University academics’ preferences for hiring and promotion systems

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University academics’ preferences for hiring and promotion systems

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ABSTRACT
Academic employment systems have recently 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 from 4460 faculty members in public universities in Spain, attempts to account for the preferences of academics for the current system of accreditation for hiring and promotion. Following two previous reforms and more than ten years of operation of the accreditation system, over fifty per cent of academics would prefer a different model for hiring and promotion. We identify four sets of explanatory factors linked to: academics’ self-interest, beliefs and values, personal experience and learning, and socialization and institutional factors. We find that academics’ preferences are neither solely nor primarily explained by their career advancement interests. Our results show that preferences regarding the hiring and promotion systems are strongly associated with a set of beliefs and values, especially the belief in the relative suitability of accreditation to guarantee merit-based selection.

1. Introduction

There exists a considerable body of research aimed at characterizing university systems in general (e.g. Clark 1983; Marginson and Rhoades 2002; Olsen 2007). Employment systems in universities have been identified as an important factor in the definition of university types (Whitley 2012), while the relative autonomy of higher education institutions and their departments to hire and promote academic staff is one of the essential dimensions of university employment systems. The operation and consequences of these systems have mostly been analyzed 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. Altbach 1996; Enders 2001).
In recent decades, many country university systems have been subjected to policy reforms (Paradeise et al. 2009; Dobbins, Knill, and Voegtle 2011; Bleiklie and Michelsen 2013), aimed at steering activities (Ferlie, Musselin, and Andresani 2008) and providing greater autonomy to universities as organizational actors (Whitley and Gläser 2014). Among these transformations, some are linked to hiring and promotion and include changes in the employment model for academics, such as the abandonment of civil servant status (Pechar 2004), reforms of the hiring and promotion systems (Enders 2001), the introduction of new evaluation systems (Musselin 2013), the expansion of accreditation (Gornitzka and Stensaker 2014) or habilitation (Abramo and D’Angelo 2015).

Despite the changes in the relations of authority that reforms have produced, universities and governments still require a significant level of compliance and cooperation from academics to guarantee good performance. It is well known that the success of any policy is partly determined by the affected individuals’ views and attitudes and their cooperation (e.g. Levy-Faur 2014). This is especially true in sectors in which the implementation of policies is partially or even completely delegated to collegial dynamics, as is often the case in academic hiring and promotion. If the cooperation of actors is needed for good governance and institutional functioning, it seems pertinent to understand the preferences of academics regarding these issues, but to the best of our knowledge this topic has not been addressed.

Due to its recent and divergent regulatory changes, Spain is a relevant case for the analysis of the systems of academic hiring and promotion. In the last 15 years there have been three different systems, each with a different balance between the degree of universities’ hiring autonomy and the extent to which government (through agencies or appointed committees) is involved in managing the evaluation or selection of candidates. In essence, each system represents a different solution to the basic tradeoffs between the autonomy of universities (vis à vis the government), and the mechanism of merit-based assessment (delegated to departments instead of being established by external bodies).

Preferences are a central concept in the explanation of human behaviour and social action; they have been an immediate cause of behaviour and generally included in rational approaches. While economists tend to include taste and emotions for understanding preferences, sociologists have traditionally highlighted the change and diversity of preferences among actors and social organizations (e.g. Freese 2009 for a general review); thus, comprehension of the preferences regarding specific issues, especially institutional arrangements such as hiring and promotion systems, is essential to understand social mobilization and policy change in this domain.

To contribute to the study of the preferences of university academics, this paper presents a case study of Spanish universities, and addresses two main questions: Does the current system of university hiring and promotion enjoy wide support among faculty? What factors account for the preferences of academics for the current system?

The paper is organized as follows: Firstly, we build on the literature on the formation of preferences to present our analytical framework. Secondly, we review the systems of hiring and promotion in Spain since the 1980s. Thirdly, we explain the methodology and the variables used in the analysis. Fourthly, we present the results of our analysis and discuss them; finally, we offer some conclusions and policy implications of our research and acknowledge its limitations.
2. Analytical framework: how to account for preferences?

