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How (much) is academic labour divided?

Explaining the decoupling of the “teaching-research nexus” in British universities¹

Draft – please do not quote without permission

Simon Paye

Centre de Sociologie des Organisations (CNRS – Sciences Po)

Centre Maurice Halbwachs (EHESS – ENS – CNRS)

Abstract:

The proliferation of monovalent jobs (“research-only” and “teaching-only” posts) in British universities is perceived to account for increasing division of academic labour. This paper adopts a longitudinal approach of the labour market based on flows instead of stocks. Biographical interviews and sequence analysis applied to a set of 122 careers suggest that the division of academic labour is not fully explained by the allocation of monovalent jobs. It also results from a process of functional differentiation that occurs within the permanent workforce. After securing the first permanent position, professional profiles tend to diverge through a sequence of career transitions, until reaching monovalent positions. What is therefore put forward is an explanation of the division of academic labour in terms of career differentiation, which complements existing studies based on synchronic job market analyses.

Keywords: division of labour, teaching-research nexus, academic careers, labour market, differentiation, sequence analysis

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Introduction

The famous manifesto “The idea of a university” pronounced by John Henry Newman in 1852 has left an imprint in the vivid debate on the social role of universities. His discourse epitomises a divisionist stance: education and science are seen as too different in essence to be performed by the same individuals or by the same institutions (Gingras 2003). In more “modern” terms, it translates into claiming for a differentiated management of teaching and research functions (Locke 2004). Opponents to that vision align with an integrationist stance, embodied by Humboldt in the early 18th century. For them, the “teaching-research nexus” is to be safeguarded because of the mutual benefit of both functions. This idea finds one of its expressions today in such claim: “my teaching feeds into my research and my research feeds into my teaching.”² Since the 19th century, what is often conceived as the fundamental twofold role of a university – developing knowledge for its own sake and diffusing it throughout society – is thus debated along the question of whether or not these two components were naturally united by a symbiotic relationship.

It seems that this polarisation of opinions reproduces the moral antagonism of the more general debate on the desirability of increased division of labour in society. E. Durkheim sketched this polarisation in his thesis “De la division du travail social” (Durkheim 1893, 50–52), and was considering the idea of a historical tendency towards a dissociation of scholarly activities:

“la fonction scientifique qui, jadis, se cumulait presque toujours avec quelque autre plus lucrative, comme celle de médecin, de prêtre, de magistrat, de militaire, se suffit de plus en plus à elle-même. M. de Candolle prévoit même qu'un jour prochain la profession de savant et celle de professeur, aujourd'hui encore si intimement unies, se dissocieront définitivement.” (p.48)

To which extent is this the case today? Most studies conclude that the two functions are increasingly differentiated. Teaching-only and research-only jobs are said to proliferate in most countries (Wilson 1991; AUT 2005). For C. Musselin, such “trend toward specialisation leads to a reconsideration of the link between research and teaching and to segmentation of the permanent professoriate: higher education institutions open posts which are either teaching or research oriented, thus threatening the Humboldtian definition of what an academic is or should be” (2007, p.4). In some Anglo-Saxon countries, universities tend to specialise either into “research-led” universities and “teaching-led” universities, reflecting the

² Lecturer in politics in a teaching-led university near London, interviewed in February 2010. For an account of academic staff perceptions on the teaching-research nexus, see Neumann (1992).

stratification of their higher education system (Locke, 2008, p.3). According to Farnham, “increase in teaching loads [and] administrative tasks [are] certainly detrimental to research and scholarship and could lead to the academic function being separated within institutions between those whose main task is to teach and those that do research” (1999, pp.11-12). Last but not least, the advent of the “multiversity”, pursuing an increasing variety of prerogatives (Kerr, 1972) prompted a weakening of the nexus (Ben-David, 1977, cited in Neumann, 1992, p.159).

Scholarly knowledge on the states, the dynamics and the principles of division between teaching and research labour³ does not go much beyond these rather general facts. Indeed, what largely haunts current debates on the academic profession is whether managerialism and marketisation are leading to its “deprofessionalisation”, “proletarianisation” or “deskilling” (Fulton & Holland, 2001; Halsey, 1992; Wilson, 1991). Although these works sometimes attribute these to the increase of the division of labour, they do not provide satisfactory accounts on its origins and its evolution. Perhaps this tendency to prefer macro-analyses than materialistic approaches focusing on the concrete organisation of work can explain why most studies remain rather inconclusive on the issue. This is all the more important as the descriptive analyses of large-scale surveys or national statistics of higher education on which most scholarly and policy writings rely appear to be rather limited for whom wants to enquire on the allocation of teaching and research labour. They provide interesting statistics on academic employment but they are limited in accounting for the different logics underlying the division of academic labour.

This article is an attempt to bridge this gap by exploring the dynamics of the division of academic labour in two British universities. Given the dramatic pace of the transformations occurred in its higher education sector since the 1970s (Farnham, 1999), the UK seems to be a relevant case to look at when addressing this question. In this country, division of academic labour has never been that high: “teaching-only” and “research-only” staff now account for nearly half of the total workforce (HESA, 2010). The policy on financing also implies that the

³ This paper does not address other lines of division of academic labour. Tasks are indeed unequally distributed within research (theoretical vs. empirical work, intellectual vs. manual labour, traditional research tasks vs. proposal writing and coordination of research projects, etc.), within teaching (modularisation of courses, e-learning vs. class teaching, etc.), and within other dimensions of academic work (developing contracts, technology transfers, administrative, managerial or “service” activities, etc.). Mapping the range of activities academic staff engage in largely remains to be done, as well as understanding how these activities are spread amongst members of staff.

teaching-research nexus might be under strain in this country: according to Shattock, “the separation of funding for research from the funding of undergraduate education marked a (...) clear brake with the past.” (1994, p.154).

The British higher education system is characterised by a specific structure of division of labour. More than one third of the academic profession in the UK is on temporary jobs (HESA, 2010), of which the majority is *monovalent* (i.e. “teaching-only” and “research-only” positions). Particularly unclear is how the current evolution of the division of labour relates to the dual structure of the academic labour market (permanent vs. temporary workforce). Most analyses regard the increase of the division of labour as a result of the growing proportion of non-permanent staff in the academic workforce. I will challenge this view by assessing the “contribution” of the permanent workforce to division of labour. Afterwards, I will identify the mechanisms producing differentiated distribution of teaching and research labour. While it is straightforward to understand the origin of division of labour in a secondary market of temporary jobs (“as specialised jobs increase, division of labour increases”), the same is much more intricate in a primary market. There, career progression depends on being permanent, and access to permanentship entails most of the time moving to a *polyvalent* post (i.e. “teaching and research” position).

The first part of the article reviews the contribution of past research in the explanation of change in the division of academic labour. It suggests that these analyses, albeit leading to contradictory conclusions, have a common pitfall: they ignore longitudinal processes and fail to provide a full account of division of labour. To remedy this problem, part two suggests an alternative approach which focuses on careers as elementary units of analysis. It articulates both qualitative (biographical interviews) and quantitative methods (sequence analysis). Part three provides a theoretical model for explaining heterogeneity in the profession in terms of career differentiation, with reference to existing sociological theories. The two next sections confront this theoretical model with interview data. Section four shows that careers, in their early part, tend to converge towards a strong professional norm characterised by a strong coupling of teaching and research, typical of entry jobs to the permanent workforce. Section five focuses on career differentiation. It demonstrates how, after the crucial stage of securing a permanent position, career diverge, thus entailing a decoupling of teaching and research activities. Part six provides statistical evidence of this twofold movement of convergence and divergence of career paths, applying sequence analysis to 122 individual trajectories. The historical evolution of these patterns is also considered. I discuss the theoretical implications

of these findings in part six, especially as regard to theories based on standard regressive methods and labour market segmentation theories. A short conclusion binds the results together and suggests new areas for further research.

1) The division of academic labour: a review of empirical findings

One tendency...

In UK higher education, job repartition between teaching and research functions has notably evolved. Between 1999 and 2010, the proportion of on “teaching-only” and “research-only” contracts has increased from 40% to 48% of the total academic workforce (HESA, 2010). Today, almost half of academics are effectively occupying monovalent posts.

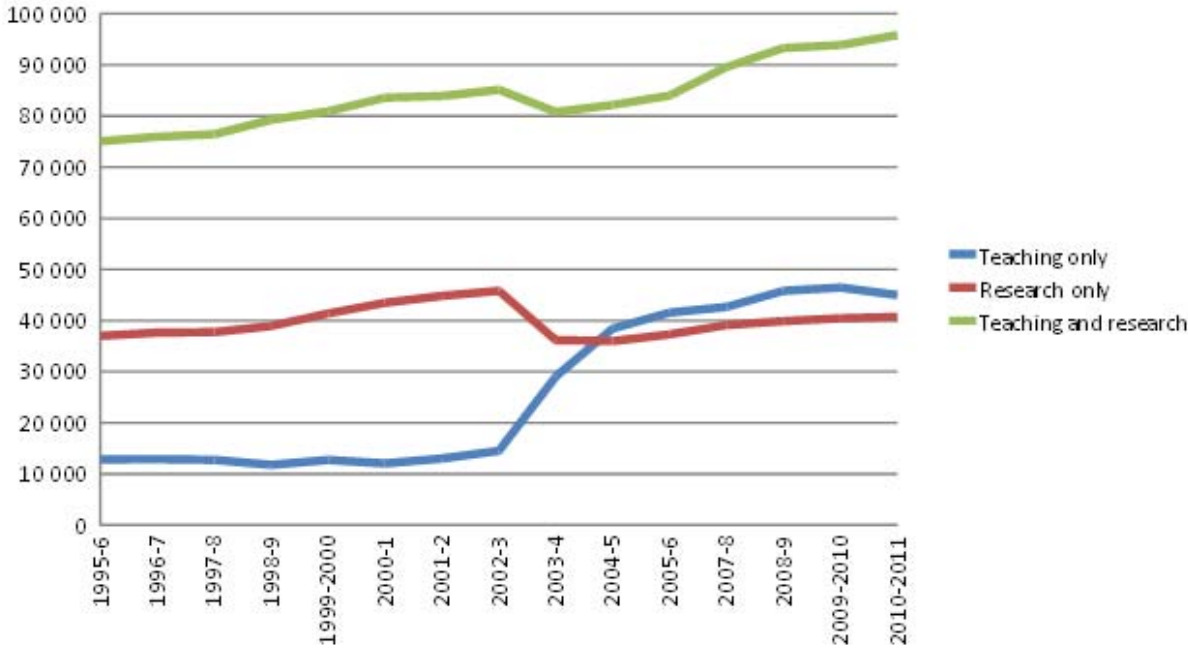


Table 1: Demography of academic staff by employment function (source: HESA, 2011)

