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Why is it so difficult to reduce gender inequality in male-dominated higher educational organizations? A feminist institutional perspective

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ABSTRACT
Using a Feminist Institutional perspective, and drawing on a wide range of evidence in different institutions and countries, this article identifies the specific aspects of the structure and culture of male-dominated higher educational organizations that perpetuate gender inequality. Gender inequality refers to the differential evaluation of women and men, and of areas of predominantly female and predominantly male employment. It is reflected at a structural level in the under-representation of women in senior positions and at a cultural level in the legitimacy of a wide range of practices to value men and to facilitate their access to such positions and to undervalue women and to inhibit their access. It shows that even potentially transformative institutional interventions such as Athena SWAN have had little success in reducing gender inequality. It highlights the need to recognize the part played by the 'normal' structures and culture in perpetuating gender inequality.

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Introduction

Higher educational organizations in the European Union, as in western society, remain male-dominated. Across the EU, men make up 86% of the heads of universities and 76% of those at full professorial level (Grade A), with the proportion of all men who are at the professorial level being over twice that of women (EU 2019). The assumption that such patterns reflect women's meritocratic inadequacies has been challenged (Van den Brink and Benschop 2011, 2012; Nielsen 2016). Indeed, drawing on a unique data set, Brower and James (2020) found that in New Zealand, a man's odds of being ranked professor or associate professor were more than double a woman's odds, with a similar research score, age, field and university.

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In this article, drawing on a feminist institutional perspective (FI), it is suggested that gender inequality can be seen as involving the differential evaluation of men and women, and of areas of predominantly female and predominantly male employment in higher education institutions (HEIs). Such differential evaluation is reflected at a structural level in the under-representation of women in senior positions and at a cultural level in the legitimacy of a wide range of practices to value men and to facilitate their access to such positions and to undervalue women and to inhibit their access. It is suggested that attempts to promote gender equality necessitate a change in the structure and culture of such organizations. However, interventions tend to target individual women, with the implicit assumption that the organizational structure and culture can remain unchanged. When such attempts fail, the taken-for-granted explanation is that the 'problem is women' (Burkinshaw and White 2017; O'Connor 2014). It will be shown that even interventions which purport to adopt a more organizational transformational approach (such as Athena SWAN (AS): discussed later) create little change either in the under-representation of women in senior positions or in other aspects of the structure or culture (Graves, Rowell, and Hunsicker 2019).

In this article, the focus is on the ways in which the structure and culture of male-dominated organizations reproduce gender inequality, i.e. at a structural level through horizontal and vertical organization, through the ratio of senior to junior posts, through the structuring of career paths, the criteria and procedures for recruitment/promotion and practices such as workload allocation; and at a cultural level through informal practices and stereotypes. It will be argued that these organizational features militate against the effective promotion of gender equality. It is recognized that gender inequality is also maintained and 'normalized' through its impact on individuals and through the overall HE system (including the state and research funding organizations). However, these two levels are not the focus of this article, although it will be suggested that they can leverage change.

Since AS is one of the most internationally well-known potential institutional transformation projects, the evidence as regards its limited impact will be presented and evaluated. This evidence underlines the difficulty of promoting gender equality in HE organizations. Although the focus of this article is on how HE organizations in general, and Science, Technology, Engineering and Mathematics (STEM) in particular, reproduce gender inequality through their 'normal' structure and culture, this framework is applicable to other male-dominated organizations

Theoretical Perspective: The nature of organizations and of gender

The theoretical perspective is that of Feminist Institutionalism (FI: Mackay, Kenny, and Chappell 2010; Mackay 2011), a perspective that has been little

used to understand the absence/presence of gendered change in HEIs. This article is not concerned with testing that theory, but with illustrating the ways in which it can be applied to identify the specific aspects of the structure and culture of HEIs that perpetuate gender inequality and which make it so difficult to achieve gender equality.

HEIs are bureaucracies. Weber's (1947) ideal typical bureaucracy included a division of labour, supported by job titles and descriptions; a set of prescribed usually written rules, policies and procedures; access to positions based on credentials and/or performance; use of 'universal' (as opposed to particularistic) criteria for evaluating performance and a hierarchy of authority specifying who has power over whom, and in what areas. Implicit in this model is the assumption that bureaucracies are gender-neutral. Ferguson (1984) has argued that bureaucracies are inevitably masculinist in their culture and structure, while Connell (1994) has suggested that they have been historically so. This has implications as regards the possibility of creating gender equality in such structures. I share Connell's (1994) view while recognizing the difficulties of 'undoing gender' in such contexts and disrupting 'normal' gender inequality practices (Deutsch 2007; Martin 2013).

