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Women professors and the academic housework trap

Women constitute just over one fifth of full professors in UK higher education and whilst work has emerged in recent years on professors as leaders, there has been comparatively little research about how this under-represented cadre define and practise their role as intellectual leaders. This paper seeks to analyse how women see their role as full professors through autobiographical accounts of their intellectual and career histories via interviews with women professors, and a small comparison group of male professors. A range of freedoms and responsibilities connected with the professorial role are identified along with personal qualities considered central to success. Both female and male professors understand their role principally in terms of research leadership, but women are more likely to emphasise the importance of academic citizenship, especially mentoring, compared to their male counterparts, an obligation that weighs especially heavily on women working in science, technology, engineering and mathematics areas. While these findings are indicative of the continuing effect of so-called ‘academic housework’ in holding back the academic careers of women, they are also a positive indicator of a commitment to an all-round role as an intellectual leader.

Keywords: gender; women professors; academic profession; academic citizenship; service; academic freedom

Introduction

Women constitute 56 per cent of students in British higher education and about 45.7 per cent of university academics but just 24 per cent of professors in the UK (Equality Challenge Unit, 2018). The term professor is being used in the UK context with the North American equivalent being ‘full professor’. Despite gender inequality being characterised as a critical deficiency in higher education leadership (Morley, 2013), there remains comparatively little research on how female professors define and practise their roles, with Neale and White (2005) being an exception. A larger cadre of research-focused professors has emerged in UK higher education in recent years linked to the growing importance of the Research Excellence Framework (REF). These professors have been appointed to enhance the research capacity of institutions in this context and often do not occupy formal management roles. The de-coupling of the professorial role

from formal management responsibilities at departmental and faculty level has, in turn, led to growing interest in the concept of intellectual leadership (Evans, Homer, & Rayner, 2013; Author, 2011, 2012). Thus, this paper's focus is to analyse the ways in which women professors define and exercise their role as intellectual leaders.

Literature review

The emphasis within the higher education leadership literature has historically been on formal management roles and functions with studies often focused on middle and senior managers (e.g. Knight & Trowler, 2001; Smith, Adams, & Mount, 2007). There has been logic in this inasmuch that the professorial role was historically linked in a British context with being department head. Massification has led to greater student numbers, from about 10 per cent of the UK population in 1960 to about 45 per cent today (Department for Education, 2016). This has, in turn, expanded the size, numbers and scope of universities. Neo-liberal economic policies and a shift in the understanding of higher education as principally being a private rather than public good has led to decreased public funding and a more entrepreneurial and competitive system (Carpentier, 2012; Marginson, 2006). This has increased competition for funding and pressure to attract the best students and academic staff on a global rather than domestic basis. These changes have forced universities to operate more like businesses (Bok, 2009) via a professional management structure and growing numbers of hybrid academic/managerial roles (Whitchurch, 2006). Given this background, it is not surprising that leadership research has tended to focus mainly on how these changes have impacted on the formal leadership of higher education institutions.

Until recently, there has been less research on the informal leadership of senior academics with professorial titles. Tight's (2002) analysis of the professor's role and

purpose is a rare exception identifying the connection between professorial leadership and a broader set of collective responsibilities, closely associated with helping less experienced colleagues develop through mentoring processes, sometimes termed academic citizenship (Slaughter & Leslie, 1997). This is one of four orientations to intellectual leadership identified by Author (2012) in addition to being a knowledge producer, a boundary transgressor and a public intellectual. Informal and distributed leaders, such as professors, are generally not thought of as strategically central, so they do not occupy formal roles within university management structures. While some professors do occupy 'multi-professional' or hybridised management roles (Whitchurch, 2006), such as head of department or dean, their influence mainly stems from their managerial rather than academic position (Author, 2011). Literature is scarce on a professor's leadership role, though they possess a sense of being intellectual leaders (Rayner, Fuller, McEwen, & Roberts, 2010). Author (2011), in elaborating this concept further, defines an intellectual leader as someone who has the ability to influence and inspire others based on the power of their ideas as opposed to position power. This form of leadership is widely perceived to be the most effective means of developing the next generation of academic leaders (e.g. Austin, 2002; Author, 2005, 2006; Ryan & Peters, 2015).

