

Divided communities: introducing the preferences of academics into the analysis of promotion.

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Abstract

Academic employment systems have been subjected to policy-driven changes in many countries but the university sector is still governed by collegial dynamics in which academics' views and attitudes are important. The present study, based on data from questionnaire survey responses of 4460 university faculty members in Spain, attempts to explain the preferences of academics towards the different systems of hiring and promotion in the university sector that have been in operation in the last 15 years, with varying degrees of centralization versus delegation of the evaluation processes to the local academic communities. After two reforms and eight years of operation of the current system, more than half of academics would still prefer a different model. We identify four different sets of explanatory factors conceptually linked to: academics' self-interest, beliefs and values, personal experience and learning, and socialization and institutional factors. We find that academics' preferences are not primarily explained by their career advancement interests. Our results show that preferences regarding the recruitment and promotion systems are strongly associated with a set of beliefs, opinions and values, especially the belief in the relative suitability of systems to guarantee a merit-based selection. Interestingly, those with university managerial experience are less likely to prefer the current model. This is also the case for those with higher academic rank, age and academic quality. No significant differences by gender were found.

Keywords: academics' preferences, promotion systems, evaluation practices, university hiring, tenure, meritocracy

1. Introduction

There is a considerable body of research aimed at characterising university systems (Clark 1983; Marginson and Rhoades 2002; Olsen 2007; Dobbing et al. 2011) and at identifying which factors are critical for understanding national variation. Different systems create different types of university actorhood (Kruecken and Meier 2006; Whitley, 2012). University governance affects research outputs and a generally positive correlation between the degree of university autonomy (in employment

practices, among other domains), competition for funding and better performance has been found (Aghion et al. 2010).

University employment models have been identified as an important dimension for the definition of university types (Whitley 2012). Among the key factors associated to such employment models are, on the one hand, the type of employment relations (e.g. civil servant/public employee versus private employee) and, on the other, the selection and promotion systems and quality assessment practices, particularly the administrations' role in regulating, managing or even selecting university academic staff. Therefore, the relative autonomy of higher education institutions and their departments to select and promote academic staff is one of the essential dimensions of university employment systems. The operation and consequences of these systems have been analysed mostly from the North American perspective (e.g. Clark and Ma 2005), although there are also case-based analyses accounting for the specificities of the academic profession in various other countries (e.g. Altbacht 1996; Enders 2001).

In recent decades, many university systems have been subjected to policy reforms (Cerych and Sabatier 1986; Paradeise et al. 2009; Dobbins and Knill 2009; Bleiklie and Michelsen 2013) aiming at steering activities (Ferlie et al. 2008) and providing more autonomy to universities as organizational actors (Whitley and Glasser 2014), changing the funding models (Hicks 2012), and empowering university managers (Capano 2008; Braun et al. 2015). University governance, especially in public university systems, has changed; among the dimensions transformed four are worth special mention: changes in the employment model for academics (e.g. abandoning the civil servant condition) (Pechar 2003), reforms to the access and promotion systems (Enders 2001; Abramo and D'Angelo 2015), the introduction of new evaluation systems (Sanz-Menéndez 1995; Whitley 2007; Cruz-Castro and Sanz-Menéndez 2007; Musselin 2013) and the expansion of accreditation (Gornitzka and Stensaker 2014; Serrano-Valverde 2014). Academic employment systems have changed considerably in many countries but research often takes those systems for granted, and academics are seldom analysed as actors but rather as passive subjects of those changes.

Despite the changes in the relations of authority that reforms have produced, the fact is that university authorities and governments still need a significant level of compliance and cooperation from academic employees to guarantee good performance. The success of any policy is partly determined by the affected individuals' views and attitudes towards it and their cooperation, especially in sectors affected by collegial dynamics in which the implementation of policies is partially or even completely delegated. If the cooperation of actors is needed for good governance and institutional functioning, it would be wise to understand the opinions, attitudes and preferences of the academics about the principal issues at stake¹. Public, collective and interest groups preferences matter and they shape public policies (Burstein 2003). Consequently, it is important to include academics in the understanding of the changes in higher education and include their opinions, attitudes and preferences in the analysis. We are not claiming that employment models and academic preferences are

¹ In fact, there is little information and attention regarding the opinions of academics about higher education policies (an exception is the Eurobarometer 2007).

the most important factors for understanding university changes, but we believe that they deserve greater attention and a more prominent place on the research agenda.

From the Spanish perspective it is puzzling that after two university reforms since 2001 and eight years of operation of an accreditation system as the only one for access to and promotion in academia, there is still sharp division and a lack of consensus. At the date of the present study, more than half of academics would still prefer a different system for access and promotion. The explanation of the limited support by academics could be partly grounded in the rejection of government intervention (even as a minimum quality control to determine the standards of who is eligible to access an academic career), and the belief that everything should lie only in the hands of universities. Additionally, it could be the case that a significant part of Spanish academics think that the accreditation system does not guarantee appropriate quality control, as the continual criticism of inbreeding practices has made evident (Nature 1998; Science 2006).

The formation of preferences has been widely analysed in certain fields, including psychology, economics and public policy. However, there is little attention to the policies of academic and scientific human resources. Consequently, a question remains open: what explains the preferences of academics towards the different systems of hiring and promotion in the university sector? We believe that this question is relevant both for theory and policy. The Spanish case is especially interesting because Spanish public universities have operated under three different types of systems of access and promotion at some point over the last fifteen years.

