



# How peer review empowers the academic profession and university managers: Changes in relationships between the state, universities and the professoriate<sup>☆</sup>

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## ABSTRACT

Universities are expected to be important players in the development of knowledge economies; therefore, they are a priority on the policy agenda of the European commission and of member states. To understand the new institutional settings where knowledge production is achieved, we must turn our attention to analyzing the reforms underway.

Building on conclusions from the sociology of professions, the sociology of organizations and public policy analysis, this paper argues that the policy instruments developed by public authorities to measure scientific performance and selectively allocate resources rely on peer review processes and reinforce an academic elite. As a result, the internal power distribution within the academic profession as well as within universities has changed.

On the one hand, peer review is used as a managerial tool by universities. The decisions made at the university level are largely based on (and legitimated by) evaluations conducted outside the university by an elite sitting in research councils, editorial boards, and evaluation agencies.

On the other hand, rather than weakening professional power, the recent reforms have instead led to a reconfiguration of the academic profession. Their influence is twofold. First, they have empowered those individuals who set the norms according to which academic activities are rewarded and funded by public actors. Second, they bolster those who receive positive reviews, since they gain a stronger position to negotiate with the managers of their university.

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## 1. Introduction

Higher education plays a major role in knowledge production and is expected to remain a major player in the development of knowledge economies. It is also at the forefront in producing research which aids in technology transfer and start-up processes. As a result, higher education is a priority on the policy agenda of the European Commission and of member states, and most European higher education systems have undergone significant reforms (Eurydice, 2000, 2008). It is therefore crucial to analyze the changes underway, in order to understand the new institutional settings in which knowledge production is achieved. This paper aims to contribute to this understanding by focusing on the transformation of the relationships between the state, the academic profession, and

higher education institutions, and look at how they are redefined by recent higher education reforms.

Most publications addressing these reforms come to conclusions similar to those developed regarding the health and law sectors or other professional fields, wherein scholars demonstrate how professionals are being sidelined. My objective in this paper is not to contradict these conclusions; they have been empirically demonstrated many times, as will be observed in the first part of this paper. Instead, I wish to show that they overlook other processes, such as the reinforced role of peer reviews conducted by national research councils or evaluation agencies, and thus oversimplify the portrait of the current changes. Taking such processes into account leads one to conclude that the academic profession has been reconfigured rather than cast aside.

This paper therefore looks at the reforms aimed at developing project-based funding, which thus enhance the role of research councils and competitive project-based funding, as well as at reforms leading to the development of evaluation agencies in order to link funding to performance. While the effects of these developments on scientific fields and knowledge production has already been stressed (for instance Whitley, 2007, 2009), I will focus on two other aspects and analyze how they affect university governance and power distribution within the academic profession.

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I therefore start by observing that (1) these reforms reinforce the power of an academic elite and then (2) I will describe their impact on the exercise of academic judgment. I will then argue that (3) university managers use the reviews of this academic elite in order to reinforce and legitimize their managerial power. In other words, organizational and professional powers are in some respects colluding rather than opposing each other. This will finally lead us to conclude that (4) we are witnessing a reconfiguration rather than a dismissal of the academic profession, and we will close with (5) some lessons that can be drawn from this conclusion for policy-making.

To begin, I look at the literature that addresses the dismissal of professional power in universities in general and look at examples from different European countries. In the subsequent sections, I will mainly draw specifically on the cases of France and Germany, using empirical qualitative research I have conducted for close to 30 years on university governance, higher education policies, academic labor markets, and higher education systems of these two countries. I will also build on a recent study<sup>1</sup> conducted in three French universities (Musselin, 2012) and on information collected on the reviewers who selected the French “laboratories of excellence” (Labex) and “initiatives of excellence” (Index) for the *Grand Emprunt*, as well as on information on those who selected the German scientific clusters, graduate schools, and universities for the *Exzellenzinitiative*,<sup>2</sup> and information provided by the evaluation agencies and research councils on their reviewers.

## 2. Higher education reforms and the sidelining of the academic profession

Studies conducted on reforms in higher education in European countries frequently conclude that they have weakened academic power, and they highlight the role of reforms based on New Public Management (NPM) in this shift (Braun and Merrien, 1999; de Boer et al., 2007b). Since such reforms aim to better control the activities of academics by introducing new tools (incentives, assessment, reporting, etc.) and increase the authority of university management (Schubert, 2009), many authors highlight the weakening of the academic profession, regardless of the perspective they adopt, i.e. whether they look at the evolution of the relationship between the state and the academic profession, or at the empowerment of higher education institutions, or analyze the relationship between universities and academics.

### 2.1. Less protection from the state

The relationship between the state and professions has been a major topic for sociologists of professions. They emphasized (or denounced) the role of state regulations which allowed professions to keep their monopoly over their activities. Seminal authors such as Larson (1977) or Freidson (1994) developed a critical view of this state of affairs, and claimed that professionals made use of

their expertise in order to gain a monopoly and close off the market, and as such served their own private interests and made the state do their bidding. As shown by Halliday (1987), the advantages of this situation were not actually one-sided; states also benefited from the protection they guaranteed, because the regulation of professions provides the state with professionals who can put their expertise to the service of the government (Mallard and Paradeise, 2008) or contribute to the economic development of a nation, for example.

This traditional interplay between government and professions has nevertheless been significantly redefined today (Krause, 1996). Governments consider that the returns society gets from the academic profession are too low compared with the benefits scientists get from their protected status. Most analysts have observed that state officials, the media, and society at large more readily criticize the academic profession in recent decades. The United Kingdom is probably the best documented case of this, as many authors have described the strong attacks against professions spearheaded by the Thatcher government (see for instance Ball, 1990 or Fulton, 1994). Three decades later, N. Sarkozy's<sup>3</sup> speech in January, 2009 took a similarly critical tack: the president of France accused French academics of being inefficient and suggested that they chose their occupation because of the “light and heating” in their offices rather than to produce research.

These critical perspectives led to measures altering the state/profession relationship in higher education and in other professional sectors as well (Evetts, 2002). The state renegotiated or eliminated certain protections provided for specific professions. For example, in the field of higher education, Austrian and Italian professors are no longer civil servants, and tenure was done away with in the United Kingdom in 1988. In Germany, a reform of the salary scheme and the classification of professors led to a new law in 2002 and to the introduction of merit pay. In France, legislators adopted a decree modifying the status of faculty members in 2009, which introduced regular individualized evaluations of all faculty members with the possibility of modifying her/his teaching load accordingly. New instruments were also developed in order to promote new behaviors and increase productivity and quality: the Research Assessment Exercise regularly assesses the research quality of university departments in the United Kingdom and serves to identify active researchers; in Spain, faculty members have undergone individualized evaluation since the 2000s; the AERES (*Agence d'évaluation de la recherche et de l'enseignement supérieur*) was created in France in 2006 in order to assess all labs, higher education institutions, and training programs. These evaluations are made public and linked to funding. And, last but not least, the accreditation agencies in Germany (Serrano-Velarde, 2008) work to improve the quality of training programs, among other measures.

