



Gendered management in Spanish universities: functional segregation among vice-rectors

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ABSTRACT

The reorganisation of higher education according to the marketplace logic – and framed within the process of Europeanisation and globalisation – has run parallel to a significant rise in the number of women in senior management positions at Spanish universities. This would seem to be a step to more gender equality. However, the analysis of the situation used thus far, based on conventional indicators, may be harbouring a not-so-egalitarian reality. Our approach studies the gender distribution of vice-rectors according to assigned functions in all forty-eight Spanish public universities offering both graduate and postgraduate studies. It does so by creating a typology to exemplify gendered divisions of labour within those positions. The results confirm an uneven gender distribution: women, although mostly in charge of caregiving and housekeeping functions, are underrepresented across the board in areas where strategic power resides and the future of university is decided and where, eventually, gender norms could be changed.

ARTICLE HISTORY

Received 16 February 2017
Accepted 29 October 2017

KEYWORDS

Higher education;
management; vice-rectors;
segregation; Spain

Introduction

When it comes to the feminisation of management and leadership positions in Spanish universities, evidence from official sources (Puy 2016; Sánchez de Madariaga 2014) provides paradoxical results. While the percentage of women among vice-deans increased slightly in a five-year period, from 44% in 2010 to 47% in 2015, nearly reaching parity, it is clearly lower among deans, remaining at a stable 25–27% during the same period. Furthermore, in 2010 only 8% of rectors (heads of universities) were women, and that had dropped even lower, to 2%, by 2015.¹ Additionally, among vice-rectors² – the focus of this article – women's share was around 42% between 2010 and 2012 but had fallen to 39% in 2015.

The factors explaining women's representation in higher education (HE) senior management and leadership positions have been described extensively (Bagilhole and White 2011; Bolton and Muzio 2008; Morley 2014). To understand the tension between progress and resistance, this needs to be looked at in the context of reform taking place within Europeanisation and globalisation processes (Carvalho and Machado 2011) and new public management (NPM) dynamics (Caprile et al. 2011) – which have crystallised around the

neoliberal prescriptions in which the Spanish academic world is currently immersed – together with mercantilisation (Wilson et al. 2010) and the so-called academic capitalism (Ferree and Zippel 2015). However, in doing so, one cannot ignore the fact that the restructuring of universities has also been contested, and with complex histories and divergent manifestations and interpretations (Caprile and Vallès 2010; Gill 2010; Morley 1995).

The new circumstances, which began to flourish worldwide in the 1980s, are not gender-neutral but contribute to the production and reproduction of gender inequalities (European Commission 2013; Leathwood 2005; Özkanlı et al. 2009; Rindfleisch and Sheridan 2003). As will be shown in the next section, feminisation in management tends to occur in less prestigious areas that involve a heavy workload of *pastoral care* (Fitzgerald and Wilkinson 2010; Probert 2005) and *academic, organisational or institutional housekeeping* (Dearlove 2002; Heijstra, Steinhorsdóttir, and Einarsdóttir 2016; Morley 2005; Peterson 2014) and that involve precarious *glass-cliff* leadership roles (Peterson 2016).

Nearly two decades ago, Wajcman (1998) stated in *Managing like a Man* that senior management positions constitute the area where power and authority are generated and relocated. It is where decisions are made and norms developed, and therefore womens' access to these areas is the symbol and measure of change in organisations. In an age of social austerity coupled with a neoliberal milieu across public Spanish universities, it is crucial that womens' role in HE governance be examined. To do so, besides trying to systematise and classify concepts that are scattered in the literature, our aim is to present an analysis that moves away from conventional and merely descriptive indicators, as these may be harbouring a not-so-egalitarian reality. Consequently, this study responds to the pertinent need to disaggregate data in order to capture further forms of direct and indirect discrimination (Probert 2005).

Drawing on empirical data, the paper seeks to demonstrate the gendered nature of vice-rectors' responsibilities within all forty-eight public Spanish universities offering both graduate and postgraduate studies. It is structured into four sections. The following section provides a detailed description of the context of HE reforms and their gendered impact as identified by previous literature. After that, the methodological approach, which is fairly innovative due to the way the data were gathered and the categories of functions constructed, is described. The subsequent section presents this study's most relevant results, which exemplify gendered divisions of labour among feminised, masculinised and neutral functions at top executive level. To conclude, the interpretation and discussion of the findings along with some final remarks aid in understanding the consequences in terms of power relations, namely that women will continue to be absent where key decision-making takes place despite their increasing presence in executive leadership.

Background

In recent decades, European countries have carried out HE reforms with the aim of internationalising and modernising public universities. These changes have been inspired by NPM³ and neoliberal principles. They have involved the structural transformation of HE institutions through the introduction of business strategies in the relatively independent and self-governing 'ivory towers' of the traditional collegial system (Caprile et al. 2011). The traditional mission of the university is being overhauled, as knowledge and HE are now seen as economic resources to promote business goals as well as social and economic

development. Learning is reconfigured in order to promote the employability of students, now considered clients/customers (Barry, Berg, and Chandler 2006; Bolden, Petrov, and Gosling 2008). The impact of this can be felt in corporate and managerial forms of governance, pressures for faster and externally focused decision-making and a shift in the locus of power from intellectual to academic capital (Blackmore and Sawers 2015), as well as external accountability based on rankings and internal quality assurance. And all the above-mentioned changes are accompanied by executive teams being expanded (Carvalho and Machado 2011).