The paper is structured as follows. Firstly, we establish some analytical factors relevant to explaining preferences. Secondly, we review the systems of hiring and promotion that have been in place in Spain since the 1980s and construct a taxonomy based on the degree of government intervention in the processes of quality control and selection. Thirdly, we explain the methodology and the variables used in the analysis. Fourthly, we present the results of our multivariate analysis and, finally, we offer some conclusions and policy implications of our research.

2. Explaining academics' preferences regarding promotion systems

The academic community has traditionally been responsible for the main functional areas of universities, including the definition of recruitment criteria and the selection of new scientists (Braun et al. 2015). Academics are not passive receivers of public policy initiatives or regulations, but instead actors who can shape outcomes, especially considering their central role in the governance of universities and implementation of policies.

Much attention has been paid to citizens' opinions, attitudes and preferences regarding scientific issues; a research field, popularly known as "public understanding of science", has been consolidated in recent decades (Miller 2004; Bauer et al. 2007) and more recently specific attention has been paid to the analysis of citizens' preferences regarding science and technology policies (Sanz-Menendez et al. 2014;

Sanz-Menéndez and Van Ryzin 2015). However, there is limited interest in the preferences, attitudes and opinions of academics themselves and very little systematic data regarding scientists' preferences.

There are exceptions, like the classical studies by the *Carnegie Foundation* (Albacht 1996) or the project *Changing Academic Profession* (CAP), both including the analysis of academics' opinions, attitudes and preferences regarding different aspects of academic life, including: working conditions, work environment, preferences for tasks (teaching, research or technology transfer), job satisfaction, perception of quality assurance and, more generally, the aims of the academic profession (e.g. Locke et al. 2011; Rosa et al. 2012; Teichler and Höhle 2013; Bentley et al. 2013). Also noteworthy is the social psychology literature aimed at understanding career development (e.g. Lent, Brown and Hackett 1994).

More deeply grounded in science and technology policy studies, there have been developments in the study of expectations, prospects and career preferences, inspired by Fox and Stephan (2001) using the US NSF Survey of Doctoral Recipients, addressing the interactions between the preferences and subjective prospects of doctoral students. For example, Sauermann and Roach have analysed the preferences of academics in different dimensions, such as the career orientation to science (Roach and Sauermann 2010, Sauermann and Roach 2012), publishing while working in industrial jobs (Sauermann and Roach 2014) or their interest in entrepreneurial activities (Roach and Sauermann 2015). In some European countries, using Careers of Doctorate Holders (CDH) data, we have witnessed increased attention on constructing models of choice among different research career trajectories (e.g. Bloch et al. 2015). Additionally, with new efforts to compile data on career prospects and preferences for employment sectors (Waijjer et al. 2015) or faculty perceptions of the effects of PhD training on career (Hermanovicz 2015).

However, when analysing the literature we do not find relevant research into the preferences of academics regarding employment models and promotion systems in universities. In this paper we use mainly the concept of preference "as a comparative evaluation of (i.e. a ranking over) a set of objects" (Druckman and Lupia 2000: 2). The objects of preferences are external, are aspects of the environment that are evaluated in relation to one another; the objects within a preference are those that a person can imagine as substitutable. Despite substantive debate on the issue of preference formation it is generally accepted that preferences emerge from the interaction between individuals and their environments; preferences come, on the one hand, from individual cognitive processes and, on the other, from social and institutional contexts.

In other areas of research, such as political behaviour or public policies, the analysis of attitudes and preferences has been widely addressed. The seminal empirical work of Lazarsfeld, Berelson and colleagues (e.g. Berelson et al. 1954), and Campbell et al. (1960) created the foundations for this analysis. This stream of literature is vast, and many attempts to summarise the connection between attitudes and action have been made. Kinder (1998) has signalled three broad types of information that account for what citizens think: material self-interest, social identification and ideological

principles. Others have insisted on the cognitive dimension involved in preferences (Tversky and Khaneman 1974, 1981) and have emphasized the role of experience and learning (Holland et al. 1986).

Our *explanandum* is the preference for the current accreditation system over other alternative ones. Building on a heterogeneous set of research about preferences and their determinants in other fields (Kinder 1998), we have identified four different sets of factors that appear to be relevant in accounting for individuals' preferences conceptually linked to: academics' self-interest; beliefs and values; personal experience and learning; and socialisation and institutional.

Identifying the self-interest of academics in relation to their preferences regarding promotion systems is an analytical challenge². Different systems of access and promotion have diverse requirement and assessment methods and evaluation is implemented in different settings. Individuals might develop self-interest based on their career positions and the estimated cost of advancement, or on the difficulties and degree of competition in accessing a career and receiving promotion.

As we know from previous research (Lau and Heldman 2009), the self-interest of individuals is not the sole determinant of preferences; belief systems and values also matter (Funk 2000; Chong et al. 2001). On many occasions, preferences do not depend so much on material interest but on the perception of the situation in that area (Kinder and Kiewiet 1979). The values and beliefs of academics regarding the characterisation of the current system of access and promotion, in positive or negative terms, the extent to which they consider the system as meritocratic, or their assessment of the requirements of the accreditation system as more or less demanding, are factors that might contribute to explaining their preferences concerning the promotion arrangements.