This increase in evaluation processes, the changing statutory rules, and the critiques addressed to academics are proof of the changes in the relationship between the state and the academic profession, and the transformation of professionalism more broadly (Freidson, 2001; Evetts, 2002).

### 2.2. The empowerment of higher education institutions

Another line of research announcing the dismissal of the academic profession can be found in organizational studies, which looks at the empowerment of higher education institutions. This empowerment results from reforms inspired by the New Public

<sup>1</sup> This qualitative study was funded by the ESEN (*Ecole Supérieure de l'Éducation Nationale*), and the goal was to look at the impact of the 2007 law regarding the governance of French universities. About 100 interviews were conducted in May 2011. This is part of a larger study on the governance of French universities, conducted with S. Chatelain, S. Mignot-Gérard, and S. Sponem, which includes a survey of all French universities (Chatelain et al., 2012).

<sup>2</sup> In recent years (2005 and 2006, then 2012 in Germany, and 2010 and 2011 in France), the French and the German states organized highly competitive national calls for projects (*Exzellenzinitiative* in Germany, *Grand Emprunt* or *Investissement d'avenir* in France) aimed at “modeling” and differentiating the national panorama by identifying a limited number of leaders (labs, graduate schools, institutions, etc.) and investing large amounts of money in them. Both countries formed international juries in order to make their selections.

<sup>3</sup> On the occasion of the New Year's presidential address to the French academic community, N. Sarkozy gave a very critical speech which led to much discord. The protests against the reforms became more active, and large demonstrations and strikes took place in the first half of 2009.

Management (more vertical steering of the system, setting of explicit targets and performance contracts, stronger managerial roles for rectors, deans, heads of departments, etc.) as well as from reforms reinforcing network governance (development of networks between higher education institutions and stakeholders for joint problem recognition and solving, organizational learning, and dissemination of ‘good practices’) (Ferlie et al., 2008). The development of this combination has varied from country to country (Paradeise et al., 2009), but it transformed the relationship between universities and government everywhere (see for instance: Henkel and Little, 1999; Kehm and Lanzendorf, 2006; de Boer et al., 2007b). This new landscape also provided universities with more institutional autonomy (in the two senses suggested by Berdahl, 1982), since the reforms put new competencies, decisions, and responsibilities under their purview. The radical changes introduced in France after the 2007 law are quite spectacular from this point of view: French universities are now responsible for their payroll – until 2007 it was managed by the ministry – and for the allocation of research budgets, which the ministry previously allocated directly to the labs. By delegating new functions, but also by strengthening their leadership and rationalizing their management (Enders and de Boer, 2009; Gumpert, 2000; Krücken, 2011), European universities have been “constructed into organizations<sup>4</sup>” (Krücken and Meier, 2006; Musselin, 2006; de Boer et al., 2007a; Whitley, 2008). In addition, the increase in managerial logics, the introduction of managerial instruments and devices, and the strengthening of hierarchical relationships and leadership threaten the academic profession<sup>5</sup> (Deem et al., 2007; Vinokur, 2007).

### 2.3. The transformation of the relationship between academics and their universities

A final perspective comes to the same conclusion. It consists of research conducted on the relationship between professions and organizations and concludes that past forms of governance are threatened by the introduction of managerial norms and instruments limiting professional power and autonomy.

Universities have gained control over academics and managers have imposed their norms on professionals because reforms were put in place in order to influence the two main organizational characteristics of universities. The first characteristic, which is shared by universities with hospitals, courts, and cultural organizations, consists of accommodating high levels of professional power and autonomy within bureaucratic structures. In these “professional bureaucracies” (Mintzberg, 1979), professional legitimacy dominates, power is not concentrated in the hands of one individual – it is rather shared by a community of peers – and esoteric expertise legitimizes this power (Waters, 1989). A second characteristic of universities, which for its part is unlike hospitals, courts, and cultural organizations, lies in the fact that academic activities are loosely coupled (Weick, 1976): it is possible to give a class without knowing which class the students had before or will have after, and it is also possible for a team of biologists to do their research without taking into account what the team next door is doing. In other

words, most activities can be performed without cooperating and interacting actively with other members of the same faculty, since cooperation and coordination are not indispensable to do one’s own work. Moreover, research and teaching rely on “unclear technologies” (Cohen et al., 1972), i.e. technologies that are difficult to prescribe, describe, and reproduce (Musselin, 2006).

Higher education reforms look to modify these two characteristics and affect academics in three ways. The first set of effects is the following: academic leaders gain increased responsibility and decision-making powers (they are expected to become “academic managers”), deliberative bodies have decreased decisional power, and stakeholders play a more important role, which in turn modifies the nature of university governance. Following the Weberian distinction used by Lazega and Wattedled (2011 [2010]) between bottom-up collegiality (characteristic of professional organizations) and top-down collegiality (a means for bureaucratic management), one can say that universities experience a shift from the former to the latter and that the influence of academics on the governance of their university is thus reduced.

Second, reforms also impact the division of labor and limit academics’ autonomy in the self-determination of their agenda. This, of course, primarily concerns the growing number of “permanently temporary positions<sup>6</sup>” (post-docs, adjuncts, etc.), which are most of the time specialized in specific tasks and have hierarchical relationships with permanent staff (Enders and Musselin, 2008), but not only. This also holds true for tenured faculty members: the increased bureaucratization (filling out time sheets, filing activity reports, etc.) and formalization (Barrier, 2010, 2011; Jovenet, 2011) is at loggerheads with academic activities themselves. This transforms the way academics allocate their time and organize their work, and it makes their activities more structured and traceable. Some authors even speak of this as an industrialization process (Gumpert, 2000).

Finally, the relationship between academics and their universities increasingly resembles employee–employer relationships, because rewards and sanctions are, more than before, in the hands of the managers of higher education institutions. This relationship has also changed due to the new procedures currently being developed. For example, in Germany, the resources (for assistant positions, a research budget, administrative staff, etc.) allocated when a professor was recruited are now time-limited, while there was no time limit in the past: resources are now renewed, or not, according to the professor’s performance. The previous implicit contracts, tacitly signed between a university and a newly recruited professor (Friedberg and Musselin, 1989), have been replaced by formal objectives (regarding teaching, research, and service) which are regularly assessed (every 3–5 years) and may affect the professor’s salary, since merit salaries were introduced in the early 2000s. In France, the 2007 law stipulates that all academics must undergo evaluation every 4 years. This process – which is still in discussion and has not yet been implemented – shall be conducted by a national body (the CNU, *Conseil national des Universités*<sup>7</sup>). Using these evaluation results, each university would be allowed to alter the workload of each academic (more teaching for some and more research for others, for example) and thus to renegotiate his/her activities. In the United Kingdom, such a system is already in place and has been increasingly formalized via different career tracks.

<sup>4</sup> In a stimulating paper, Brunsson and Sahlin-Andersson (2000) argue that reforms in the public sector (including higher education institutions) are aimed at constructing public services “into organizations,” i.e. at reinforcing identity, hierarchy, and rationality within these services.

