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Introduction

This chapter is concerned with describing and critically evaluating the literature on the existence of and explanations for gender imbalances in higher education (HE) focusing particularly on girls' increasing access to HE and women's limited access to senior positions there. These topics reflect a fundamental paradox in HE across Western society, namely that that is despite increases in women's participation at undergraduate and post-graduate levels (UNESCO, 2012) their access to senior positions remains limited (EU, 2013). It cannot simply be assumed that the latter will automatically increase, since the growth of girls' access to HE is not a recent phenomenon. Women, especially in Western Europe and North America, started to catch up with men in terms of enrolments in the 1970s and had surpassed them by the early 1980s, with the rate of women's enrolments growing almost twice as fast as men's rate (UNESCO, 2012). This raises fundamental problems for Western societies since educational achievements have been seen as a meritocratic basis for accessing senior positions in HE.

Senior positions in HE include those at (full) professorial level and in senior management at Rector/Vice Chancellor (VC)/Presidential level (EU, 2013). Several rationales for the promotion of gender equality in senior positions have been advanced. First, equality has been seen as an important element in contributing to social justice within

democratic societies. Second, it has been seen as having economic benefits, with some studies showing a positive correlation between the presence of highly educated women in leadership positions and business performance (Smith, Smith and Verner, 2006). In national and international contexts, diversity (including gender) has been seen as contributing to research innovation (EU, 2012). Women's education, in general, and gender initiatives, in particular, have also been seen as contributing to economic growth (OECD, 2012). Third, in HE itself, an important rationale is that organizations that create a culture of equal opportunity (EO) are better able to attract, retain and motivate the most qualified individuals (McIntyre et al., 2002). Fourth, in a gendered society, it is suggested that women can bring distinct perspectives which facilitate effective representative leadership (Neale, 2011). Fifth, women's presence in the highest positions increases their opportunities to influence organizational and scientific decisions (Santiago, Carvalho and Vabø, 2012). Sixth, their occupancy of such positions provides role models for a new generation of HE students and faculty (EU, 2013).

In this chapter, the focus is on gender inequality from women's perspective. Gender is seen as a systemic phenomenon that is 'present in the processes, practices, images and ideologies, and distributions of power in the various sectors of social life' (Acker, 1992: 167) and is a crucial basis for inequality regimes (Acker, 2006). Gender does not simply differentiate between individuals; it is socially constructed and multi-level (Wharton, 2011; Risman and Davies, 2013). Thus, explanations for girls increasing access to HE and women's limited access to senior positions in HE are located at several levels. These include the following: the individual (e.g. socialization; entitlement); the interactional (e.g. 'Othering'; patronizing); the organizational (e.g. structure and culture); the systemic (e.g. the relationship with the state); and the wider institutional cultural level (e.g. cultural stereotypes). These levels are analytically distinct, although in practice they frequently interrelate. In this chapter,

attention is mainly focused on European countries with broadly similar HE systems and patterns of student participation, but with rather different patterns as regards the proportion of women in senior positions (i.e. Norway, Ireland and Portugal).

Getting in but not getting on in higher education

Women's participation in HE, relative to men's, has increased, especially in Western Europe and North America. Across the EU 27, women constitute just under half (46%) of all PhD graduates and their rate of increase from 2002 to 2010 was more than twice that of their male counterparts (EU, 2013). Indeed, female PhD graduates equalled or outnumbered men in all areas except Science, Maths and Computing (where they nevertheless made up 40% of the PhD graduates) and Engineering, Manufacturing and Construction (where they constituted 26% of the PhD graduates) (EU, 2013: 5). Furthermore, such patterns have appeared not only in countries such as Norway (which typically is ranked highly on international gender equality indices) but also in countries, such as Portugal, which are ranked much lower on these indices. In Portugal, for instance, gender gaps in PhD attainment are reversing: from 2004 to 2011, 62% of all PhDs awarded went to females and the proportion of women was higher than men, even in PhDs in Science and Engineering (Scientific American, 2014). Both in the United States and Canada similar, although weaker, patterns exist (Bekhouch et al., 2013). However, rather than being welcomed, such patterns are seen as reflecting a 'dumbing down' of standards; 'easier' assessments that are assumed to test 'diligence rather than intelligence' (Leathwood and Read, 2009: 18), reflecting a wider pattern of female 'misrecognition' (Frazer, 2008).