Furthermore, there is a range of other concepts relevant to this paper that relate to gender, leadership and women in academe. It has long been recognised that women in the workplace face a range of informal or invisible barriers to career progression expressed via the phrase 'glass ceiling'. In a higher education context, the metaphor 'ivory ceiling' is in widespread use (e.g. Forestier, 2002; Misra, Lundquist, Holmes, & Agiomavritis, 2011). The reasons for using the ivory ceiling metaphor have been much

discussed, and the sector has set up initiatives to tackle it, such as the Athena Swan charter, established in 2005 to advance the careers of women in science, technology, engineering and mathematics (STEM), and expanded in 2015 to cover the humanities and social sciences. Some observers regard increasing numbers of women both studying and working in formerly male dominated fields of study and across higher education as grounds for optimism that this will lead to greater equality in the labour market via the so-called pipeline theory (Mariani, 2008). This is the theory that gender or racial equality at the higher levels of an organisation takes time to address itself as a higher level of participation would eventually lead to higher level at leadership roles once experience is gained (Solorzano, 1998). However, critics contend that ‘leaks’ or ‘blocks’ in the pipeline mean that while women may enter the pipeline, they subsequently leave or do not achieve their full potential due to a range of reasons including different personal priorities, inadequate support and a lack of self-confidence (e.g. Aiston, 2014; Pell, 1996). By contrast, other research has highlighted the continuing existence of direct gender-related bias as a block to the careers of senior academic women (e.g. Blickenstaff 2010; Manfredi, Grisoni, Handley, Nestor, & Cooke, 2014).

Despite growing numbers of women students in higher education and professionally joining academe, this has not resulted in the unblocking of the ‘pipeline’ leading to women acquiring an equitable share of professorships. The percentage of UK based professors who are women has crept up from 19 per cent in 2009 to near 24 per cent in 2014. In some STEM subjects though, the proportion of women professors remains stubbornly lower than those figures. One of the barriers to progression for women within higher education is captured by the phrase ‘academic housework’ (Heijstra

Steinhorsdóttir, & Einarisdóttir, 2016). This refers to women taking on gendered responsibilities associated with caring in the workplace that can result in an excessive amount of time-consuming and lowly esteemed service work inhibiting, or at least delaying, their promotion chances (Acker and Feuerverger, 1996; Grant and Knowles, 2000; Misra, *et al*, 2011). Moreover, intersectionality or multiple marginality means that women may be disadvantaged in respects other than their sex by, for example being members of a racial or ethnic minority (Turner, 2002). Thus, this paper hopes to further the discussion of the underrepresentation of women in senior academic roles through the voices of those who have battled to get there.

Research design

The paper draws primarily on 30 semi-structured interviews with professors in non-hybrid roles based in the UK. Non-hybrid roles being those where the professor is not also formally in a leadership or managerial position, such as department head or director or research. Non-hybrid roles were chosen so as to get an understanding of how professors interpreted the intellectual leadership aspects of their positions as opposed to formal leadership aspects (Evans, Homer, & Rayner, 2013; Author, 2011, 2012). This does not mean that the participants may have necessarily eschewed managerial roles (Burkinshaw and White, 2017; Morley, 2013) or may obtain them in the future.

Interviews were used as a means of providing a fine-grained understanding as to how professors interpret their roles. Twenty-five of these interviews were with women professors while the remaining five were conducted with male professors. Both female and male professors were asked an identical set of questions. These reflected a balance between matters relevant to *becoming* a professor and those pertinent in *being* a professor. First, this balance is important in valuing the perspectives of interviewees in

their personal journey in becoming a professor, through gaining an understanding of their experiences of the application process or any mentoring they had received.

Second, it led the participants to reflect on any barriers they had encountered, such as a lack of access to tacit knowledge about the written criteria and/or discouragement from key individuals. Third, it was also important to focus on how participants understood and interpreted the role of a professor. This took place during the second part of the interview.

The decision to interview a small number of male professors was made in order to create a comparison group to help determine if there are any differences in perspective between the interviewees based on their sex.

The small, stratified sample on which this study is based seeks to represent a range of disciplinary and institutional contexts. Whilst this does not reflect the full complexity and potential effect of discipline and university contexts, interviewees were drawn from across a wide range of backgrounds connected with their academic and institutional identities.

The population was obtained by identifying the names of women professors across all academic departments within nine universities, which included both research-intensive members of the Russell Group and also more teaching-focused universities created since 1992. The participants were chosen randomly after ensuring that participants represented a balance between STEM and non-STEM disciplines (15 from each), from a full list of academics and their disciplines as listed on the various universities'

websites. However, as a small-scale study it is not possible to make meaningful comparisons across the higher education sector by reference to institutional types.