<sup>5</sup> This process is not unique to higher education. Many studies in other professional sectors conclude that both professional legitimacy and collegiality are threatened in professional bureaucracies when managers gain control and power over professionals (see for instance Harrisson and Pollitt, 1994 or Ackroyd, 1996). Comparing three different professional sectors, S. Ackroyd, I. Kirkpatrick, and M. Walker (2007) observe similar trends aiming at transforming public services into “‘managed services,’ efficient and performance oriented” (Ackroyd et al., 2007:11).

<sup>6</sup> While such temporary positions used to be transitional periods before getting a tenured position (Rosenblum and Rosenblum, 1996), they have now become a “permanent” situation for some.

<sup>7</sup> The CNU is a national body divided into discipline-based committees composed of academics, 2/3 of which are elected by their peers, the last third nominated by the ministry. Its missions and competencies have evolved over time, but traditionally it played a role in regulating the French academic profession (Musselin [2005], 2009).

During their professional career, permanent staff members are progressively “pushed” either into a research or a teaching career track, according to their classification (active researcher or not) in the RAE (Research Assessment Exercise) and their success in getting grants (Paye, 2010). As a result, each university is becoming an internal labor market in countries where a national craft/professional labor market previously prevailed (Doeringer and Piore, 1971; Musselin, 2005), and thus the universities have increased their capacity to intervene in the careers of its academic staff.

Studies of the relationship between the state and professions and between organizations and professions, as well as the analysis of the consequences linked to the empowerment of higher education institutions, all observe the weakening power of the academic profession, a process similar to those underway in other professional sectors. Nevertheless, when pointing out the changes that threaten professional academic power, we should not ignore the greater importance given to academic judgments by these reforms.

### 3. Reforms that empower an academic elite

In this second section, we will look at reforms which create selective or evaluative processes which rely, for the most part, on peer-based evaluation led by academics. I will focus on the cases of Germany and France, where such processes can be clearly observed. For example, both countries are interested in reforms which reduce the share of block grants in favor of project-based funding. Research budgets are a particular focus of this type of reform. In Germany, research councils already existed, and the budget managed by these agencies and their scope of action increased: not only did the global budget of the DFG grow, but the DFG is now also responsible for running the selection of excellency clusters and excellent graduate schools in the *Exzellenzinitiative* policy.<sup>8</sup> In France, we observed the same process after the 2006 law stipulating the creation of a research council,<sup>9</sup> the ANR (*Agence nationale de la recherche*): the budget of the ANR rapidly grew after its creation and it has been in charge of managing the calls for proposals for the *Grand Emprunt*, thus gaining an increased influence in the allocation of project-based funding.<sup>10</sup> Research funding is a central issue in these processes, but it is certainly not the only one: calls for proposals also exist to selectively allocate funding for teaching, technology transfer, or facilities. In all of these processes, peer review plays a central role.

This is also the case for evaluation, accreditation, and assessment processes and agencies spread throughout all European countries (Schwarz and Westerheijden, 2004), which work to link funding to performance. In countries like France and Germany, performance-based funding was barely present at the end of the 1990s (Geuna and Martin, 2003; Jonbloed, 2001). In Germany, it has been progressively introduced since then. According to Orr et al. (2007:11), “The first states introduced their models in the early 1990s, and by 2004, 11 out of the 16 German states were using formula funding as an element of their university funding models,” but with varying intensity: “Some states—e.g. Hesse and Brandenburg—allocate 95% of their budget via indicators, whilst

others—e.g. Mecklenburg-West Pomerania and Bavaria—distribute no more than 5% of the state subsidy in this way.” Performance-based funding also developed recently in France; one of the major changes introduced by the creation of the AERES (evaluation agency) in the 2006 law was to partly link the results of its evaluations to funding, while some indicators (such as the level of professional insertion of students) were introduced in a new budget allocation system, nicely called SYMPA.

These processes are all linked to the rise of what could be called an “incentivizing” state: rather than prescribing how things should be done, governments develop rules of the game which require compliant behaviors if one wants access to funding. As stressed by Le Galès and Scott (2010 [2008]) or Naidoo (2008), the greater managerial autonomy given by the state is partly an illusion as, in fact, incentive-based instruments exercise a stronger control over behaviors, a rather classic effect of NPM, as they affect the relationship between principal and agents (Schubert, 2009). What makes the case of higher education especially interesting, however, is that competitive calls and evaluation processes rely predominantly, if not exclusively, on peer review. Most of the time, agencies manage and are responsible for these processes, and they use principal-agent relations: the ministry (the principal) asks the agencies (agents) to achieve a specific task (evaluation, funding research projects, etc.).

As shown by scholars who study such intermediary organizations (Van der Meulen and Rip, 1998) and agencies (Christensen and Lægheid, 2005), these bodies depoliticize as well as legitimize governmental decisions by directly linking the results of peer reviews to resources. This is close to what Weaver (1988) calls “automatic government:” the “automatic” transformation of an evaluation conducted by the AERES into funding in some French universities is a nice example for this. But governments are also dependent on these structures in different ways. First, as stressed by Braun (1993), these agencies are a “double-edged sword for policy-makers,” because governments can hardly prevent them from being colonized by the academic community and because some consider them to be academically conservative.<sup>11</sup> As a consequence, their existence also makes political influence on academic issues more controversial and less legitimate to the academic community<sup>12</sup> and to academics sitting in these intermediary organizations who demand respect of their autonomy.<sup>13</sup> Agencies were expected to clarify relationships and be more accountable, but this is also often problematic, as it is difficult to “make agencies independent and at the same time accountable” (Christensen and Lægheid, 2005:14).

Competitive funding and assessment agencies do not always work as they are expected to, but they are nevertheless important vectors of influence and power for the academic profession, or at least for academics participating in these processes and producing reviews. They constitute an academic elite which decides who will get resources and rewards (Whitley, 2007). They therefore provide a counterbalance in the relationship between the academic profession and the state and have a strong influence on the regulation of the academic profession. This influence grows as the amount of

<sup>8</sup> For the first round of the *Exzellenzinitiative*, about 1.9 billion Euros were allocated to 39 graduate schools and 37 clusters of excellence. The last round (2012) selected 45 graduate schools and 43 clusters of excellence and allocated 2.7 billion Euros.

<sup>9</sup> Before the creation of the ANR, project-based research already existed. The Ministry for Higher Education and Research and national research institutions such as the CNRS managed calls for proposals. The rationale for the creation of the ANR was as much to develop project-based research as to create an agency independent from the government in charge of centralizing and managing the process, and to increase the share of project-based funding.

<sup>10</sup> The ANR is the primary body responsible for the selection of the best projects and the allocation of 21.9 billion Euros.

<sup>11</sup> Research councils are sometimes accused of selecting “normal science” instead of taking the risk of funding innovative and cutting-edge research.

<sup>12</sup> In France, the selection of the LABEX (laboratories of excellence) in the *Grand Emprunt* process was hotly criticized, because the president of the LABEX jury was asked by the government to “save” 17 projects among those assessed with a “B” grade and to add them to the list of “A”’s.