Traditionally, a distinction was made between sex as reflected in biological characteristics and gender as a social and cultural characteristic. This distinction was useful in challenging assumptions about the biological innateness of culturally appropriate behaviour and attitudes. However implicit in it is a binary concept of male/female – a construction which is being challenged by the recognition that intersex exists, i.e. people who have both male and female biological characteristics. In this article, gender, rather than being seen as a set of characteristics or physical attributes that are assumed to attach to particular sexed bodies, is seen as 'a situated social practice, actualized through social interaction and rooted in the doing and saying of organizational actors' (Van den Brink and Benschop 2012, 73). This reflects the idea of individuals 'doing gender' (West and Zimmerman 1987), regardless of their biological characteristics, in particular interactional contexts.

Various schemas have been used to differentiate between the levels at which gender operates. They typically include references to an individual, interactional and/or organizational level, as well as to a wider systemic and/or institutional cultural level (O'Connor et al. 2015; Risman and Davis 2013). At the individual level, gendered selves are created; at the interactional level, gendered expectations and practices exist; at the organizational level, gendered structures and cultures exist; the system level involves societal resources while the institutional–cultural level includes stereotypes which may be activated at the individual, interactional or organizational level. Thus, although these levels are analytically distinct, in practice, they frequently inter-relate, and make the promotion of gender equality a 'wicked' problem (Rittel and Webber 1973).

Acker (1990) highlighted the gendered nature of organizations and suggested that organizational processes create and/or sustain gender segregation within

paid work, gendered segregation between paid and unpaid work, gendered income and status inequality, stereotypical cultural images and individual gender identity. Acker (2006, 443) sees organizational regimes as: 'loosely interrelated practices, processes, actions and meanings that result in and maintain' gender inequalities. Acker (1990, 140) stressed that organizations are themselves 'gendered processes'. They are in Davies (1995, 44) terms, designed by men for men: a 'social construction that arises from a masculine vision of the world and that calls on masculinity for its legitimation and affirmation'. Such regimes are typically 'care-less' (Lynch, Grummell, and Devine 2012) insofar as they are premised on the existence of paid workers who are unencumbered by caring responsibilities. This poses additional problems for women insofar as globally they are disproportionately responsible for domestic and caring activities. In HEIs, women appear to have equal rights and privileges in what purports to be a gender-neutral world. The reality is however much more complex. Women's acceptance is fragile in male-dominated organizations since their status as honorary males may be withdrawn at any time (Cockburn 1991).

Each institution has a particular gender order or 'gender regime' (Connell 2002, 53) that operates through a '"hidden" day-to-day interplay of formal and informal norms with gendered implications'. It defines what is expected, allowed and encouraged in relation to what women and men do in different contexts. For Connell (2005), the gender order is a structure that involves a patriarchal dividend, i.e. wealth, security, independence, autonomy, emotional supports and other benefits are given to men who uphold that unequal gender order. Thus, gender equality is embedded in the structure and culture of organizations, and shapes and is shaped by the individuals in it.

Building on the work of Acker (1990, 2006) on gendered organizations and Connell (2002) on gender regimes, FI (Mackay, Kenny, and Chappell 2010; Mackay 2011) sees gender operating at the structural and cultural level and at the formal and informal level. FI is concerned with the 'the gendered character of institutions and the gendering effects of institutions' and in that context helps us 'answer some of the big questions and real-world puzzles about gendered power inequalities in public and political life, mechanisms of continuity, and the promise and limits of gendered change' (Mackay 2011, 181). FI (Mackay, Kenny, and Chappell 2010, 580) sees gender as a 'constitutive element of social relations based upon perceived (socially constructed and culturally variable) differences between women and men, and as a primary way of signifying (and naturalising) relations of power and hierarchy'. Thus, it suggests that a devaluation of women is implicit in the very construction of gender. Gendered structures, procedures and practices legitimate that devaluation: with both men and women potentially colluding with that legitimation.

Wynn (2020), drawing on data from an information communications technology company, suggests that gender equality initiatives frequently fail because leaders locate the source of the inequality at the individual or societal

level and so make little effort to initiate change in the arena over which they have most control, i.e. the organizational level. However, other work on HE has shown that although senior male leaders were most likely to deny the importance or relevance of gender or to reinforce traditional gender stereotypes, a sizeable group of both men and women had an awareness of the organizational practises and procedures which perpetuate gender inequality, although only a minority of either tackled them (O'Connor 2019).