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 faculty members (Braun et al. 2015). However, only limited attention has been paid to the preferences of academics themselves. There are exceptions, like the classic studies by the Carnegie Foundation (Altbach 1996) or the project Changing Academic Profession (CAP) (Teichler, Arimoto, and Cummings 2013), both of which include the analysis of academics’ opinions, attitudes and preferences regarding different aspects of academic life. These include working conditions, work environment, preferences for tasks, job satisfaction, perception of quality assurance and, more generally, the aims of the academic profession (e.g. Locke, Cummings, and Fisher 2011; Rosa, Sarrico, and Amaral 2012; Teichler and Höhle 2013; Bentley et al. 2013); additionally, some surveys have addressed academics’ opinions regarding higher education policies in European countries (Eurobarometer 2007).

However, when analysing the literature, we find no relevant research into the specific issue of the preferences of academics regarding hiring and promotion systems in universities, although there have been some developments in the study of expectations, prospects and career preferences. For example, Fox and Stephan (2001) addressed the interactions between the preferences and subjective prospects of doctoral students, and Sauermann and Roach analyzed the preferences of academics in a vocational orientation to science (Roach and Sauermann 2010; Sauermann and Roach 2012) or an interest in entrepreneurial activities (Roach and Sauermann 2015). In Europe, career preferences and expectations have been also studied at national levels, employing diverse approaches (e.g. Conti and Visentin 2015; Van der Weijden et al. 2016; Fernández-Díaz, Carballo-Santaolalla, and Galán-González 2010).

At the same time, the formation of preferences has been widely analyzed in many fields including psychology, economics and public policy. In this paper, we use an analytical framework based on the literature of preference formation and we view the concept of preference ‘as a comparative evaluation of a set of objects’ (Druckman and Lupia 2000, 2). The objects of preferences are external and are aspects of the environment that are evaluated in relation to one another; the objects within a preference are those which can be thought of as substitutable. Despite substantial 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 policy analysis, the study of attitudes and preferences has been widely addressed. This stream of literature is vast (see Druckman and Lupia 2000 for a review), and some attempts to summarize the relevant factors have been made. For example, Kinder (1998) has signaled three broad types of influence that account for what citizens think and prefer: material self-interest, social identification and ideological principles. Others have insisted on a fourth factor such as the cognitive dimension involved in preferences (Tversky and Kahneman 1981) or the role of learning from experience (Holland et al. 1986).

This previous research into preferences and their determinants in other research fields points to four sets of factors as potentially relevant in accounting for individuals’
preferences regarding hiring and promotion options. These factors are conceptually linked to: self-interest; beliefs and values; personal experience and learning; and socialization and institutional factors. Our contribution is to build on the previous literature and consists of applying the preferences framework to the question of academics’ hiring and promotion. In our study, we empirically analyse the preference of university academics for the current accreditation system for hiring and promotion over other alternatives that have been in place in the recent past; such a preference is our *explanandum*.

Identifying the self-interest of academics in relation to their preferences for promotion systems is an analytical challenge. Individuals might develop self-interest based on their career positions; they estimate the cost of advancement, the difficulties or the degree of competition in accessing a career and gaining promotion and it is only to be expected that they prefer the system which they feel favours them. As we know from previous research (Lau and Heldman 2009), the self-interest of individuals is not the sole determinant of preferences; in many instances, preferences do not depend as much on material self-interest as on the perceived situation in the issue at stake (Kinder and Kiewiet 1979).

Beliefs and values also matter (Chong, Citrin, and Conley 2001), and may contribute to explaining preferences (Heiphetz, Spelke, and Banaji 2014) concerning hiring and promotion systems. The values and beliefs of academics regarding the functioning of such systems, their levels of competiveness or thoroughness, or how closely they adhere to meritocracy are factors that might influence preferences concerning promotion arrangements. Beliefs are stable in the short and medium term, but may change in the long run (Sabatier 1988); one of the sources of potential changes is related to cognitive and learning processes.

Preferences may also change following learning and personal experiences, interactions with social actors and access to new information (Holland et al. 1986). Compared to beliefs and values, experience and learning are process variables and have a time dimension and an interactive component. 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 shape preferences, due to feedback effects. Top managerial experience in higher education institutions could also be a relevant factor, providing individuals with a realistic view of the complexities of decision making.