The above-listed HE reforms were launched in Anglo-Saxon universities more than four decades ago. They came accompanied by cuts in public funding, an increase in the number of students and pressure to intensify teaching and research loads (Deem, Hillyard, and Reed 2007). Additionally, in the Spanish context, the deployment of the Bologna Process has involved the internationalisation of public universities, by standardising and rendering the structures of national HE systems compatible. This process has fostered the move towards greater efficiency and accountability.

HE governance and management are subject to certain common forces. However, there are acknowledgeable differences between individual universities and nation states, even within Europe. Previous literature discusses some of these differences (Bagilhole and White 2011; Carvalho and Machado 2011; Wilson et al. 2010). Göransson (2011) claims that former differences in HE models (German, French, Anglo-Saxon) and types of universities (generalist, technical, vocational training) are being blurred under the current market-oriented reforms. Though the managerial model seems to have become deep-rooted in countries where the Anglo-Saxon HE system was predominant, in continental Europe one can still find remnants of the collegial model. However, there is no self-evident connection between the collegial or managerial system predominant in European universities and women's recruitment to empowering leadership positions. More recently, the specificities of HE reforms in different countries and areas of the world (Australia, Vietnam, Austria, Spain, South Africa or South Asia) and their gender effects have been addressed (Blackmore, Sánchez-Moreno, and Sawers 2015).

Spain can be considered a special case insofar as the reforms have occurred not only later but also with much more urgency in comparison to other countries. In fact, it was not until 2001, with the Universities Act, that the European Credit Transfer System and, consequently, the monitoring and evaluation of HE (quality assessment agencies) were established. Currently, most public universities are immersed in a shift towards a more corporate and entrepreneurial approach, the restructuring of institutions (merging faculties and departments to create larger business units), and the endorsement of greater transparency and competitiveness (Ariño 2015).

The gender effects of the restructuring of HE

Research highlights the gender-ambivalent impact of HE reforms across national contexts (Caprile et al. 2012; Caprile and Vallès 2010; Castaño et al. 2010; Wilson et al. 2010; Wroblewski and Leitner 2011). First, new managerialism has given rise to a new hierarchy of managers in parallel to the academic one, with responsibilities mainly related to organisational development and institutional change (Blackmore and Sachs 2007; Fitzgerald and Wilkinson 2010; Morley 2013).

Second, previous research has also claimed how the new managerial positions created under the HE reforms offer women opportunities for promotion and access to senior management and leadership positions that they otherwise might not have had. Nevertheless, neoliberal reforms, far from being seen as modernising, are often perceived as intolerable amounts of surveillance and performance management which not only create increasingly toxic and unhealthy workplace cultures (Morley and Crossouard 2016), but also reinforce patriarchy (Ozga 2008). Many of the positions held by women are less senior than those of their male counterparts, yet they simultaneously make them responsible for ensuring other female academics are 'more governable' by virtue of the roles they tend to adopt (Blackmore and Sawers 2015; Morley 2014; Morley and Crossouard 2016). In addition, academic restructuring is coupled with a rapid increase in fixed-term and part-time contracts that disproportionately affects women, acting as a main source of indirect discrimination and as a barrier to accessing leadership positions (Caprile and Vallès 2010; Knights and Richards 2003; Wilson et al. 2010). As a result, previous research concludes that academic women are more likely to assume adjunct roles as well as positions in unpopular and precarious management areas (Bagilhole and White 2011; Morley 2005, 2013; O'Connor 2015; Ryan and Haslam 2005; White 2003).

Third, under HE restructuring policies, new tasks and functions emerge to meet the requirements of enhanced transparency and efficiency (Wilson et al. 2010). The characteristics of new university functions and the changes to the traditional ones have been addressed by previous research in an effort to explore renewed gender distribution and the reinforcement of gendered power relations in academia under the current circumstances (Blackmore and Sawers 2015; Costas, Michalczyk, and Camus 2014; Heijstra, Steinhorsdóttir, and Einarsdóttir 2016; Morley 2003, 2005; Thomas and Davies 2002). Empirical data allows the gendered distribution of labour to be demonstrated, but the power relations that contribute to and arise from such distributions also need to be dealt with. Therefore, to understand why research, finance and strategy are masculinised functions within HE governance and management, the fact that the division of labour in universities suggests that private patterns of oppression are being re-enacted in the public domain must be recognised (Morley 1995, 273). There is also a tendency to attribute different value to the activities carried out by men and women (Bagilhole 1993; Currie and Thiele 2001). Additionally, previous research has suggested that the academic gender binary and power relations have hierarchical implications, as far as horizontal and vertical demarcations are inflected by gender divisions between public and institutional labour (Blackmore and Sawers 2015, 12–13), while the feminine is recurrently placed as private and subordinate to the masculine (Knights and Kerfoot 2004, 432). This has consequences in regard to the dominance of research over teaching in terms of valuing finances and status over other forms of resources. Worldwide, men are more likely to be involved in research and international networks, while women are more frequently encouraged to handle teaching and student support (Morley 2014), increasingly time-consuming activities.