Thus, in order to understand why gender equality initiatives in HEs fail, it is necessary to look at the organizational features of HEIs: i.e. their structure and culture. In terms of an FI perspective on the structure, it is necessary to look particularly at the career pathways in the organization, the gendering of procedures and of criteria related to recruitment and promotion as well as at more ongoing structural practices such as workload allocation. It is also necessary to look at the organizational culture and the extent to which, through informal practices, it directly or indirectly facilitates male career progression or inhibits women's progression; and how through stereotypes it 'normalizes' the subordinate position of women or female-dominated areas, sees female leadership as problematic and colludes with or tolerates harassment and other manifestations of gendered unequal power. It is suggested that it is only by recognizing the gendering of organizations as a metaphorical seven-headed dragon (Van den Brink and Benschop 2012) that we can begin to understand why it is so hard to increase gender equality in organizations.

The focus in this article is on the organizational level, but there are two other levels that can inhibit or promote gender equality/inequality, i.e. the individual level and the systemic level (O'Connor et al. 2015; Risman and Davis 2013; Ceci and Williams 2011). At the individual level, gender identities are created, which to a greater or lesser degree accept the existing gendered structures. At the systemic level, the state through its funding mechanisms and regulatory context can inhibit or promote gender equality in HEIs; while research funding organizations can provide examples of best practice. Here, however, the focus within an FI perspective is on organizational structures and culture, although brief references will be made to using the systemic level as a lever for change.

Structure of HEIs

This refers to the formal positions and their horizontal and vertical organization in HEIs; the ratio of senior to junior posts in that structure; the career paths it provides; the criteria and procedures involved in recruitment and promotion as well as structural practices, such as workload allocation.

Careers, structural availability of senior posts, career paths and cul-de-sacs

The concept of career traditionally implies an organizational career, defined as a 'sequence of promotions and other upward moves in a work-related hierarchy

during the course of a person's work-life' (Hall 1976, 2). As such, it involves education and training in the context of a linear organizational career path with at least the possibility of upward progression. In most male-dominated organizations including HEIs, positions are arranged hierarchically (constituting vertical segregation), with men typically occupying the majority of the senior positions. In addition, there is also horizontal segregation: with particular parts of the organization being predominantly staffed by men or women. Typically, these areas are differently evaluated: with the areas of predominantly male employment being seen as more highly skilled or of more strategic importance than the predominantly female areas (Steinporsdottir et al. 2018). This has implications as regards the working conditions of those in these areas – and ultimately for an individual's access to more senior positions.

Senior posts are differentially structurally available, i.e. the ratio of junior to senior posts frequently varies in different parts of the organization. Sometimes, this is seen as reflecting tradition, national or organizational priorities. It is however crucially important since it has an impact on any individual's chance of moving upwards. Thus, for example, in universities in Ireland, there is a tendency for senior positions to be more available in areas of male-dominated academic employment, since additional senior positions in these areas may be created by industry and/or by state-funded organizations, such as Science Foundation Ireland, whose objective is to act as an advocate and short-term funder for narrowly defined (predominantly male staffed) areas (O'Connor 2014). The expectation is that these positions will subsequently be made permanent by the university – thereby further reducing the potential availability of funding to create senior posts in more female-staffed areas (such as Humanities, Education, Nursing or Midwifery).

Many careers in male-dominated organizations involve some kind of a training period. Le Feuvre et al. (2019) outlined the variation that exists cross-nationally in early career structures in academia. In STEM in HEIs in a British model, that structure includes the attainment of a PhD followed by one or more post-doctoral appointments, typically involving contracts of one to five years. Although some research funding organizations provide resources directly to the PhD student/Post-Doctoral applicant in their own right, in many other cases, they are hired on a project, funded by a senior academic (HOC Science and Technology Committee 2014). A similar situation often arises for researchers as employees, who are frequently on short-term contracts and structurally dependent on an academic grant holder (who is likely to be a man in a senior academic position). Within that structurally unequal context, researchers/PhD students/Post-Docs must negotiate rights to their share of credit for outputs such as publications or patents: outcomes which have implications for their own future academic careers (Naezer, van den Brink, and Benschop 2019). Given the presence of affinity bias or homosociability (i.e. the tendency to favour those who are similar to oneself: Grummell, Lynch, and Devine 2009),

this may well pose difficulties for women in organizations which are male-dominated. Structural dependency on senior (predominantly male) academics, although extreme in STEM, is not peculiar to it.

The timeline for accessing permanent positions, although it appears gender-neutral, is particularly unhelpful to women in a context where the average age for such appointments in STEM is ∼34 years (HOC Science and Technology Committee 2014). This conflicts with the peak time for bearing and rearing children: with inevitable consequences as regards forcing women to choose between maternity and an occupational career: with the percentage of those without children decreasing as employment becomes more secure (Santos and Dang Van Phu 2019).