Socialization and institutional factors (Weidman and Stein 2003; Bolzendahl and Myers 2004) may similarly shape preferences. Academics belong to groups, fields and institutions, related to a greater or lesser degree to local or international environments. Compared to learning and personal experience, these factors are more closely related to the social context or environment. In the case which immediately concerns us, it is sensible to expect that the identification of the individual with his/her department or university (rather than with the broader field or discipline) and the tension between localism and cosmopolitanism (Blau 1973) will affect his/her support for particular promotion system. For example, some attributes related to a stronger attachment to the local environment, such as having gained a PhD at the university of current employment, could make academics critical of hiring and promotion systems that remove control of the process from the local environment and, instead, more supportive of models that provide departments with a strong degree of autonomy (Horta, Veloso, and Grediaga 2010). Additionally, international experience is an important
source of human capital acquisition and socialization in academia (Groves, Montes López, and Carvalho 2018).

Following the presentation of certain features of and recent changes in academic hiring and promotion in Spain, we empirically test these relationships.

3. The Spanish context: hiring and promotion systems

Until 1983 the system of hiring and promotion at universities as well as the total number of positions available operated through a centralized selection process based on a national level, exam-based competition promoted annually by the Ministry of Education. The successful candidates, who were automatically awarded the status of full professor, associate professor or assistant professor (all of them becoming national civil servants), selected a specific university with available positions.

Subsequently, the 1983 Law of University Reform established that universities could only have two ranks of permanent academic employees (both offering tenure and civil servant status): full professor and associate professor. All the remaining categories were temporary. The reform also significantly increased university autonomy (Sanchez-Ferrer 1997). From 1983 until 2001, universities had legal autonomy over the vacancies, selections, hiring and promotion processes, with very limited intervention by the state. Candidates were selected through competitions at the local level, where the evaluation criteria were established by the department and implemented at a committee level (Mora 2001). It was, in short, a decentralized type of selection managed by universities and their departments (Cruz-Castro and Sanz-Menéndez 2010).

Although very different in nature and in the degree of autonomy awarded to universities, the systems until 2001 were systems in which successful candidates were directly granted a post in a one-stage process.

The 1983 system received considerable criticism, as one of the consequences of strong decentralization was a higher level of inbreeding and a reduction of academic mobility (Navarro and Rivero 2001). At the end of the 1990s, a significant level of distrust concerning the ability of universities to openly hire and promote based on merit was consolidated (e.g. Nature 1998). Some demands for policy changes in academia were based on two related ideas: that either the hiring and promotion processes should be centralized, or that at least there should be an ex ante evaluation of candidates external to universities.

A new Law of Universities in 2001 made significant changes to the regulatory environment (OECD 2009), keeping the academic civil servant categories identical, but introducing a new category of contracted doctors, who were to be permanent faculty members with the same competences as associate professors but outside the civil servant model. The new system for accessing the ranks of civil servant academics (full professor and associate professor) established a two-stage process, based on centralized public exams called habilitations. In the first stage, candidates were required to pass the open competitive national exams. The national government managed the selection process directly and appointed members of the selection committees through a lottery mechanism. Those awarded a habilitation were eligible to take part in a decentralized selection process organized by the university departments interested in hiring full or associate professors. This second stage was managed by the departments involved, which had to make a choice of
which candidate to appoint from among those previously in receipt of a *habilitation*, but in practice the system became principally an internal promotion mechanism for those holding the *habilitation* in the same department. 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 promotion quite rapidly, usually at the same university at which the individual was already employed (see for example Zinovyeva and Bagues 2012).

The centralized *habilitation* system was strongly contested by the universities, which considered it to be a hindrance to their autonomy and very costly in terms of the time and effort of the evaluators and participants (Science 2006). The system was eventually replaced in 2007 by the extension of the accreditation system (originally created only for contracted doctors) to the full and associate professor ranks.

Since 2008 the current system has been a two-stage model based on accreditations; the system is applied to the two civil servant academic ranks (associate and full professor) and to contracted academics, but while accreditation for civil servant positions is organized at the national level by a single agency (ANeca), accreditation for contracted positions is managed by diverse regional accreditation agencies, using various evaluation criteria (Galán, González-Galán, and Rodríguez-Patrón 2014).