Ethical approval for data collection was granted by the home institution, the University of Southampton (UK). None of the participants had any prior relationship with the research team although one of the two researchers is a professor and, as such, has a partial insider status as a member of the professorial community. However, a greater proportion of interviewees were drawn from research-intensive institutions in order to provide more comparable data in respect to the institutional 'home' of the project team. This was because the project was funded by the UK Leadership Foundation for Higher Education and was intended to provide a research study with relevance to the home institutional context. Participants are referred to by pseudonyms taken from the most common birth registry names in England and Wales from the years 2005 and 2015, excluding real names of the participants.

The interview data were inductively analysed, following Braun and Clarke's (2006) six-step process of thematic analysis. These are becoming familiar with the data, creating codes, searching for themes, reviewing the themes, labelling the themes and producing a report (Braun and Clarke, 2006, p. 87). Each author separately used the constant comparison method in coding and reviewing themes. This involved comparing the datum several times through coding and recoding in order to identify overarching common themes and patterns. Following this, each author's findings were compared and synthesised. Themes emerged from the data, as interpreted by the researchers, without consideration of the initial hypothesis or proposed research questions. In order to be classified as a 'theme', it was determined that an emergent theme would have to

be mentioned by at least half the participants. Quotations have been selected to illustrate the points succinctly. The themes identified were the most commonly occurring, so they did not always relate directly to specific research questions.

Results

The interviews started by exploring the career trajectory that had led to *become* a professor after which the main focus was on how interviewees understood what it meant to them to *be* a professor. Three overarching themes were identified in respect to freedoms, responsibilities and, less expectedly, a series of personal qualities that professors identified as important to possess. These personal qualities are somewhat overlapping and take no prominence over one another.

Freedom and responsibilities

There was a recognition that freedoms and responsibilities are intertwined and that, as one interviewee expressed it, a balance needs to be struck between the two.

Interviewees tended to define their roles principally in terms of research and research leadership normally explaining the role of a professor as about activities mainly focused on gaining funding and publication.

I see it as a research leadership role, and so I see that partly in terms of doing and being seen to do good quality research (Zoe, Birmingham).

Charlotte expands on this idea of leadership and research and, unprompted, used the term ‘intellectual leadership’ to describe her vision of what it means to be a professor.

I suppose your role is mainly about intellectual leadership. So I think it's about authority, credibility, publishing, being out there and bringing home what credibility and leadership and authority you have developed (Charlotte, Solent).

Interviewees are conscious of the freedoms that professors are afforded partly as a result of being acknowledged via their professorial title as an authority in their field and having, as Charlotte expressed it, an enhanced sense of 'credibility'.

As soon as you put 'professor' in front of your name people actually almost treat you like a human being (Zoe, Birmingham)

Interviewees expressed the feeling that part of the difference in the way they are treated as a professor is being listened to as an authority, whereas as a lower ranked academic they did not feel they had necessarily been accorded the same respect.

You've got a bit more clout... so you can throw your weight about a bit... You say the same things at a more junior level, but people are more inclined to listen to you (Ethyl, Edinburgh).

This ability to 'throw your weight', enables a professor to better control their environment at the university and gain a stronger sense of independence and potential impact.

This exercising of authority, however, can take quite different forms. The ability to pursue these differences is what allows for that independence. Some professors see their role as freedom *from* managerial forms of authority.

I've always been a bit resentful of people telling me what to do. And I think that's probably one of the nice things about being a professor (Charles, Solent).

The respect with which professors feel they are treated and the impact this can lead to allows them to enjoy a second freedom, that of intellectual independence. This could be described as the ability to define their role as they see fit.

I feel pretty much completely free to be honest...I can choose how I run the patterns of my days (Audrey, UCL).

Intellectual independence means the freedom to conduct the research that professors consider to be important or meaningful to their personal intellectual agendas and passions, something referred to by all participants.

The research is different, you can branch out, you can maybe have new ideas (Stephanie, Edinburgh).

Intellectual independence is often linked to a greater sense of real or imaginary security of employment that brings with it the freedom to define a long-term vision.

I remember phoning my mum to tell her that I'd got a non-temporary job for the first time, so she was quite relieved because she didn't understand that I'd been temporary for 17 years (Christine, Southampton).

However, with the freedom to define your research agenda comes the connected responsibility in finding the funding to pay for it. This was recognised by interviewees across the STEM and non-STEM subjects as an important responsibility or duty that comes with being a professor. This sense of responsibility can be linked to the need to attract sufficient funding in order to support other junior members of a research team.