Beliefs are stable over the short and medium term; however, they may change in the long run (Sabatier 1988). They may also change following personal experiences, interactions with social actors and access to new information, among other factors. It is to be expected that personal experiences of participation in access and promotion systems, or having been promoted in the past through a specific system could reinforce positive opinions in favour of that system. It could be argued that due to the effect of positive feedback, candidates who succeeded under a specific system are more likely to prefer it. Finally, experience in managerial positions in universities could entail significant learning and the acquisition of differentiated know-how that may shape preferences.

Socialisation and institutional factors (Weidman and Stein 2003; Bolzendahl and Myers 2005,) could also shape the expectations, attitudes and preferences of people.

² Sears and Funk (1991) suggested three criteria for empirically addressing the definition of self-interest: a) the self-interest involved must be tangible or material (and not psychic gratification); b) the self-interest involved must be individual (and not concerned for others); and c) the outcomes to be evaluated for self-interest must be imminent (and not for future consideration).

Academics belong to groups, fields and institutions and have multiple identities that may be related to local or international environments. Their attachment to their discipline, beyond the university or the department, provides academics with connections with peers outside local circles and different, perhaps more open, views about institutional processes. It is sensible to expect that the stronger the link or identification of the individual with his/her department or university (rather than with the broader field), the greater will be the support for promotion systems in which local environments play a major role. Additionally, some attributes related to a stronger attachment to the local environment, i.e. having gained the PhD or being born in the same city or province as the university of employment, could make academics critical of hiring and promotion systems that remove the control or influence of the process from the local environment. In particular, international experience is an important source of human capital acquisition and socialisation in academia; the preferences of academics who gained their PhDs from a foreign university and those who have a trajectory of international mobility or collaboration are likely to be influenced and shaped by those experiences.

3. The Spanish context: employment in universities and selection and hiring mechanisms

The issue of the best model of selection and promotion at universities is still open in public debate and has been included, among the relevant topics for a new policy reform, in a recent White Paper for improving the quality of the university system (Comisión de Expertos 2013).

Two features make Spain a pertinent case for the analysis of the systems of academic access and promotion. The first refers to the dual nature of the employment structure: academics in public universities might be in two different employment situations: one characterised by permanent, even lifelong employment (most of them with civil servant status) and another characterised by temporary appointments and fixed-term contracts. The second feature of the promotion system refers to its changing character: in the last 15 years there have been three different systems. Each of the systems, even considering that we are analysing access to public employment, has shown a different balance between the degree of hiring autonomy that universities hold, and the extent to which government (through agencies or appointed committees) is involved in the management of the evaluation or selection of candidates and the determination of who may be hired by universities as a result of the recruitment process. In essence, each model represents a set of different solutions to the basic tradeoffs involved in employment policies, i.e. the balance between the autonomy of the employing organization (*vis a vis* the government), and the mechanism of quality control (delegated in the departments versus the establishment of standards by external bodies).

In Spain, employment relations in universities were stable between 1983 and 2001. The 1983 Law of University Reform (Sánchez-Ferrer 1997) had established that universities could only have two ranks of permanent academic employees (both with

tenure and civil servant status): Full Professor and Associate Professor. All the remaining categories of contracted academic staff were temporary. In 2001 a new Law of Universities kept the same academic civil servant categories identical, but introduced a new category of permanent public employee (outside the civil servant model, and with contracts governed by employment law): Contracted Permanent Professor. Although this change has not altered the dual nature of the system, it has led to significant changes over time in the employment practices of some universities (Cruz-Castro and Sanz-Menéndez 2015a).

Until 1983 the process and criteria for evaluation as well as the total number of positions available annually were established by the government and allocated through a selection process based on a national level, exam-based, competition; the successful candidates, who were automatically awarded the status of professor (national civil servant), selected a specific university, following an order structured upon their relative performance in the exams and their preferences concerning the positions available in the different public universities nationwide.

From 1983, and until 2001, universities had legal autonomy and authority over the job opening, selection, hiring and promotion processes, with limited intervention by the state, which only kept the role of monitoring and appointing 3 external members onto the selection committees by a lottery mechanism among those in the same field and holding similar or higher ranks (Mora 2001); the department offering the position nominated two out of five members of the selection committee. Candidates were selected through competitions at the local level, where the evaluation criteria were established by the department in question and implemented at the committee level. It was, in short, a decentralized type of selection with a limited role of the state and managed by the universities and the academic community (Cruz-Castro and Sanz-Menéndez 2010). This system received much criticism, as one of the consequences of radical decentralisation was an increasing level of inbreeding and cronyism, together with a reduction of academics' mobility (Nature 1998; Navarro and Rivero 2001).

In 2001, the new system for accessing permanent academic ranks with civil servant status established a two-step process, based on public exams called *habilitations*. In the first stage, the candidate had to pass the competitive national open exams, taking place once a year with a limited number of potential positions in each of the fields. The national government was fully responsible for the first step, but followed the *ex ante* bottom-up "demand" from the universities with regard to the number of new positions expected annually in the different fields. The national government managed the selection process directly; the members of the selection committees (7 members) for awarding the *habilitation* were appointed through a lottery mechanism, from among those already employed as academics and having some formal recognition of academic performance (Zinovyeva and Bages 2015).