There is a clear growth of teaching-only posts since the early 2000s. Previous studies suggest that research-only posts were still scarce in the early 1980s. For example, in 1983, P. Scott wrote about “the absence of a significant division of labour between teaching and research which might separate the professors into a lecturing proletariat and a research-minded professoriate. All university teachers are expected to engage in scholarship and research, as well as teaching.” (p.246). According to him, only 5404 full-time staff were on short-term teaching and research contracts in 1973, that is 15 per cent of the total. In 1983 they

accounted for 10 189 and their proportion had increased to 23 per cent (p.252). In 2008, they were no less than 51 495 people (HESA, 2011). Given these considerations, one can say that the growth of research-only academic staff has mainly occurred in the 1980s and later stabilised to the current level. Hence, figure 1 only shows the more contemporary increase of division of academic labour.

Many interpretations...

Recent analyses attribute the increase of division of labour to the development of fixed-term contracts (AUT, 2005; Locke and Bennion, 2009). This appears to be problematic in the light of UK data. In 2007-8, there were about 30 000 academics on permanent positions which were “teaching-only” or “research-only”, as compared to about 50 000 on temporary contracts⁴. Even if one considers that there is no gap in mode of employment (part-time vs. full-time), permanent academics already constitute more than a third of the volume of divided academic labour. As such gap actually exist (there are more part-timers on temporary contracts), it is reasonable to assume that the volume of research-only work and teaching-only work in British academia is to be found at least as much in the permanent working force as in the temporary working force⁵. Another indicator supporting this view is that the former category is undergoing a trend of sustained growth whereas the volume of temporary academic staff is stable since the mid-1990s⁶. These figures, incomplete as they are, do suggest enquiring on the mechanisms underlying division of labour within the permanent workforce.

Existing studies have devoted most of their attention to casualisation as the main cause of the division of labour, neglecting the rest of the workforce. What therefore remains to be explained is how division of labour occurs among permanent academic staff.

...But a common pitfall

Divergences in interpretations result from ambiguities that have not been satisfactorily eliminated in the analyses. Since the pioneering works of Halsey & Trow (1971) and

⁴ HESA data, rounded to closest thousand for readability reasons.

⁵ To confirm this, one would simply have to look at full-time equivalent figures (FTE). Even though HESA holds these data, their provision in this format is subject to commercial purchase, and is therefore lacking in this paper.

⁶ Demographic data from HESA shows that the permanent workforce has grown 4,5 times faster (increase of 68%) than the temporary workforce (increase of 15%) between 1995 and 2010.

Williams *et al.* (1974), the division of labour has mostly been studied through synchronic labour market analyses based on large-scale surveys on the academic profession⁷ or on secondary analysis of official statistics⁸. The limit of these analyses lays in 1) being based aggregated data, and 2) being synchronic. These two aspects point to an incapacity to reconstitute careers as longitudinal processes, and thereby to shed light on how division of labour can be temporally structured.

The drawbacks of such synchronic analyses at the aggregate level are threefold. Firstly, it does not account accurately for the point(s) in the career in which the teaching-research mix changes. Taking the example of a teaching-only staff, assuming that he holds a PhD and therefore has once been practising research, it is impossible to know when he abandoned the practice. Therefore, using aggregated data, one can only know whether a change has happened between the PhD award and the date of data collection. Whether this change results from one or various state transitions and when such transitions happened remain open questions. Thus, by overlooking the temporal dimension of careers, the risk incurred is to reify general categories such as “teaching career” or “research career”, whereas it is highly questionable that people follow exclusive paths all the way through their career.

This remark leads to the second drawback: the possibility to interpret increased division of labour between teaching and research as a sign of *labour market segmentation*. In all the meanings it conveys⁹, the concept of “segmentation” applied to labour markets always refers to the constitution of a discontinuity in the principles of job allocation within a given occupational space, leading eventually to the splitting of workers in two or more sub-groups. Can one conclude, from Table 1, that the UK academic labour market is now composed of three segments: a quarter of the workforce evolving in a “teaching market”, another quarter in a “research market”, and the rest in a “teaching and research market”? If there were effectively three such segments, one would therefore expect workers to start their career in one of them and stay in it until retirement. I will show in the next sections that it is far to be the case.

⁷ See for example Halsey (1992) or Brennan, Locke & Naidoo (2007).

⁸ See for example Sastry (2005).

⁹ Segmentation is a polysemic term. It is used in economic sociology to refer to the boundary between primary and secondary labour markets (Doeringer & Piore, 1971). It is also used to designate market discontinuity according to other principles of allocation: internal and external (Doeringer & Piore, 1971), and sometimes task-based, as well as gender-based, class-based or race-based discontinuity (see Reich *et al.*, 1973 for a comprehensive review).

The third drawback of synchronic approaches based on aggregated data is that they are bound to be descriptive. They cannot provide any satisfactory account of the mechanisms that produce and sustain the division of labour. There is limited knowledge on how and why certain individuals end up in teaching posts, others in research posts and others on polyvalent academic posts, performing both.

2) A career perspective on labour market dynamics

The drawbacks exposed above make a strong case that labour markets should not be studied independently from careers, and *vice versa*¹⁰. The approach proposed here is intended to bridge this gap by analysing labour market and careers together. More precisely, it aims at unveiling labour market patterns by looking through the lens of careers. The method I used draws on longitudinal qualitative research and sequence analysis.

The empirical material was gathered during fieldwork performed in a range of social sciences and humanities departments in two British universities, here called Altham and Buckley¹¹. The first is an ex-Polytechnic that was granted the university status in 1992. It is regarded as a “low-ranked” institution, whose research activities are limited, although important endeavours have been deployed to foster research internally. All members of its permanent staff are supposed to produce publishing research while ensuring their teaching service. Most of them do so, but the “output” they generate is poorly valued by research assessment and rankings. Most of its temporary members of staff are incumbents of teaching-only jobs. The University of Buckley, founded in the 1960s, has a very different profile. Its membership to the Russell Group¹² and its top position in national university rankings reflect it being perceived as one of the “best” universities. Just as in Altham, the great majority of its permanent staff occupies posts in which both teaching and research work are demanded. But contrary to Altham, it relies on temporary workforce mainly to fill research jobs.

Enquiring in social sciences and humanities departments has the advantage of basing the analysis on labour markets which are not overly influenced by fuzzy boundaries with

¹⁰ Exemplary illustration of can be found for example in transitional labour market theories (Gautié & Gazier, 2004), or in lifecourse perspectives of labour markets (Blossfeld & Mayer, 1988).

¹¹ Pseudonyms. Access to fieldwork was made easier once I committed to anonymise the names of the institutions.

¹² The Russell Group is an association of a few UK universities deemed to be the best ones in the country. It is in some way the counterpart of the Ivy League in the US.

practitioners (e.g. law or business), by the determining role of expensive instruments for experimentation (e.g. physics or biology), or by the importance of activities of commercialisation of science (e.g. biotechnology). Academics working in these departments offer a rather “pure” image of professionals devoted to teaching, research and other strictly academic activities (service to the profession, university committees, academic management, etc.), and their careers are less sensitive to neighbouring labour markets, material issues or economic forces.

1) Individual narratives to identify mechanisms of differentiation

Individuals’ retrospective accounts of their own career can be a material of great use to identify labour market mechanisms¹³. The analysis of in-depth lifecourse interviews allows unveiling both subjective and objective aspects of people's career that, in turn, inform on the structures and operations of the labour market¹⁴. This method is inspired by interactionist approaches to careers as both objective series of job positions and subjective attitudes towards these (Becker, 1963; Stebbins, 1971). The style of the interviews for this research was in many points similar to what French sociologists call “*entretien biographique*” (Demazière & Dubar, 1997) as well as to the approach of the sociology of careers pleaded by Hermanowicz (2007).

The general question to which these interviews were designed to provide material was: “What shapes the professional profile of academics in the course of their career and how?” I asked my interviewees as initial directive to relate their career and to cover as much as possible professional and non-professional events and periods. I did not impose many questions, but I interfered when the interviewee was taking the conversation towards a route that appeared to be of less priority. The duration of the interviews ranged from 45 minutes to 2 hours and 20 minutes; most of them lasted well over an hour.

The interview data used in this paper has been reduced to a sample of 20 academics so as to limit the effects of disciplinary or institutional variations, and the effects induced by variations in the interviewing style. Of these 20 individuals, 10 were in post in Altham and 10 in Buckley at the date of interview. They represent different grades, discipline, and period of

¹³ All the results exposed in this paper are part of a wider research geared to shed light on the contemporary transformations of the British academic labour market.