<sup>13</sup> The procedure designed to run the *Exzellenzinitiative* in Germany was, for its part, clearly designed to protect scientific judgment from undue influence and to keep political actors at bay: final decisions are made by a commission composed of scientific experts and representatives of the *Länder* and the *Bund*, but the scientific actors have more votes than the politicians and can therefore resist political will if they all vote in the same direction.

resources allocated via these processes increases. In order to better examine the impact of this evolution, three consequences of the use of peer review in the allocation of resources and in evaluation processes will now be discussed: the changes it brought about in academic judgment itself; the collusion between academic power and managerial powers at the institutional level when external peer-review is used; and the reconfiguration of the academic profession.

#### 4. New forms of academic judgment

The process described in the second part cannot be reduced simply to an increased influence of research councils or evaluation bodies. This is, of course, important, but many councils and processes already existed before, though not always as “independent agencies,” and some academics were already participating in evaluation and selection (Friedberg and Musselin, 1993). While there has certainly been an increase in competitive funding and evaluation processes, it is the fact that this goes along with changes in the way peer review is exercised that has truly been decisive. Previously, we could have described France and Germany as what Whitley called “weak research evaluation systems” (Whitley, 2007:9), but now they have been transformed into strong ones, i.e. systems that “institutionalize public assessments of the quality of the research conducted in individual departments and universities by scientific elites on a regular basis according to highly formalized rules and procedures.” Peer-review in both countries has become more international, formalized, publicized, collective, and includes more than “purely scientific” criteria.<sup>14</sup>

First, peer-review has become more international. The participation of international scholars acts as a guarantee of impartiality (since the assessment goes beyond the small national academic community), quality, and universality (the expected reference is thus the progress of research in the world rather than just within the national community). In Germany, for example, among the 25 scientists appointed to select the best institutional projects for the *Exzellenzinitiative*, fifteen were either foreign academics or Germans who have worked for a very long time in a prestigious international university abroad. In France, of the 125 members participating in the jury for LABEX (labs of excellence), 122 worked in institutions located outside France (including one firm), only three worked in France, and of these three all are employed by firms and not by universities.

The development of more formalized and standardized procedures, both for applicants and academic experts solicited for reviews, is another important change. Being transparent, explaining the criteria that will be used, avoiding conflicts of interest, and following recognized guidelines are foremost in the procedures developed by the agencies or bodies in charge of project or activity evaluation. The administrative staff within these structures is very much involved in the production of guidelines explaining how to proceed, reports about past activities and their impact, statistics, etc. They develop procedures, templates, and decision-making processes in order to guarantee the quality of the peer-review process. In some cases (for instance the AERES in France and many German accreditation agencies), they have applied for the label provided by the ENQA<sup>15</sup> (European Association for Quality Assurance in Higher

Education). Others (the French ANR and the German DFG) participated in the “ESF Member Organisation Forum on Evaluation of Publicly Funded Research,<sup>16</sup>” which works to define standards and guidelines for research program and funding schemes. The French ANR furthermore claims its procedures are certified ISO 9001.

The formalization and standardization of procedures leads to a clearer enunciation of the evaluation criteria that will be used and of the information that is considered to be essential. Reading the application forms is very instructive regarding the data required and their relative importance. The activity report research units have to fill out for the French AERES, for instance, clearly gives priority to articles over books,<sup>17</sup> and until recently – with protests from the humanities and social sciences – did not require that the assessor distinguish between books and chapters in books. Universities who apply for the *Exzellenzinitiative* must identify their scientific strengths, but also promote interdisciplinarity, be international, and show their capacity for reforms in priority setting and governance. The content of the application forms is not defined by the administrative staff alone; it is developed with the academics who are either employed by the organization or sit on its committees in charge of research funding or evaluations, often in negotiation with a larger community.<sup>18</sup> The criteria and priorities that can be deduced from these forms are broad enough to give some leeway to the reviewers who will then assess the applications, but the review forms they use to write their evaluations or give grades also organize their judgment. To assess a research project submitted to the ANR, a reviewer must, for instance, evaluate the quality of the members of the team on a scale from 0 to 5, meaning that the known quality of the applicants is a factor that counts and should be explicitly graded.

Academics who run research councils or evaluation agencies are therefore active in setting norms, priorities, and criteria. As stressed by Münch (2007, 2008), what occurs is not only evaluation and messing, but also constructing differences in achievement and therefore participating in strengthening status hierarchies.<sup>19</sup> Academics involved in such processes can be described as normative agents, with reference to the expression used by Scott (2008) to qualify the professionals involved in the transformation of institutions. They participate in the creation of norms, but also diffuse them,<sup>20</sup> make them public, and the results of the reviews are public as well. The fact that these results are public, especially in the case of evaluations of labs, institutions, or training programs, also increases the potential impact of these processes. The research projects selected by the ANR or the DFG are available on their website, as are the ratings of the Research Assessment Exercise by the AERES or German accreditation agencies. Information is thus provided to stakeholders (students, their families, tax payers, private

<sup>16</sup> <http://www.esf.org/activities/mo-fora/evaluation-of-publicly-funded-research.html> (consulted August 2012).

<sup>17</sup> They may claim that they just follow the French alphabetical order (“articles” comes before “ouvrages” (books)) but this respect of the alphabetical order to list publications is recent and started with the AERES.

<sup>18</sup> The forms developed by the AERES were, for their part, prepared by the academics working at the AERES, discussed with the scientific council of the AERES, presented and further discussed with representatives of the French national research institutions (the CNRS, for instance), the Conference of University Presidents, the ministry, etc. In Germany, the forms for the *Exzellenzinitiative* were developed by the DFG and the Council for Science, discussed with representatives of the *Bund* and *Länder* ministries as well as with the members of the international jury.

<sup>19</sup> The implications of such a process may be significant as higher education transforms into an increasingly competitive scene. As shown by Podolny (1993), status plays a crucial role in market competition.

<sup>20</sup> Camerati (forthcoming), for instance, observes that individuals sitting in such external peer review bodies are asked to train and advise the colleagues of their own universities.

<sup>14</sup> In this paper I do not engage with debates about the “quality” of peer review, i.e., are the best researchers rewarded? (Van den Besselaar and Leydesdorff, 2007), or, what is the content of the reviews and how do reviewers make decisions (Lamont, 2010)?, etc.

<sup>15</sup> This network of European evaluation agencies in higher education was created in 2000 to promote European cooperation in the field of quality assurance. It is in charge of reviewing European agencies applying to be listed on the EQAR (European Quality Assurance Register for Higher Education).

labs, etc.) who can identify and/or choose institutions or projects with better ratings.

Because of the internationalization of participants, the standardization and formalization of the procedures, and the publicity of the criteria and the results, the processes developed by the German and French research councils and evaluation agencies challenge the interpersonal networks that previously developed around some reputed professors who were able to, at least partly, individually control access to resources. Without overestimating the impartiality and universality of the assessment procedures, and without underestimating their potential bias in favor of mainstream research,<sup>21</sup> these processes make interpersonal relationships more difficult to activate, for the applicants as well as for the reviewers, because collective decision-making processes and deliberations hinder, or at least reduce, the possibility of explicitly pursuing personal interests (Elster, 1998).