At a second stage, those awarded a *habilitation* were eligible to take part in a decentralized selection process organized by the departments interested in hiring full or associate professors. The second step was managed by the departments involved, which took the final decision on which candidate to appoint from among those

previously *habilitated*, but in practice the system became mainly an internal promotion mechanism for those holding the *habilitation*. Overall, the system was extremely competitive as there was a very limited number of *habilitations* available per year, and, in practical terms, obtaining the *habilitation* meant being awarded tenure or a promotion quite rapidly, usually at the same university in which the individual was already employed.

In parallel, an accreditation system, with neither public exams nor contest selection, was implemented on the other side of the dual employment system; the eligibility for permanent contracted academic positions and some temporary ones was subjected to an accreditation process managed by national or regional public agencies that accredited applicants based on formal merit requirements on a non-competitive basis (Galan et al. 2014). Following the 2001 reform, the number of professors employed under permanent employment contracts started to increase considerably in some universities (Cruz-Castro and Sanz-Menendez 2015a).

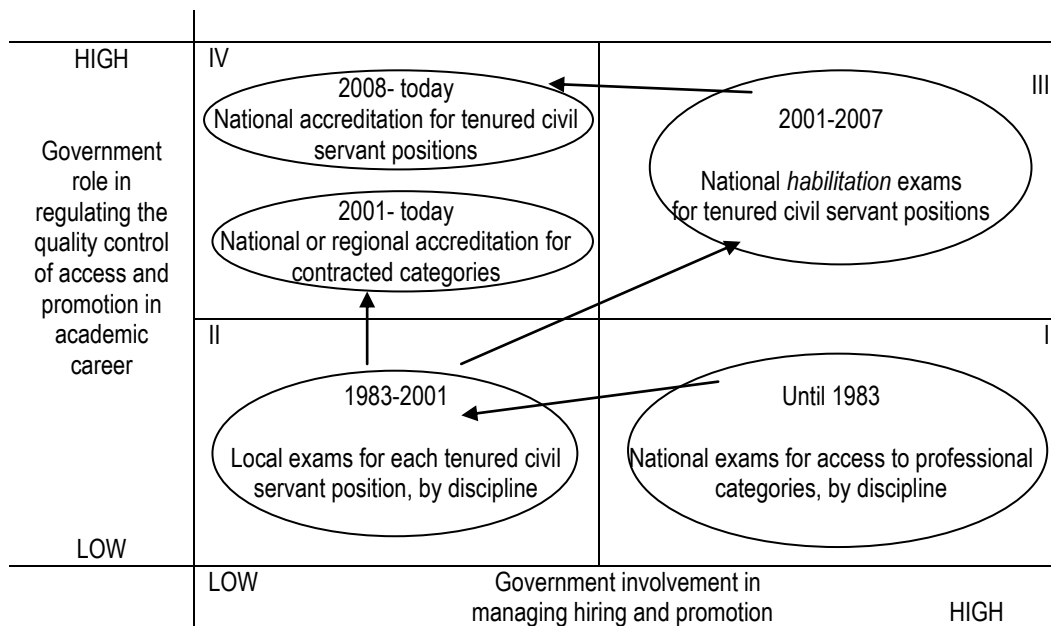
The *habilitation* system was strongly contested by the universities, which considered it as a hindrance to their autonomy and very costly in terms of the time and efforts of the evaluators and participants. The system was eventually replaced in 2007 with the extension of the accreditation system, already functioning for contracted professors, to all categories, but with only one (national) agency having responsibility for managing the task of accreditation for civil servant categories (Professor and Associate Professor).

This hiring and promotion system in place since 2007 is also a two-step model based on accreditations; the system applies for both civil servant academic ranks (associate and full professor) and for contracted staff. At the first stage individuals applying for the accreditation award present their merits for assessment. There are no limits to the number of accreditations that the agencies (ANECA or the regional accreditation agencies) may award, so at this stage the system is not competitive. Once awarded, individuals are eligible to apply for a position opened at the university level. At this second step, the local contests are managed by the departments, who establish the criteria, appoint the committee and, more generally, define the promotion strategy; very often these job openings have no external applicants but just one local candidate.

In the current system there is no limit of accreditations available and the assessment of merit is based on the analysis of CVs; a candidate is allowed to apply as many times as necessary to obtain a positive evaluation (with some limitations). The operation of this system in times of economic crisis has led to a situation where there are many more candidates holding an accreditation than positions expected to be open in the following years, because budget policies have frozen new positions and even retirement replacements (Cruz-Castro and Sanz-Menéndez 2015b). Over the years, the accreditation system has created a pool of more than 8,000 accredited academics who expect that an “automatic” access to tenure or promotion will occur at some point, and who have become an interest group.

The different systems described above may be located on two axes depicting the degree of government involvement in the quality control of candidates, and/or in the management of the actual hiring and promotion processes, as shown in figure 1. The arrows represent the temporal sequence of the changes over the years.

Figure 1. Changes in university access and promotion systems in Spain.



Source: Authors' elaboration

It is possible to identify some tradeoffs in the different hiring and promotion systems. In a decentralised system (II), departmental autonomy in the hiring decision might be exerted at the expense of potential cronyism and inbreeding practices in some cases; in employer organisation universities (Whitley 2012) the system could work, but in collegial types there is a risk of establishing local academic oligarchies. Conversely, in a centralised system (I, III), quality control in the presence of contests may function much better (given the limits of academic networks and the impact of disciplinary fields) due to its strong competitive nature, but at the expense of the autonomy of universities in selecting candidates and defining departmental strategies.