At the first stage, individuals applying for the accreditation award submit their CVs. There are no limits to the number of accreditations that the agency may award, so at this stage the system is not a tournament. Moreover, there are no limits to the number of times an individual can apply; it is an accreditation aimed mainly at guaranteeing a threshold of acceptable quality (e.g. Buela-Casal 2007; Sierra et al. 2009). According to official data, the success rate in accreditation, between 2008 and 2016, for associate was 65% and for full professor was 67%, with a total of over 21,000 accredited academics in the period.

Once accreditation for a specific academic rank has been awarded, individuals are eligible to apply for any position declared at the university level. At this second stage, local competitions are managed by each university and its departments, who establish the evaluation criteria, appoint the committee and, more generally, define the hiring strategy. Departments enjoy a considerable degree of autonomy in appointing evaluation committee members, with the only obligation being that they are already at the corresponding academic rank, and with no requirements regarding the proportion of internal and external reviewers, although most universities have continued to use the traditional proportion, established in 1983, of two departmental members and three external academics (Cruz-Castro and Sanz-Menéndez 2010).

The different systems described above may be located on two axes depicting the degree of autonomy of universities in the hiring and promotion processes and the existence or absence of an *ex ante* evaluation of candidates against government-established criteria of merit and managed by external committees/agencies, as shown in figure 1. The arrows represent the time sequence of such changes over the years, starting in quadrant I, a system with no *ex ante* evaluation and reduced university autonomy.

It is possible to identify certain tradeoffs in the different systems. In systems with great departmental autonomy in hiring and promotion decisions (II), this autonomy involves the risk, without proper incentives or the introduction of impartial external reviewers, of potential practices of inbreeding. Conversely, systems which introduce an *ex ante* evaluation
by external committees (III) function more openly (given the limits of academic networks and the impact of disciplinary fields), but at the expense of university autonomy in selecting candidates and defining departmental strategies and with the consequence of reducing the diversity of career models, due to more homogeneous evaluation criteria.

The current accreditation system (IV) is a compromise between general ex ante individual evaluation in the obtaining of academic tenure and promotion and the maintenance of university autonomy. In this system, the initial evaluation of individual merit is removed from the departmental and university level, but it gives departments ample discretion over eventual selection from among those eligible (accredited candidates). On the one hand, the first phase of the current accreditation system has been criticized on various grounds. Firstly, that it does not provide full autonomy to universities regarding employment policies; secondly, because it increases the bureaucratization of academic careers and red tape and because such administrative burdens impose obstacles on foreigners, indirectly narrowing the market (e.g. accreditation procedures are mainly in Spanish); thirdly, because the threshold of merit requirements is low and quantitatively oriented. On the other hand, the system has been defended as a mechanism guaranteeing a minimum level of quality. In the second phase, support from the relevant department is the key step in obtaining a position.

4. Data, methods and the construction of variables

The data used in the current analysis were obtained by a questionnaire administered through a web-based survey between March and June 2015 by a specialized company...
The reference universe was the population of academics holding a PhD and working in public universities, with either permanent positions or temporary appointments. In order to guarantee the representativeness of the sample we considered the three basic types of universities that exist in the country (García-Aracil and Palomares-Montero 2010). Accordingly, we included in the sample 8 large generalist universities, 4 specialized in engineering and applied sciences and 8 smaller and younger universities. We also considered their size and the distribution of staff among scientific fields. Finally, in recognition of the fact that universities differ depending on the quality of their academics, we included universities with different levels of research performance, according to their positions in bibliometric rankings measured by the indicator of normalized impact factor (Fundación CYD 2014). The 20 universities selected represented 46% of the total academic staff employed in public universities.

The final number of e-mails sent was 31,651. We were able to count on collaboration from 14 out of 20 selected universities which provided direct access for all academics’ e-mail addresses; for the other six universities we selected the population of interest by fields of science, to keep the total sample balanced and representative. The sample error estimated for the total sample was 1.4%, for \( p = q = 50\% \) and a significance of 95.5%. The survey was performed among academics employed in the universities selected having permanent employment or holding a PhD. They received an e-mail mentioning the overall project, with an individualized link to the web page. Up to five reminders were sent. We obtained 5,004 valid responses. Discounting 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 final figure of the sample used in this analysis is 4,460.