Many jobs in organizations are career cul-de-sacs, i.e. positions which are essential for the functioning of the organization, but which do not provide opportunities to demonstrate that one is a 'next level' person. Such low profile and low-status positions are frequently stereotyped as particularly suitable for women in general or mothers in particular ('Mommy tracks'). Thus, for example, increasingly in HEIs in West European societies, undergraduate teaching and pastoral care of students is seen as 'housekeeping' (Heijstra et al. 2017) and is devalued and most likely to be allocated to women. In the Santos and Dang Van Phu (2019) study, women below professorial rank were likely to spend a higher proportion of their time on non-research-related activities (such as teaching, administration or pastoral care: see also O'Meara et al. 2017; El-Alayli, Hansen-Brown, and Ceynar 2018). Frequently, this reflects underlying stereotypes or patronizing attitudes about what is 'best' for women (O'Connor 2015). Activities that are seen as high profile and high status (for example, postgraduate teaching and opportunities for research) are most likely to be allocated to men. The net effect is that women are less likely to be the 'obvious' next level person when opportunities for recruitment/promotion appear.

Even where attempts are made to put in place workload models or to link performance (and even pay: Steinporsdottir et al. 2018) to what purport to be objective metrics, the gendered nature of the performance indicators may perpetuate male privilege. Thus Steinporsdottir et al. (2018) found that early career researchers in STEM (who are predominantly men) compared with those in Social Science and Humanities (who are predominantly women) enjoy greater access to research funding, lower student–staff ratios, higher evaluations of their research output and hence are more likely to get additional payments, access to sabbaticals and hence increased chances of career advancement. Women in these areas benefit from such disciplinary privileging, while being relatively disadvantaged as women. This disciplinary advantage may not be unrelated to their unwillingness to see gender as an issue (Rhoton 2011).

Criteria and recruitment/promotion procedures

In any organization, there are criteria for appointments to specific positions as well as procedures for doing this. In some areas in STEM in HEIs, such as chemistry,

the problem is one of retention, whereas, in other areas, such as engineering, the problem is one of recruitment. Thus, the relative importance of recruitment and promotion in perpetuating gender inequality will vary between areas.

Despite the rhetoric concerning the importance of excellence in a meritocratic system, closed recruitment systems were identified in a number of countries, i.e. where professorial posts were not publicly advertised at all, raising fundamental questions about the rhetoric of excellence and meritocracy used to legitimate such procedures (Van den Brink and Benschop 2011; Nielsen 2016; Rees 2011). Such closed procedures were most likely to favour men. Even where competitions are open, in male-dominated organizations, criteria are more likely to favour men than women since the ideal-typical employee is implicitly or explicitly male. Criteria may also be defined so narrowly that effectively they are set up to suit an individual candidate despite a veneer of transparency (i.e. they are advertised, but the preferred candidate is already known and ultimately appointed). The actual criteria themselves may be gendered, in the sense that they are more likely to favour men than women (e.g. the privileging of research over teaching). Even where detailed evaluative criteria are available, gendered practices may persist (O'Connor and O'Hagan 2016). There is increasing recognition that the purportedly gender-neutral concept of excellence (which has been widely used to legitimate the under-representation of women in senior positions) is a problematic concept, without a clear definition, and that it ignores context (Campbell 2018; Ferretti et al. 2018).

Lamont (2009) has argued that since evaluation is a social process, and since gender is a social construction, it is inevitable that gendered practices will exist. Goldin and Rouse (1997) showed that the proportion of women recruited to play in orchestras increased substantially when auditions were held behind a screen (i.e. blind), with the gender effect being further reduced by having participants walk barefoot, so that their tread did not reveal their gender. The creation of such procedures in academia is difficult. However, a number of research funding bodies have implemented innovatory practices. The Irish Research Council found that anonymizing STEM post-doctoral applications increased the percentage of women achieving an award from 35% in 2013 to 57% in 2017 (IRC 2018). Similarly, Yen (2020) found that accepting individual post-doctoral applications (rather than HEIs institutional nominations), including a meeting facilitator who could interrupt the evaluation process if bias arose, giving an unranked list of candidates to the funders etc. increased the offers made to women five-fold in a context where the female pool of applicants increased only marginally (i.e. from 25% to 30%). The European Research Council extended female applicants applicability window by 18 months per child and in 2014, the success rate for women in the ERC Consolidator Grant was higher than that of men (although whether which this was related to that change was unclear). It cannot be assumed that the increasing success of women in acquiring such fellowships will inevitably translate into their

success in HEIs: with Brower and James (2020) showing that although women improved their research scores by more than their male counterparts, they still moved up the academic hierarchy more slowly. Nevertheless, these practices illustrate possibilities: ones that HEIs have been reluctant to emulate.