The proportion of women in academic positions in universities has also increased steadily cross-nationally, although women remain under-represented in (full) professorial positions (i.e. grade A positions) in both the EU and elsewhere (e.g. Australia). Across the EU, although women constitute 44% of grade C academic staff, they constitute only 20% of grade A staff (i.e. the equivalent of full professor) (EU, 2013). The proportion of women in professorial positions also varies substantially between different disciplinary areas, being highest in the Humanities and lowest in Science and Engineering, with Medicine in an intermediate position (EU, 2013). However, despite their very different rankings on international inequality indices, the proportion of women at professoriate level in Ireland and Portugal is quite similar (19 and 24%, respectively) (O'Connor, 2014a; Carvalho, Cardoso and Sousa, 2014): reflecting a global pattern of under-representation of women in such positions (Husu, 2001).

Women are also poorly represented in university senior management cross-nationally. On average, throughout the EU 27, 16% of all HE organizations and only 10% of universities are headed by women (EU, 2013). There is a relationship between this and rank on international gender equality indices. For instance, Norway is ranked high on such indices and is among those having the highest proportion of women in these positions. However, there is no simple relationship between these patterns and the students' gender profile. Thus, for example, in Portugal, despite the high proportion of women at PhD level, only 7% of those leading universities are women. Furthermore, the similarity in the professorial profiles of Portugal and Ireland is not reproduced at this level. Thus, no woman has ever headed up an Irish public university.

Explanations for these gender imbalances will now be explored at several levels.

Individual level

Women's participation in HE is frequently the result of the interaction of diverse factors (individual, interactional, organizational, systemic and institutional) (UNESCO, 2010, 2012). Yet increases in that participation tend to be seen as an individual achievement, related to the fulfilment of personal expectations and individual social mobility (Schoon and Eccles, 2014). Internationally, there are persistent differences in the fields in which men and women predominantly enrol, indicating that horizontal segregation persists, particularly among undergraduates. For instance, women predominate (70–75%) among graduates in Education and Health and Welfare in the overwhelming majority of countries (EU, 2013). Directly or indirectly, these patterns reflect an extension of women's caring role in the family. Similarly, undergraduate programmes involving technology are predominantly chosen by men. Indeed, in a wide range of countries, at most one-third of all graduates in the fields of Engineering, Manufacturing and Construction are women, despite many initiatives to reduce stereotypical gendered choices (OECD, 2013).

Explanations at the level of the individual for the under-representation of women in senior positions in HE (whether academic or managerial) are particularly attractive since they suggest that 'the problem is women' constructing them 'as a remedial group, with the emphasis on getting them into better shape in order to engage more effectively with existing structures' (Morley, 1994: 194). Much is made of women's lack of career planning and ambition, low self-esteem, poor political skills, poor ability to market themselves and their lifestyle choices (O'Connor, 2014a). Such explanations suggest that such patterns are 'natural' (reflecting essentialist views) or that they reflect underlying cultural constructions of femininity/masculinity. In both cases, they are depicted as inevitable, ignoring the wider social context (e.g. one in which there are often strong gendered cross-cultural norms

surrounding modesty concerning individual achievements and a reluctance to 'self-promote': Bagilhole and Goode, 2001).