To evaluate the representativeness of the sample and the potential response bias, we compared the structure of the sample and the universe in terms of age group, gender, scientific field and academic position, as reported in official data. We found that the sample and universe were significantly similar. We also compared the distribution of the dependent variable in 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. Universities had different response rates, but these were unrelated to university type or with their position in the quality rank; additionally, the basic features of respondents and the total population were not significantly different.

Based on the analytical framework advanced in section 2, we constructed several variables aimed at testing the explanatory power of the different factors identified. We present these variables, grouped by factor, and the descriptive statistics in Table 1.

The dependent variable is the preference for the current accreditation system for hiring and promotion. It is a dummy variable constructed from a question by which respondents were asked to choose between the accreditation system currently in place, the previous system of centralized habilitations, or the former decentralized model in place between 1983 and 2001. We dichotomized the variable because we are interested in factors accounting for the preference for the current accreditation system, and the question was a one-choice question.

As for the independent variables, we constructed two variables to estimate the role of self-interest. The first is eligibility for promotion; those already in the upper rank of full professor (18% in our sample) cannot be promoted. The second variable is the prior
holding of an accreditation to an upper rank; if individuals are self-interested it is to be expected that those academics already possessing an accreditation to an upper rank will be more likely to prefer the current system, as compared with their non-accredited counterparts, since they have already made an investment in the process and have incurred in some kind of sunk costs.

To test the role of beliefs and values we used two variables. The first is a dummy variable that expresses the belief that ‘an accreditation system is adequate to guarantee a merit-based selection’\(^2\). The second is an ordinal variable, measuring the individual academic’s overall view of the method of hiring and promotion in Spanish universities, which we term an appraisal index. It stems from a question in which we asked respondents to choose up to three adjectives (from a list of 4 negative and 5 positive adjectives) which to their minds best define the current situation; these were nepotistic, parochial, inbred, cronyism, internationalized, excellent, competitive, open, and meritocratic. For each of the respondents we counted the number of negative and positive adjectives selected and we normalized the values from 1 to 7, where 1 is a very negative appraisal and 7 a highly positive one.\(^3\) The expectation is that the higher the value of the index the higher will be the preference for the current system (accreditation); if the appraisal situation is mostly negative it is likely that the respondent ‘blames’ the current accreditation system.

To analyse the role of personal experience and learning we included the following set of variables. Firstly, we introduced a dummy variable for those who had accessed their current position through the accreditation system. Secondly, we identified those who have participated in job openings and selection procedures under the current accreditation system.

<table>
<thead>
<tr>
<th>Table 1. Variables and descriptive statistics.</th>
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</thead>
<tbody>
<tr>
<td><strong>Dependent variable</strong></td>
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<tr>
<td>Preference for accreditation (Yes)</td>
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<tr>
<th><strong>Independent variables</strong></th>
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<tbody>
<tr>
<td>1. <strong>Self-interest</strong></td>
</tr>
<tr>
<td>Accredited to upper rank (Yes)</td>
</tr>
<tr>
<td>Eligible for promotion (Yes)</td>
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<tr>
<th>2. <strong>Beliefs and values</strong></th>
</tr>
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<tbody>
<tr>
<td>Belief that the accreditation system is the most adequate system for merit-based selection (Yes)</td>
</tr>
<tr>
<td>Appraisal index of the situation of promotion in the university system</td>
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</tbody>
</table>