Culture of the organization

The concept of organizational culture has been used to refer to a complicated fabric of management myths, values and practices that legitimize the differential evaluation of activities/areas, and of categories of people (such as those based on gender, race/ethnicity etc.). Organizational culture reflects the wishes and needs of powerful men. In male-dominated organizations, it is frequently underpinned by stereotypes which legitimize the allocation of devalued activities to particular categories of people. These are frequently gendered, i.e. normalizing women's positions at the lower levels of the hierarchy and portraying managerial jobs as primarily masculine (Benschop and Brouns 2003).

The interpretation of criteria in decision-making fora may be gendered in the sense that similar material can be differentially interpreted if it is on a man's than a woman's CV. Thus, in Moss-Racusin et al.'s (2012) experimental study, both men and women in a research-intensive university in the United States favoured the identical CV with a male name over one with a female name, and at a higher salary. On the basis of a study of 24 Russell Group universities in the UK, Santos and Dang Van Phu (2019) concluded that being a woman had a negative and significant association with academic rank. It has been shown that female leadership is problematized other than in 'glass cliff' situations (Ryan and Haslam 2007) when the chance of failure is high: ultimately affecting women's perceived suitability for such positions. Thus, a context is created – often unintentionally – which implicitly tolerates harassment and other manifestations of unequal gendered power.

Informal practices

Here, the focus is on day-to-day interaction – what Martin (2006, 254) called 'the literal *practicising* (sic) of gender that is constituted through interaction'. It includes: 'How gender is created by differential treatment, behaviour, and the interpretation of the behaviour of men and women' (Deutsch 2007, 115). Such informal practices have been referred to as micro-political practices (O'Connor et al. 2017; Morley 1999). They include those which actually or potentially facilitate men's careers (such as sponsorship and inbreeding) as well as those which explicitly or implicitly inhibit women's careers (including micro-aggressions: Naezer, van den Brink, and Benschop 2019).

Sponsorship has been defined as involving senior managers with influence leveraging off their own power, reputation and influence to advance the career of their protégé (Ibarra, Carter, and Silva 2010, 9; see also De Vries and Binns

2018). The sponsorship relationship is an investment that must be earned because sponsors are invested in their protégés/ées' (Hewett 2013). Ibarra, Carter, and Silva (2010) found that men are more likely than women to be sponsored and by a senior member of the management team. Sponsorship frequently reflects an unconscious affinity or homosocial bias (Grummell, Lynch, and Devine 2009), and reproduces male occupancy of positions of power through reflecting and reinforcing ties between men.

'Inbreeding' has been identified as important in the Spanish university system (Cruz-Castro and Sanz-Menéndez 2010; Sanz-Menéndez, Cruz-Castro, and Alva 2013; Montes López and O'Connor 2019). It reflects unofficial and unwritten rules that each new member of a department should be selected from the members of the internal dominant group. A focus on local fit is a less extreme variant (Lynch, Grummell, and Devine 2012). Like inbreeding, it is rooted in a discourse which favours familiarity, loyalty and affection rather than purportedly objective discourses such as excellence. It is very much the normal practice operating in many organizations and has been shown to be more likely to favour men than women. Valian (2005, 35) argues that each individual event in which a woman does not get her due is a mole hill and: 'Mountains are molehills, piled one on top of the other'.

In addition to informal practices that advantage men, various kinds of microaggressions have been identified, which ultimately impact on women's careers. Thus, qualitative studies have identified gendered devaluation as a problematic practice in male-dominated academia (O'Connor et al. 2017; Tepe 2019). Miner et al. (2019) refer to incivility (rude and discourteous behaviour, condescension and disparagement) and ostracism (being socially ignored or excluded from information about resources and opportunities for career advancement) as key indicators of a 'chilly' interactional environment. A range of domination or master suppression techniques, directed at women, popularized by As (2004) include invisibility, ridiculing, 'catch 22' evaluations, blaming and withholding information. Naezer *et al.* (2019, 9) refer to denigration, threats, scientific sabotage, including withholding key career-related information, taking unearned credit for others work and sexual harassment. 'Doubt raisers' such as questioning women's intellectual independence, devaluing women's achievements and evoking motherhood in informal asides have been identified by observers on Swedish funding boards (Ahlqvist et al. 2013: building on a tradition of work dating back to Wenneras and Wold's 1997 classic study). Schraudner, Hochfeld, and Striebing (2019) found that in a survey of more than 9000 people, involving 38% of the staff in the Max Planck Society, one in three women had experienced unequal treatment on the basis of their gender in the previous 12 months (three times the corresponding number among the men) – rising to almost 60% of women in senior leadership positions (when compared with <12% of the comparable men). With the emergence of the *#Me too Movement*, there has been an increasing awareness of sexual

harassment, which appears to be much more common among women than men. The [Unites States] National Academies of Sciences, Engineering and Medicine (2019) concluded that >50% of employees report having been sexually harassed, whether in terms of sexist hostility and crude behaviour, unwelcome physical or sexual advances or sexual coercion. In this article, these patterns are seen as reflecting the male-dominated nature of the work setting in HEIs, characterized by unequal power relations, ineffective policies and uninformed leadership, all more or less legitimated by the culture.