¹⁴ Interviewing academics on their own life history can be seen as an intricate task, for the boundaries between the “indigenous” and the “scientist” roles may substantially blur during and beyond the interaction. I carried out a reflection on the methodological problems of such a research configuration (Paye, 2011b, forthcoming).

entry into the academic profession. When ranged by date of Bachelor (or equivalent diploma) award and classified in three periods, interviewees are evenly distributed across the two universities:

	<i>Altham</i>	<i>Buckley</i>
Cohort 1 (1950-1980)	4	3
Cohort 2 (1980-1990)	3	3
Cohort 3 (1990-2010)	3	4
Temporary job	1	1
Lecturer & senior lecturer	3	5
Reader & professor	6	4
Total	10	10

Table 2: interview sample

The sample includes 8 political scientists, 2 philosophers, 5 sociologists, 4 historians and 1 psychologist. Altham senior academics are slightly over-represented as compared to Buckley interviewees. Each university sample included only one academic on fixed-term contract. The under-representation of temporary staff does not affect negatively the data, as this paper primarily focuses on the division of labour amongst permanent members of staff.

2) Sequence analysis to seize the depth of career differentiation

The analysis of biographical interviews identifies specific patterns of mobility in the academic labour market, pointing to phenomena of career differentiation. The combination with the analysis of a database of academic careers provides further evidence of these patterns. Sequence analysis applied to career trajectories of 134 academics from Altham and Buckley universities illustrates how the proportion of teaching-only and research-only posts varies according to career stages.

“Optimal matching”, a technique of measurement of similarity between pairs of sequences introduced in social sciences during the 1990s, has been much more diffused than other relevant methods of sequence analysis¹⁵. The type of sequence analysis in this paper does not require using the optimal matching algorithm. Instead, it relies on visual examination of sequence data, a method first developed in the same period by French researchers (Espinasse

¹⁵ An overview of the developed techniques is found in Gabadinho et al. (2011, pp 2-3).

& Giret, 1996). Visual examination of the sequence data is an appropriate and simple way to assess the relevance of career differentiation in the process of division of labour.

The 20 interviewees of this study are part of a larger sample 134 individuals from which a dataset containing their career histories has been built. Academic *Curriculum Vitae*, either gathered personally by email, or in the website of their university, provided the source of career data. The coding method followed general guidelines as those proposed by Lane *et al.* (1999) and Fernandez-Zubieta (2008), and the consequences of my coding scheme are discussed below, together with the analysis.

Using CVs as sources raises questions on how the analysts should deal with missing data, and how they should treat indigenous categories (Backouche, Godechot & Naudier, 2009, p.255). To overcome the first problem, I simply included individuals of whom I could reconstitute the entire career path. The second issue entailed me recoding indigenous categories into new categories. I coded career paths as sequences of “teaching-oriented”, “research-oriented” and “polyvalent” jobs (leaving other codes for unemployment and extra-academic jobs). Individual academics do not put in their CV this data as such, but always indicate the academic rank of each position they occupied. Interviews, archival and current institutional documentation and scholarly literature helped me developing a coding procedure that took into account the mix of teaching and research responsibilities of existing ranks and its variation across time and institutional settings¹⁶.

This work resulted, all together, in a set of 134 academic careers from five scientific disciplines of the social sciences and humanities. I decided to use the software package “R” and its module “TraMineR” designed for sequence analysis¹⁷.

3) Explaining heterogeneity of career paths

The reconstituted career paths show that there is a great variety of professional trajectories. Of the 20 interviewees, there is no case of significant coincidence between two career paths.

¹⁶ One example: a document, called “‘Reader’ posts at the Polytechnic” (Governing board papers, Altham University archives, PG4/219, May 1981) indicates that “‘Readers’ are academic staff at ‘Principal Lecturer’ level with a substantial involvement in research”. This means that in early 1980s, the career structure in Altham included teaching-oriented jobs (principal lecturer) and research-oriented jobs (readers). This is valid for one specific hierarchical level, one institutional setting and one historical period. In order to be able to appropriately code the career trajectories of the 134 individuals, I had to acquire a sufficient historical and ethnographic knowledge of British academic ranks.

¹⁷ For more information about the R-package TraMineR, see its developers’ article Gabadinho *et al.*, 2011

Leaving out right away the idea of building a typology of career situations from a small sample of interviews, one can nevertheless identify four main orientations that the mix of work of a given individual may take in a point of time: a research orientation, a teaching orientation, a managerial orientation, or no specific orientation at all, which means keeping on engaged in both teaching and research. The current professional profiles of the 20 interviewees are dispersed as follows: 3 “research-oriented”, 6 “teaching-oriented”, 3 “management-oriented” and 8 “polyvalent”.

Where does this variety come from? How do people deviate from the prevalent model of the polyvalent profile? How does one become a teacher / a researcher / a manager?

I propose to proceed by looking into processes of career differentiation. Indeed, people’s professional profile seem to stem from differing orientations throughout the career in terms of research, teaching, and, to keep it simple here, “management”. This idea was formulated by P. Bourdieu in the 1970:

“any career is fundamentally defined by the position it occupies in the structure of the system of possible careers. There are as many ways to get in research, to stay in research and to leave research as there are classes of trajectories. Thus, any descriptive attempt on such universe that restricts its focus on generic characteristics of a ‘random’ career leaves out the essential: differences.” (1976, p.95, underlined by Bourdieu, my translation)

This being said, our interviews reveal that career paths are not only subject to a continuous process of differentiation. As a matter of fact, in the flow of individuals through the academic career space, there are particular moments in which most (if not all) profiles have to meet certain requirements. The most significant one appears to be the pivotal “passage” from a temporary situation in academia to a permanent position¹⁸. This passage, called “permanentship” in this paper, has strong isomorphic power on academic profiles and tends to impose a professional norm defined by the following property: the joint practice of teaching and research. I observed that careers converge toward this norm, and then diverge. This invites us to look both at phenomena of homogenisation and differentiation.

In this view, I expect that the teaching-research mix in people’s work depends on the stage of the academic career: in early career, teaching and research get more and more connected as

¹⁸ In the theory of internal labour markets, this “passage” corresponds to a “port of entry” (Doeringer & Piore, 1971). In interactionist sociology, it is depicted as a “status passage” (Glaser & Strauss, 1971).

people get closer to permanentship. Subsequently, these two activities loosen anew in the course of the career as permanent academic. If this is verified, division of academic labour within the permanent workforce needs to be explained by career differentiation.

The two next sections will illustrate this phenomenon and discuss its empirical relevance. Let's first focus on the early career stage until access to permanentship.

4) Convergence towards a professional norm: the teaching-research balance

In British academia, the key event of reaching permanentship happens generally – though not exclusively¹⁹ – during the process of accessing to the grade of lecturer. Even though all lecturer positions do not strictly refer to the same competences and to the same mix of activities, they do most of the time carry the same set of basic requirements. These latter act as highly constraining criteria that reduce the possibility space of careers, in the same fashion as a bottleneck. Put in practical terms, this means holding a PhD, having a certain volume of scientific publications, demonstrating teaching experience, etc. This results from a process of accumulation of proofs that can be depicted as an “academisation” of the professional profile. Most, if not all, academics have at one point in their life had to conform to a strong professional norm, despite the fact that they were coming from various horizons, carrying different life histories and, above all, combining teaching and research in various ways in their early professional experience.

The great diversity of starting points in our sample of interviewees shows that even though academisation leads to a common outcome, it takes different routes towards it. For example, 6 out of the 20 interviewees have had another professional career before becoming academics. Of the 14 others, not all of them have followed a study programme with a strong social science component and a clear orientation towards research or scholarship. But however distant are the social and cognitive origins of the trajectories, all of them have gone through a kind of “funnel” as they have tailored their profile to a prevalent norm. In the discourse of the actors, this “funnelling” is often expressed in terms of “ticking the boxes” or “jumping through the hoop”. Interviewees relate that as they have got closer to the possibility to be recruited as permanent lecturers, their endeavours to conform to the norm have increased.

¹⁹ Some individuals, particularly those who have had a previous career outside academia, achieve to become permanent academic staff above the grade of lecturer (e.g. reader or professor). They remain quite exceptional cases, especially since the 1980s.

This clearly appears in the account of a principal lecturer in politics at Altham. During his undergraduate studies, he is not very engaged in getting good academic results:

“I haven’t been attending any lectures to be honest, I was always doing demonstrations, or going down to London, attending meetings, speaking at meetings... I was very surprised to pass my first year at university considering that I was partly present. But in those days you could do it.”

Later on, when having to choose between two offers for his PhD studies, he considers the opportunity to teach as a positive criterion:

“So I went for the money and not the status... Manchester University has much better status; I could have gone there. I chose Nottingham, because there was more money on the table and there was guaranteed teaching experience.”

And only a couple of years after, he volunteered to offer unpaid teaching work in order to raise his academic profile:

“I happened to go and knock on people’s door and ask for teaching. And they didn’t pay me for it; it was just to make my CV look better.”

Such a process of profile adaptation in the early professional career illuminates the convergence of the trajectories in the social space constituted by academic jobs. At this stage of the career, the great majority of academics stick to a norm of polyvalence characterised by a balance between teaching and research.

Previous research on the academic labour market has shown that access to permanentship does not lead to the same career for all²⁰. Indeed, without subsequent divergence, there wouldn't be the variety of professional profiles as observed in our sample, and there wouldn't be the 30 000 teaching-only and research-only posts in British higher education in 2007, as said above. The next part of the paper is geared to illuminate some of the main mechanisms that produce this divergence.