A last characteristic of these processes is that they are peer-based but not “purely academic;” that is to say, they are not exclusively intended to assess the intrinsic value of science. On the one hand, non-academic staff sometimes participates in these reviews (as previously observed for the selection of Labex in France), and on the other hand, the criteria are not all strictly scientific. For instance, criteria such as the relevance of the budget with respect to the announced tasks, resource sustainability, the relevance for society, or strategies for technology transfer, etc., are all included in the forms the reviewers use. This infusion of extra-academic criteria in peer review processes remains rather marginal (academic criteria still prevail), but it is nevertheless one component of these reviews.

The various changes described above reveal that the peer-based judgment exercised by academic experts in research councils or evaluation agencies has specific and new characteristics: it relies on individuals with new characteristics (more international and partly not “academic”), it builds on academic criteria, but also includes extra-academic ones, and thus produces and promotes a normative framework about what research, teaching, technology transfer, or governance should be.

## 5. When academic power legitimizes institutional power

The influence of the peer-based judgment conducted in research councils and evaluation agencies is not limited to resource flows and the diffusion of new norms. These norms also impact the governance of higher education institutions in two ways.

First, they are appropriated by academics at the head of departments or research units, not solely by the top leadership of universities. Mid-level university leaders may criticize the development of project-based funding and evaluation processes, but they are nonetheless attentive to these processes and try to understand, anticipate, collect information, and react according to the requirements of these processes,<sup>22</sup> as I observed in a recent study conducted in three French universities in May 2011 (Musselin, 2012). In order to pass the AERES evaluation with success, university leaders organize a pre-evaluation process and try to meet the AERES expectations as closely as possible. This was especially striking – and in a way surprising – in one of the universities under study that specializes in humanities and social sciences, and is known for the reactivity of its students and the opposition of its staff to the reforms. Even there, the interviewed leaders of research units in this university were frequently complaining about their colleagues

who do not care about publishing a paper in an unknown journal or who do not try to apply for grants. Thus, even when contested, there is compliance with the norms set by the external peer reviews from research councils and evaluation bodies.

This overall acceptance of the external peer-review evaluations<sup>23</sup> is one manifestation of the influence of the norms set by the academic elite that reviews proposals, projects, reports, etc. at the national level. In other words, this elite plays a role in the regulation of the academic profession by imposing its norms and criteria on it. But the self-discipline introduced by external reviews is further reinforced by the fact that academic leaders at the head of universities are also using external<sup>24</sup> academic reviews as a management tool. University presidents and their staff mobilize these reviews to legitimate decisions made at the university level, especially crucial decisions such as budget allocations, bonuses or merit salaries, careers, etc.

As a result, the managerial governance developed by these academic leaders relies on, or even is wholly dependent on, academic evaluation, while faculty members in universities are confronted simultaneously with more managerial and professional controls. One does not exclude the other: they combine and reinforce each other. In loosely coupled systems based on unclear technologies, authority can hardly be based on hierarchical relationships (Weick, 1976; Musselin, 2006). Thus, external peer review – i.e., professional authority – provides credibility and legitimacy to academic leaders. The decisions made at the university level are largely based on evaluations carried out outside the university by peers sitting in research councils, editorial boards, or evaluation agencies. Academic and managerial norms are mixed and used to steer, introduce change, allocate budgets selectively, etc. For instance, the number/level of grants obtained by a German professor is simultaneously a way for her to get resources for her research and a reward of her scientific capability, but it is used as a managerial indicator when it comes to negotiating her merit-based salary with her university. In France, in ongoing research on the effect of the 2007 law on French university governance (Musselin, 2012), we have observed that the grades obtained by labs or teaching programs after their assessment by the AERES<sup>25</sup> were transformed into budgetary algorithms, or used to redesign the research units or the courses available in the three universities under study. In German universities, the DFG rankings and/or the results of external reviews are used by some university leaders – frequently those applying for the *Exzellenzinitiative* calls – to set scientific priorities or to abandon others.

Some higher education institutions even replicate, at their level, the “model” of external peer-review in order to selectively allocate funding. Instead of relying on the statutory deliberative bodies (the *Senat* in Germany and the *Conseil scientifique* in France), they create ad hoc structures, often called Scientific Advisory Boards, composed of external (and often partly international) reviewers to internally distribute specific funding or identify priority sectors.

As a result, one can say that more managerial modes of governance do not weaken all forms of academic power. They also rely on it and use it when it takes the form of external peer review in order

<sup>23</sup> This is not to say there is no resistance or opposition. If one reads the website of “*Sauvons la recherche*” or “*Sauvons l’université*” – two associations that were created in the mid-2000s to protest against the reforms – one can read severe critiques of the ANR and of the AERES. But, nevertheless, many people “play the game,” including some of those who are critical.

<sup>24</sup> They are external, because agencies, bodies, or committees not belonging to the universities produce them.

<sup>25</sup> From its creation to 2011, the AERES attributed a general grade to each research lab (A+, A, B or C). Now they will attribute six different grades (respectively for academic production, attractiveness, impact, doctoral training, governance, and future plans).

<sup>21</sup> This was one of the critiques frequently addressed to the British RAE; cf. Lee (2007) about the impact of the RAE on economics.

<sup>22</sup> These processes are described in-depth in the forthcoming PhD of Camerati (forthcoming) on 4 British departments.

to legitimate decisions requiring selection, competitive allocation of resources, or priority definition. In other words, the increased autonomy of higher education institutions relies (at least partly) on the increased professional power of the academic elite.

## 6. Reconfiguration of the academic profession

Academic power is, on the one hand, weakened by the reforms presented in the first part of this paper. On the other hand, the development of competitive project-based funding and evaluation processes linked to performance funding increases the influence of academic peer reviews conducted by the bodies and agencies in charge of these activities, as well as the role of the academics participating in them. Their importance is strengthened because they control access to an ever-larger share of resources, but also because the reviews they produce are used as a management tool by higher education institutions. As a result, part of the traditional influence of academics is sidelined, while another part is reinforced by the recent changes. This push and pull reconfigures the academic profession in different ways.

First, it reinforces and expands the group of academics working for councils and agencies. In France, where there is a strong tradition of corporatist co-management between the government and the academic profession (Musselin, 2004 [2001]), the scientific departments of the ANR and the sections and scientific delegations of the AERES are run by academics – mostly part time – who are appointed for a specific mission. In Germany, a head office and a variety of committees composed of academics run the DFG and the German scientific council. As these different bodies play an increasingly important role, in both France and Germany, the academics within them become more influential in the definition of norms and procedures and in decision-making. This transforms the nature of government-academic co-management, as some academics become quasi-professionals of evaluation processes and progressively leave their activities as faculty members, going from one position to another within the research councils or evaluation agencies. For instance, the former president of the German science council, a professor of history, has just become the new president of the DFG; the current director in charge of the evaluation of French labs at the AERES since 2011, a professor of French literature, was the AERES scientific delegate for literature from 2007 to 2009 and then the AERES scientific coordinator for the humanities and social sciences from 2009 to 2011. This serves to demonstrate the emergence of a larger group of faculty members within the academic profession who become professionals in the management of peer review, a group distinct from the group of faculty members who become professional academic leaders (deans, presidents, or *recteurs d'académie* in France).