Stereotypes

The repertoire of actions and behaviours that society makes available for doing gender includes stereotypes (Martin 2003). Such stereotypes impact on expectations and performance and are activated in interactional contexts (Ridgeway and Correll 2004). Insofar as performances conform to the stereotype, they are seen as 'natural' and 'inevitable'. In an era of increasing gender fluidity, such binary gender stereotypes appear increasingly archaic.

Leadership positions are typically seen as gendered ('Think Manager, Think Male': Schein et al. 1996). Such stereotypes create considerable challenges for women (Fitzgerald 2018). The masculinist definition of the characteristics and behaviour of a leader mean women are wrong-footed: if they behave like women they are not seen as leaders, if they behave as leaders they are criticized as women. A further complication arises from the fact that women are frequently in female-dominated areas of the organization: areas that are perceived as low status and not ones for the identification of future leaders (Morley 2014).

The purportedly gender-neutral, but, in fact, masculinized stereotype of the 'ideal' scientist is in tension with the 'ideal' mother stereotype (Cidlinska 2019; White 2014; Van den Brink and Benschop 2012; HOC Science and Technology Committee 2014). Stereotypes also impact on women's appointments in medicine, where they have been evoked as part of a 'paternalistic masculinity' (Martin 2006, 262). Thus, appointment committees have resisted appointing women 'for their own good' so as to 'protect' them. Similar views were articulated by men in HEIs in justifying their failure to appoint women to senior positions there (O'Connor 2015).

Although frequently stereotypes are depicted as immutable after childhood, there is evidence that, under particular conditions, they can change (Ely and Meyerson 2010; Deutsch 2007). A key role in this context is played by management legitimating a culture where they can be challenged by empirical data (O'Connor 2017; O'Connor et al. 2015). The weakness of gender stereotypes in Sweden and their strength in Ireland challenges assumptions about their inevitability (O'Connor and Goransson 2014). At a more basic level in a context where the existence of gendered inequality is denied, information on salaries and on the appointment process is helpful

in challenging assumptions that gender inequality no longer exists. In HEIs, with a commitment to teaching as one of the core activities, the content of the curriculum and of core and supplementary texts also needs to reflect a challenge to stereotypical thinking (EU 2012). Stereotypes can also be challenged through making non-stereotypical appointments which 'unsettle associations' between gender and position (Kelan 2010, 190). In this context, positive action, targets or quotas implicitly challenge the inevitability of equating senior positions with maleness.

Institutional transformation? The example of AS

As recognized in an FI perspective, the structure and culture of organizations are important in terms of perpetuating gender inequality. Hence, if institutional transformation is to occur, these need to be transformed. Dobbin, Schrage, and Kalev (2015, 1014) noted that 'Studies of the causes of inequality are legion, but studies of remedies are rare'. For the most part, interventions to promote equality are at the individual level (e.g. unconscious bias training, mentoring) which have been shown to have limited effect (O'Connor 2018; Wynn 2020). Kalev, Dobbin, and Kelly (2006) also found that in private-sector American organizations, individual training was least effective on its own in increasing managerial diversity; with networking and mentoring having only modest effects. The most effective measures were structures involving responsibility for diversity – with the creation of diversity committees being particularly effective, followed by the appointment of full-time staff and then setting goals, devising means and evaluating progress in achieving affirmative action plans, preferably within a supportive legal context.

Organizational best practices ultimately reflect leadership (O'Connor 2017). High performing, professionally young and female editors were found to be most likely to foster diversity in editorial boards (Metz, Harzing, and Zyphur 2016). In male-dominated organizations, where power is centralized, it is crucially important that change be driven by those in the most senior position(s) of power, and that these be gender competent (O'Connor 2019), preferably recruited on the basis of a demonstrated ability to increase organizational gender equality. However, it is also necessary to have informal leaders as gender champions, particularly men, who can challenge those day-to-day interactions which facilitate men and/or devalue women. If the support for gender equality is only at one of these levels, it is highly probable that such change as occurs will be purely rhetorical.

Description of AS

With a small number of notable exceptions (such as Van den Brink and Benschop 2012; Peterson and Jordansson 2017), there has been little recognition

that gender equality initiatives can be nullified by 'normal' gender inequality practises. This can occur even in the case of attempts at institutional transformation such as AS. AS is a UK quality mark awarded at bronze, silver and gold level to institutions or departments based on their commitment to structural and cultural change (Barnard 2017). It initially focused on advancing the careers of women in STEM and now includes all professional, support and technical staff, all disciplines, all genders and all intersectional inequalities. It was extended to Ireland, initially on a pilot basis, with a version of it in Australia, and a Canadian and United States version about to be introduced. The approach involves quantitative data collection, self -assessment, data-informed decision-making, with a focus on infrastructural resources, planning and monitoring by a self-assessment team, under a chairperson, potentially at senior management level.