5) Divergence: an outcome of career differentiation

This part is geared to show that observed dispersion in the professional space in British academia is partly produced by a divergence in career paths. As said above, the great majority of permanent academics have gone through a narrow “port of entry” that resulted in homogenising their profile. In the subsequent course of their career, more and more of them

²⁰ “L'accès à la permanence ne garantit en rien la même carrière pour tous.” (Musselin, 2000, p.16)

diverge from the “polyvalent” model and move towards monovalent jobs. These features are consistent with a process of career differentiation, which is now explained.

1 – “Career routes” organise job specialisation

Career divergence could not happen if the system in which individual careers are embedded does not allow it by “offering” alternative pathways to individuals. A thorough understanding of the space of the possible is therefore a necessary step in the analysis of career differentiation²¹. When asked to remember the spectrum of alternatives they considered in given points of their careers, interviewees often invoke what is spontaneously called “career routes”²².

Scholarly literature on careers has engendered several concepts to refer to existing institutionalised pathways in job moves within a given organisational setting. What actors name “career routes” somewhat resonates with what Doeringer & Piore labelled as “mobility clusters” (1971, pp. 50-51) and what Stebbins called “career patterns” (1970). These two notions however do not fully capture the various facets enclosed into the indigenous category of “career route”: they only designate the objective mobility structure without taking into account the way it impinges on individual subjective representations of what constitutes “possible”, “impossible” or “normal” moves in the system. Neo-institutionalist sociologists have tried to articulate both agency and structure components of social action by forging the concept of “career script” (Barley, 1989). This concept is polyphonic in its definitions and applications. It has been used to designate observable patterns of regular career attitudes among employees (Barley & Tolbert, 1997; Duberley, Cohen & Mallon, 2006); or cognitive “representations of appropriate behaviours regarding careers as mobilized by individuals in given contexts” (Dany, Louvel & Valette, 2011, p.6). These last authors clarify the

²¹ This is consistent with Bourdieu’s article “The biographical illusion” where he urges sociologists to reconstitute the structure in which individuals evolve: “Trying to understand a life as a single and self-sufficing series of successive events without any other link than the association with a ‘subject’ (...) is roughly as absurd as trying to explain a journey in the underground without taking into account the structure of the network, that is to say, the matrix of objective relations between the different stations.” (1986, p.71)

²² As this article focuses on the relationship between teaching and research labour, it will only concentrate on what is called the “teaching route” and the “research route”, thereby leaving out other models of career route, including what is generally referred as to the “management route”. On this latter, see for example Warner (1999) or Henkel (2000, pp. 235-249).

fundamental difference between “promotion script” (a cognitive reference) and “promotion model” (the rules of career advancement)²³.

What our interviewees named “career routes” does not operate this distinction. Both academics and university managers talk about the “research route”, the “teaching route” and the “management route”. By using these expressions they alternatively refer to *cognitive references* of abstract professional trajectories that impinge on people's representations, and to embodied *rules of mobility*, formulated at the university level, which organise career advancement. In both universities studied, the grading structure officially puts in relation teaching or research specialisation to specific ranks, thereby subordinating hierarchical mobility to job specialisation. Hence, promotion models are so institutionalised and taken-for-granted that they tend to be adopted as career scripts by employees.

For the sake of clarity however, it is preferable to proceed analytically. Let's see how cognitive and regulative facets of career routes play a substantial role in the differentiation of careers.

The rules of career advancement within a given university are often erected on the idea that there can be a bifurcation between teaching and research. In England, the standard academic career ladder (i.e. the most common) is structured in three main levels of seniority: the grades of lecturer, senior lecturer (which roughly corresponds to principal lecturer in ex-Polytechnics) and professor. Regarding the grade of reader, most interviewees have offered a view consistent with the idea that “the status of ‘reader’ is the equivalent of senior lecturer in terms of remuneration but has more of a research focus and hence higher status” (Brennan, Locke & Naidoo, 2007, p.164). Several universities have implemented local reforms in the management of academic careers, recasting more or less radically their career ladder on a two-track model²⁴. This has been recently the case in the University of Buckley. Even though most academics are not aware of these reforms led by the human resource department, there is a tacit agreement among them that career advancement can follow two different logics:

“There is a teaching promotion route. But not many people take that. (...) For most of us, you're promoted on your research, not on your teaching.” (reader in history, Buckley)

In Altham University, no recent reform has been implemented but the issue is under debate:

“I've written internal memos to my senior management colleagues exactly on this issue. Because, the question is: is it that one has to make a choice as an individual between going for the reader

²³ In order to operate as a script in the mind of employees, the model must meet the three criteria of credibility, legibility, and legitimacy (p.13).

²⁴ See for example Strike (2005) on this issue.

route or going for the principal lecturer route? And what skills and competencies and priorities does that mean? Or does it potentially rule out; are they mutually exclusive? And I certainly failed, that could be. But I was assured by the head of school here that they aren't mutually exclusive." (senior lecturer in politics, Altham)

However, the two career routes are already nested in the current career system: the two intermediary grades between lecturer and professor, ("reader" and "principal lecturer") are coloured in terms of teaching / research orientation. Repeatedly, individuals' career strategies are formulated in such terms:

"After the senior lecturer, the things diverge off: you can become a reader OR a principal lecturer. So I think I'm too far old, too far gone to be a reader, so I applied to be a principal lecturer.

.../...

The idea is that if one is going down the full-scale research route, one will apply for a readership. And because I have never even published a book I would not really be able to apply for a readership. What I'm saying is I have started so late that I have not built up a sufficient record of publications. So my view was that: 'If I do want to advance, it would be more down this route [meaning: the principal lecturer route]'." (principal lecturer in history, Altham)

Whether they are implicit or explicit, local rules of mobility are crucial elements of a more or less subtle channelling of careers. Career routes are at least equally influential when they operate as cognitive references.

One anecdote related by an academic from Altham University (unrecorded discussion) clearly shows the pivotal relevance of career routes in academics' concerns. During a fierce argument with her line-manager in her office, she was criticised over her way of teaching. She was told:

"- Don't you think that you teach, do you?"

- Well, I suppose I should therefore apply for a readership."

The implicit reference of career routes in such violent scenery proves the central role they play in academic life. But the two routes are not perceived as completely similar. In the mind of an assistant professor in sociology at Buckley, the research route is perceived as insecure and risky as compared to a more stable teaching career:

"So I had two options. Either to go into a kind of research-led career, you know, a contract-research, work as a research associate or eventually get my own grants and so on; or go for a lectureship. (...) I don't do well with that kind of insecurity. You know, of having to apply, year after year, after year for money. I don't have the personality for it. I don't like risk. So I wanted a lectureship." (assistant professor in sociology, Buckley)

This view is not shared by everyone. Some academics on research positions claim to prefer their condition as they are freed from the "burden" of teaching and can therefore devote more time on research and publications. For a vast majority of interviewees, abandoning research

activities is perceived as a failure. Reciprocally, the idea of a “successful career” most of the time involves a reference to research activities and publications. Whatever the normativity attached to them, models of career routes widely circulate in academic spheres and cognitively frame the formulation of individuals’ career strategies²⁵. Their influence as cognitive references is extremely powerful: they are no less important as their “objective” facet: formal rules of job mobility.

2 –Appraisal, time management and accumulative logics shape differently career orientations

The fact that people tend to think about career decisions using mutually-exclusive categories is not sufficient to explain how their trajectory effectively differentiates itself from others. The main mechanism of career differentiation is rather to be found in a range of practical actions regulating promotions and work allocation at both department and university levels²⁶. It involves two main regulative actions: appraisal and workload allocation.

Appraisal and Research Assessment Exercise

In both Altham and Buckley, a formal appraisal process was implemented. It consisted most of the time in yearly or bi-annual encounters between academics and their line-manager. The information emanating from this meeting was rarely used, albeit at least for the next round of individual appraisal. The promotions committee did not require such information for deciding who gets promoted or not and based their judgement on an application file which was independently constituted from the appraisal paperwork. This indicates that appraisal was not formally coupled with the promotion process. As put by a former head of the department of politics at Buckley:

“Appraisal had never really been important to University of Buckley. It’s always been a relatively formalistic process. (...) [People here] could not see any demonstrable benefit that came from it, and I think they were probably right. It wasn’t leading to any change in anything; it was just a kind of box-ticking exercise.”

Most interviewees agreed on such a view and appraisal was almost unanimously perceived as of little relevance on career progression.

²⁵ It is no surprise that the most emblematic discourses on career strategy, the guides for academic careers, also tend to frame career choices in those terms. See for example the two most famous British guides for academic careers, both emanating from the University of Buckley (Grant, 2006; Blaxter *et al*, 1998).

²⁶ Even though they can be considered as the core mechanism, they would hardly operate without the cognitive references and the rules of mobility above discussed.

Another evaluation process, not labelled as “appraisal” and not formally designed to operate at the individual level, has nevertheless a pivotal role on individual careers: the Research Assessment Exercise (RAE)²⁷. Originally, the RAE was intended to set the basis for research funding allocation, based on the assessment of research at the department level. But it also turned out to operate implicitly as an individual evaluation. When preparing the RAE submission, heads of departments, sometimes sharing responsibility with a “RAE committee”, make a selection of the academic staff from which the publication record is to be submitted. This selection has the effect of labelling *de facto* academics whose research is valued and those whose research is less valued²⁸. In both cases, the RAE acts as a signal. For the former, it signals that they stay on a competitive track and can potentially be used for career advancement, as is the case with this senior lecturer in politics at University of Buckley:

“I’m kind of a banker for the RAE.

– What do you mean by ‘banker’?

– (...) You’re seen as an asset in RAE terms. And if you’re an asset in RAE terms, it’s easier to get employed and you get well thought of in your department.”