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<tr>
<th>3. <strong>Personal experience and learning</strong></th>
</tr>
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<tbody>
<tr>
<td>Promoted to current post under accreditation system (Yes)</td>
</tr>
<tr>
<td>Experience in the accreditation process (Yes)</td>
</tr>
<tr>
<td>Experience in university top management (Yes)</td>
</tr>
<tr>
<td>Degree of professional satisfaction</td>
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<tr>
<th>4. <strong>institutional and socialization factors</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly inbred (Yes)</td>
</tr>
<tr>
<td>International experience (Yes)</td>
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<tr>
<td>Universalism index</td>
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<tr>
<th><strong>Control variables</strong></th>
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<tbody>
<tr>
<td>Gender (Female)</td>
</tr>
<tr>
<td>Age</td>
</tr>
<tr>
<td>Field of science [science, engineering and biomedical (FOS-1,2,3,4)]</td>
</tr>
<tr>
<td>Top quality researcher (Yes)</td>
</tr>
<tr>
<td>Research as preferred activity (Yes)</td>
</tr>
</tbody>
</table>
system; again, if personal experience has a reinforcing effect, we should expect a higher probability of preferring accreditation, especially considering the high success rates in the accreditation process reported (see previous section). Thirdly, most academics have a limited perspective and positive experiences may be mixed with self-interest; to cope with this issue we also included a measurement of experience in top university managerial positions (rectors or vice-rectors) to test whether responsibilities and a more global view of university functioning affect preferences. We also included a broad measurement of the degree of general satisfaction of academics with their current job, measured by a Likert scale from 1 to 5.

Finally, to test the role of socialization and institutional factors we first included two dichotomous variables. To analyze 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 bachelor’s and doctoral degree at the same university at which he/she is currently employed. A second dummy variable represents academics’ international experience; we constructed a variable to reflect the fact that he/she had spent at least three consecutive months at universities or research centers abroad. Finally, with the expectation that a stronger identification of academics with their discipline could provide a broader vision than commitment to a particular university, we compared the relative identification with the university and the discipline and constructed a universalism index as a summative index of the position of the respondent on the identity continuum, where 1 is maximum identification with the university and 5 maximum identification with the discipline.

We also introduced certain control variables, identified as relevant in the higher education literature, to understand promotion dynamics; these were gender, age, field of science (science, engineering and biomedical versus social science and humanities), an indicator of the quality of respondents (in our case, being the principal researcher on international research projects and the supervisor of over 10 doctoral dissertations) and, lastly, an indicator of the orientation of the respondent’s activity, mainly research.

Considering the nature of the dependent variable and the distribution of our data, we employed a binary logistic regression. It is important to note that the correlation among all the independent variables used in the model was generally low, the relation between age and eligibility for promotion showing the highest value (-.478) (see the correlation table in the Appendix).

5. Results and discussion

The first finding emerging from the survey is that the proportion of respondents who prefer the current accreditation system is 49% (see the distribution of the variable in Table 1); therefore, the answer to our first descriptive research question is that the system is far from enjoying ample support among Spanish academics and one out of two would prefer a different system. Examining certain differences, we found that females are more supportive of the current accreditation than males (53% versus 46%), that younger faculty members are more in favor than older academics, as well as those who are not full professors (51% versus 35%); academics from social sciences and humanities also prefer the current accreditation system more than academics from other fields (Sanz-Menéndez et al. 2016).
As regards the more explanatory question, in Table 2 we present the results of the model used introducing, step by step, the four theoretically relevant sets of factors (and the control variables). The binary logistic regression model in Table 2 presents the predictive value (or odds ratio) that an independent variable has for the dichotomous dependent variable. It is possible to interpret the coefficient as the change in the probability of the dependent variable per unit of change in the predictor variable.

5.1. Results

The majority of the variables included in the models are statistically significant. Considered overall, the factors included under self-interest and those related to beliefs and values have the strongest effects on the probability of preferring accreditation to a different system. Most of the variables related to socialization and institutional factors included are not statistically significant; their contribution is weak or they do not increase the explanatory power of previous factors.

The results reveal that academics’ preferences are shaped by self-interest. The odds ratio of preferring the accreditation system for those already holding an accreditation for an upper rank is 41% higher as compared with those not in possession of an accreditation. Those eligible for promotion are 1.22 times more likely than full professors to prefer the accreditation system.
These results also provide evidence in support of the relevance of beliefs and values in explaining the preferences of academics regarding the access and promotion systems. In fact, these variables are the strongest contributors to the overall variance explained. The belief of academics concerning whether the accreditation system guarantees merit-based selection is strongly associated with their preferences; likewise, the overall assessment of promotion dynamics in Spanish universities also has a significant effect. Academics who believe that accreditation guarantees merit-based selection are 1.83 times more likely to prefer accreditation than those who do not. In the same vein, an increase of one point in our appraisal index of academic promotion in Spain (which awards higher values to positive opinions) increases the probability of preferring accreditation by 19%.