Applications were initially modest in the UK, but dramatically increased with the linking of eligibility for funding from the National Institute of Health Research to the attainment of an AS silver award and the expectation by Research Councils UK that funding recipients would provide evidence of how equality and diversity issues were being dealt with at an institutional and departmental level (Tzanakou and Pearce 2019). However, in the UK other than in terms of its linkage to medical research funding, AS has no structural leverage for incentivizing those at Vice Chancellor/Rector/Presidential level to promote gender equality in their HEI. In Ireland, following the recommendations of the Expert Group (HEA 2016), all major funding bodies made achieving an AS award by HEIs, within specified time limits, a condition for submitting individual applications for research funding. Furthermore, AS in Ireland is located in the Higher Educational Authority which allocates resources to the Higher Educational sector. It is possible that this structural embeddedness may affect its impact – but it is too soon to assess that.

The impact of AS

AS was created as a mechanism to achieve gender equality through institutional transformation. The evidence is that, although it has had some positive effects, it has not been effective in terms of institutional transformation, insofar as it has not increased gender equality at senior level nor impacted on the organizational culture.

Amery et al. (2019) found that there was no evidence that AS or the level of the award (i.e. bronze, silver or gold) had any impact on the gender pay gap. Graves, Rowell, and Hunsicker (2019) found that there was no clear trend over time in the proportion of professorial promotions that went to women. Departments that had an AS award had on average 7% more women staff than those who did not, controlling for subject, institution and research intensity, but there was no evidence that this was causal. The percentage of female professors in science, engineering and technology (SET) nationally increased

very little between 2010 and 2014, despite this being the then focus of AS, while the proportion outside those disciplines increased substantially (SET: 15–18%; non-SET: 25–44%: Barnard 2017) – further challenging the impact of AS on the gender profile of senior positions.

There is evidence that AS does create a context which makes it easier to raise gender equality issues and that it elicits positive responses from participants, particularly champions (Graves, Rowell, and Hunsicker 2019; Ovseiko et al. 2019, 2017). However, the effects of AS fall far short of institutional transformation. Respondents in Ovseiko et al.'s (2017) study identified a more positive culture in medical sciences when compared with social sciences in Oxford and attributed this to the impact of AS. However, in both areas, more women than men found their work less energizing and personally satisfying; felt less confident in their ability to move forward in their career; were less convinced that the university treated women equitably, with the biggest disparities between men and women being as regards gender equity and career advancement. Thus, their research highlights the limitations of AS in terms of institutional transformation. They note that under certain circumstances, it can become a rhetorical box-ticking exercise.

Graves, Rowell, and Hunsicker (2019) survey of almost 3000 staff and students in institutions with an AS award showed that male academics were generally more positive about AS than their female counterparts. Furthermore, they also found that even in HEIs that had won an AS award, women were less likely than their male counterparts to be familiar with the criteria and processes for promotion; were less likely to see such processes as evidence based, unbiased and fair; less likely to have been encouraged to apply for promotion; less likely to be satisfied with their most recent performance review and less likely to be optimistic about their career prospects. In addition, even in HEIs that had won an AS award, women were less likely than men to think they had adequate opportunities for training and development and less likely to have been encouraged to take up such training opportunities as were available (although they were more likely to be mentored: see also O'Connor et al. 2019). This suggests that even in HEIs that had won an AS award, there was a persisting attachment to 'fixing the women' through initiatives such as mentoring, while at the same time ignoring gendered processes and practices which perpetuate gender inequality (Peterson and Jordansson 2017).

The possibility that AS, although it makes it possible to have a conversation about gender equality, is not useful in promoting real institutional change cannot be eliminated. Even in HEIs that had won AS awards, only just over half of the academic staff saw AS having a positive impact on the work environment or on work practices – with men more likely than women to see it in this way. This suggests that AS is useful in assuaging male anxieties surrounding the position of women in academia but not in seriously challenging male dominance. Case studies of individual Gold departments in the UK did show an

increase in female representation at senior levels (Graves, Rowell, and Hunsicker 2019). Thus, in, for example, the Department of Chemistry in Edinburgh, the proportion of female professors increased from 15% in 2007 to 27% in 2014 – well above the sector averages. However, it seems possible that this reflects particular departmental characteristics – possibly their very strong and positive departmental leadership and effective challenging of 'chilly' organizational cultures. Only a very small minority of departments in the UK receive Gold awards. Furthermore, even in them, academic men were more likely than women to be encouraged to apply for promotion and to be more optimistic about their career prospects.