Working in the shadows of this first group of academics, one finds a much larger group of reviewers solicited to evaluate projects, proposals, or reports. This group of national and international individuals is difficult to numerically estimate, as many of them are reviewers in various bodies in their own country and abroad.<sup>26</sup> However, even if the increase in evaluation and reviews requires more and more reviewers, they make up only a limited share of the general academic population. For instance, in its activity report 2007–2011,<sup>27</sup> the AERES says it used 5900 reviewers,<sup>28</sup>

and that 18% of them were not French. If we assume that around 4800 were French, and compare this number to the number of university professors plus the number of research directors at the three largest national research institutions in France (i.e. the population targeted as reviewers), we can estimate that 15–20% of this population belongs to this elite group.

These reviewers play a central role by participating in peer reviews for the councils and evaluation bodies, but they are also important because of the information they may provide to their colleagues in their universities about the norms to respect and the criteria that are considered to be crucial. Those scholars who received funding or a good evaluation from the research councils can also play this informative role for their colleagues or their institutions.

This thus increases the differentiation in the academic profession between, on the one hand, those who get funding or good reviews, or those who are participating in the peer-reviews (sometimes the same as those funded), and, on the other hand, other faculty members. This differentiation is not exclusively a question of prestige or resources: it also affects the capacity to resist or negotiate managerial constraints. Because academic leaders use external peer review as a management tool, those who are successful can draw on their good results to more easily oppose/bargain with the department chairperson or dean, while those with low success rates are more exposed to controls, have less margin for maneuver, and are made to feel their place in the hierarchy by university managers. At the level of universities, what we observe is that there is not so much a generalized reduction per se of the professional power of academics, but a rather a reduction in the number of those who still possess the traditional attributes (in terms of professional autonomy) of academics, accompanied by the emergence of a group of academics whose activities can be more easily controlled and oriented by university leaders, since they lack external reward.

One can argue that finding symbolic or material resources outside one's institution has always been crucial in order to strengthen one's power position within one's university, as stressed by Pfeffer and Salancik in their early work on resource dependence (Pfeffer and Salancik, 1974; Salancik and Pfeffer, 1974). Now, however, external rewards and resources are also crucial for resisting pressure from managers and to be able to rebalance power exchanges with them. Not being part of external peer reviews (as reviewers and/or as beneficiaries of peer review) has a heavy cost in terms of autonomy and negotiation capacity. The pressure to compete for external grants and get high rewards and positive evaluation from one's peers is the cost to be paid to keep managerial control away.

The weakening of some aspects of professional power and the reinforcement of the role played by external peer review in research council or evaluation agencies thus affects power distribution within the profession. If one looks at higher education and research as a field of forces, as Bourdieu (1984 [1988]) did, the two sets of antagonistic forces he identified in *Homo Academicus* no longer seem as relevant as they were when he studied the French (Parisian) professors of 1967 and opposed, on the one hand, disciplines (law and medicine) in which inherited economic and political capital prevailed, to disciplines (humanities and science) in which scientific and intellectual capital dominated. On the other hand, Bourdieu showed infra-disciplinary antagonistic forces between academics who got their reputation through their capacity to control academic careers and those who strove for intellectual or scientific recognition. But today, because of the increased emphasis

<sup>26</sup> For instance, of the nine reviewers sitting in the two committees in charge of the final decision for the *Exzellenzinitiative* and working in German universities, four are also members of the scientific commission of the German scientific council, and two are members of the Senate of the German research council.

<sup>27</sup> <http://www.aeres-evaluation.fr/Publications/Documentation-sur-l-agence/Documents-institutionnels> (consulted August 2012).

<sup>28</sup> This is a significantly higher number than what can be found on the list of reviewers published by the AERES on its website (over 3600). This list is unfortunately not

usable: one-third to half of the reviewers do not provide a CV (although the AERES asks them for that), and there is often only the name and surname of the reviewer and the list of evaluations he/she participated in, but not his/her institutional affiliation.

on research activities and the importance given to scientific evaluation, the antagonism between the disciplines becomes as significant as between academics getting positive assessments and grants and those who do not, within the same discipline. Among permanent faculty members, the segmentation between those whose research activity is rewarded and those for whom it is not is at the same time stronger and more visible within all disciplines. In parallel, the academic elite challenges individuals who controlled careers in Bourdieu's analysis: many of them are part of the elite, but they can no longer rely on interpersonal relationships as they did before. Finally, new categories are emerging that have a hybrid character, because they mix academic capital and managerial capacities: academic leaders in universities belong to this group, as do academics involved in the management of evaluation bodies (the chair of the ANR or the president of the DFG, for instance).

This leads to a reconfiguration of the academic profession, as it becomes not only more differentiated (a larger gap between the "haves" and the "have-nots"), but also more diversified (on a scale from "traditional academics" to academics becoming professionals in evaluation processes). The scientific field might become less structured due to the tensions between disciplines rather than because of the tensions between the latter two groups.

## 7. Conclusion

After a rapid review of the literature looking at the relationship between the state and the academic profession, the empowerment of university leadership, the relationship between higher education organizations and academics, and their shared conclusion regarding the weakening of the academic profession, I argue that these studies overlook the increasing role of external peer reviews in research councils and evaluation agencies. I also showed that these reviews are not only more frequent and linked to a larger amount of resources to distribute, but that they are also used as management tools by university management and lead to a reconfiguration of the academic profession.

I drew three conclusions from this. First, the recent changes are not a zero-sum game in which some (managers) have more power and others have less (academics). There is simultaneously more academic and more managerial power and these powers may be combined. Second, the distribution of winners and losers has changed as the gap between them has increased: the prestige, resources, and academic autonomy of the latter are significantly lower than before, while they are significantly higher for the former. Third, the internal power distribution within the academic profession, as well as within universities, has evolved. Rather than a defeat of professional power, we are witnessing its reconfiguration, as well as a transformation of the composition of the academic profession itself. The "traditional" academic, active in research and teaching, organizing his/her activity on a discretionary basis, whose academic freedom is secured by tenure, is still one component of this profession. Nevertheless, other categories have developed, which share only some of these characteristics, but not all of them (for instance part-timers or casual staff), or are characterized by their hybrid specificity (for instance academics who are managerial leaders or academics appointed by quality assurance agencies). Some of them have gained in influence and power because they set and formalize the norms according to which academic activities, and thus academic reward and individual careers, are evaluated.

This paper thus contributes to the broad debate about professionalism and managerialism.<sup>29</sup> Rather than a victory of managers

over professionals, the ongoing process increases the heterogeneity of the academic profession. All segments of the latter are not similarly affected by the changes we described in this paper. Some are still very close to all the primary features of the professional ideal-type outlined by Freidson (2001:180): "a body of knowledge and skill which is officially recognized as one based on abstract concepts and theories; second, an occupationally controlled division of labor; third, an occupationally controlled labor market requiring training credentials for entry and career mobility; fourth, an occupational training program which produces credentials [...]; and fifth, an ideology serving some transcendent value and asserting greater devotion to doing good work than to economic reward." Some academics, however, have some of these attributes, but not all, and thus become more exposed to managerial control and lack professional autonomy.