The gendering of functions

The quality of teaching is measured in terms of the satisfaction and welfare of students, now considered customers. Different authors refer to the new role of teaching and

attention to students as *pastoral care* that requires a considerable amount of emotional labour (Fitzgerald and Wilkinson 2010; Peterson 2014; Probert 2005). As a result, women invariably tend to be situated in work and management areas culturally considered inferior, unpopular and supplementary (Acker 2012; Code 1991; Walkerdine 1998).

The new managerial positions, many of which are related to promoting transparency, performance and productivity through quality audits, are no longer depicted as attractive career options next to the research career track (Morley and Crossouard 2016; Peterson 2014). Performing these new functions involves a considerable increase in administrative work, which different authors (Fitzgerald and Wilkinson 2010; Morley 2005) refer to as *organisational housekeeping*: 'that is, keeping the institution, its policies and procedures current and applicable' (Simpson and Fitzgerald 2014, 1937). Thus, as suggested by Dearlove (2002), administrative workload increases in parallel with the consideration that these new positions are 'best left to the donkeys, so the stars can get on with their research' (270). By contrast, the *strategic* nature of research is reinforced by its focus on business and economic development. Excellence in research is measured not only by high productivity in publications, but also by successfully obtaining funding from private sectors. The new perspectives enhance the role of applied research, consulting and contracts with private sectors as a key source of fundraising for the university itself (Wilson et al. 2010).

Improving gender equality in HE institutions involves developing new tasks such as collecting data, preparing reports, participation in committees and assessing the fulfilment of equality objectives. These very time-consuming tasks are added to the teaching, research and administration workload that women already carry on their shoulders (Heijstra, Steinhorsdóttir, and Einarsdóttir 2016). The concept of *institutional housekeeping*, as Bird, Litt, and Wang (2004) state, refers to the extra burden placed on women within organisations in the name of gender equality:

Much like the unpaid domestic housekeeping typically performed by women in family units, *institutional housekeeping* is usually performed without resources and recognition. In the context of university life, women's work of monitoring gender equity adds to their official responsibilities of teaching, publishing and grant seeking. (195)

New tasks appear in the form of giving back to the community and stakeholders as a form of corporate social responsibility (Bird, Litt, and Wang 2004). These *academic housekeeping* functions (Heijstra, Steinhorsdóttir, and Einarsdóttir 2016) receive little recognition, both in terms of career progression and the definition of academic excellence. Additionally, international relations have acquired a new dimension, not only as a result of the standardisation and compatibility of national education systems, but also specifically as a means of attracting and recruiting international students (Wilson et al. 2010).

Peterson (2016) applies the *glass cliff* metaphor – the phenomenon by which women are more likely than their male peers to be appointed to precarious leadership roles (Ryan and Haslam 2005) – to women appointed to top managerial positions at Swedish universities. These so-called *glass cliffs* appear when academic positions are difficult to combine with a successful career as a scholar and are no longer perceived as an attractive career option (Peterson 2014).

Previous international research indicates that even if current reforms may not have explicitly incorporated a gender dimension (as in the Spanish case), the impact is

indisputably gendered. The rationale behind our research has been to explore whether an increasing representation of academic women among senior management and leadership positions across Spanish public universities follows a gendered distribution of labour at executive level, as suggested by Blackmore and Sawers (2015). On the one hand, there are domestic/internally oriented roles of change management (managing academics and reforming curriculum, quality of teaching and learning, academic engagement and participation including equity, student welfare and wellbeing, and everything related to cultural change and 'winning hearts and minds' (328)). On the other hand, there are the public/externally oriented organisational roles (research, finance, administration and the entrepreneurial labour of the university's external and global strategic engagement, partnerships and international education). Are Spanish academic women appointed to strategic and rewarding leadership positions? Or, in contrast, do they tend to be blurred out in less attractive managerial positions? To what extent do the patterns identified by previous literature differ from those found in Spanish top HE management? How could the division of gender roles be framed in the context of changes and reforms in HE? To address these questions, our study has developed the methodological strategy described in the next section.

Data and methodology

To address these research questions, we have gathered data on the vice-rectors of forty-eight Spanish public universities. The Spanish Ministry of Education, Culture and Sports recognises a total of eighty-three universities, fifty of them public and thirty-three private (Ministerio de Educación, Cultura y Deporte 2015). The sample of our analysis, presented in Table 1, includes all public universities that offer both graduate and postgraduate studies.

The forty-eight universities included in the sample have a total of 387 vice-rectors among them. Our database includes information gathered from the universities' websites during February 2015, including the denomination of each vice-rector and the full name of the person in charge. On the basis of this information, we created two additional variables: sex/gender and functions.

Sex/gender of the vice-rector. This was deduced from the first name of the person in charge. This resulted in an overall number of 148 women among the vice-rectors, representing 38.2% of those positions, yet the gender distribution varied significantly across the sample. While at nine universities between 50% and 78% of their seventy-three vice-rectors were women, at another nine universities, women had no more than a 25% share among their seventy-four vice-rectors. Moreover, four universities had a representation below 15% and there was even one without any women in these positions.

Functions performed by each vice-rector. They were assigned by disaggregating their institutional denomination in recognisable parts. For example, the denomination *Vice-Rector for Culture, Participation and Diffusion* (in Spanish, *Vicerrectorado de Cultura, Participación y Difusión*) was separated into three areas: 'Culture', 'Participation' and 'Diffusion'. To do so, we adopted the following procedure: first, the institutional denomination of each vice-rector was disaggregated and recoded as new variables, called areas, from 1 up to 4 (enough to cover all distinguishable cases for each vice-rector). Following the

Table 1. Distribution of vice-rectors and the proportion of women across 48 Spanish public universities (February 2015).