For the latter, a non-submission often suggests an idea of failure, and can translate into a sanction, as it happened with this lecturer in politics at the University of Buckley:

“When it came to filling out the RAE requirements, I was obviously in difficulty. I was not able to provide the number of items that was expected. So that was a formal indication that I was not meeting the basic requirements. (...) And in later rounds, the department decided that I wouldn’t be submitted.

.../...

recently [in 2006], because my research had come to a hold – almost to a hold – the department made me an offer of becoming purely teaching as opposed to research. So they have a special status whereby, with no loss of salary, you could accept an expanded teaching responsibility without being expected to perform in terms of research (you weren’t going to be submitted on the RAE, etc.) (...) for quite a long time, I sort of went on with a normal status trying to revive my research activity but in practice not being very successful in doing so. So that eventually led to this offer.”

²⁷ The RAE is led by the Higher Education Funding Councils of the four constituent countries of the UK. It is a cycle of evaluation of the research activity of university departments. The outcome of the RAE is taken as the main criterion for public funding for research.

²⁸ Hence the emergence and subsequent wide use of the expressions “research-active” and “research-passive” among academic staff and university administrators.

“Offers” of this type are relatively rare at Buckley²⁹, but they indicate that when someone’s research regime decelerates, it will be formalised into his job title and responsibilities.

Most of the time, those who decide on RAE individual submissions are generally the heads of departments. They act as well as appraiser for most people of their department, and make pools of candidates for promotions. Their discretionary power allows them to base their judgement of individuals on the criteria they wish. Therefore, it is hard to determine which device is more influential on career orientation.

Our enquiry reveals that another source of division of labour, more discrete, is to be found within polyvalent jobs too. In the UK, workload allocation is indeed not fixed legally, but negotiated individually³⁰. To understand how individual careers diverge, it is needed to enquire on how division of teaching and research labour is organised within departments through the allocation of duties.

Workload allocation and the struggle for time

The distribution of teaching load and administrative duties is taken very seriously by most interviewees. Indeed, the way academic work is divided within academic departments directly relates to the time allocated to each individual for core academic tasks. Again, decisions on this issue are generally taken by the head of department, who is sometimes seconded by purposely appointed academics³¹. What is mostly at stake is what interviewees call “research time”. Whether it relates to a willingness to stick to a “successful career”, to the greatest autonomy characterising research work or to individual preferences, time given for research is generally more valued. Concerns around this “loading game” (Willmott, 1995, p.1015) can pave the way to fierce struggle around the issue of time, for example when power relations prevail over perceived merit³². Partly to pacify these tensions, specific management tools called “workload models”³³ have been implemented in a number of universities in the UK,

²⁹ The same year, the Association of University Teachers, denounced this very type of sanctioning, arguing that “there [was] a considerable amount of anecdotal evidence of institutions transferring staff onto teaching-only contracts in the run-up to 2008.” (AUT 2005, 5).

³⁰ This is true since the publication of the Smith Report in 1990 (House et Watson 1995, 13).

³¹ In one of the two universities studied, they are called “teaching and learning coordinators”.

³² See Hey (2001) for an internatist, though informative, analysis geared to denunciate the effects of workplace struggles over academic time.

³³ Workload models are time allocation schedules. They generally take the form of spreadsheets filled in by each academic staff indicating the amount of time to be devoted to a range of activities. For example, the workload

among which Altham and Buckley³⁴. In both contexts, their implementation was justified by a principle of transparency: by affecting to each member of staff an individual workload model, it was hoped that unfairness would reduce. Nevertheless, this exercise of allocating teaching and administrative duties to a limited departmental staff remains inherently problematic, as individuals are in a position where they acquire benefit at the expense of their colleagues, and *vice versa*.

Again, this process of workload allocation is mainly controlled by the head of department, with whom individuals have to negotiate. A senior lecturer in sociology at Buckley had the assumption that “some people are very good at protecting their own time.” Protecting one's own time implies providing convincing arguments to the head of department. The outcomes of the annual appraisal and the RAE submission are used by staff as arguments providing competitive advantage.

Protecting one's own time can be achieved through other means. An important one is the practice of “buy-out”³⁵. To take a simple instance:

“There was a buy-out attached to the ESRC grant (...) and I wasn't given the buy-out that I'd got through the grant, which made doing the research very difficult. (...) I was quite cross that I didn't get the time, I was quite angry about that. (...) I'm actually on research leave now. And I had two terms of a crude research leave. And I managed to trade in the buy-out that I never got for another term of leave.” (senior lecturer in sociology, Buckley)

She was denied the possibility to outsource teaching hours but she could negotiate, as a counterpart, an extra term of leave. This example shows that time devoted to teaching is far from being strictly determined once for all and is subject to modifications at the discretion of management.

Does the spreading of teaching and administrative duties have any substantial consequences?
How does workload allocation translate into career differentiation?

model of a senior lecturer in politics at Altham University indicates: 70% teaching; 8% support activities; 16% scholarship and professional development; 2% post-graduate research supervision; 4% general management and administration.

³⁴ To be perfectly accurate, one of these universities is currently implementing it and in the other, some departments have developed their own local system.

³⁵ The expression of “buy-out” is the one commonly used in British academia. It refers to a specific form of outsourcing, in which a permanent academic staff controlling transferable assets (for example a research grant) convinces its department to take on this money to recruit a temporary lecturer who delivers the teaching originally attributed to him. If the operation concludes, he ends up with substantial gains in research time. In a nutshell, it consists in trading teaching time for research time.

Accumulative logics produce career transitions

Allowance of research time is therefore contingent on negotiations, which in turn depend on the outcome of appraisal, on the RAE submission, or on other “arguments”, such as the control of research grants as transferable assets.

I showed that extra research time can also be obtained through the practice of “buy-out”. In this case, negotiation power largely depends on research production³⁶. If one's research production is judged as unsatisfactory, it is likely that at the end of the loop, one ends up with limited time to conduct research. On the contrary, if one's research is regarded as successful, one is more likely to be granted a high amount of research time. In other words, it can reasonably be expected that, *all things being equal*, produced research volume affects the production of research volume, according to a logic of *accumulative advantage*³⁷.

The accounts of interviewees on their career – especially those who have dropped research activity – offer a large number of examples. A rather extreme case is that of this young teacher in politics at the University of Buckley. He declares to be unable to pursue research, because of his high teaching load of 22 hours per week:

“So I work between 70 and 85 hours a week. (...) That of course closes out the space of research for obvious reasons.”

Less extreme but equally relevant is the case of this principal lecturer in politics at Altham University, who is involved in faculty administration and labour union activism:

“Most of my energy, most of my time these days is in my director of studies role and my vice-chair of the UCU role. I do a small amount of teaching, and my research is dormant, I'm afraid.”

This principle of accumulative advantage can also be embodied in local rules. Such is the case with a measure implemented a few years ago at Altham University to induce publication: the faculty of social sciences has a policy of giving 30 days of research time to each member of staff considered as “research-active”.

These findings indicate how workload allocation bears important consequences on career advancement. This observation is highly consistent with the findings presented by Allison and

³⁶ Except perhaps for annual appraisal, where research is supposed to be assessed to the same extent than teaching and administrative responsibilities.

³⁷ This resonates with Robert Merton's characterisation of the Matthew effect: “the rich get richer at a rate that makes the poor become relatively poorer” (1968, p.7). Nevertheless, my findings indicate that this mechanism does not only operate as regard with recognition. Talking about accumulative logics allows me to extend this idea to a more general scope.

Stewart, already in 1974 in a radically different organisational setting: the US. They state that recognition and resources feedback help the most productive scientists increase their productivity and hamper less productive ones to produce later on. They also identified resource and time-allocation as crucial drivers of career inequalities:

“The increasing inequality of publications can be partly explained by an intervening process of role re-allocation in which the distribution of time spent on research becomes more unequal”
(p.605)

These accumulative logics introduce *irreversibility* in individual careers³⁸. However, accumulative logics in research productivity do not fully explain career differences. The examination of the biographical interviews provides evidence of other forms of *irreversibility*: those involved in career moves. Any transition people experience in their occupational career involves a “cost”. The variability of these costs can be significant, depending on the nature of the transition. Considering different cases can help seize this variability. Career accounts of the interviewees seem consistent with the idea that a transition towards a higher teaching component is “cheaper” than a transition from a teaching-oriented profile to a more research-oriented one. It appears for example that the progressive placement of individuals on teaching positions often followed a logic of abandonment of research activity. No single case of return to research activity after abandonment has been observed in our sample, which seems consistent with the idea that leaving research is a fairly irreversible move.

Hence, small transitions in one point of the career can reveal to be of considerable significance in its subsequent development, in that they reconfigure the space of the possible. One example: accepting a research-only job in the beginning of the academic career can entail unforeseen consequences, such as in the case of this research-only academic in politics at Altham University:

“I didn’t pay much attention to this research contract / teaching contract issue, because from my point of view these are both academic work. And I realized that ‘uh! Yes, it has implications’.
[laughs].

.../...

I didn’t realise the implication at that time that I kind of placed myself into a research path (...)
Now that I think about it I didn’t realise that I was saying to the world without knowing it that I

³⁸ Irreversibility is the term used here, although the concept of “path-dependency” could have been chosen. The latter has the slight inconvenient, however, to suggest that careers follow a unique path, something that will precisely be questioned in the next section. The recent French book *Bifurcations* offers stimulating insights on the comparative heuristics of these two concepts (2010).

had decided to be a researcher rather than track myself into a teaching career, which is more stable”

She finds it difficult to be recruited on a lecturer position, because recruiters regard her as a researcher. Her current status attaches her on a research profile. The same can happen as regard to teaching:

“What I had found was that I signed up for teaching.” (Emeritus fellow, former senior lecturer in philosophy, University of Buckley)

Just as for the lecturer in politics at the University of Buckley who was “offered” a teaching-only position after his non-submission to the RAE, this philosopher would have had to spend an enormous amount of energy to reach back a level of research activity comparable to that of his colleagues.

