruiters when they evaluate the candidates and the quantity of signs at hand is also different according to the quality domain considered: but what kind of regime of judgment do they mobilise when they assess the different dimensions of quality ?

[15] For the French, the "agrégation" is an indicator for a rather "universal" historical knowledge, while in Germany, one sees whether the candidate experienced some subject mobility between the dissertation and the *Habilitation*.

Recruiters have much more signs at their disposal about scientific activities than about collegiality. Furthermore, they also feel much more comfortable with the scientific signs than with others. They all converge saying that assessing the research qualities is “easy” and invoked the same reasons for that: the multiplicity of signs at hand, the trust they have in these signs and first of all for correlation of collected positive signs[16], the convergence of their opinions on the best candidates for research. As a matter of fact, even if the indicators they used are “signs” rather than “proofs” for quality, even if these signs are judgment devices based on personal or impersonal truth rather than on “objective” facts, they are used as “standards” and the scientific quality is considered as a rather standardized competence. For the assessment of research, the recruiters thus much more rely on market regimes. In Germany and in the United States, this judgment is completed by the impressions acquired during the job talks and which refered to the interaction regime.

The situation is very different for teaching and collegiality. There are less signs and recruiters do not trust them a lot. They often point to the subjectivity of their evaluation on these dimensions for which networking and interaction regimes are much more mobilised to try to reduce the uncertainty about the qualities the recruiters are looking for[17].

Assessing personality is perceived as difficult. It “heavily relies on impressions (Siow 1991) (acquired during the interviews or the auditions), on mediated information (from the network of colleagues), and sometimes on past experience when some have already worked with the candidate or when (in France) he already belongs to the department (as a doctoral student for instance)” (Musselin 2000a: 254). But, while the interaction regime prevails in the United States, it is mixed with network regime in France and Germany.

The same holds true for teaching assessment. Some standardised signs are to be found only in the United States thanks to the information brought by the teaching records or the recommendation letters. But even in this country, these

[16] This means that they will not trust a doctoral programme for itself, but that if someone comes from such a programme, gathers great recommendation letters, has a long list of publications in recognized journals, won a selective prize: they can be “sure” s/he is a good scientist.

[17] This raises a paradox: most of the time, networks are described as a good and trusted way to reduce uncertainty (Granovetter 1974; Karpik 1989). On academic labour markets they are not always considered as efficient and furthermore they are all but legitimate! French academics are for instance rather often criticised for recruiting local candidates while this is probably the best way to reduce the uncertainty on a candidate’s collegiality and teaching qualities!

signs are completed by the impressions collected during the job talks. This interaction regime is also to be found in Germany because of the role played by the job talks but the interpersonal network will also be mobilised to try to reduce the uncertainty attached to pedagogical abilities. In France, the auditions are not long enough to test the latter and networking is the principal regime at hand to assess teaching competencies.

These variations among countries and quality dimensions can be summed up in the following table.

Table 1. Synthesis of the various regimes according to countries and quality dimensions

DIMENSIONS	**RESEARCH**			**TEACHING**			**COLLEGIALITY**		
COUNTRIES	**USA**	**FRG**	**France**	**USA**	**FRG**	**France**	**USA**	**FRG**	**France**
INDICES TO BE FOUND IN THE DOSSIERS	**A lot of criteria and signs**			**Teaching records** **Recommendation letters** **Syllabus**	**Few elements but some signs on the scope of competence of the candidates in France and in Germany**		**Some indices in the recommendation letters**	**No information in the dossier**	
FURTHER JUDMENT DEVICES	**Research seminars**			**Interviews and research seminars**	**Interviews and research seminars** **Former relationships**	**Former relationships**	**Interviews and visits on campus**	**Audition and former relationships**	
TYPES OF REGIMES	**Market reinforced by interactions**	**Market**		**Interaction reinforced by market**	**Interaction and network**	**Network**	**Interaction based**	**Network reinforced by interaction**	

2.3. Departments looking for different types of « best candidates »

One should not deduce from the two previous sections that the attention granted to scientific, collegial and pedagogical signs is exactly the same for all departments within the same country. As a matter of fact, the weight attributed to each of them is different from one department to the other: they are all looking for the "best candidate", but it appears that "best" does not mean the same thing from one place to the other. While in some places it refers to very strong scientific credentials (what I called a "top researcher") in others, it designates someone polyvalent, whose scientific excellence will not be sufficient if s/he is not ready to involve his/herself in teaching and/or in taking responsibility in some department duties (what I called a "good citizen").