Elements of persisting male privileging can also be identified. In stratified HE systems, where different types of HE organizations co-exist, men tend to enrol in the more prestigious and well-resourced ones (Leathwood and Read, 2009). A focus on choices 'whether free or constrained' (Ceci and Williams, 2011) underplays the part played by the wider societal and cultural context. A gendered felt lack of entitlement in Western society reflects a wider gendered pattern of 'misrecognition' (Frazer, 2008), supported by the wider cultural institutional level (discussed later).

When stripped of their essentialist qualities, explanations at the level of the individual have an element of validity, reflecting as they do 'the psychological effects of living in a sexist society' (Husu, 2001: 38). To some extent they can be seen as effectively 'blaming the victim'. In so far as such attitudes reflect deeper constructions of femininity or gendered selves, they can be seen as constituting cultural limits to the possibilities for change at a particular moment in time. However, they can be eroded by challenging the assumptions on which they are based (Ridgeway and Correll, 2004). The dramatic increase in the proportion of women students in HE challenges assumptions that change cannot occur.

Interactional level

There is an ever-increasing recognition of the importance of day-to-day interaction or 'micro-politics' (Morley, 1999) as a way of perpetuating gender inequalities. It is reflected in homosocial behaviour and various kinds of 'Othering' including exclusionary or patronizing behaviour; differential informal evaluation of men and women and their competencies; and

‘doing gender’ (West and Zimmerman, 1987) in a way that organizes ‘relations of inequality’ (Wharton, 2011: 8).

Homosociability, the selection of others with similar characteristics to oneself (Kanter, 1977) and the ‘Othering’ (Acker, 1980) of those who are seen as different were early recognized as crucial interactional processes. Such processes, first, may constitute part of the explanation for the persistence of horizontal segregation in students’ participation in HE (discussed earlier). Second they are relevant at the academic staff level since peer evaluation, networking, mentoring and sponsorship are crucial, with success reflecting evaluative (and often gendered) judgements (Lamont, 2009). Third, the gender of the person enacting the performance is in itself an important element in the evaluation of that performance. Thus, in Bourdieu’s (2001) terms, the symbolic negative coefficient attached to being a woman affects the perceived value of that performance.

At an interactional level the impact of such a coefficient has been most clearly documented in the differential expectations and evaluations of men and women, reflecting unconscious bias (Valian, 1999). Such biases were reflected in the evaluation of Swedish medical research funding applications where: ‘a female applicant had to be 2.5 times more productive than the average male applicant to receive the same [scientific] competence score as he’ (Wenneras and Wold, 1997: 3) Gender gaps in citation patterns have also been identified, with male authors being less likely to cite publications by women (Mc Laughlin Michell et al., 2013).

At a day-to-day interactional level, the women senior managers in O’Connor’s (2014a) study saw their gender as very visible to their male colleagues and not in a positive way. According to those women, their male senior management colleagues (particularly those who had not worked outside the Irish HE system) saw them as ‘challenging’, ‘disruptive’,

‘irritating’ and ‘frightening’. Such attitudes were not peculiar to that context. The word ‘frightening’ which is evocative both of women’s perceived power and unacceptability, was also used by Husu’s Finnish respondents (2001:144). The women senior managers in the Irish study overwhelmingly saw their female colleagues’ perception of them as supportive, capable and competent; while the men were much more likely to see their own gender as invisible to both men and women (reflecting the invisibility of the privileged characteristics of those in hegemonic positions). There was also evidence of a kind of paternalistic ‘heroic masculinity’ (Kerfoot and Whitehead, 1998: 451), a ‘patronizing benevolent sexism’ (Krefting, 2003: 269), among senior managers in Portugal and Ireland, which purported to protect women by not involving them in university management ‘for their own good’ (O’Connor, 2014a). Interactional patterns that erode women’s sense of confidence, their evaluation of themselves and their desire to participate in such, often predominantly male, contexts are an important element in the informal creation of ‘chilly’ organizational cultures.

Explanations at the interactional level help us to understand the micro-processes through which gender inequality is maintained.