	Number of vice-rectors	Number of women	Women (%)
Universidad de Granada	9	7	77.8
Universidad de Málaga	8	5	62.5
Universidad de La Coruña	7	4	57.1
Universidad de Las Palmas de Gran Canaria	7	4	57.1
Universidad Autónoma de Barcelona	8	4	50.0
Universidad Autónoma de Madrid	10	5	50.0
Universidad de La Rioja	4	2	50.0
Universidad de Valencia	10	5	50.0
Universidad del País Vasco/EHU	10	5	50.0
Universidad de Alicante	9	4	44.4
Universidad de Córdoba	9	4	44.4
Universidad de Sevilla	9	4	44.4
Universidad Jaume I de Castellón	9	4	44.4
Universidad Miguel Hernández	9	4	44.4
Universidad de Cádiz	7	3	42.9
Universidad de La Laguna	7	3	42.9
Universidad de Salamanca	7	3	42.9
Universidad de Vigo	7	3	42.9
Universidad Nacional De Educación a Distancia	7	3	42.9
Universidad Pablo de Olavide	7	3	42.9
Universitat Rovira i Virgili	7	3	42.9
Universidad Carlos III	10	4	40.0
Universidad de Almería	5	2	40.0
Universidad de Huelva	5	2	40.0
Universidad de Zaragoza	10	4	40.0
Universidad de Cantabria	8	3	37.5
Universidad de Castilla La Mancha	8	3	37.5
Universidad de Extremadura	8	3	37.5
Universidad de Girona	8	3	37.5
Universidad de Jaén	8	3	37.5
Universidad Politécnica de Valencia	8	3	37.5
Universitat Pompeu Fabra	8	3	37.5
Universidad Complutense de Madrid	11	4	36.4
Universidad de Barcelona	11	4	36.4
Universidad de León	6	2	33.3
Universidad de Santiago de Compostela	9	3	33.3
Universitat de les Illes Balears	9	3	33.3
Universidad de Oviedo	7	2	28.6
Universidad Pública de Navarra	7	2	28.6
Universidad de Alcalá de Henares	8	2	25.0
Universidad Politécnica de Catalunya	8	2	25.0
Universidad Politécnica de Madrid	8	2	25.0
Universidad de Lleida	9	2	22.2
Universidad de Valladolid	10	2	20.0
Universidad de Burgos	7	1	14.3
Universidad Rey Juan Carlos	7	1	14.3
Universidad de Murcia	9	1	11.1
Universidad Politécnica de Cartagena	8	0	0.0
<i>Total vice-rectors</i>	<i>387</i>	<i>148</i>	<i>38.2</i>

previous example, the *Vice-Rector for Culture, Participation and Diffusion* thus included 'Culture' (area 1), 'Participation' (area 2) and 'Diffusion' (area 3).

Second, once the institutional denominations of each vice-rector were disaggregated and recoded into different areas, a raw list of 187 proxies of functions was created. To reduce this list to an operative number of categories and avoid redundancies, we created groups of functions, carefully associating assimilable or semantically close items

but keeping the classification as comprehensive as possible. For example, we found multiple formulations to refer to students, such as *Alumnos*, *Alumnado*, *Estudiantes* and *Estudiantado*. Consequently, in this case, we grouped them into a single category called 'Student Affairs'. Moreover, following a criterion of minimum size and relevance, none of these groups of functions had a number of cases smaller than four. This model complicated the classification, because different functions with low number of cases (e.g. *Medio ambiente*, environment) had to be included in 'wider concept' groups (e.g. *Responsabilidad Social*, social responsibility).

This codification was discussed with academic experts and re-elaborated on several occasions until a classification of twenty-nine groups of functions was agreed.⁴ Additionally, to test the final classification, we asked an external coder to assign each of the 187 items to one of the previously defined twenty-nine categories. The resulting codification of that test matched with the authors' in 69% of the items, yielding a kappa coefficient of 0.676. According to Landis and Koch (1977), this result indicates a substantial agreement, so the former classification was approved. Even though this classification is rather consistent and coherent, alternative groupings of functions are possible; other codifications may provide different results and interpretations, and future research could test such proposals.

Finally, twenty-nine additional variables were created in the database and each of them associated with one group of functions obtained in the previous process. These variables are binary: 0 when none of the vice-rector's areas are included in the corresponding category and 1 when there is at least one. This method provides a series of variables similar to those that could have been produced from a multi-response survey question. However, in this case, instead of multiple functions explicitly indicated by each vice-rector, we have multiple functions inferred from the institutional denomination of each vice-rector. The frequency of each group of functions across the sample of vice-rectors can be seen below in Table 2. Furthermore, as some of these functions may coincide among some vice-rectors, an analysis of the most recurrent two-by-two combinations of tasks has been also carried out (Table 3).

We are aware that our approach has some limitations. It does not exhaustively register all of the actual functions performed by each of these entities. For instance, it is likely that some universities adopt short or more generic titles, hiding specific functions, while other universities use longer designations, including more functional details. Despite this shortcoming, our approach allows for an uncomplicated – yet rather laborious – empirical analysis that can be applied in many other contexts and does not need the direct collaboration of the vice-rectors involved.