The twenty-two departments under study can thus be ranged along an axis going from "top researchers" to "good citizens" according to the type of "best" candidates they mostly searched for. The location of each department on this axis seems rather stable because it heavily depends on constraints faced by each of them. These constraints come from the institutional situation of the departments. For instance, a structure confronted with increasing numbers of students will rarely look for "top researcher" and will prefer "good citizens" able to teach a broad range of courses. This in turn also influences the types of candidates who will send an application and who will accept the recruitment if they are selected. A successful scientist will accept a position in an institution with a weak research infrastructure only if s/he finds no position elsewhere. Thus the access to the supply of candidates also influences the "best" candidate searched for. Finally I also observed that some departments explicitly developed differentiating strategies either towards scientific excellence or towards alternative niches. For instance, one of the German department in mathematics was abandoning its former external strategy for a more local and internal one. It intended to be known for its pedagogical performance linked to applied research with local firms: they thus favoured the pedagogical abilities of the candidates and looked for applicants who would not leave too quickly (i.e. with no strong career ambitions, or candidates attracted by the place where the institution is located).

If some similarities are to be found within the three countries about the use of criteria and of signs, but also about the different dimensions of quality which are taken into account, national differences emerge when one looks at the regime of judgment each country mobilises most and within each country departments may favour divergent profiles of "best candidates".

2.4. "Price" setting

What happens once a candidate has been selected ? The recruiters (peers) disappear and new actors emerge in order to manage the next step: setting the price of the "future colleague": department chairs, university leadership, German Land or French national ministry officers...

In France this step is completely in the hands of the administrative staff, including the ministerial officers who will be in charge of preparing an "arrêté". The price depends only on bureaucratic rules and objective data such as the seniority on previous public servant positions, number of children... There is thus no negotiation.

The cases of Germany and the United States are more interesting because they leave more leeway for bargaining.

Nevertheless the German situation is more restricted than the American one. First of all, the salaries do not allow a lot of negotiations: the latter concentrate more on "work conditions" : some start-up funds, book budgets,... This is most of the time limited to C4 (full professors) positions[18] and the possibility for raising the bidding is anyway restricted to the offers made by the university from which the candidate come from and by the university which wants to recruit him/her: if another university rank this candidate first at about the same moment but after the first one, there is no possibility for it to enter the game. It has to wait (expect) for the first negotiation to fail in order to start bargaining.

The restrictions introduced by such regulations are reinforced by financial limitations, especially in the disciplines under study which are traditional and which are not considered as promising neither by the university leadership nor by the Land ministry officers[19]. Thus even for C4 positions, it is hardly possible to obtain significantly more than what was previously available.

Furthermore it appears that in Germany the offered price reflects the university policy rather than the market situation. When describing how the price is set, no interviewee referred to other universities and the price offered: they generally explain that their institution practices this or that price for this or that discipline and this or that type of position. The recruiting university uses are thus the more important feature, at least for the traditional disciplines under study.

18 When a former "assistant" obtains a first position as a professor (a C3 position most of the time, but there are also some C2), there is almost no possibility for negotiation: s/he receives what the predecessor had and this generally includes no assistant position.

19 Most of the time the price is supported by the university budget but in the case of very reputable candidates extra-funds can added by the Land ministry.

This is rather different in the United States but before coming to this point, three remarks have to be expressed. First, the negotiation concerns the salaries, the work conditions but may also include more personal advantages (finding a workplace for a spouse, offering reduced fees for the children...). Second, we have to distinguish junior positions from senior ones. Third, for the former, the negotiation is led by the chair of the department who represents the candidate, defends his/her case to the dean and is interested in doing so for two reasons: on the one hand a young candidate has to be advised about what s/he can get and it is the junior's interest not to ask for too little because s/he will be inclined to leave shortly if the obtained "price" occurs to be too low; on the other hand, if the chair gets a high price, and especially a high annual salary, s/he should be able to negotiate salary increases for the all department at the next annual wages raise negotiation.

How is the price of junior faculty set? In the four departments under study it happened to depend on two factors. The more important one is "the price of the market" or the price offered by the institutions the department's members as similar to them. They know about what is proposed by these institutions either by looking at statistics produced by some specialised newspapers or professional associations or, more frequently, by getting information from colleagues they know in these institutions. The second important factor (whose influence increases when the recruiting university faces budget limitations) is the specific situation of the recruiting university: it will not accept a price which would unbalance its general wage policy or which would contradict the policy of the dean and encourage a department which is considered as problematic.

Surprisingly, the level of quality of the junior candidate, as assessed by the recruiters in the judgment phase does not play a critical role. The best opportunity to obtain a good price for a candidate is for him to have several equivalent proposals for recruitments. First of all this is not always the case. Second, if it is the case, the recruiting university decision to raise the price will very much depend on its financial situation and on the position of the department (is it a priority or not).

It is rather different for senior positions on two dimensions: the price setting is less regulated than for junior positions and thus less limited by the "price of the market"; the quality attributed to the candidate or, to put it differently his/her attractiveness will be influential. In most cases, senior positions are fulfilled by colleagues who were previously contacted in order to "entice" them. Of course the price is limited by the institution situation but much more dependent on the will to recruit this person, than for the junior candidate.

The rules at work for setting the price are thus rather different from one case to the other. They can be bureaucratic, they can depend on the "price" policy of the institution, or on the prices used by other "producers" on the market (cf. the mechanisms described by H. White (1981)), but sometimes also on the quality recognised in the candidate.