Finally, this case is also interesting in terms of policy analysis. The rationale behind the stronger role (or the creation) of research councils and the increase in the amount of resources they allocate, as well as for the introduction of evaluation agencies and the use of performance in budget allocation, are not (or rarely) linked to institutional empowerment of universities or the reconfiguration of the academic profession. By looking at these two other levels of analysis, this paper sheds light on the unforeseen effects of these reforms and on the interdependent relationships linking the state, the academic profession and higher education and research institutions, in such a way that transforming one of them also affects the others, even if it this was not intended. We furthermore stress the interrelations between higher education and research policies: increased institutional autonomy favors the transformation of knowledge production, but is also reinforced by it, as has been shown in this paper.

## References

- Ackroyd, S., 1996. Organisations Contra Organisations: professions and organisational change in the United Kingdom. *Organization Studies* 17, 599–621.
- Ackroyd, S., Kirkpatrick, I., Walker, M., 2007. Public management reform in the UK and its consequences for professional organization: a comparative analysis. *Public Administration* 85, 9–26.
- Ball, S.J., 1990. The sociological implications of the education reform act: review essay. *British Journal of Sociology of Education* 11 (4), 485–491.
- Barrier, J., 2010. La science en projets. Régimes de financement et reconfigurations du travail des chercheurs académiques, PhD in Sociology at Sciences Po, Paris.
- Barrier, J., 2011. La science en projets: financements sur projet, autonomie professionnelle et transformations du travail des chercheurs académiques. *Sociologie du travail* 53 (4), 515–536.
- Berdahl, R., 1982. Statewide boards and the alienation of governance from the campus. *Academe* 68 (1), 11A–14A.
- Bezes, P., Demazière, D., 2011. New Public Management et professions dans l'Etat: au-delà des oppositions, quelles recompositions? *Sociologie du travail* 52, 293–348.
- Bourdieu, P., 1988 [1984]. *Homo Academicus*. Polity Press, Cambridge (first published in French in 1984. *Homo Academicus*. Editions de Minuit, Paris).
- Braun, D., 1993. Who governs intermediary organizations? Principal-agents relations in research policy-making. *Journal of Public Policy* 13, 135–162.
- Braun, D., Merrien, F.-X. (Eds.), 1999. *Governance of Universities in a Comparative Perspective*. Jessica Kingsley Publishers, London.
- Brunsson, N., Sahlin-Andersson, K., 2000. Constructing organizations: the example of the public sector reform. *Organization Studies* 21, 721–746.
- Camerati, F. Les transformations du système de financement de la recherche dans les universités britanniques. PhD in Sociology at Sciences Po, Paris, forthcoming.
- Chatelain, S., Mignot-Gérard, S., Musselin, C., Sponem, S., 2012. La gouvernance des universités françaises. Pouvoir, évaluation et identité. Monograph, Paris, HEC Montréal, CNAM, CSO and UPEC.
- Christensen, T., Lægreid, P., 2005. Regulatory reforms and agencification. In: *ECPR Conference, Budapest, September 2005*.
- Cohen, M., March, J., Olsen, J., 1972. A garbage can model of organizational choice. *Administrative Science Quarterly* 17, 1–25.
- de Boer, H., Enders, J., Leisyte, L., 2007a. Public sector reform in Dutch higher education: the organizational transformation of the university. *Public Administration* 85, 27–46.
- de Boer, H., Enders, J., Schimank, U., 2007b. On the way towards new public management? The governance of university systems in England, the Netherlands, Austria and Germany. In: Jansen, D. (Ed.), *New Forms of Governance in Research*

<sup>29</sup> A stimulating review of these debates and further perspectives can be found in a dossier directed by P. Bezes and Didier Demazière for *Sociologie du travail* (Bezes and Demazière, 2011).