To determine the gendered nature of the functions, i.e. which are mostly masculinised or feminised, the percentages of men and women across categories and combinations of categories among the vice-rectors were calculated. The results are presented in the following section. Further on, we discuss the implications of the findings, in particular the nature of certain functions in relation to power relations and career development opportunities.

Results

In this section, we present the main findings of the analysis. The proportion of women within each category of the so-called feminised and masculinised functions is described

Table 2. Gender distribution of vice-rectors within functions.

Relatively 'feminised' functions	Women			Relatively 'neutral' functions	Women			Relatively 'masculinised' functions	Women		
	<i>N</i> ^a	<i>W</i> ^b	% ^c		<i>N</i> ^a	<i>W</i> ^b	% ^c		<i>N</i> ^a	<i>W</i> ^b	% ^c
Cultural Affairs	21	14	66.7	External Relations	39	18	46.2	Teaching Organisation	50	12	24.0
Graduate Studies	6	4	66.7	Postgraduate Studies	20	9	45.0	Infrastructures	21	5	23.8
Student Affairs	45	29	64.4	Organisation	16	7	43.8	Technologies	21	5	23.8
Social Responsibility	39	25	64.1	Teaching Quality	30	13	43.3	Research	55	12	21.8
Employability	15	9	60.0	Campuses	28	12	42.9	Innovation	21	4	19.1
Universitary Community	7	4	57.1	Departments/Centres	5	2	40.0	Financial Administration	22	4	18.2
Sports	7	4	57.1	Lifelong Learning	13	5	38.5	Strategy and Planning	17	3	17.7
Internationalisation	48	26	54.2	Studies	11	4	36.4	Academic Staff	43	7	16.3
Equality	4	2	50.0	Communication	15	5	33.3	Relations with Enterprises	5	0	0.0
				Knowledge Transfer	24	7	29.2				
				Personnel	7	2	28.6				

Notes: Total number of vice-rectors = 387. Total number of female vice-rectors: 148. Overall proportion of women among all the vice-rectors = 38.2%. Neutral functions are defined as those with a proportion of women within the margin $38.2\% \pm 10$ percentage points.

^aNumber of vice-rectors in charge of, at least, the corresponding function.

^bNumber of women in charge of vice-rectors with the corresponding function.

^cProportion of women among the vice-rectors in charge of the corresponding function. Functions are ranked based on this indicator, in descending order.

Table 3. Gender distribution of vice-rectors within the most frequent two-by-two combinations of differentiated functions.

Relatively 'feminised' combinations		N ^a	W ^b	Women % ^c
Cultural Affairs ^f	Social Responsibility ^f	5	5	100.0
Cultural Affairs ^f	Student Affairs ^f	4	4	100.0
Student Affairs ^f	Social Responsibility ^f	4	4	100.0
Internationalisation ^f	Postgraduate Studies ⁿ	4	3	75.0
Social Responsibility ^f	Internationalisation ^f	11	8	72.7
Social Responsibility ^f	Campuses ⁿ	17	11	64.7
Student Affairs ^f	Employability ^f	11	7	63.6
Cultural Affairs ^f	External Relations ⁿ	5	3	60.0
Student Affairs ^f	External Relations ⁿ	6	3	50.0
Campuses ⁿ	Infrastructures ^m	6	3	50.0
Relatively 'neutral' combinations		N ^a	W ^b	Women % ^c
Organisation ⁿ	Communication ⁿ	5	2	40.0
Social Responsibility ^f	Infrastructures ^m	6	2	33.3
Postgraduate Studies ⁿ	Lifelong Learning ⁿ	6	2	33.3
Teaching Quality ⁿ	Strategy and Planning ^m	6	2	33.3
Relatively 'masculinised' combinations		N ^a	W ^b	Women % ^c
Postgraduate Studies ⁿ	Research ^m	4	1	25.0
Infrastructures ^m	Financial Administration ^m	4	1	25.0
Knowledge Transfer ⁿ	Research ^m	14	3	21.4
Teaching Organisation ^m	Academic Staff ^m	20	4	20.0
Internationalisation ^f	External Relations ⁿ	6	1	16.7
Teaching Quality ⁿ	Teaching Organisation ^m	6	1	16.7
Research ^m	Innovation ^m	12	2	16.7
Infrastructures ^m	Technologies ^m	4	0	0.0
Knowledge Transfer ⁿ	Innovation ^m	6	0	0.0
Financial Administration ^m	Strategy and Planning ^m	6	0	0.0

Notes: Total number of vice-rectors = 387. Total number of female vice-rectors = 148. Overall proportion of women among all the vice-rectors = 38.2%. Neutral combinations are defined as those with a proportion of women within the margin $38.2\% \pm 10$ percentage points.

^aNumber of vice-rectors in charge of, at least, the corresponding combination of functions.

^bNumber of women in charge of vice-rectors with the corresponding function.

^cProportion of women among the vice-rectors in charge of the corresponding combination of functions. Combinations are ranked based on this indicator, in descending order.

in Table 2. The number of vice-rectors associated with each function is also specified in the N column, from a total of 387.