The “forging” of one's academic profile thus involves different forms of irreversibility attached to specific events or processes throughout the career. These can be decisions to accept a job offer, outcomes of teaching load negotiations, or even continuous or punctual micro interactions between colleagues bestowing specific meanings and diffusing them around³⁹.

A striking feature common to almost all the career accounts is the paucity of multiple reorientations between the access to a permanent job and the interview date⁴⁰. Change between different professional orientations occurs seldom more than once over the course of employment. This suggests that as people get more involved in one core academic task, their possibility to reach back former positions decreases. In other words, when placement in one of the channels occurs, the subsequent course of employment is modified. This narrowing of the possibility space involves irreversibility, so that getting back to a former position involves significant endeavours or is seen as too “costly” to be envisaged.

To conclude, **appraisal** practices and the RAE have rarely a direct influence on academic careers. However, their outcomes act as segregative criteria during the negotiations around **workload allocation**. This allocation, in turn, has dramatic effects on the subsequent trajectory, amplifying **career orientations** through accumulative and irreversible logics. It is

³⁹ An example is the practice of informal labelling in conversations. One who is labelled as “researcher”, whatever one's working contract says, will most likely be regarded as a researcher, hence as someone who will not be considered for a lecturing job, whether one wishes it or not.

⁴⁰ Only one of them has effectively gone through transitions between teaching, research and administrative orientations, even though the sequence of the positions he occupied do not well reflect them.

worth noting that models of career routes and main mechanisms of career differentiation have been analysed separately for the sole sake of clarity. Empirically, it is their articulation that ensures the function of differentiation.

These findings confirm what C. Musselin (2000) had found in French academia:

“Before permanentship, there is an ‘exclusive game’: those who do not stick to the professional norm leading to tenured positions are progressively excluded. After permanentship, there is a ‘distributive game’: competition between workers produces career orientations and (material and symbolic) task allocation.” (p.15, my translation).

So far I have only analysed collective mechanisms of disparity in the labour market. But differences in individual career paths do not only originate from the workplace.

3 – Multiple commitments and career aspirations

Understanding how individual careers unfold implies exploring the entanglement of work and other spheres of life, such as health, family, hobbies, politics or housing. The concept of commitment, as theorised by Becker (1960) and subsequently by Stebbins (1970), offers an analytical heuristics to understand how investments in different spheres of life interact, and how people try to integrate them into a “consistent line of activity” (Becker, 1960, p.32). Being committed, for example to one's family, means acting consistently with past actions performed in the various “portfolios” of life. For example, commitment can account for the reasons why most people don't suddenly change their career orientation, leave their organisation or their occupation (*ibid*, p.33):

*“– Do you think about leaving the institution or the job?
– Not really, because of family reason. My ex-wife and my younger son live locally. (...) I have to stay locally so that I could have regular weekly contact with my son.” (Principal lecturer in politics, Altham)*

Commitment can also explain why people are bound to decrease their involvement in research work following childbirth. This is a common feature in the careers of the interviewees. Parenthood constitutes a new source of commitment that can affect commitment in academic activities. The arrival of the child can be related to what Becker calls a “side bet”. Side bets occur when someone “has staked something of value to him, something originally unrelated to his present line of action, on being consistent in his present behavior.” (*ibid*, p.35). For example, a principal lecturer in politics at Altham now at the doorstep of retirement provided accounts in which his progressive disengagement from research coincided with a period of

intense family and emotional events: the birth of his child, the refurbishing of his house, a hardly negotiated divorce and a progressive involvement in union activism. All these “side-bets” have acted against sustaining a sufficient research activity so as to keep up on a “polyvalent” academic route, and have entailed a drift towards a more teaching-oriented professional profile.

Another source of individual differences in career strategies can stem from one's career aspirations. Almost each individual of my sample formulates a singular definition what a “successful career” is or should be. For example, for a professor in criminology at Altham University, success means becoming a professor and “buying out” as much teaching as possible to concentrate on research. For one of her colleagues, a principal lecturer in sociology, a successful career implies a healthy equilibrium between private and professional lives. For two other colleagues in the politics department, the overarching criterion is being politically-involved in teaching and scholarship. Other conceptions of career success relied on teaching excellence, or good administrative service to the department. How do these ideas translate into acts that shape career orientations? Certain career decisions reflect a certain level of individual autonomy in relation to existing career incentives:

“I'm not working with promotion in mind. Because often most promotions also come with a large amount of administrative work that I don't particularly enjoy. I would rather not be promoted than have a large component in my working life that I don't like.” (senior lecturer in sociology, University of Buckley)

Hence, personal definitions of professional success also explain individual differences, particularly because they underlie strategic career decisions. It would be misleading however to argue that the idea of career success comes first, followed by a career strategy and finally a resulting set of commitments. Interviewees have good reasons to formulate their idea of career success in accordance with the number and the “colour” of the balls they end up juggling with at the date of the interview. Career aspirations are likely to be formulated in relation to one's repertoire of commitments. Whatever their interplay, both have been depicted here as sources of individual differences. Not accounting for these would have overemphasised the constraining effect of organisational mechanisms and the weight of professional norms.

This part elucidates the main mechanisms of divergence in career paths. The three main mechanisms of career differentiation offer a first understanding of how, after being tailored to a rather homogeneous professional standard of recruitment, individual profiles increasingly diverge from the “traditional” model of an academic career, characterised by a tight coupling

of teaching and research. This shows how the dispersion of individuals in their professional space can be produced through a divergence of career paths.

At this stage, the pattern of convergence - divergence has been illustrated by factual information and by the words of a rather limited sample of interviewees. That allowed identifying patterns. A quantitative approach is now used to test the depth of the phenomena identified from the biographical interviews.

6) Evidence of convergence-divergence patterns with sequence analysis

The first part of this article suggests that the career space of academics in Britain is highly structured. Interview data invites us considering it as follows: from the first academic job to permanentship, careers tend to converge from monovalent posts towards a norm in which research and teaching are closely connected. From permanentship onwards, career routes have a channelling effect on careers and make some of them diverge towards teaching or research specialisation. The following schema represents an ideal-typical representation of this structure:

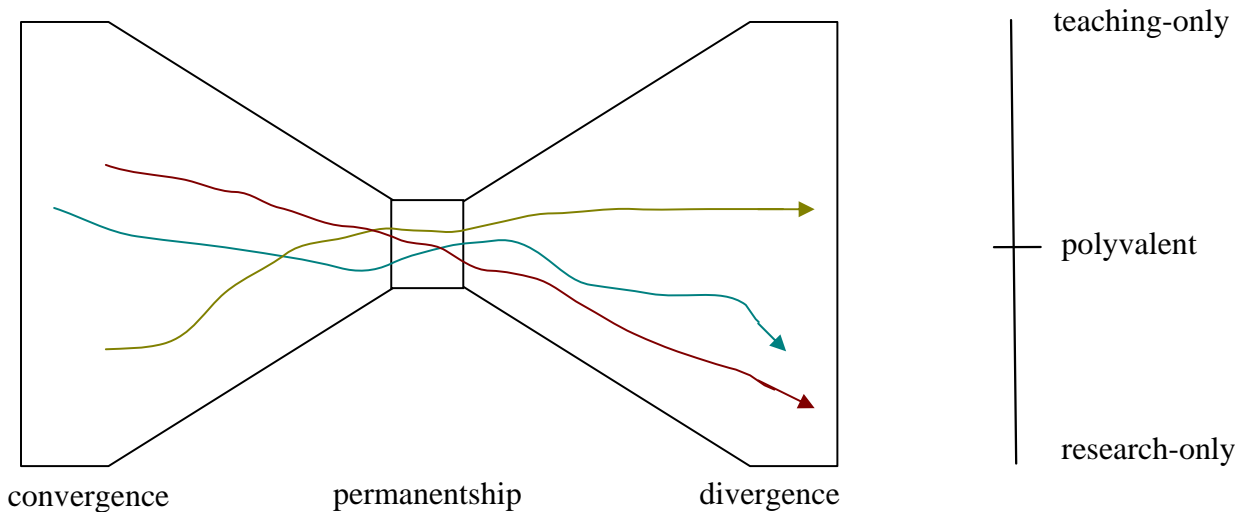


Figure 1: Temporally-structured career space: a theoretical representation

This is of course a theoretical morphological representation of the career space, which can be judged as excessively abstract. However, it allows understanding at a glance the expected convergence-divergence structure of the career space. Now what remains to be done is to confront career data with this theoretical approximation and to assess the extent to which careers effectively unfold so.

I now turn to sequence analysis, using the dataset I presented in part two. The coding of career trajectories proceeded by inputting, for each year, the orientation of the occupied position in terms of teaching and research. The codes are as follows:

- P*: teaching and research position;
- R*: position with strong research component (including research-only posts);
- T*: position with strong teaching component (including teaching-only posts);
- U*: unemployed/non-active;
- X*: extra-academic job

Quantitative evidence more accurately characterises, through the use of sequence analysis, the variety of trajectories followed by academics than do interviews. Let's take here the example of three trajectories taken from the database:

[16] (T,6)-(P,4)

[18] (X,17)-(U,9)-(T,5)-(P,2)-(T,2)

[80] (T,1)-(R,1)-(T,2)-(P,8)

Sequence [16] reflects a rather linear entrance into the academic career: after having occupied two temporary teaching positions of three years each, the individual got a permanent lectureship. Sequence [18] is that of a "latecomer": after a career outside academia punctuated by an episode of unemployment, the individual spent five years on temporary teaching positions and got recruited as lecturer. He then got promoted as principal lecturer, down to the "teaching route", as he put it when he was interviewed. Sequence [80] is a rather typical sequence of turbulent early career followed by an established "teaching and research" position. The individual got into academia with a fixed-term teaching job and subsequently occupied a one-year research job followed by a two-years teaching job. She then got recruited as permanent lecturer, a position in which she undertakes both teaching and research.