Between the two (decentralised and centralised), the current accreditation system (IV) appears, historically, as a compromise between some general quality control for accessing the academic profession and the maintenance of local autonomy in hiring. In this system the initial assessment of the merit of individuals is removed from the department and university level, but it gives the department discretion over the eventual selection among those eligible (adequacy for the position). On the one hand, the current accreditation system has been criticised on various grounds. Firstly, that it reduces university autonomy in employment policies; secondly, because it increases the bureaucratisation of academic careers, imposing obstacles to foreigners by indirectly narrowing the market and favouring local candidates; thirdly, because the evaluation requirements are too low and administratively oriented. On the other hand, the system has been defended as a mechanism to guarantee a “minimum” of quality control for those accessing the academic career.

Comparing all the systems that have existed in Spain, accreditation is the easiest in terms of the effort required from candidates; achieving accreditation is not as costly as being involved in an open competition. Additionally, if the standards and criteria that the accreditation committees apply are not very demanding in terms of merit, there is

a risk of inflation of accredited candidates, who could consolidate the expectation that possession of accreditation to an upper rank provides the “right” to have the job in question, without further procedure. In the second phase, having the support (and the resources) from the relevant department is the key step for promotion.

This brief account has described, basically, the characteristics of the access and promotion systems that have existed in Spain in recent decades. Since they have all existed over a relatively short period of time, the great majority of active academics are familiar with them one way or another either through their own experience or through their colleagues’.

4. Data, methods and the construction of variables

4.1. Questionnaire, survey techniques and sampling

To test the influence of the factors identified in Spanish academics’ preferences for hiring and promotion models, we use survey data. A questionnaire with 30 questions was specifically designed³. The reference universe was the population of academics holding a PhD and working in universities, with either permanent positions or temporary appointments.

In order to guarantee the variability of the universe in certain relevant factors, we considered the three basic types of universities that exist in the country and the need to maintain representativeness in terms of the disciplines and fields of science. Accordingly, we included in the sample some large generalist universities; some specialized in engineering and applied sciences and a set of smaller and younger universities. Size was another factor considered. Finally, considering that universities would differ depending on the quality of their academics, we included cases with different levels of research quality, measured in terms of their normalised impact factor.

We then selected a subset of the population of universities: 47 public universities (excluding online learning universities) are administered and supervised by 17 different regional governments. We selected 14 universities from regions with more than one public university (from 6 regions among 10), and 6 universities from regions in which there is a single university in the territory (from among the 7 regions in this situation). According to the official statistics, the 20 universities selected represented 46% of the total academic staff employed in the public universities.

Because the number was still very large, we followed a twofold approach to create the database of respondents: for 14 of the universities, we considered the total number of employees in the categories of interest for the survey population. For the remaining 6 universities we made a selection of disciplines and departments in the domain of science, engineering and biomedical science to guarantee the

³ The survey was performed between March and June 2015 using an *ad hoc* web-based tool.

representativeness of the final sample in the dimensions of gender, age and field of science.

On launching the survey, the final number of valid e-mails sent was 31,651. The sample error estimated for this sample was 1.4%, for $p=q=50\%$ and a significance of 95.5%. The survey was carried out among lecturers, professors and researchers. Up to five reminders were sent.

We obtained 5,004 valid responses, with a response rate of the total directory of 16.2%, although 12.8% of the responses were not in the target population (PhD holders or civil servants). Discounting the delivery failures (mistaken e-mail addresses and non-eligible recipients) we consolidated the rate of response (with regard to the reference population) at 18%. The response rate by universities varied between 6% and 26%; local factors could have shaped the response rate; for example, some universities were involved in elections for rector at the time of the survey. The final number of the sample used in this analysis is 4,460.

To evaluate the representativeness of the sample and the potential bias in the responses, we followed a strategy based on comparing the structure of the sample and the universe in terms of age group, gender, field of science and academic position. We found that sample and universe were significantly similar. We also compared the opinions of universities with higher and lower levels of response rates, to ascertain the possible effects of non-response on the choices; non-significant differences were found.

4.2. Definition of variables and specification of model

To empirically analyse academics' preferences towards hiring and promotion policies we constructed a series of variables that could be used to analytically test the explanatory power of the different factors identified. We present the variables and the descriptive statistics in Table 1.