Organizational level

A good deal of research at this level has focused on the barriers to women’s access to senior positions, with much less attention being paid to student access. This reflects the fact that, typically, although academic organizations can influence the number of students admitted to a particular course, the total number of students admitted to HE reflects wider systemic policies framed by the state (see the next section).

Explanations for the under-representation of women in senior positions (whether the professoriate or senior management) have focused on structural or cultural explanations or an

amalgamation of these, reflected in a variety of metaphors such as the leaky pipeline (i.e. the disappearance of women as they move up the hierarchy), glass ceilings, glass cliffs, labyrinths and so on. In structural terms, explanations include a focus on the nature of recruitment/retention processes; the nature and transparency of procedures and career structures (Knights and Richards, 2003); and the predominantly male profile of academic gatekeepers (e.g. journal editorships; research funding organizations) (Husu, 2006).

Thus, for example, although the advertising of professorial posts was expected, other than in exceptional circumstances, the majority of university professorial positions in the Netherlands were not advertised (Van den Brink and Benschop, 2012). Sheltzer and Smith (2014) found that male academic leaders in elite laboratories were significantly less likely to hire female postdoctoral trainees than their female counterparts, with consequences for such women's subsequent career achievements. Despite the increasing presence of various bureaucratic procedures such as workload models, there has been a tendency for women to be disproportionately allocated responsibility for administrative tasks (Carvalho and Santiago, 2010). This can be seen as an obstacle to the development of their research profile and hence their career progress (Sax et al., 2002). The undervaluing of lecturing also has consequences for women who are disproportionately assigned such work (O'Connor, 2014a).

The pipeline explanation implicitly assumes that men and women will be equally likely to occupy senior positions in the professoriate and in senior management in the future (Carvalho, White and Machado-Taylor, 2013; Heijstra, O'Connor and Rafnsdottir, 2013). However, Norwegian (also Swedish) studies of recruitment patterns over time (Hovdhaugen and Gunnes, 2008; Silander, 2010) suggest that women will not inevitably progress to professoriate or senior management positions as they have a slower career progression than men across all disciplines (see also Heijstra, Bjarnason and Rafnsdottir, 2014).

Cultural explanations have particularly focused on organizational cultures that are unfriendly or unhelpful to women (Coleman, 2011; Morley, 2013). Reference has been made to the way in which the culture and criteria of excellence in HE are implicitly based on a male model, making it difficult for women to access power other than as 'pseudo males' where their position is essentially fragile (Cockburn, 1991). Several studies have shown the application of different standards to men and women, for example experimental studies of curriculum vitae showed that when both sexes had achieved the same objective level of performance, double standards were applied by men, with women being held to a higher level of competence (Foschi, 2006). In the United States, in a randomized double-blind experimental study, both female and male science faculty from research-intensive universities rated the male candidate as more employable, and worthy of a higher starting salary than the identical female candidate (Moss-Racusin et al., 2012). Van den Brink and Benschop (2012) found that in professorial appointment processes, women were expected to be metaphorical 'five legged sheep', while male 'four legged sheep' were acceptable. Constructions of excellence, which underpin recruitment/ promotion processes although ostensibly gender neutral, are increasingly recognized as directly or indirectly privileging men or male-dominated disciplines (Lynch et al., 2012; O'Connor, 2014a; O'Connor and O'Hagan, 2015).

In some managerialist contexts, a tendency for Rectors/VCs/Presidents to be chosen from predominantly male areas such as STEM (Science, Technology, Engineering and Mathematics) has been noted (Bagilhole and White, 2011), with surprisingly little attention being paid to the greater availability of senior posts in these areas of predominantly male academic employment. Organizations' 'privileging and non-responsibility' as regards caring responsibilities (Grummell et al., 2009; Lynch et al., 2012) has also been seen as affecting women's access to senior positions, with attitudes to maternity being a particularly critical issue. However, such attitudes cannot explain the absence of single women from senior

positions (Morley, 2013). For Valian (1999), it is the cumulative effect of small disadvantages that ultimately impacts on women's access to organizational power.