The categories have been sorted by the percentages of women in descending order and divided into three parts: the relatively more feminised on the left side, the relatively neutral in the centre, and the relatively masculinised (or less feminised) on the right side. To classify functions as neutral, we have established a threshold of +/-10 percentage points (pp) from 38.2%, the proportion of women in the total sample, which can be used as a reference for unbiased gender distribution. Even if the decision to establish this criterion is arbitrary, the existing literature does not seem to identify any objective statistical criteria that could be adopted. And although our proposal is undoubtedly open to scientific debate, the aim has been to adopt a useful tool for approaching segregation in gradual terms and, consequently, a +/-10 is a non-negligible margin for the first level of this analysis. Having said that, it should be highlighted that the number of feminised and masculinised functions is higher than the number within the neutral category.

In addition, many categories are more than 20 pp away from the balanced distribution when the analysis is taken to a higher level of segregation. At the top of the relatively feminised group of functions, we see how five of the categories with high proportions of

women surpass this margin: Cultural Affairs (66.7%, $N = 21$), Graduate Studies (66.7%, $N = 6$), Student Affairs (64.4%, $N = 45$), Social Responsibility (64.1%, $N = 39$) and Employability (60.0%, $N = 15$). By contrast, at the bottom of the masculinised list, four functions have rather small proportions of women: Relations with Enterprises (0.0%, $N = 5$), Academic Staff (16.3%, $N = 43$), Strategy and Planning (17.7%, $N = 17$) and Financial Administration (18.2%, $N = 22$).

Both facts – that most functions are out of the neutral thresholds and that many of them present extreme values – strengthen the idea of the gendered division of tasks and responsibilities among the vice-rectors analysed. However, another analytical step has been taken to investigate special combinations of functions which can be named ‘feminised’ or ‘masculinised’. Table 3 shows two-by-two combinations of the differentiated categories that most frequently appeared (four times or more⁵) in the sample of vice-rectors. Women’s proportions indicate that ‘feminised’ combinations (i.e. with more than 48.2% of women) are formed mainly by ‘feminised’ functions – according to the previous analysis (Table 2) – and sometimes go with ‘neutral’ ones. However, ‘masculinised’ combinations (i.e. with less than 28.2% of women) are predominantly formed by ‘masculinised’ categories and less frequently by ‘neutral’ ones. That said, two exceptions should be noted. First, combinations of ‘Campuses’ and ‘Infrastructures’ are ‘feminised’ (50.0%, $N = 6$), however none of these functions were so when analysed individually. Second, combinations of ‘Internationalisation’ and ‘External Relations’ are ‘masculinised’ (16.7%, $N = 6$), despite these functions being ‘feminised’ and ‘neutral’, respectively, when considered individually.

While we attest to the importance of these findings, which demonstrate the existence of a gendered division of functions among vice-rectors in Spanish universities, we are aware that assessing the significance of these imbalances demands further research (for example, carrying out a comparative analysis of similar data over time or across more universities, either in Spain or cross-nationally). Nonetheless, in order to go beyond a merely descriptive analysis, in the following section the implications of these results will be discussed in light of previous literature and further research areas will be suggested.

Discussion

Previous literature, as we have seen previously, has identified managerial functions with different profiles in terms of qualifications and influence on academic trajectories. On the one hand, categories such as *pastoral care*, *emotional labour*, and *academic, administrative or institutional housekeeping* are mostly related to the internally oriented and domestic roles (Blackmore and Sawers 2015), involving significant amounts of personal commitment and an undervalued workload. On the other hand, functions identified with research, innovation, global engagement and business-finances are mostly related to the public/externally oriented and academically strategic roles. Some literature underlines that, under the new conditions of HE management, women tend to be recruited to positions that put them in charge of the former functions, where they are expected to make positive contributions to the organisation but which are no longer attractive career options when compared to the research track (Dearlove 2002; Göransson 2011; Peterson 2014). However, the latter tasks, crucial for the future of the university, have been traditionally, and still are, male-dominated (Carvalho and Machado 2011). We will now examine how each category connects with the analysis of our results for the case

of 48 Spanish public universities and to what extent they are gender-distributed as expected based on previous literature.

Pastoral care of students is a genuinely feminised function

Our data confirms previous results that vice-rectors' functions for Graduate Studies, Student Affairs and Employability (usually taken to mean that of students) – closely related to pastoral care – are rather feminised. Many of their combinations are also female-dominated, which strengthens even further their gendered orientation.

However, Postgraduate Studies (master's degrees and PhDs) does not follow that pattern and falls into the group of neutral categories. This apparently contradictory result may be explained by looking at the combinations of this function. When Postgraduate Studies combines with Internationalisation functions, which may involve more dedication to programmes for student exchange or attracting new students, the distribution tends to be more feminised. Contrarily, for vice-rectors that combine Postgraduate Studies with Research, a more prestigious and strategic area (Dearlove 2002), there the functions are more frequently managed by men. The different profiles adopted by Postgraduate Studies, therefore, are consistent with the argument presented above.

Why are academic management and teaching quality masculinised in Spanish universities?