Academic freedom comes from income generation (Amy, Manchester).

The bottom line is you've got to be bankable. That seems to be the way this university works (Christine, Southampton).

The consequences of not getting the funding can be personally painful and appears to be driven, at least in part, by a fear of being seen as under-performing and even raise anxieties, at extreme, about loss of employment.

I was aware of colleagues... who you know if they didn't bring in the money within their first three years their contracts were terminated...I've been quite successful in capturing grants, but I would feel that if that didn't happen, if I wasn't able to capture research funding. I would like to think that I wouldn't be fired...but probably a bit of wishful thinking (Abigail, UCLAN).

Other responsibilities identified by professors include helping their university or academic unit and in respect to outreach. This outreach mission can have both a social and economic dimension. It can involve crossing disciplines, connecting research with the interests and concerns of industry, and a sense of the civic mission of research to make a positive difference to society.

I really think that a professor is an ambassador type role ... I think we need to be able to, especially when you're at this level, communicate with non-academics but also with academics in other disciplines (Trudy, Birmingham).

In addition to outreach, about half of the professors also identify with the importance of informing the public about new research advances or giving expert opinions on events that may be in the news, an idea that is closely connected to that of a public intellectual, a role that can include being a critic of the university.

At a personal level, I think there's a really important role in terms of standing up as a leader and pushing back against what I would probably call the excesses of neo-liberalism and marketization (Christine, Southampton).

Participants talked about their service work or academic citizenship as creating extra administrative and management responsibilities within their institutions that they felt went largely unappreciated.

We have to do more admin in terms of what we get asked to do. ... I was head of the Graduate School, and oh that was not torture but that was three years of

something on the shoulder... like a weight on your shoulder, it doesn't go away
(Stephanie, Edinburgh).

Nurturing, encouraging and directly mentoring junior colleagues and research students is an important part of the work of a professor, mainly but not exclusively seen as occurring within their institutional context. Trying to inspire the next generation of scholars and helping them to advance their academic careers is seen as a crucial responsibility but there is also recognition that this work involves a considerable time commitment.

Everybody has the power to inspire other people, but as a professor you have the power because of your position ... to make or break careers (Isabelle, UCLAN).

There is awareness that mentoring adds considerably to workload but is, nonetheless, a vital role. Women professors in this study identified with this aspect of being a professor more frequently than did their male counterparts when asked to explain how they saw their role. In addition, female participants felt they are doing more than their male colleagues.

I think that women bear more of the brunt (Christine, Southampton).

There is a strong sense of moral commitment to mentoring among female interviewees, perhaps intensified by a desire to redress the historic under-representation of women professors in higher education. However, there was no sense in which this implied what is sometimes referred to as 'sponsorship' (Turner, 1965) involving the selection of

individuals for upward mobility by a person with the networks and social capital to make this happen. This is not surprising given that the interviewees did not occupy professorial position with significant managerial power and responsibility.

I like to help younger colleagues, particularly women as much as I can (Mia, Southampton).

Participants felt that advising junior colleagues is more than just career advice. It is also about helping some to find a better work-life balance.

I think that there's a considerable responsibility for, you know, the health even of my colleagues, my junior colleague, trying to ensure that they're not half killing themselves and take some time off (Madelyn, Birmingham).

There was an awareness among many of the participants that the responsibility of mentoring does not get distributed evenly among professors, even when it is considered a formal job specification and that women tend to take on this duty more often than their male counterparts, as males often opt out of housekeeping responsibilities.

And that bloody pastoral thing that the woman always seems to get dumped with the students (Theresa, Southampton).

Personal qualities

In addition to identifying the freedoms and responsibilities of being a professor, interviewees also spoke about what they regarded as the personal qualities that were needed for career success which may be summarised as resilience, confidence,

negotiation skills, and assertiveness. These qualities appear to relate both to *becoming* and *being* a professor. Here it is not suggested that all these qualities will necessarily be found in any one individual or are static in the sense that some may be developed over time, such as confidence.

Academe can be an industry of setbacks involving unsuccessful funding bids and rejected journal papers so the first quality, resilience, perhaps comes as no surprise. However, resilience can come in many forms. A vast majority of women professors felt that their route to professorship had been harder than their male counterparts and taken longer to attain. Part of the problem, as they saw it, was that the nature of promotion criteria in lacking precision and being open to interpretation. These women felt that they had achieved the professorial title despite the barriers that they had faced, and often belatedly.

I felt that the whole process was not transparent in the previous promotion process. I felt as though decisions were made on whether they liked your face (Charlotte, Solent).