Table 1. Variables and descriptive statistics

	N	Min	Max	Average or Distribution	Standard error
Dependent Variable					
Preference for accreditation (0=No, 1=Yes)	4460	0	1	.49	.007
Independent variables					
1. Self-interest					
Accreditation to upper rank (0=No, 1=Yes)	4460	0	1	.26	.007
Eligible for promotion (0=No, 1=Yes)	4460	0	1	.82	.006
2. Beliefs and values					
Opinion that accreditation system is the best system for a merit-based selection (0=No, 1=Yes)	4460	0	1	.39	.007
Opinion index on the promotion functioning in the university system	4460	1	7	3.78	.029
3. Personal experience and learning					
Promoted to current job under accreditation system (0=No, 1=Yes)	4460	0	1	.35	.007
Experience in accreditation process (0=No, 1=Yes)	4460	0	1	.16	.006
Experience in university top management (0=No, 1=Yes)	4460	0	1	.04	.003
Degree of professional satisfaction	4460	1	5	3.52	.015
4. Institutional and socialization factors					
Strongly inbred (0=No, 1=Yes)	4460	0	1	.51	.007
International experience (0=No, 1=Yes)	4460	0	1	.67	.007
Index of disciplinary versus university identity	4460	1	5	3.51	.0119
Control variables					
Sex (1=Male, 0=Female)	4460	0	1	.37	.007
Age	4460	25	84	48.86	.142
Field of Science [0=Social Science and Humanities (FOS-5,6) 1= Science, Engineering and Biomedical (FOS-1,2,3,4)].	4460	0	1	.53	.007
Top 10% researcher (0=No, 1=Yes)	4460	0	1	.10	.005
Research as preferred professional orientation (0=No, 1=Yes)	4460	0	1	.27	.007

Source: authors' elaboration.

The dependent variable is the preference for the current accreditation-based system of access and promotion. It is a dummy variable constructed from a question where respondents were asked to choose between the accreditation system currently in place, the former system of *habilitations* or centralized evaluation system, and a model similar to that existing between 1983 and 2001, where universities and departments had control over management and responsibility for hiring and promoting professors without any prior permission from national bodies⁴.

To test the role of self-interest we constructed two variables. The first is to be eligible for promotion; meaning that those already in the upper rank cannot be promoted, while the rest of academics could; academics eligible for promotion will be more likely to prefer the current accreditation system in comparison with those in the top rank, because it is less costly due to the almost lack of *contests*. The second variable selected to measure self-interest is the holding of an accreditation to an upper

⁴ Those who do not prefer the current systems were distributed between 28% preferring the decentralized system that and 22% the return to the centralized system.

rank. The expectation is that those academics with an accreditation to an upper rank will be more likely to prefer the current accreditation system as compared with their non-accredited counterparts, because they have already made an investment in the process.

To test the role of beliefs, values and sociotropic factors we used two variables. The first is a dummy variable that expresses the opinion that the “current accreditation system is the best (compared with the other two) to guarantee a merit-based selection”. The expectation is that those who report such belief will be more likely to express their preference for that system. The second one is an ordinal variable, measuring the individual academic’s overall vision of the situation of hiring and promotion in Spanish universities. It stems from a question where we asked respondents to choose up to three adjectives (from a list of negative and positive ones) which to their minds best define this situation; we provided respondents with a set of adjectives including: nepotistic, parochial, internationalized, excellent, competitive, inbred, cronyism, open, and meritocratic. For each of the respondents we counted the number of positive and negative adjectives selected and we normalized the values from 1 to 7, where 1 is a very negative vision and 7 a very positive one. The expectation is that the higher the value the higher will be the preference for the current accreditation.

To test the role of personal experience and learning we included the following set of variables. Firstly, we constructed a dummy variable for those that had accessed their current position through the accreditation system. Secondly, we also identified those who have participated in job openings and selection procedures under the current accreditation system; again, if positive personal experience has a reinforcing effect, we should expect a higher probability of preferring accreditation. Thirdly, most academics have a limited perspective and positive experiences could be mixed with self-interest; to cope with this issue we have also included a factor of experience in top university managerial positions (Rectors or Vice-Rectors) to test whether responsibilities, additional information and a more global vision affected preferences. We also included a broad measurement of the degree of general satisfaction of academics with their current job.

Finally, to test the role of socialisation and institutional factors we first included two dichotomous variables. To monitor the attachment to the local environment we constructed a variable indicating that the academic is strongly inbred, considering the circumstance that he/she received his/her B.A and Doctoral degree at the same university at which he/she is currently employed. Our expectation is that inbred academics will be more likely to prefer the current system of accreditation. A second dummy variable represents the “international experience” of academics; we constructed a variable to reflect the fact that he/she has spent at least three months at universities or research centres abroad, either before the PhD, as a postdoctoral fellow or after acceding to his/her current employment. Finally, with the expectation that a stronger attachment of academics to their discipline could provide a more universal vision than commitment to a particular university as employer, we compared the relative identification with the university and the discipline and constructed a

summative index of position on the identity continuum, where 1 is the maximum identification with the university and 5 the maximum identification with the discipline.

We also introduced some standard control variables, such as gender, age, field of science (Science, Engineering and Biomedical versus Social Science and Humanities), an indicator of the quality of academics (belonging to the top 10% on a number of indicators, such as being the principal researcher on international research projects and the supervisor of more than 10 doctoral dissertations) and, lastly, an indicator of the professional orientation of the respondent to research (more than for teaching, a combination of teaching and research or technology transfer and service).

Considering the nature of the dependent variable, a categorical variable with two values (dummy), and the distribution of our data, we use a logistic regression to estimate the effects of each of the independent variables considered in the probability of change in the state of the dependent variable. As is well known, the binary logistic model is used to estimate the probability of a binary response based on one or more predictor (or independent) variables. The predicted value of the logit is converted back into predicted odds via the inverse of the natural logarithm, namely the exponential function.

5. Results

In Table 2 we present the results of the model used to account for the changes in the probability of preferring the current accreditation system as the method for access to and promotion in the academic career. We present the model introducing, step by step, the four theoretically relevant sets of factors (and the control variables).