Managerialism, with its focus on performance indicators, appears to offer the hope that formalization of procedures will increase women's access to senior positions (Deem, Hilliard and Reed, 2008). Lamont's (2009) focus on the essentially subjective character of peer evaluations underlines the limitations of such strategies, although there is evidence from experimental studies that accountability does reduce the extent of gender bias (Foschi, 2004).

Much of the literature on organizational change ignores the importance of embedding such change in the gendered content of teaching, research and related structures so as to reduce the possibility of equality policies being 'tick box' exercises which do not challenge the gendered structures or culture of HE (Kjendal, Rindfleish and Sheridan, 2005; Wagner et al., 2008). In Europe, Zimmer (2003) found no link between Affirmative Action programmes (AA programmes) at universities and the number of women in top positions. However, studies evaluating a number of policies and procedures implemented in Australia, ranging from simple training initiatives directed at women to the establishment of positional quotas, indicate a positive impact on women's success rates in applying for middle and higher level positions (Winchester et al., 2006). With a small number of exceptions (such as the positive evaluations of mentoring at the Norwegian University of Science and Technology), other strategies such as mentoring, targets, quotas and various kinds of AA programmes have been widely discussed, but with few attempts at evaluating their impact in terms of increasing the proportion of women in senior positions.

Relatively little attention has been paid to identifying the key drivers of gendered change within organizations. O'Connor (2014b) presents a narrative of organizational change in a new university, where formal and informal leadership coalesced around gender equality

with the proportion of women in the professoriate increasing from zero to 34% over a 15-year period. There have been accounts by individuals of their roles as change agents (Morley and Walsh, 1996) or ‘tempered radicals’ (Myerson and Scully, 1995). However, little consideration has been given to analysing the structural conditions and cultural contexts that facilitate moving a gender agenda forward in HE.

Overall, although explanations at the organizational level have demonstrated its importance, frequently the focus of intervention reverts to ‘fixing the woman’.

Systemic level

Individual HE organizations exist in a wider systemic context and are impacted on by the state and other stakeholders. These actors shape the role (and sometimes the structures) of HE and intentionally or accidentally influence its gendered nature through the development and implementation of national state policies, including those related to student access. In some countries, such as Ireland and Portugal, increased participation by girls in HE has come about almost by accident, largely due to a selection process based on academic grades, in a context where the state has imposed no limits on the total number of students admitted to HE, in the context of other objectives (such as political popularity, regional development etc.) (Carvalho and Santiago, 2010; O’Connor, 2014a).

Globalization and its gendered impact on women’s access to senior positions in HE has been subject to relatively little empirical investigation, although international activity has become an integral part of academia (Fox and Mohapatra, 2007). Women academics face more barriers to international activities than men; are less likely to engage in international collaboration (Vabø et al., 2014), to publish internationally or with international co-authors (Padilla et al., 2011); or to be successful in accessing international research funding (Ledin et

al., 2007). These gender differences may reflect women's position in society and the disproportionate assignment of family responsibilities to them. Global trends towards research intensive universities also disadvantage women even in countries such as Sweden and Norway (Lindgren et al., 2010). Research that is gender blind 'may often be bad science or of limited value' (Mavin and Bryans, 2002: 247), but this is literally unthinkable in many HE systems.

In the context of neoliberalism, research activities with a potential commercialization focus, particularly in specific areas of Biosciences and Information Technology, have been prioritized globally. Universities that are publicly funded are in effect using some of these resources to generate private profits, while at the same time reducing expenditure on front-line teaching (Slaughter and Rhoades, 2010). These policies have gendered implications since the areas that are targeted (and where both state and privately funded professorial chairs are most likely to be located) are areas of predominantly male academic employment in HE. Cuts to front-line teaching can disproportionately affect areas where women faculty are most likely to be located (e.g. Humanities and parts of the Social Sciences).