The fact that, even in AS award-winning departments, women were less likely than their male counterparts to be familiar with the criteria and processes for promotion; were less likely to see that process as evidence-based, unbiased and fair and less likely to have been encouraged to apply for promotion shows the extent to which AS leaves 'normal' gendered processes and practices effectively untouched, and thus is not an effective tool for transforming the structure and culture of HE.

Summary and conclusions

An FI perspective highlights the importance of tackling the organizational structure and culture of HEIs in attempting to promote gender equality. In this article, it is argued that reductions in gender inequality in (male-dominated) HEIs have been very slow because the structure and culture of such male-dominated organizations has effectively worked against change initiated by intervention projects promoting gender equality. In making this argument, the article draws on evidence from a variety of contexts and countries, with the overall pattern being remarkably consistent.

At a structural level, 'normal' practices which perpetuate gender inequality are reflected in the greater structural availability of senior posts in male-dominated staff areas, in ideas about a 'normal' linear career path (with gendered consequences as regards the allocation of women to 'housekeeping' activities in career cul-de-sacs) and in the criteria and procedures involved in recruitment and promotion. They are also reflected in the culture of the organization, and particularly in the informal practices which directly and indirectly advantage men and devalue, isolate, marginalize and exclude women. These practices have been legitimated by gender stereotypes, which are increasingly unacceptable in a gender–fluid world.

The article also shows that even potentially institutional transformation initiatives such as AS have been shown to have limited impact. The one exception is case studies of AS Gold award-winning departments which are typically characterized by strong positive leadership and a commitment to transforming the 'chilly' organizational culture. Such departments are only

a tiny proportion even of AS award-winning departments in the UK. Other than in these contexts, the existence or level of an AS award does not impact on the proportion of women at professorial level; on the gender pay gap or on the wider cultural context where women continue to lack information about career opportunities and to experience other aspects of a chilly organizational culture. Furthermore, the work of getting those awards is overwhelmingly done by women – with potential impacts on their own career progression since such work is not typically seen as relevant to career advancement. This illustrates the difficulties of initiating structural and cultural change in HEI's, even using potentially institutionally transformative programmes such as AS.

Creating change in the gender profile of research funding award recipients, particularly at post-doctorate level, has been shown to be possible and achieved in some cases (Yen 2020) by reducing the impact of the HEIs. Even in HEIs, however, change is possible and has occasionally been documented (O'Connor 2017). In an FI perspective, the sources of that change have been located both internally and externally. Thus, internally in bringing about the institutional change, it is suggested that a key role can be played by leaders (both formal and informal) within the organization. Since those in the top position of formal power in HEIs (i.e. Rector/President/Vice Chancellor) play such an important role in shaping the organizational structure and culture, the selection of these based on evidence that they have effectively progressed gender equality initiative prior to their appointment would provide an important lever for change within the organization (HEA 2016). Their efforts can be supported by external systemic pressure, whether in the form of state-enforced quotas or through the linking of state funding to the achievement of specific gender targets related to the under-representation of women in senior positions (HEA 2016).

However, in this article, the focus is not on solutions but on the multi-pronged tentacles that embed gender inequality in the 'normal' structure and culture of HE. Each and every aspect of these needs to be tackled if gender inequality is to be reduced.

Disclosure statement

No potential conflict of interest was reported by the author(s).

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Pat O'Connor is the Professor Emeritus of Sociology and Social Policy at the University of Limerick and Visiting Professor, Geary Institute, University College Dublin Ireland. She previously held visiting professorships at London; Aveiro; Linkoping; Deakin and Melbourne.

Her *research interests* revolve around gender and higher education: with a particular focus on leadership and management, excellence, organizational culture, masculinities/femininities, micropolitics, mentoring, sponsorship and successful interventions. Her 120 publications include 7 books and over 80 peer-reviewed refereed journal articles in the United States, Australia, UK, Ireland and elsewhere in Europe. Her last book, edited with Kate White, is *Gendered Success in Higher Education: Global Perspectives* (Palgrave Macmillan). Recent articles include O'Connor, P. et al. (2019) 'Leadership practices by senior position holders in Higher Educational Research Institutes: Stealth power in action?' *Leadership* 15 (6): 722–743; and O'Connor, P. et al. (2019) 'Mentoring and sponsorship in Higher Educational institutions: Men's invisible advantage in STEM'? *Higher Education Research and Development* 39 (4): 1–14. She has been involved in a number of international research consortia including *FESTA* and *WHEM*. She is currently on the Advisory Boards for TARGET, CHANGE and NORDICORE and was the editor of a Special Issue of Education Sciences on Gender and Leadership (2018).

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