As regards personal experience and learning, having accessed the current position through the accreditation system increases the probability of preferring it by 18%. Similarly, those who have participated in accreditation processes are 40% more likely to prefer accreditation. Net of other variables, experience in top university management radically reduces (by 52%) the probability of preferring the accreditation system for hiring and promotion. Increased levels of professional satisfaction are conducive to greater support for the current accreditation system.

The fourth dimension, related to socialization or institutional factors, has very weak explanatory power. A classic factor in the literature, inbred status, is not statistically significant. Neither is the universalism index. Possessing at least three consecutive months of academic experience abroad increases the probability of preferring accreditation by 18%.

As for control variables, age is an important factor, because one additional year of age reduces the probability of preferring accreditation by 3%; in general, younger generations are much more strongly in favour of the accreditation system than their older counterparts. There are no large differences in terms of fields of science, although academics from social sciences and the humanities tend to prefer accreditation. We also aimed to control for two relevant factors present in many analyses of productivity and careers, namely quality and research orientation. Our control variable measuring the quality of the research of respondents reveals that top academics are 30% less likely to prefer accreditation than other academics. Similarly, those stating that research is their only professional interest are 21% less likely to prefer accreditation as a hiring and promotion system. Gender is not significant.

5.2. Discussion

Our results show that interests have an important role in explaining preferences, but beliefs and values are a better predictor. The findings suggest that academics’ preferences are not primarily determined by their career advancement interests. These interests have a significant effect, but they are not the strongest predictor as compared with other factors.

The 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 the current accreditation system is the belief that it guarantees merit-based selection. According to our findings, academics are supportive of the current accreditation system (because of personal interests) unless there are other factors, such as concerns about the effects of the system in terms of the quality of the academic profession, causing them to prefer a change.
Additionally, personal experience in university management provide different points of view and shape preferences regarding accreditation; those having top university management experience are less likely to be supportive of the current accreditation model. This preference for the current system is negatively associated with academic rank and age.

What is most striking is the weak role of the variables measuring socialization and institutional factors. More mobile academics prefer a system in which departmental discretion regarding hiring and promotion is tempered by the ex ante evaluation the accreditation represents. In an attempt to understand this result we confirmed that international experience is largely dependent on age; younger academic staff have significantly more international experience than their older counterparts. From another point of view, those who are more mobile may, upon return, view accreditation as a method of protection from inbreeding, but we should also acknowledge that the variable only requires three months’ mobility. These results suggest that the quality of measurement of the socialization variables should be improved. It may be the case that the indicators selected are insufficient, and should be improved in further analyses. At the same time, their minor role provides some insight into the fact that the socialization process is not strongly organized or institutionalized in Spanish universities.

6. Conclusions

In national systems, universities display diversity in the extent to which departments or the external community (including state agencies) are empowered to assess, hire 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 public universities has been based on academic self-rule exerted in a collegiate way of decision making, including decisions about hiring and promotion.

Nevertheless, our results show that, at present, the academic community is divided as regards its preference for such a system. Determining which factors account for such differences has been the subject of our analysis.

As regards policy implications, accreditation was 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 the support of a substantial part of academic elites, to minimize the negative consequences, in terms of the quality of the academics selected, of high levels of local university autonomy in hiring and promotion.

One of the conclusions of our analysis of preferences is that the community is divided. Part of the academic community believes that accreditation agencies were 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 current policy.

Moreover, 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 future, because budget policies have frozen new positions and even replacements due to retirement (Cruz-Castro and Sanz-Menéndez 2015, 2016). Over the years, the accreditation system has created a pool of thousands of accredited academics who expect that ‘automatic’ access to tenure or promotion will occur at some point.
Another policy conclusion is that systems, while in place, create their own support bases, 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 universities; or b) concerns about the quality of the colleagues selected and promoted by a system which did not appear very demanding. From this dual perspective, what matters is not so much the rejection of government intervention in the ex ante evaluation of academic staff but rather the belief that such intervention is not effective.