Relationships between HE and the state vary cross-nationally. Unusually in Austria, the state has been very involved in interventions to promote the advancement of women through legislative measures, monetary and non-monetary support, including programme measures (such as *Excellentia*), and through the establishment of coordinated units for gender research in selected universities (Wroblewski and Leitner, 2011). The introduction of a legally binding 40% gender quota for university decision-making structures in 2009, in that context, increased the proportion of women VCs from zero in 2009 to 19% in 2012 (Wroblewski, 2014). The proportion of women Rectors in Norway (at 32%) (EU, 2013) may also indirectly reflect the impact of gender quotas in publicly funded organizations.

In societies, such as Norway (and Iceland), where for many decades much emphasis has been put on solid welfare arrangements (e.g. generous maternity leave, childcare, legislation and measures for gender equality), the speed of change has been slower and the proportion of women at full professorial level is unexceptional (21 and 25% respectively) (Heijstra, O' Connor and Rafnsdottir, 2013). This suggests that improvements in the wider societal context appear in most cases to have limited effects on the gender profile of professorial leadership in HE. However, the *Excellentia* programme in Austria, with state support and a substantial budget, increased the proportion of female professors from 8% in 2003 to 19% in 2010, in a context where a substantial minority of existing (male) professors were due to retire and where earlier initiatives had created a pool of appointment ready women (Wroblewski and Leitner, 2011).

Overall, however, at the systemic level there has been little concern by the state or other stakeholders with gender.

Wider cultural institutional level

HE organizations are also enmeshed within a wider institutional context characterized by underlying gender stereotypes or cultural beliefs which are part of the symbolic structure that classifies people into two groups (i.e. men and women) and normatively attributes different and 'natural' personal qualities to them (aggression or dominance to men and submissiveness or subordination to women). While the specific areas that are seen as appropriate or 'natural' for women/men vary over time and across national contexts, predominantly female areas are typically less well paid than areas where men predominate. Such trends reflect a wider pattern of 'misrecognition' (Frazer, 2008) of girls and a privileging of boys (Connell, 1995). Ideological control through stereotypes is important to persuade women that gendered

qualities are natural and inevitable, with the implicit assumption that those who lack these qualities are unnatural. The fact that in most Western societies, the family perpetuates such stereotypes offers further institutional support. Gender stereotypes are also important in sustaining the differential value of men and women (Ridgeway, 2011), providing the ultimate ideological underpinning at individual, interactional, organizational and systemic levels. Although these beliefs are very resistant to change, under particular conditions change can happen (Ely and Myerson, 2010).

At the individual student level, such stereotypes seem to have had little effect, other than perhaps in affecting girls' willingness to choose STEM subjects in particular national contexts. 'Think manager–think male' (Schein et al., 1996) has been seen as a universal phenomenon, especially among men. A tension has been identified between leadership roles and female gender roles in Western countries: 'People's beliefs about leadership are thus more similar to their beliefs about men than women' (Ely and Padavic, 2007: 52; see also Fitzgerald, 2014). Models of leadership are not inclusive of women or other 'outsiders' (Blackmore and Sachs, 2007). Gender stereotypes effectively legitimate the gendered occupancy of senior positions (Acker, 1990) and include 'disparaging stereotypic public cultural representations' of women in such positions (Frazer, 2008: 14). They create potential difficulties for women in envisioning themselves in such positions (Powell, Butterfield and Parent, 2002) and have been seen as a key factor in perpetuating gender inequality (OECD, 2012; Coleman, 2011). The presence of women in such positions facilitates the erosion of such stereotypes (O'Connor and Goransson, 2014; see also O'Connor and Carvalho, 2014 for a similar effect on gendered management styles).

At this wider cultural institutional level, stereotypes legitimate men's access to senior leadership positions.