Conclusion: some possible impact on gender bias

The research presented here was not designed to deal with gender perspectives. It first aimed at looking at two objects absent from most career and labour market studies: how recruitment decisions are made, i.e. how judgment proceeds and how are candidates' qualities assessed; how is the price of the first ranked candidate set? Not to mention the fact that it only concerns two disciplines, and traditional ones, it also leaves behind issues such as discrimination, equity, bias, which would require specific research strategies to be concretely explored with an empirical fieldwork. It does not mean that nothing can be said about bias. More precisely this study tells us about the bias which are considered as legitimate or normal, the bias one can discuss during an interview without feeling uncomfortable or without telling secrets. For instance, it clearly appears that there is a strong bias towards "homothetic" recruitments: hiring committees are searching for someone working like them, that they can imagine as a colleague, that is close to the group. And this conformity is so well accepted that nobody complains about this search for quasi-clones which can be detrimental to originality, to creativity... It does not mean either that the gender issue was totally absent from the interviews, specifically in the United States (because of the affirmative action requirements) and in Germany where the Land ministries explicitly announced that they would favour women recruitments[20]. It thus appears as a constrain (when one has to justify why they do not choose a woman in the American case, or when one does not rank a woman at the third place in the German one, fearing that the land ministry could change the ranking and give her the first place) or as a resource (ranking a woman in the first position is a kind of guaranty against juridical or administrative troubles) in the recruitment process.

But I would like to go a little further in this conclusion and try to see whether the empirical results I presented above can favour or on the contrary impede the recruitment of women. It is of course with caution I do this and the following arguments should be taken as hypothesis rather than as statements.

[20] The action in favour of parity was not yet launched in France when the fieldwork was conducted.

A first question I would like to address is the following: how do the academic labour markets affect the recruitment of women. I distinguish three factors characterising those dynamics in the introduction of this contribution. The first concerns the principles for selection. I would make the hypothesis that principles based on the satisfaction of requirements are less detrimental than “tournaments” (one position open to x candidates) because the requirements to satisfy are generally more heterogeneous than for tournaments where the excellence in research (and criteria such as number of publications, journals ranking...) is frequently more important. The same supposition can be made about the third factor (balance between internal and external labour markets: the former are probably less detrimental because they are more based on the satisfaction of requirements, but one should not forget that they usually allow less successful careers than external labour markets do. The second factor concerns the length of the pre-tenure period. It seems here that early access to a tenure position (as in France) allows for more equality between men and women because it happens at an age when the family life does not already begin. It is different in Germany and in the United States where tenure comes later and implies a heavy implication in the professional life at an age where life in couples and the birth of children generally occurs. But in France, as shown by the percentage of women who are professors compared to the percentage of women who are *maîtres de conférences*, the gap between men and women also occurs, whatever the reason for it (auto-selection, diverging career patterns or discrimination), with the access to professorship.

A second question deals with the impacts of the type of judgment regimes favoured by the recruiters. It seems even more difficult to draw conclusions on this question than on the first one because the arguments are even more reversible. For instance, one can say that the more the recruiters use standardized criteria/signs (market regime), the less detrimental it is for women because they are not based on the candidates’ personality. But this raises another question: are these criteria/signs neutral because they are standardized ? Many counter examples pleas for answering “of course not”. As shown by some studies (Wenneras and Wold 1997), recruiters may ask women for more standardized criteria/signs than men. Furthermore, these criteria/signs can reward career patterns that are closer to men than to women. They can also be more difficult to fulfil if one wants to have a family and a professional life, or when other discriminative logics (for instance in the allocation of work among research teams or teaching departments) lead to disqualify the chance of women to fulfil them. The same can be said about the network and interaction regimes: they probably offer more leeway for explicit or implicit discrimination but one could also argue that they may give a chance for less “standard” candidates to prove they have advantages and to develop lobbying.

A third and last question concerns the impact of the price setting mechanisms (during the recruitment procedures only). My hypothesis would be that in France and in the United States[21], recruitments are not the moment when salary discrimination occurs. In France this is explained by the use of bureaucratic rules which are strictly equal for men as for women. In the United States I would say that the collective interest a department has to give good salaries to new junior candidates prevents gender discrimination. If it happens it is more likely to occur during the annual wage negotiations which are secret and depend on the chair and dean’s *bon vouloir*).

The three questions I try to discuss above raise more interrogations and more perspectives to explore than they provide firm statements. There is nevertheless one point that seems quite certain and with which I would like to end this contribution. One of the results of the research I presented in this paper is the (probable increase in) diversity of “best candidates” which are searched for: This certainly is a very good remedy against auto-selection mechanisms, diverging career patterns or discrimination: a wider scope of profiles in open positions will favour a wider scope of possible candidates...

[21] Two few women professors were interviewed in Germany to draw any conclusion for this country.

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