Table 2. Model predicting the probabilities of preferring the current accreditation system

	Model 1	Model 2	Model 3	Model 4	Final Model
1. Self-interest					
Accreditation to upper rank (yes)	.522 ***	.544 ***	.537 ***	.565 ***	.593 ***
Eligible for promotion (yes)	.619 ***	.625 ***	.589 ***	.557 ***	.779 *
2. Beliefs and values					
Opinion that accreditation is the best system for merit-based selection (yes)		.167 **	.183 ** *	.183 ** *	.173 ** *
Opinion index on the functioning of promotion in the university system		1.211 ***	1.192 ***	1.199 ***	1.194 ***
3. Personal experience and learning					
Promoted to current job under accreditation system (yes)			.695 ***	.710 ***	.817 *
Experience in university top management (yes)			1.694 **	1.679 **	1.520 *
Experience in accreditation processes (yes)			.619 ***	.624 ***	.603 ***
Degree of professional satisfaction			1.108 **	1.126 **	1.139 **
4. Institutional and Socialisation factor					
Strongly inbred (yes)				.881 *	.906
International experience (yes)				.729 ***	.816 **
Index of disciplinary versus university identity				1.088 *	1.074
Control Variables					
Sex (female)					.907
Age					.972 ***
Field of science (experimental sciences)					1.153 *
Top 10% researcher (yes)					1.304 *
Professional orientation to research (yes)					1.208 *
Constant	1.659	2.332	1.899	1.477	3.728
Pseudo R-square (R ² Nagelkerke)	.045	.287	.308	.313	.327
Observations (n)	4460	4460	4460	4460	4460

Note: Coefficients shown are changes in the probabilities Odd Ratios (exp(B))

* < .05 ** < .01 *** < .001

Most of the variables included in the model are statistically significant. Globally considered, it appears that the factors included under self-interest and, especially, beliefs and sociotropic factors have the strongest effects on the dependent variable and make the biggest contribution to the explanation of the changes in the probabilities of preferring accreditation to any other model. Interestingly enough, most of the variables related to socialisation and institutional factors are not statistically significant, their contribution is weak or they do not increase the explanatory power of previous factors.

The coefficient, exp (b), represents the changes in the odds ratio in comparison with the reference category or for every unit of increase of the independent variable.

It appears clear that academics' preferences are shaped by self-interest. The odds of preferring the accreditation system for those holding an accreditation for an upper rank are 41% higher as compared with those not holding an accreditation. Those eligible for promotion are 1.22 times more likely to prefer the accreditation system than those already on the upper rank of the academic ladder.

What is noteworthy from these results is that they provide evidence in support of the relevance of beliefs, opinions and values in explaining the preferences of academics regarding the access and promotion systems. In fact, these variables are the most powerful contributors to the overall explained variance. The opinion of academics about the capacity of the accreditation system to guarantee a merit-based selection is strongly associated with their preferences; likewise, the overall assessment of the functioning of the promotion dynamics at Spanish universities also has a significant effect. The results show that academics who believe that accreditation is the best system for a merit-based selection are 1.83 times more likely to prefer accreditation than those that do not. In the same direction, an increase of 1 point in our index (higher values for positive opinions) of the situation of academic promotion in Spain increases the probability of preferring accreditation by 19%.

The results also highlight the role of the different types of personal experiences and the impact of learning on shaping academics' preferences. All variables are statistically significant. Having accessed the current position through the accreditation system increases the probability of preferring it by 18%. In the same vein, those who have participated in the second step of the accreditation process, i.e. the opening for jobs (hiring or promotion), have a 40% greater probability of preferring accreditation to any other system. We have also monitored a singular experience for academics: holding or having held a top university management position (Rector or Vice-Rector). The results are very interesting: net of other variables, experience in top university management radically reduces the probability of preferring accreditation in hiring and promotion. Finally, a standard measure of the degree of general professional satisfaction also appears significant. An increase in 1 point in the degree of overall satisfaction raises the odds of preferring accreditation by 14%, all factors being held constant.

The fourth dimension, related to socialisation or institutional factors, appears to have very weak explanatory power. Most of the variables selected are apparently statistically not significant, or have a very weak effect. The classical factor in the literature, inbred status, is not statistically significant; it has a small effect, but in the expected direction. Inbreeding increases the probability of preferring accreditation. The index of attachment to the discipline rather than the university is not statistically significant. International experience (measured as a three-month stay at a university or research institution abroad at any stage of an academic's career) has a rather unexpected effect. Having academic experience abroad increases the probability of supporting accreditation by 18% with regard to those who do not have such experience. Trying to understand this result we found that international experience is extremely dependent on age. Younger people have significantly more international experience than their elders. These results suggest the pertinence of improving the measurement quality of the socialisation variables, but also of including some basic control variables.

Despite the fact that in the descriptive analysis female academics preferred accreditation more than males, the multivariate model results are not statistically significant for gender. Age is an important factor, because one additional year of age reduces by 3% the probability of preferring accreditation; in general, the younger

generations are much more in favour of the accreditation system, while the older generations prefer the previously existing systems. There are not large differences in terms of fields of science; when comparing experimental science with social sciences and humanities. The probability of preferring accreditation is 15% less for those in science, engineering and biomedical sciences in comparison with those in social sciences and humanities.