Conclusions

We have been concerned with looking at gender in HE, focusing particularly on girls' increasing access to HE and women's limited access to senior positions. Gender is perceived as a multi-level phenomenon. Although analytically distinct, these different levels interact and reinforce each other. Extensive change has occurred at student level, since, especially in Europe (and North America), girls have improved their participation at both undergraduate and postgraduate levels. It is suggested that the systemic level (and particularly the state) has played a key and often unintended role: frequently (as in Portugal and Ireland) without any legitimating logic, or even any awareness of the gendered consequences of such action. The most socially acceptable explanation for this is at the individual level, underpinned by the institutional cultural one. Such explanations fit with meritocratic individualism. However, the achievements of girls over boys do raise troubling issues for societies which are most comfortable with male achievement. Hence, girls' success has been accompanied by mutterings about the nature of HE assessments and a greater valuation of those areas where male students and faculty are most likely to be found (i.e. STEM). Stereotypical beliefs about women are used to explain their scarcity in these areas in most societies, although in some countries, such as Portugal, patterns have changed.

The individual level, underpinned by the institutional cultural level, is also attractive as an explanation for the scarcity of women in top leadership positions in HE. Such explanations imply that the under-representation of women in such positions is 'natural', inevitable or what women want (Connell, 1995). However, they ignore the demonstrated gendered nature of HE organizations; their impact on women's career progression; women's frequent marginalization in 'chilly' organizational cultures; as well as the devaluing of women through gendered constructions of excellence. While the organizational level

(supplemented by the interactional one) seems particularly important in affecting the proportion of women in professorial positions, the systemic level is more relevant to their increasing proportion in senior management (i.e. at Rector/VC/Presidential level). Paradoxically, it is cross-national structures (e.g. OECD and EU), driven by a market ideology, which are becoming uneasy about the loss to society consequent on the exclusion or marginalization of highly educated women.

Trying to identify critical points of intervention in the context of the multi-level reality of gender is difficult. It is clear that individual behaviour can change. It is also clear that at the systemic level some degree of change can be driven by legislative enactments and structural initiatives. The support of senior leadership, particularly for fundamental cultural change at the organizational level is crucial, as is the embedding of such change in gendered research. The status of HE organizations as effectively expert organizations and the dominance of assumptions about the gender-neutral nature of constructions of excellence further complicates the issue and makes the achievement of organizational change, even in terms of such limited objectives as women's access to leadership positions, difficult. In the context of managerialism, one can expect the proliferation of initiatives aimed at 'fixing the woman' being used to effectively legitimate the persistence of male domination of senior positions.

HE plays a key role in perpetuating gender inequalities. There is a tension between girls' individual achievements in HE and the persistence of male-dominated leadership structures. It is still not clear how these tensions are to be resolved and what implications they have for the structure and culture of HE organizations; for related institutions such as the state; and for underlying issues concerned with the nature of expert authority and gender inequality. It is possible that pressure for changes in HE will increase, in a context where

women's participation in HE is increasing and where such participation, in general, and gender equality initiatives, in particular, are seen as critical to economic growth (OECD, 2012) and research innovation (EU, 2012). The question as to whether it is in society's interest to perpetuate lack of diversity in senior leadership positions is now beginning to be raised at a systemic level. However, it seems possible that attempts will be made to devalue women's participation and achievements: predominantly male areas being seen as most strategically important (Frazer, 2008).

The use of a multi-level approach illustrates the importance of various levels in affecting specific gender patterns. Countries such as Norway which are highly ranked on international gender equality indices are more likely to have women in senior management positions (reflecting the involvement of the state). Countries with lower scores on gender equality indices (such as Portugal) have gender gaps favouring women at PhD level, even in STEM subjects. Organizational factors continue to affect the under-representation of women in professorial positions. The chapter thus illustrates the contextual complexity of gender patterns and the importance of looking at the issue cross-nationally.

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