- Organizations. *Disciplinary Approaches, Interfaces and Integration*. Springer, Dordrecht, pp. 137–152.
- Deem, R., Hillyard, S., Reed, M., 2007. *Knowledge Higher Education and the New Managerialism: The Changing Management of UK Universities*. Oxford University Press, Oxford.
- Doeringer, P.B., Piore, M.J., 1971. *Internal Labor Markets and Manpower Analysis*. Heath Lexington Books, Lexington.
- Elster, J., 1998. Deliberation and constitution making. In: Elster, J. (Ed.), *Deliberative Democracy*. Cambridge University Press, Cambridge.
- Enders, J., de Boer, H., 2009. *The Changing Face of Academic Life*. MacMillan, New York, Palgrave.
- Enders, J., Musselin, C., 2008. Back to the future? The academic professions in the 21st century. In: *OECD Higher Education 2030. Vol. 1: Demography*. OECD Editions, Paris, pp. 125–150.
- Eurydice, 2000. *Two Decades of Reform in Higher Education in Europe: 1980 onwards*. Eurydice Studies, Education and Culture, European Commission, Brussels.
- Eurydice, 2008. *Higher Education Governance in Europe*. Eurydice Studies, Education and Culture, European Commission, Brussels.
- Evetts, J., 2002. New directions in state and international professional occupations: discretionary decision-making and acquired regulation. *Work, Employment and Society* 13, 353.
- Ferlie, E., Musselin, C., Andresani, G., 2008. The steering of higher education systems: a public management perspective. *Higher Education* 56, 325–348.
- Freidson, E., 1994. *Professionalism Reborn. Theory, Prophecy and Policy*. Polity Press, Cambridge.
- Freidson, E., 2001. *Professionalism, the Third Logic. On the Practice of Knowledge*. Chicago University Press, Chicago.
- Friedberg, E., Musselin, C., 1989. L'université des professeurs. *Sociologie du Travail* 31 (4), 455–476.
- Friedberg, E., Musselin, C., 1993. L'Etat face aux universités. *Anthropos*, Paris.
- Fulton, O., 1994. *Remote and Ineffectual Dons? The Academic Profession at the End of the Twentieth Century*. Inaugural Lecture at the University of Lancaster.
- Geuna, A., Martin, B., 2003. University research evaluation and funding: an international comparison. *Minerva* 41 (4), 277–304.
- Gumpert, P.J., 2000. Academic restructuring: organizational change and institutional imperatives. *Higher Education: The International Journal of Higher Education and Educational Planning* 39, 67–91.
- Halliday, T., 1987. *Beyond Monopoly: Lawyers, State Crises and Professional Empowerment*. University of Chicago Press, Chicago.
- Harrison, S., Pollitt, C., 1994. *Controlling Health Professionals*. Open University Press, Buckingham.
- Henkel, M., Little, B. (Eds.), 1999. *Changing Relationships between Higher Education and the State*. Jessica Kingsley Publishers, London.
- Jonbloed, B., 2001. Keeping up performances: an international survey of performance-based funding in higher education. *Journal of Higher Education Policy and Management* 23 (2), 127–145.
- Jouvenet, M., 2011. Profession scientifique et instruments politiques: l'impact du financement «sur projet» dans des laboratoires de nanosciences. *Sociologie du travail* 53, 234–252.
- Kehm, B., Lanzendorf, U. (Eds.), 2006. *Reforming University Governance. Changing Conditions for Research in Four European Countries*. Bonn, Lemmens.
- Krause, E., 1996. *Death of the Guild: Professions, States and the Advance of Capitalism 1930 to Present*. Yale University Press, New Haven, CT.
- Krücken, G., 2011. A European perspective on new modes of university governance and actorhood. *Research & Occasional Paper Series, CSHE*. 17.11. <http://cshe.berkeley.edu/>
- Krücken, G., Meier, F., 2006. Turning the university into an organizational actor. In: Drori, G., Meyer, J., Hwang, H. (Eds.), *Globalization and Organization*. Oxford University Press, Oxford, pp. 241–257.
- Lamont, M., 2010. *How Professors Think*. Harvard University Press, Cambridge, MA.
- Larson, M., 1977. *The Rise of Professionalism: A Sociological Analysis*. University of California Press, Berkeley.
- Lazega, E., Wattedled, 2011. Two definitions of collegiality and their inter-relation: The case of a Roman Catholic diocese. *Sociologie du travail in English* 53 (Suppl. 1), e57–e77 (originally published in French in 2010. Deux définitions de la colégialité et leur articulation: le cas d'un diocèse catholique. *Sociologie du travail* 52, 481–502).
- Le Galès, P., Scott, A., 2010. A British bureaucratic revolution? Autonomy without control or “Freer actors more rules”, English Annual selection. *Revue Française de Sociologie* 51 (1), 119–146 (first published in French: 2008. Une révolution bureaucratique britannique? Autonomie sans contrôle ou «freer markets, more rules». *Revue française de sociologie* 49, 301–330).
- Lee, S.L., 2007. The Research Assessment Exercise, the state and the dominance of mainstream economics in British universities. *Cambridge Journal of Economics* 31 (2), 309–325.
- Mallard, G., Paradesse, C., 2008. Global science and national sovereignty: a new terrain for the historical sociology of science. In: Mallard, G., Paradesse, C., Peerbaye, A. (Eds.), *Global Science and National Sovereignty*. Routledge, New York, pp. 1–39.
- Mintzberg, H., 1979. *The Structuring of Organizations: A Synthesis of the Research*. Prentice Hall, Englewoods Cliffs, NJ.
- Münch, R., 2007. Die akademische Elite, Zur sozialen Konstruktion wissenschaftlicher Exzellenz. Suhrkamp, Frankfurt a. M.
- Münch, R., 2008. Stratifikation durch Evaluation: Mechanisms der Konstruktion von Statushierarchien in der Forschung. *Zeitschrift für Soziologie* 37, 60–80.
- Musselin, C., 2004 [2001]. *La longue marche des universités françaises*. Presses de Sciences Po, Paris (The Long March of French Universities, New York, Routledge, 2004).
- Musselin, C., 2005. European academic labor markets in transition. *Higher Education* 49, 135–154.
- Musselin, C., 2006. Are universities specific organizations. In: Krücken, G., Kosmützky, A., Torca, M. (Eds.), *Towards a Multiversity? Universities between Global Trends and National Traditions*. Transcript Verlag, Bielefeld, pp. 63–84.
- Musselin, C., 2009 [2005]. *The Markets for Academics*. Routledge, New York (first published in 2005. *Le marché des universitaires*. France, Allemagne, Etats-Unis. Paris, Presses de Sciences Po).
- Musselin, C., 2012. *Liberté, Responsabilités, Centralisation*. Monograph. CSO and ESEN, Paris.
- Naidoo, R., 2008. The competitive state and the mobilised market: higher education policy reform in the United Kingdom (1980–2007). *Critique Internationale*, 47–65.
- Orr, D., Jaeger, M., Schwarzenberger, A., 2007. Performance-based funding as an instrument of competition in German higher education 29 (1), 3–23.
- Paradesse, C., Reale, E., Bleiklie, I., Ferlie, E., 2009. *University Governance. Western European Comparative Perspectives*. Springer, Dordrecht.
- Paye, S., 2010. Beyond homo-academicus: new professional patterns in British universities. conference on “The Distinction of Elites: Case Studies”. Maison Française d'Oxford, 21 January, Oxford, 2010.
- Pfeffer, J., Salancik, G.R., 1974. Organizational decision making as a political process: the case of a university budget. *Administrative Science Quarterly* 19, 135–151.
- Podolny, J., 1993. A status-based model of market competition. *American Journal of Sociology* 98, 829–872.
- Rosenblum, G., Rosenblum, B.R., 1996. The flow of instructors through the segmented labor markets of academe. *Higher Education* 31, 429–445.
- Salancik, G.R., Pfeffer, J., 1974. The bases and use of power in organizational decision making: the case of a university. *Administrative Science Quarterly* 19, 453–473.
- Schubert, T., 2009. Empirical observations on new public management to increase efficiency in public research – boon or bane? *Research Policy* 38, 1225–1234.
- Schwarz, S., Westerheijden, D. (Eds.), 2004. *Accreditation and Evaluation in the European Higher Education Area*. Springer, Dordrecht.
- Scott, R., 2008. Lords of the dance, professional as institutional agents. *Organization Studies* 29 (2), 219–238.
- Serrano-Velarde, K., 2008. Evaluation, Akkreditierung und Politik – Zur Organisation von Qualitätssicherung im Zuge des Bologna-Prozesses. VS-Verlag, Wiesbaden.
- Van den Besselaar, P., Leydesdorff, L., 2007. Past Performance as Predictor of Successful Grant Applications. The Hague, Rathenau Instituut SciSA rapport 0706.
- Van der Meulen, B.J.R., Rip, A., 1998. Mediation in the Dutch science system. *Research Policy* 27 (8), 757–769.
- Vinokur, A., 2007. La loi relative aux libertés et responsabilités des universités: essai de mise en perspective. *Revue de la Régulation [en ligne]* 2, November 2007. Downloaded on from: <http://regulation.revues.org/index1783.html> (12 November 2009).
- Waters, M., 1989. Collegiality, bureaucratization and professionalization: a Weberian analysis. *American Journal of Sociology* 94, 945–972.
- Weaver, K., 1988. *Automatic Government: The Politics of Indexation*. Brookings Institution Press, Washington, DC.
- Weick, K., 1976. Educational organizations as loosely coupled systems. *Administrative Science Quarterly* 21, 1–19.
- Whitley, R., 2007. Changing governance of the public sciences: the consequences of establishing diverse research evaluation systems. In: Whitley, R., Glaeser, J. (Eds.), *The Changing Governance of the Sciences: The Advent of Research Evaluation Systems*. Springer, Dordrecht, Netherlands, pp. 3–27.
- Whitley, R., 2008. Constructing universities as strategic actors: limitations and variations. In: Engwall, L., Weaire, D. (Eds.), *The University in the Market*. Portland Press Limited, Colchester, pp. 23–37.
- Whitley, R., 2009. The impact of changes in the governance of public science systems on intellectual authority and innovation. In: Wedlin, L., Sahlin, K., Grafstrom, M. (Eds.), *Exploring the Worlds of Mercury and Minerva*. Uppsala University, Uppsala, pp. 291–316.