While part of the concern may lie with a perceived lack of transparency, participants that have received mentoring and have acquired the tacit knowledge needed to understand the system better explain how promotion guidelines do not always match with how promotions are handled in practice.

You're dealing with first of all explicitly what does it say, and then implicitly what do we know. ... despite what they say or what used to be said about teaching, an awful lot of emphasis is placed on research (Simon, Southampton).

The interviewees discussed the way that academic careers can be held back. In this respect, the importance of resilience is recognised as critical in overcoming such obstacles.

As a woman because you're in the minority you just have to fight your ground and have very thick skin and have to tell what you think (Stephanie, Edinburgh).

A second personal quality that many professors referred to is confidence, something that is needed to offer intellectual leadership to others and to overcome personal setbacks. Confidence though does not always come naturally with some participants noting that there seems to be a gender difference when it comes to confidence.

I think is because women are not as confident. It's that old story I think where you go to an interview, a promotion or something, and there will be three men and they will have ticked four out of six of the criteria and still expect to get the job, whereas the women have not applied because they haven't got one of the criteria (Theresa, Southampton).

Interviews also revealed how several women professors did not feel at all confident. Olivia, who went as far as saying that she felt 'grateful' for being made a professor, most starkly conveyed this observation.

I use this word but it's not very good, 'grateful' for getting there (Olivia, Winchester).

A third quality identified as important for professors to possess is the ability to negotiate. This is critical in successfully managing large workloads and coping with many competing demands on their time. The ability to prioritise is crucial in climbing up the career ladder. Negotiation skills include the ability to make trade-offs or *quid pro quos* in ensuring that saying 'yes' is not simply unconditional, a strategy described by Penny when discussing academic housework duties.

We say 'I will do this but I need to have teaching relief, or marking relief or whatever', but not everybody is able to do that kind of negotiation for lots of reasons (Penny, Birmingham).

The final personal quality identified in this research may have a gendered dimension to them with a number of interviewees reporting that they lacked confidence or perhaps the assertiveness to put themselves forward for professorial position in the first place. This is the ability to make a stand against perceived wrongs or unwanted tasks. This was seen, to some extent, as a more male quality by some interviewees although there were women professors who clearly possess it as well. This observation iterates with previous research that has indicated that a lack of support and self-confidence can play a role in impeding the career progression of women (e.g. Aiston, 2014; Pell, 1996).

Male professors are generally more directive and less collegiate (Daniel, Newcastle).

Interviewees illustrated it by reference to getting promoted, trying to strike a balance in dealing with workload demands or simply saying ‘no’ to them especially if they are more lowly esteemed by the university.

I think it’s that the men say no ... I know a female professor that’s run a graduate school for several years because she loves doing it, but running a graduate school is not going to get you bright lights as far as the university is concerned (Christine, Southampton).

It needs to be recognised, though, that other research points to more direct evidence of discrimination (e.g. Manfredi *et al*, 2014). Although this was not a theme that came out strongly in interviewees, interviewees reported some instances of this behaviour. Here it needs to be acknowledged that some of our interviewees might not have chosen to share such instances of ‘everyday sexism’ with us.

Well I’m in a field which is about less than five per cent female so I would say gender is an issue every day, every day, everyday sexism in every way actually. So it’s an issue in terms of finding collaborators, writing papers, getting invited to conferences, getting invited to be on organising committees for conferences, being invited to be parts of grant panels (Emma, Southampton).

Analysis and discussion

The findings of this study indicate that while all professors tend to define their role in terms of knowledge production – principally via publication and winning grants– they also recognise the importance of other roles such as working as an academic citizen, a public intellectual and as a boundary transgressor by crossing disciplinary borders strongly iterating with the previous research of Author (2012) into intellectual leadership. Women professors tended to identify with the academic citizenship role more strongly than their male counterparts especially in respect to mentoring, committee and administrative work within the institution. Whilst male professors focus mostly on the freedoms associated with the role, women professors tend to place a greater emphasis on the responsibilities or duties it brings. Here, there is a clear connection with the work of Misra *et al* (2011) who showed that women get promoted to associate professor level later than men due, in large part, to taking on more service roles and responsibilities than male assistant professors. The findings of this small-scale study suggest that the same pattern of gendered academic labour may also be occurring at the professorial level.