We also aimed to control for two relevant factors present in many analyses of productivity and careers: quality and research orientation. Our control variable measuring quality predicts that those included in the top 10% in terms of quality will have a 30% lower probability of preferring accreditation than other academics. In the same way, those stating research to be their exclusive professional interest have a 21% lower probability of preferring accreditation as a hiring and promotion system.

6. Conclusions

In national systems, universities show diversity in the extent to which departments or the external community (including state agencies) are empowered to assess, select and promote academics. Despite the different types of university, the selection and quality assessment of academics has traditionally been and remains a domain in which there is a high level of delegation. Traditionally, as in the majority of university systems, governance at Spanish universities has been based on academic self-rule exerted in a collegial way of decision making, including decisions about recruitment.

In recent decades, policy-driven changes in higher education governance have questioned the dominance of local academic communities (the staff of universities) as opposed to government evaluation agencies (usually run by national academic elites).

With the 2007 reform, university interests did not manage to return to a strongly decentralized system with complete university autonomy and authority over the selection and recruitment processes; however, they achieved the separation of the evaluation or quality control of academics from selection and recruitment, keeping the role of government agencies in only the first of these functions. Yet our results show that, at present, the academic community is divided as regards its preferences for such a system.

Our survey results provide novel data about academics' preferences for the different promotion systems that have existed recently. Overall, only 48% of the respondents prefer the current accreditation system for access and promotion. Thus, our data do not support the vision of a unified academic community at universities. Determining which factors account for such differences has been the subject of our analysis.

Our findings suggest that academics' preferences are not primarily determined by their career advancement interests. Those interests have a significant effect, but they are not the strongest predictor as compared with other factors. Our results support the view that preferences are strongly associated with a set of beliefs and values. One of the main predictors of the preference for alternative systems other than the current

one is the belief that it is not ideal to guarantee merit-based selection. Sociotropic factors and beliefs appear to be a determinant in understanding the preferences of academics. Consequently, it appears that what matters is not so much the rejection of government intervention in the quality control of academic staff but rather the belief that such intervention is not effective. According to our results, the expectation is that academics will be supportive of the current accreditation system (because of personal interests) unless there are other factors, like concerns about the effects of the system in terms of the quality of the academic profession, the suitability of departments as the main arena for the distribution of resources, and the effect of reducing the strategic action of universities regarding the attraction and retention of talent.

As regards policy implications, it is important to note that Spanish governments have implemented two reforms in the regulation of academic access and promotion systems in seven years; these reforms have been depicted in the media as generating conflict between the “community” and government; however, our results suggest the pre-existence of a long-lasting division among the academic community on a key issue: how to find the balance between local autonomy and quality assurance. Government policies express the conflict and tensions inside academic communities and the conflicts between the different sectors of the academic elites.

The 2007 solution of having a general accreditation system in a two-step model was not so much an expression of changes in the ruling political parties, but instead a change in the coalitions supporting HE policy. In 2007, accreditation as a necessary requirement to be hired or promoted was presented as a compromise between the need to return control over the hiring process and selection outcomes to the departments and the commitment of the government, with a part of the academic elites, to minimise the negative consequences, in terms of the quality of the academics selected, of excessively high levels of local university autonomy.

One of the conclusions of our analysis is that the situation is unstable (as the proposals of the Comisión de Expertos (2013) have made evident). A part of the academic community (those better positioned in terms of quality) believe that accreditation agencies are not very demanding in terms of quality and are doing a poor job. Additionally, those holding an accreditation to an upper academic rank are becoming a strong interest group, one which supports the current policy solution. The general dissatisfaction portrayed by our data exists in a context that could be described as an unstable equilibrium, which makes radical policy change unlikely to occur.

As highlighted by the literature from political behaviour and policy analysis, it appears that interests have an important role to play in explaining preferences, one strongly moderated by beliefs and sociotropic factors. Additionally, personal experiences in management responsibility increase information regarding the potential consequences of the different systems in a broader context provide different points of view and shape preferences. It is very interesting that those having top management experience at universities are less likely to be supportive of the current accreditation model, and they would even prefer the more centralized system. This preference is also significantly associated with academic rank and age.

What is most striking is the weak link of the variables measuring the socialisation and institutional factors. It may be the case that the indicators selected are insufficient, and we should try to improve them in further analysis. At the same time, their minor role provides some insight into the fact that the socialisation process is not strongly organised or institutionalised in Spanish universities. This would explain that the incentive structures dominating career paths are related mainly to individual factors.

Another policy conclusion is that the systems, while in place, create their own support bases that usually become advocates. Coexisting with them, those who prefer a system different to the current accreditation scheme might have: a) a demand for total autonomy and delegation for selection and promotion in the employing organizations; or b) concerns about the quality of the colleagues who are selected and promoted by a system which does not appear very demanding. Interestingly enough, it appears that some academic elites committed to excellence and research would be useful allies for a government willing to enhance the quality control of access to lifelong university employment.

To the best of our knowledge, this is the first time that the issues addressed in this paper have been empirically analysed. Our paper makes an initial contribution to providing a systematic examination of the opinion and preferences of higher education constituencies. Consequently, it is an initial effort to introduce preferences and their determinants into the study of HE policy changes and support. We have approached our research topic from a national level and have not considered, this time, the regional or institutional levels, preferring to leave them for future research. Likewise a deeper analysis of the preferences of academics regarding other promotion systems different than accreditation deserves further attention.

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