To see whether permanentship constitutes a specific turning point in the career in terms of research and teaching orientation, I needed to align these three sequences at the year in which individuals got access to permanent positions. This operation can be interpreted as a *synchronisation* of sequences according to an exogenous event. To show the alignment more clearly, I now use another format, in which states appear for each year of the career:

Before synchronisation:

[16] TTTTTT P P P P

[18] XXXXXXXXXXXXXXXXXXXXUUUUUUUUUTTTTTTPPTT

[80] TRTT P P P P P P P P

After synchronisation:

[16] TTTTTT P P P P

[18] XXXXXXXXXXXXXXXXXXXXUUUUUUUUUTTTTTTPPTT

[80] TRTT P P P P P P P P

Two remarks are due. First, the coding scheme used was designed to faithfully reflect information as it was appearing in the empirical material, *i.e.* the CVs. The sequences of the graphs reflect the “official” sequence of the career positions, as reported by individuals themselves using established administrative categories – those of the promotions models used in the employing university. They do not necessarily reflect the *actual* work performed and the mix between teaching and research it involves⁴¹.

Second, multiple states have not been coded in the sequences. Taking multipositioning into account would have entailed a great deal of additional work and important technical adaptations. The great advantage of having constituted and entirely coded an original database using CVs is that I am deeply familiar with the data. This allows me to claim that multiple simultaneous positions are scarce in the population studied. This phenomenon almost never occurs after permanentship and is limited enough in early careers so as to consider that not accounting for it does not entail important biases in the analysis. Given this consideration, developing a coding scheme taking into account multiple states would not have been of significant added value

The consequence of these two facts is that the graphs that follow does not account for what can be called the “unofficial” division of labour. This means that they can convey the idea that variation of labour amongst workers is discontinuous whereas this variation can also be continuous. This continuity is to be found within the people on “teaching and research” positions who, albeit occupying the same employment function, differently mix these two

⁴¹ A survey I passed in spring 2011 among the same population indicates that people occupying positions with the same denomination declare different percentages of their working time devoted to research, teaching, and other duties. Within Altham, for example, one principal lecturer in history declared devoting 25% of his time to teaching-related activities, whereas another principal lecturer in politics indicated 50%.

activities in their work. This has to be taken into account in the interpretations of the sequence data.

With a limited number of sequences, no clear pattern can be identified. Figure 2 below is a representation of 122 sequences of the dataset⁴² without any specific individual ordering. These sequences have been synchronised, as the three sequences shown above, at the year of access to permanentship. Even presented in such a raw manner, the data reflects a clear fact: before permanentship, almost all individuals occupy monovalent academic posts, or evolve outside the academic labour market. Only 12 people joined the permanent workforce by being appointed to a monovalent post (10 of them in a research-oriented position). The prevailing experience is therefore shifting both from temporary monovalent job to permanent polyvalent position. The few years following this event, almost everyone keep on occupying a polyvalent position but as time elapses, sequences tend to exhibit more and more monovalent states.

The diagramme of the frequencies of employment functions for each year (Figure 3, below) allows seizing this trend more clearly. Seniority in the profession (*i.e.* the time spent working as permanent academic) seems to correlate with the level of division of labour⁴³. By this I do not infer a genuine seniority-based division of labour, but rather that there is a clear shift from isomorphism (during the few years following permanentship) to polymorphism.

Differences between institutions are significant: career divergence is more prominent and much faster within Altham employees than within their Buckley counterparts. The “direction” of job specialisation is also different: in the first case, divergence mainly leads to teaching-oriented posts; in the second, to research-oriented ones. These differences reflect the traits of the career structure and the policy of both institutions. However the main point made in this paper is that in two universities that everything seems to oppose, academic staff careers exhibit convergence and divergence patterns, which is also observable in the entropy graph of Figure 3.

⁴² Of the initial 134 sequences, 12 have been excluded as they correspond to individuals who had not reached permanent positions at the interview date.

⁴³ A linear regression model and appropriate statistical testing could further assess the degree of validity of this link between division of labour and seniority. The two variables to be included could be the number of years spent after permanentship and the relative percentage of monovalent positions amongst the population.

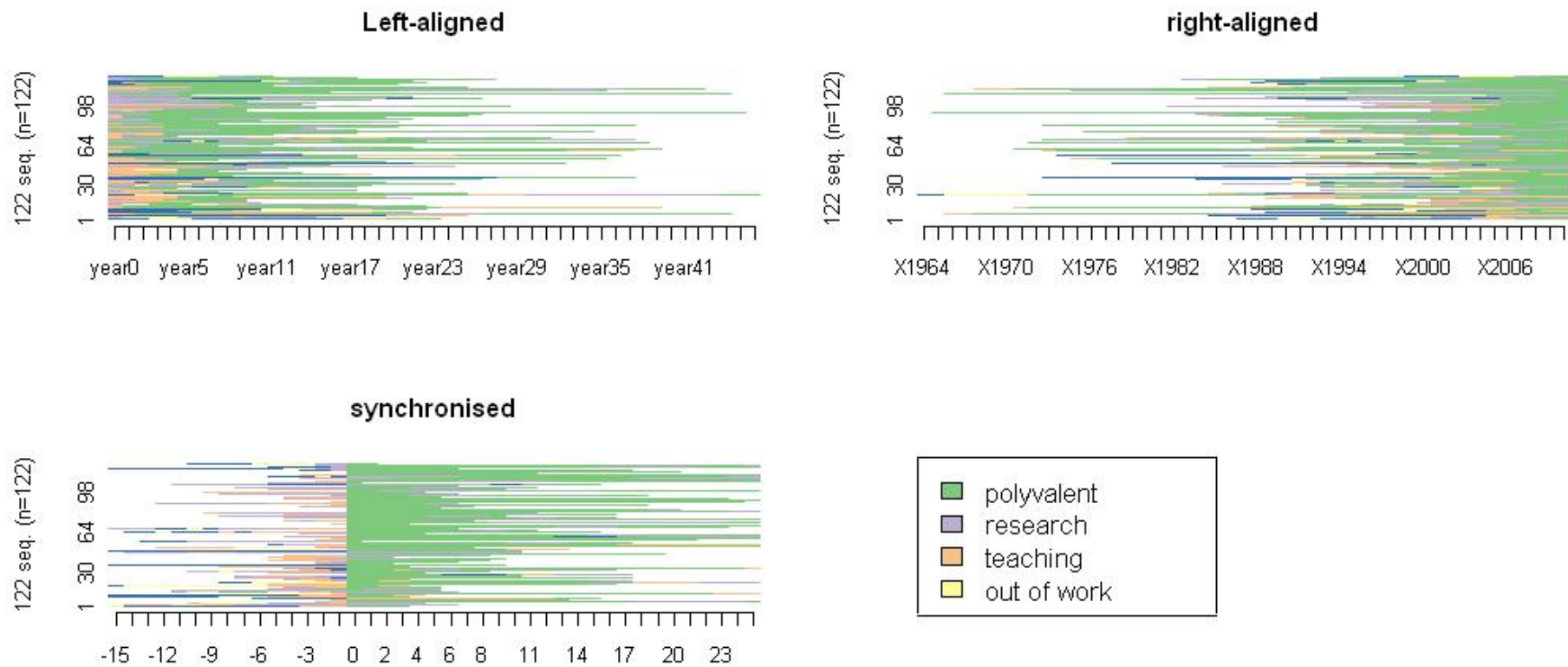


Figure 2: Temporally-structured career space: representation of sequence data before and after synchronisation