Multiple marginality (Turner, 2002) or intersectionalities of disadvantage appear to exacerbate the effects of so-called ‘academic housework’ (Heijstra, et al, 2016). While this is usually associated with race and ethnicity and social class, our small sample did not lend itself to an analysis of such women. However, we did find that women professors in STEM subjects, such as physics, where female representation at professorial level is less common than in the humanities and social sciences, experienced an additional sense of ‘responsibility’ to fulfil service commitments as a role model. This is an added pressure that a male professor rarely, if ever, will face on top of meeting demanding performance targets in respect to publication and funding.

~~However, if women professors are committed to a more rounded view of intellectual leadership incorporating academic citizenship this may have adverse implications for the gender pay gap. Although the participants did not directly mention this possibility, the evidence from interviews suggests that citizenship work remains a strong focus of the work of women as professors. Thus, their progression within professorial pay structures may be held back if academic citizenship work is not explicitly rewarded.~~

~~The personal qualities identified in this research may have a gendered dimension to them with a number of interviewees reporting that they lacked confidence or perhaps the assertiveness to put themselves forward for professorial position in the first place. This observation iterates with previous research that has indicated that a lack of support and self-confidence can play a role in impeding the career progression of women (e.g. Aiston, 2014; Pell, 1996).~~

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~~So it's an issue in terms of finding collaborators, writing papers, getting invited to conferences, getting invited to be on organising committees for conferences, being invited to be parts of grant panels (Emma, Southampton).~~

Negotiation skills are clearly ~~also recognised~~ as important in securing agreements around workload and pay. Confidence in making a professorial application may further be connected with access to colleagues with the tacit knowledge to understand the criteria for promotion, something that male academics may currently be in a better overall position to acquire given the continuing under-representation of women in the professorial ranks (van den Brink & Benschop, 2013). The micro-politics of the academy may represent a clue to understanding the embedded nature of disadvantage as well as the potential for positive change (Lumby, 2015:6), ~~as much of the 'leadership activity becomes habitual and unnoticed' with 'decisions made outside of formal committees'.~~ ~~within which~~ There is still evidence of what Ledwith and Manfredi (2000:7) refer to as a 'subtle homo-social culture'. ~~When roughly 46 per cent of the UK academic work force and only about 24 per cent in senior leadership or professorial positions are female (Equality Challenge Unit, 2018), this represents a significant in-built barrier beyond obtaining professional title alone.~~

Reflections and conclusions

Universities need to understand that whilst formal written criteria for professorial appointments may be transparent, there is a belief among many of those we interviewed that women may be largely excluded from the tacit knowledge needed to interpret the criteria. Moreover, the degree to which women are under-represented at professorial level, especially in some of the STEM subjects, means that few women will have access to female professorial level mentors in their specialist area. This points to the vital

importance of formal and informal mentoring processes to ensure that women academics feel well supported and encouraged to make professorial level applications (van den Brink & Benschop, 2013).

Professors from all disciplines are now judged on the basis of the amount, and prestige attached, to the funding they acquire, not simply their publications. However, the universities that hire these professors need people that do more than fulfil individual research targets through commitment to other orientations that help institutions fulfil their wider social mission and contribute to the nurturing of the talent of the next generation of scholars including research students and academic colleagues. There is a need to understand that professors have a broad range of orientations connected with intellectual leadership in addition to publication and income generation.

In looking at how women professors see their role as professors it is clear that they embrace a rounded view of what a professor should be including a stronger emphasis on academic citizenship than their male counterparts. It is important that this orientation is understood positively as an asset to the university and the wider higher education system rather than a deficit that fails to fit with a narrow view of the role of the professoriate, linked to the REF, that currently prevails in the UK. Universities need to respond by ensuring that reward and recognition criteria for professors are aligned with their social as well as their economic mission and that the important task of mentorship is embedded into criteria related to academic citizenship.

If universities are going to tackle the under-representation of women as professors it is important that mentoring of academic colleagues, in particular, is seen as central, rather than peripheral, to the work of a professor. This might go some way to ensuring that the

additional sense of obligation that many women professors feel in this respect, is rewarded rather than, effectively, penalised. Going forward there is a need for more research into the reward and recognition criteria applied at professorial level to ensure that it is transparent and adequately reflects the importance of the academic citizenship role. It is essential that these criteria reflect the *all-round* role of a university professor as an intellectual leader, a conceptualisation to which women professors are firmly committed. In addition, further research is needed in understanding how intersectional academics may be disadvantaged in their career paths. This paper touched on the issue minimally, but this important issue was not addressed in detail due to the participant sampling logistics. This further research should be done considering possible differences arising from disciplinary backgrounds or university types.

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