The public perception of the low demands in terms of accreditation requirements has recently (November 2017) brought about a new change in the evaluation criteria that has been contested by some sectors of the academic community.4

To the best of our knowledge, this is the first time that the preferences of the Spanish academic community regarding hiring and promotion system have been empirically analyzed in a multivariate way. Our paper makes an initial contribution to providing a systematic examination of the preferences of higher education constituencies. Consequently, it is an initial effort to introduce preferences and their determinants into the study of higher education policy changes. Although the Spanish system is almost unique in the European higher education landscape, we believe that the preference framework could be used to analyse faculty views on hiring and promotion systems in other countries. For instance, Italy established in 2010 a national habilitation system, which is similar to that existing in Spain between 2001 and 2007.

Finally, we should acknowledge some of the caveats and limitations of the present study. The focus being on individuals, we have held organizational factors constant. Although Spanish universities share the same national framework, they are under the political authority of their regional governments. These have diverse higher education and science policies, affecting the profiles and strategies of universities within their regions. We have approached our research topic from a national level and have not considered, at this time, regional or institutional levels, preferring to leave them for future research. Additionally, we must acknowledge the limitations associated with the use of the survey data and the employment of only one principal indicator to construct the dependent variable; future research could address these limitations by using multiple indicators to increase reliability and validity in the measurement of key variables. Additionally, linking the individual attributes of respondents to bibliometric performance indicators would provide us with a better understanding of the relationship of the research quality of individuals and their preferences. Likewise, a deeper analysis of the preferences of academics regarding other promotion systems different to accreditation deserves further attention.

Notes

1. The CV format is standardized, very formalized (with sections for qualifications, teaching, publications, projects, management, transfer, and mobility) and demanding in terms of preparation, with each item needing documentary backup. The process does not involve any interviews; the committees (by scientific field) are appointed by the agency from among eligible faculty; the only criterion to be part of the evaluation committee is to already be an associate or full professor with a number of formally recognized six-year research periods (see Sanz-Menéndez 1995, Cruz-Castro and Sanz-Menéndez 2008, Osuna, Cruz-Castro, and Sanz-Menéndez 2011, Marini 2018). There were different merits recognized in various sections: research, teaching, training, and management. The evaluation was based on a 100
scale points system where the candidate, according to the accreditation rank applied for, was required to obtain a minimum score to obtain accreditation (for example, this was 65 for the post of associate professor or 80 for full professorship). Items in CVs were given certain points, and thus it was basically a quantitative system (for more details see for example: Buela-Casal 2007; Sierra et al. 2009). Any EU citizen holding a PhD can apply using the same procedure, although the administrative burden for non-nationals unfamiliar with the administrative procedure is high. Alternatively, if those applying have similar positions in EU universities, they may undergo a specific procedure called certification of equivalence, a simplified version of the accreditation. However, this is a minority procedure, with no more than a few dozen applications per year, mostly for Spaniards working in EU universities and planning to return. It must be stated that following our survey a new more demanding general regulation for accreditation was established in 2015 (Royal Decree 415/2015), but its implementation was delayed until November 2017; for a complete description of the new criteria see http://www.aneca.es/Programas-de-evaluacion/ACADEMIA.

2. Although it could be thought that this belief variable may be strongly related to the preference for the current accreditation system (i.e. the dependent variable), their bilateral correlation is low, reflecting a positive correlation but not a strong covariance (see the correlation matrix in the Appendix). Furthermore, the original questions in the questionnaire are rather different: in the case of the dependent variable we asked academics to express a preference through the choice of one system, while the belief question referred to the adequacy of the current system to guarantee a merit-based selection; in other words, it had only one possible dimension.

3. While performing the preliminary test we confirmed the associations of the different adjectives; using the survey results we measured their correlation and covariance, confirming their association in two groups. Additionally, we clustered the cases in two groups that included 40.8% and 59.2% respectively for predominantly positive and predominantly negative appraisal. The most frequently selected adjectives, in over 40% of the cases, were two positive (meritocratic and competitive) and two negative (parochial and inbred).


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**Correlation significant at 0.01 (bilateral).

*Correlation significant at 0.05 (bilateral).