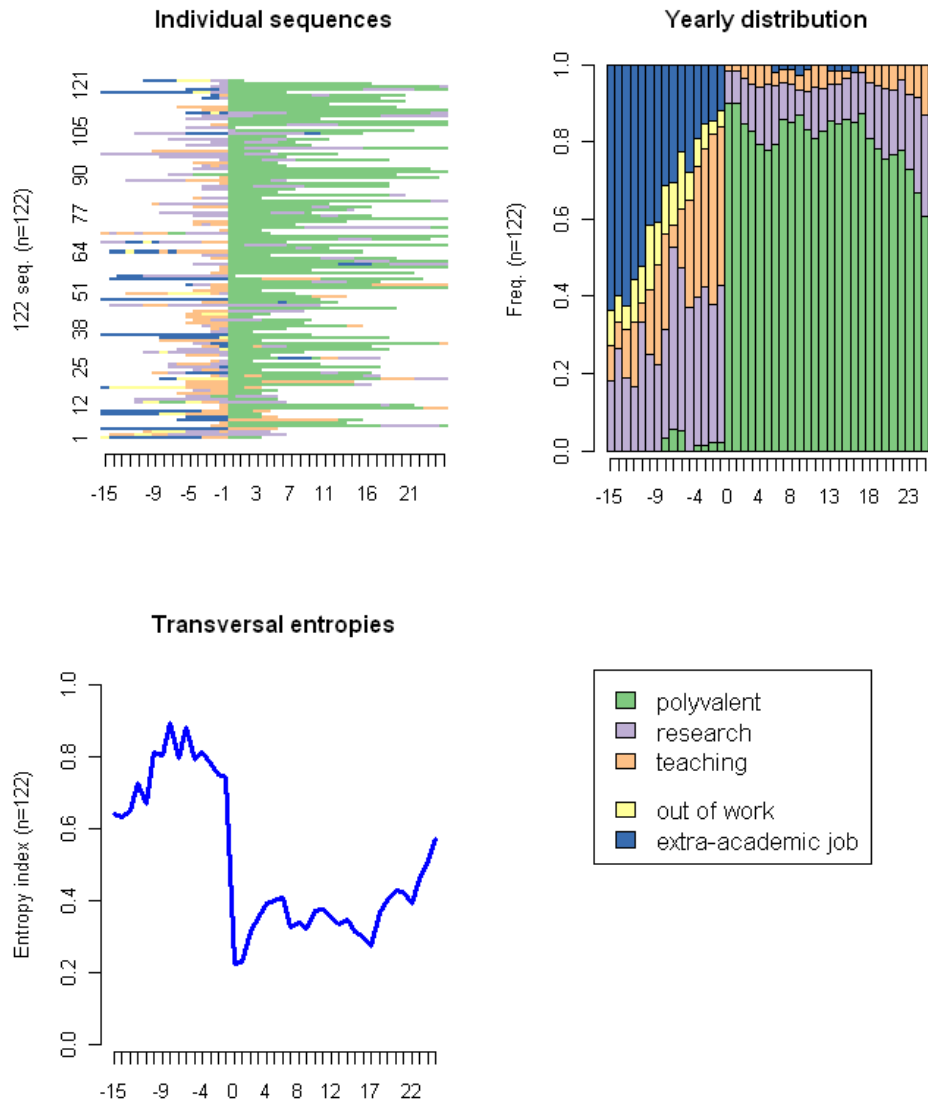


Figure 3: Temporally-structured career space: year-by-year state distribution and entropy

Without sequence synchronisation, it would have been difficult to identify functional differentiation⁴⁴. These findings need now to be discussed in relation to existing theories explaining heterogeneity in occupations in terms of segmentation, differentiation and determination.

⁴⁴ Ongoing research led with my colleague Denis Colombi is geared to clarify the limits and strengths of sequence synchronisation.

8) Discussion

If I come back to the initial question, I now are able to argue that increased division of labour in British academia is not fully explained by the proliferation of monovalent posts within the temporary workforce. The “contribution” of the permanent workforce to division of labour is far from being negligible. The mechanisms underlying division of labour differ as to whether one looks at temporary or permanent populations. Within the first, division of labour is “produced” through the very opening of vacant positions, which are most of the time monovalent. Within the second, division of labour is produced through a less obvious mechanism: career differentiation. In this process, the teaching-research mix in people’s work varies along with the stage of the academic career. This constitutes the main theoretical contribution of this paper: mechanisms underlying division of labour are not equally operating across the constitutive stages of the academic career:

	Mechanism underlying division of labour	Career stage
Temporary workforce	job allocation in secondary market	early career (before permanentship)
Permanent workforce	career differentiation	established career (after permanentship)

Table 3: Mechanisms of division of labour according to career stages

In the light of this result, it would be inaccurate to conclude that British academics evolve in a segmented labour market, divided into a teaching market, a research market and a polyvalent market. Such a segmented labour market would exhibit different entry ports for teaching careers and for research careers. Furthermore, in a segmented labour market, individuals would not experience transitions from teaching posts to research posts (and *vice versa*) over their career, a phenomenon that is easily evidenced by Figure 2. Explaining heterogeneity within the academic workforce through *differentiation* helps eliminate the ambiguity of explanations of division of labour as an outcome of labour market *segmentation*.

This explanation of heterogeneity in professional profiles is based on an understanding of the way careers diverge, but doesn’t account for the higher sociological forces determining the “distribution”, so to speak, of divergence among individuals. The guiding principle here has been to examine careers and labour markets in terms of *differentiation*. Other approaches place a primary focus on *determination*. Using standard regressive methods, they seek

“predictors” of career orientations and attainment, such as gender, ethnicity or social class, as is often the case in studies of academic careers⁴⁵. Instead of following such approach, my quantitative analysis has provided evidence of a specific morphological feature of the career space, which produces individual differences as career unfold. This finding applies irrespective of disciplinary, individual or organisational variations. This account of heterogeneity in academia is therefore complementary to analyses based on linear models.

An important question arises: while convergence is easily explained by the isomorphic power of the entry port, the reasons for subsequent differentiation are more puzzling. A functionalist account would emphasize on the fact that, as Jovanovic formulates it (1979): “A worker’s productivity in a particular job is not known *ex ante* and becomes known more precisely as the worker’s job tenure increases.” (p.972). This is to some extent convincing: indeed recruiters of entry-level posts have little formal evidence of candidates’ quality. However, as length of service into the department increases, the judgement of one’s work gains in accuracy. Even in case of job change, the new host institution has more clues about the candidate than had the first employer, simply because the assessment of the ratio “achievements / years of academic career” is less uncertain if more years are included in the calculation. As a consequence, it is more “functional” for employers to wait several years after recruitment before considering specialisation in teaching or in research, than recruiting directly people (on which information is limited) on specialised jobs. Such type of explanation cannot be contradicted based on the present study. Only a research into the historical construction of career systems in academia can provide other interpretations of the reasons why the academic career space leaves substantial room for career differentiation.

Conclusion

Division of labour in academia is a puzzling phenomenon. The academic profession controls a multiple jurisdiction (Abbott, 1988): it holds the quasi-monopoly on teaching higher education students and performs most operations of public research. Division of labour within this profession raises therefore questions about the modes of combining or dividing teaching and research labour.

⁴⁵ Especially in American sociology: see for example Scott Long (1978), Kulis & Miller-Loessi (1992), and more recently Xie (1998) and Perna (2001), but also in British sociology or higher education studies, for example Over (1985).

Existing data shows that the teaching-research nexus in British academia is effectively under strain as division of labour between teaching and research has substantially grown in the last decades. This article raised the question of whether the increase of job specialisation was caused by the proliferation of temporary monovalent jobs alone or if some other mechanisms entered into play. Using a life course perspective focusing on flows of individuals rather than on stocks of occupied job positions allowed me to uncover another source of division of labour. Lifecourse interviews combined with sequence analysis supports the view that observed variety of professional profiles not only results from the generalisation of teaching-only and research-only casual contracts. The increasing division of academic labour also relates to the mode of economic regulation operating at the core of the professional group, that is, the permanent academic workforce. I showed that half of the teaching-oriented and research-oriented jobs are not just simply “there” independently from people who will fill them. Rather, they are filled by people who have diverged from the polyvalent norm imposed by the requirements of the entry jobs in the profession. This divergence operating within the permanent workforce does not respond mechanically to clear or systematic social allocation principles for teaching-oriented or research-oriented posts. Nevertheless, the career accounts of the interviewees have provided with sufficient empirical material to depict a variety of drivers of career differences:

- models of career routes, acting as both cognitive models and embodied rules of mobility;
- mechanisms operating through appraisal, research assessment and workload allocation;
- logics of accumulative advantage ; and
- phenomena of individual commitment.

The specific morphological property of the career space identified in this article is not exclusive to the academic profession and could potentially be observed in a range of occupational groups characterised by highly closed labour markets (Paradeise, 1988). Those labour markets which are protected by a professional coalition (occupational labour market), an administrative unit (internal labour market), or by more peculiar configurations (such as the French “corps d'Etat”) are particularly expected to exhibit the same feature, albeit perhaps

in a less “pure” form than in British academia⁴⁶. This structure of the career space is all the more likely to exist in professional groups controlling “multiple jurisdictions” (Abbott, 1988), since occupational specialisation is more pronounced. British academia is both a closed labour market and a multi-jurisdictional profession. Another example that seems to satisfy these two conditions is the medical profession: the same entry port does not lead to the same career for all, and professional profiles diverge towards “clinician-oriented” and “research-oriented” practice. Studying the process of career differentiation (organisational and individual forging of professional profiles) in a variety of labour markets would therefore allow better understanding the principles underlying division of labour within an occupation.

Following A. Abbott, one could expect that professions controlling multiple jurisdictions are less threatened or less vulnerable than other groups, as they differ from occupations controlling a single skill, like in taylorian organisations. In this view, their unity is strengthened by the control multiple jurisdictions. Alternatively, one could also think that such occupations are less resilient to economic variables or other kinds of social turbulence, as segments could more easily appear and enter into tension. Conflict between segments within an occupation can polarise the group or even lead to its fragmentation into more or less proletarianised occupations. Our view is that, whether in decline or not, the “donnish dominion” (Halsey, 1992) largely depends on the strength of the teaching-research nexus.

A last remark is directed to academic trade unionists. Most criticisms addressed by the main unions in the last 10 years to the universities as employers have consisted in denouncing their increasing reliance on fixed-term contracts⁴⁷. This critique both involves concerns over the casualisation of the academic workforce, and over the possible move towards an academic “assembly line” staffed by “deskilled workers”. If the latter is still on the agenda, activists could enhance their critical efficiency in devoting more attention to the process of career differentiation operating where one would not spontaneously expect: at the very core of their profession.

⁴⁶ The idea of “marché du travail fermé” suggested by C. Paradeise is in many aspects similar to that of “internal labour market” (Doeringer & Piore, 1971): both concepts reflect organisations with proper rules governing a segment of the workforce and can be applied to professions, firms, and other configurations such as civil servant bureaucracy.

⁴⁷ See for example AUT position paper called “The Rise of Teaching Only Academics” issued in 2005 or the ongoing UCU campaign called « Stamp out casual contracts ».

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