Previous research has suggested that the management of human resources has some features of pastoral care and therefore is more likely to be assigned to academic women (Blackmore and Sachs 2007; Morley 2013). The analysis of the Spanish results shows a rather non-feminised distribution among these functions. Academic Staff and Teaching Organisation are unequivocally masculinised. By contrast, the gender distribution among the function termed 'Personnel' was 29% ($N = 7$), falling into the neutral margins but indeed close to the masculinised threshold. To understand these results, it should be noted that the Office of the Vice-Rector for Faculty that presides over new faculty positions and makes way for academic promotion (Carabaña 2005; Salaburu, Mees, and Pérez 2003). This involves pressures from faculty, departments and schools to improve their respective positions in the academic arena. Moreover, managing Academic Staff and Personnel is also of a strategic nature, as the votes of faculty and staff are determinant, much more so than those of students, in a rector's election (Sánchez-Moreno, López-Yáñez, and Altopiedi 2015). Thus, the fact that these functions involve key areas of power and leadership in Spanish universities may help to explain cross-national divergences.

Furthermore, Morley (2005) suggests that women's socialised patterns of caring are especially suited to teaching quality assurance, presenting evidence that this is a female-dominated territory. According to our data, this function falls into the relatively gender-neutral category but is close to feminisation. However, when this function combines with Strategy and Planning, the distribution remains neutral but gets much closer to being masculinised; and when it appears with Teaching Organisation, the distribution becomes clearly masculinised. Thus, the gap with previous international research may be related to the abovementioned aspects. Also to be taken into account is the fact that the teaching quality assurance system is new and in continuous transformation and is considered strategic by the governing bodies of Spanish universities, who devote a great deal of effort to it. This could therefore explain its current neutral or masculinised – rather than feminised – nature.

Organisational and institutional housekeeping: feminised when related to emotional functions, masculinised when related to strategic functions

Academic housekeeping involves increasingly time-consuming administrative tasks, quite a ways away from the old collegiality, autonomy and freedom enjoyed by former academic leaders, and these tasks are now very often incompatible with sustaining a research career (Barry, Berg, and Chandler 2006; Deem, Hillyard, and Reed 2007; Morley 2003, 2005). Management positions associated with these functions are expected to be feminised, but our results instead suggest that it depends on their combination with other kind of functions, whether they are emotional or strategic.

First, our data reveal that Departments/Centres, Organisation, Campuses and Infrastructures, which share many of the above-described features of heavy workload with little strategic power, are generally gender-balanced categories. This fact seems to contradict the expectation of female predominance in this area. However, some paradigmatic interactions should be noted in the case of Infrastructures. On the one hand, when it combines with Campuses, emphasising its organisational side, the distribution becomes feminised. On the other hand, when Infrastructures appears with Financial Administration and Technologies – both considered more strategic functions – the distribution becomes masculinised. It would seem, therefore, that the gendered profile of Infrastructures changes depending on the complementary functions that go with it.

Second, institutional management also involves functions aimed at giving back to the community in the name of efficiency, responding to society's diverse needs and building a positive corporate image of the university. Cultural Affairs, Social Responsibility, University Community, Sports and Equality would be included in this group of tasks. Previous international qualitative findings show that they are considered to be undervalued institutional housekeeping with little strategic and internal power (Bird, Litt, and Wang 2004; Heijstra, Steinhorsdóttir, and Einarsdóttir 2016), whereas their fulfilment clearly requires people skills and emotional labour. Based on these characteristics, the expectation was that they would be feminised, and our results thoroughly coincide, as women are more frequently responsible for vice-rectorships entrusted with these functions.

Although Gender Equality is mentioned in the previous paragraph, it should be noted that it is an unmistakably feminised function in Spanish universities. Even though the word 'equality' appears only four times among the institutional denominations of the vice-rectors included in our sample, forty-eight out of fifty Spanish public universities have Gender Equality Offices headed by one female academic (male in only three cases) (Castaño and Suárez 2017).

Third, there is a considerable group of managerial activities dedicated to a university's relationship with other institutions, with other communities or with unaffiliated individuals. These functions require countless administrative hours and, sometimes, the employment of people skills; as a consequence, they could be also expected to be more female-oriented *administrative and institutional housework* (Wilson et al. 2010). However, they may also have a strategic and externally oriented side with valuable rewards for the academic trajectory if they are performed in specific international or male-dominated business fields (Blackmore and Sawers 2015). In this sense, our analysis shows that Relations with Enterprises is indeed masculinised, as well as some interesting interactions. On the one hand, although Internationalisation and External Relations are globally feminised and neutral,

respectively, they yield feminised combinations when they are combined with functions such as Postgraduate Studies, Social Responsibility, Cultural Affairs or Student Affairs; that is, these tasks are more female-biased when they are more devoted to attending to student exchange programmes, volunteerism, cooperation for development, etc. On the other hand, if Internationalisation and External Relations are combined together exclusively – i.e. more focused on the institutional connections per se – the gendered distribution becomes masculinised.

Strategic functions: is the future of the university in the hands of men?

Universities are expected to meet demands from government, industry and other social actors and also to create benefits by supporting business innovation and boosting national competitiveness (Enders, Boer, and Weyer 2013). The literature suggests that some top management functions in this domain, such as Research, Innovation and Technologies, are strategic and associated with academic men (Blackmore and Sawers 2015; Fitzgerald and Wilkinson 2010; Morley 2005; Probert 2005). Accordingly, our results show that these key functions are clearly male-dominated at Spanish public universities, with the percentage of women barely reaching 20%. Furthermore, while Knowledge Transfer could be individually a more neutral category, when it is combined with Research and Innovation the distribution becomes manifestly masculinised.

Additionally, considering the predominant market orientation, universities are expected to be more self-reliant institutions and to cover their costs at least partially. The rector is considered to be a Chief Executive Officer that must keep strategy and finances in good shape. In this respect, international literature underlines the masculine nature of functions such as Financial Administration or Strategy and Planning (Bagilhole and White 2011; Carvalho and Machado 2011; Göransson 2011). The analysis of the Spanish data reveals the strongly masculinised distribution in these functions and their main combinations, especially when they coexist.

The political and gender implications of our discussion for the case of Spanish public universities are clear: restructuring guided by market principles do not favour a more egalitarian gender distribution of power. The attribution to women of internal management functions entails a greater workload and less academic projection, while men tend to engage in strategic management, research, finances and business relationships. Additionally, the emergence of new management functions, far from questioning them, reinforces patriarchal relations within the university and the traditional sexual division of labour.

Limitations and future research

Before concluding, we would like to acknowledge several limitations of our analyses while we propose some ideas for future research. First, as mentioned above, the classification of functions is limited as far as it does not exhaustively account for every function performed by each vice-rector. In view of this, future research is needed to register all the specific tasks performed by the different vice-rectors, beyond their institutional denominations, and contrast the validity of our findings.

Secondly, certain gaps in the literature have limited the possibilities of establishing a consistent conceptual framework. It has been difficult to find studies that thoroughly

classify the functions of vice-rectors, whether from the university management perspective or from gender-related literature.

To overcome these limitations, we suggest two complementary strategies. On the one hand, more theoretical development is needed in order to categorise the functions according to either their content or their gendered implications. On the other hand, further quantitative and qualitative empirical research is necessary to capture vice-rectors' own discourses and experiences regarding the management functions performed. The resulting categories would allow a more comprehensive analysis of the actual patterns of gender segregation across vice-rectors' positions, either from a theoretical or an empirical approach.

In spite of these weaknesses, the exploratory character of this paper is countered by its innovative methodological proposal. As we did not identify previous research which measures gender segregation across vice-rectorships by taking into account their attributed institutional functions, we consider this effort to be valuable in laying the foundations for a systematic, quantitative approach to the topic. Likewise, this piece of research provides thought-provoking findings to stimulate further debate over the gendered distribution of management functions and leadership positions in academia.

Concluding remarks

Working and managing within the restructured university demand softer and transformative leadership and new skills and abilities associated with care-giving duties while increasing the workload of teaching, research and administration. Much has been written about gendered management styles; however, Wajcman (1998) argues that leadership style has to do with an organisation's gendered regime structures rather than people's characteristics. The fact that women are associated with a more participative, soft and integrative style would therefore have an impact on the positions and functions they usually hold (often impregnated by 'domesticity'). Despite management style being a question of power rather than a gender issue, new management positions seem to endorse a gendered division of labour, which results in an unequal distribution of functions and of power.

Spanish public universities are rapidly restructuring and incorporating women at every level of the hierarchical structure. Consequently, the feminisation of top HE management is remarkable in Spain, as research has also noted elsewhere (Göransson 2011). Besides demographic feminisation, our results show the polarisation of top HE management between masculinised strategic research/innovation/technologies and feminised attention to students and administrative/social/cultural functions. An uneven gender distribution is revealed: women are mostly in charge of caring and housekeeping functions while they are broadly underrepresented in areas where strategic power resides and the future of university is decided and where, eventually, gender norms could be changed. Our results also confirm Morley's (2005) claims about how the bifurcation between feminised management and masculinised prestigious academic work gives career opportunities to women, while gendered power relations limit their chances to occupy decisive positions in the context of the new universities. Women managers, positioned as emotional labourers and institutional housewives, clean up the debris from increasingly toxic and restructured workplaces, and what seem to be opportunities for women turn into pitfalls.

The implications of our findings regarding the new governance and management system of Spanish public universities prove to be disappointing. Women are mostly in charge of caring and housekeeping but excluded from strategic areas, so changing gender relations in universities is still far from being a reality. Only through a real gender commitment from the entire university hierarchy, including the overwhelmingly male-dominated rectorships, will policies for promoting women to top management positions have substantial effects.

Notes

1. Consequently, gender distribution among heads of universities and assimilated institutions in Spain is relatively low compared with the European Union average, where it was estimated to be 10% in 2010 and 15% in 2014 (European Commission 2013, 116, 2016, 142).
2. The position of 'Vice-Rector' in Spanish universities corresponds to the positions of 'Pro-Vice Chancellor' in Anglophone countries and 'Vice President' in France and Germany.
3. The NPM aims to modernise the public sector and make it more efficient by introducing the three 'Ms': market, managers and measurement. More details can be found in Hood (1991).
4. Further information about the list of items and the resulting codification is available upon request.
5. The functions that make up each combination do not necessarily come alone; they can also be associated with other responsibilities/missions assigned to the same vice-rector.

Acknowledgments

We thank the academics that gave us access to their valuable time and reflections. We also express gratitude to our colleagues Juan Martín, Olga Suárez and Milagros Sáinz for their collaboration. José Luis Martínez-Cantos has contributed to this work with the support of a UOC postdoctoral fellowship.

Disclosure statement

No potential conflict of interest was reported by the authors.

Funding

The research leading to these results has received funding from the Spanish Ministry of Economy and Competitiveness [grant number FEM2013-48225-C3-2-R].

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