Perpetuating academic capitalism and maintaining gender orders through career practices in STEM in universities. Clare O’Hagan, Pat O’Connor, Eva Sophia Myers, Liv Baisner, Georgi Apostolov, Irina Topuzova, Gulsun Saglam, Mine G. Tan, Hülya Çağlayan

Abstract

Academic capitalism is an outcome of the interplay between neoliberalism, globalisation, markets and universities (Slaughter and Leslie, 1997; 2001). Universities have embraced the commercialisation of knowledge, technology transfer and research funding as well as introducing performance and audit practices (Slaughter and Rhoades, 2000; 2004). Academic capitalism has become internalised as a regulatory mechanism by academics who attempt to accumulate academic capital (Morley, 2014). Universities are traditionally gendered organisations, reflecting the societal gender order. Despite fears regarding the feminisation of the academy, Thornton (2013, p. 128) argues that the embrace of academic capitalism is contributing to its re-masculinisation and exercises an incidental gender effect. Practicing is the means by which the gender order is constituted at work (Martin 2003, p. 354). Three practices in which academics engage are examined as exemplars of the way academics increase their academic capital stock in Science, Technology, Engineering and Maths (STEM) faculties in four European universities, in Bulgaria, Denmark, Ireland and Turkey. These practices tend to be more achievable and likely to be engaged in by men, thus, career practices are the mechanism through which the gender effect of academic capitalism is achieved, academic capitalism perpetuated and the gender order maintained in STEM in academia (200 words).

Keywords: academic capitalism; career practices; gender order; gender effect; STEM; universities.

Introduction

The concept of academic capitalism joins the two seemingly dissonant ideas of academia and capitalism (Slaughter and Leslie, 1997). It is a contested concept. It is often offered as an explanation for the way the academy is being reshaped by the economic forces of neoliberalism and globalisation (Collyer, 2014). It was initially described by Slaughter and Leslie (1997; 2001) as the encroachment of the profit motive into the academy with a focus on activities that result in products close to the market such as patents and instructional materials. Academic capitalism is also referred to as the cultural system within higher education that ‘shapes the way we talk about and define our role in the academy’ (Rhoades, 2005, p. 40). Slaughter and Rhoades (2004, p. 7) subsequently presented academic capitalism as a theory that explains ‘the processes through which universities are integrating with the knowledge-based economy’. As such it includes the actions of a network of actors
who value revenue generation over other core educational missions. This elaborated perspective emphasizes the role of agency. It views market and market-like activity as embedded within the system so that the individuals in it can be seen as ‘actors initiating academic capitalism, not just as players being corporatized’ (ibid, p. 12). This is the approach adopted in this article.

Academic capitalism is an outcome of the interplay between neoliberalism, globalisation, markets and universities. The term ‘neoliberal’ refers to a macro-economic doctrine which valorises private enterprise and is based on the belief that freely adopted market mechanisms are the optimal way of organising all exchanges of goods and services (Connell, 2010; Harvey, 2005). It is reflected in a regime of national practices and policies claiming fealty to the doctrine of enterprise, although interpreted and deployed in many diverse ways (Ferguson, 2009). Morley (2016) claims that neo-liberalism’s policy agenda in higher education involves for-profit activity and market-like competition among faculty and institutions for resources. ‘Students have become consumers, colleges have turned into vendors, and research is being commercialized in applied fields marking a new era in higher education as an entrepreneurial institution’ (Bullard, 2007, p. 3). Academic capitalism also involves the shift toward managerial authority, accountability and performance auditing using accounting conventions (Connell, 2013; McGettigan, 2013; Power, 1997). Academic capitalism has blurred the link between private and public funding and academic staff of publicly funded universities operate in an increasingly market-like competitive environment, deploying and acquiring academic capital. For Bourdieu (1986), capital denotes assets of various kinds that are produced, deployed and transformed as actors engage with one another and with social institutions. Academic capital is a sub-set of symbolic capital (Moore, 2008, p. 104). For academics, this may involve teaching, research, consultancy, patents and spin off companies (Deem, 2001, p. 14). Thornton (2013, p.127) claims the ideal academic has become a ‘technopreneur’ a scientific researcher with business acumen who produces academic capitalism, while Slaughter and Leslie (1997) describe faculty who produce academic capitalism as academic capitalists.

Collyer (2014, p. 316) argues that neoliberalism and marketisation cannot be seen as producing uniform effects in all areas and under all conditions, while Bullard, (2007, p. 4) notes that ‘engaging in academic capitalism is thus not a straightforward or unidimensional
phenomenon but takes a variety of forms in different disciplines and organisational settings’ (see also Clark, 1998). However, David (2014) argues that the key characteristics remain the endemic and embedded issues of structural and systemic inequalities arising from the hyper-marketisation of education as a commodity and the embeddedness of neo-liberal markets, competition and league tables. For Wellen (2009) the neo-liberal university amplifies stratification within itself, as demonstrated by the rise of the two-tier academic workforce and widening prestige differentiation among academic fields. STEM fields are particularly suited to the neo-liberal enterprise because the commercial potential of science and scientific research is seen as a driver of economic growth.

The gender order represents patterns of power relations between masculinities and femininities that are widespread throughout society (Connell, 1987), i.e. what is expected, allowed and encouraged in relation to what women and men do in different contexts. The gender order pre-dates the neo-liberal university and the advent of academic capitalism. Universities are historically gendered organisations, male dominated at senior levels, reflecting the societal gender order. STEM disciplines are particularly male dominated and masculinist (Husu, 2000; 2013; van den Brink and Benschop, 2012; Morley, 2013; O’Connor, 2014; White, 2014). In 2013, women made up only 21 per cent of the top-level researchers (Grade A), and only 13 per cent of those in science and engineering in the EU (EU, 2015). Internationally, gender differences in STEM are reflected in salaries, professional rewards, types of appointment and rates of promotion (Ginther, 2004). Morley (2011, p.224) argues that despite fears about the feminisation of the academy, gender equity in universities remains remarkably resistant to change processes and women have been allowed into higher education as micro-level representatives of a wider diverse community. David (2011) found that while international social scientific research on higher education reveals that educational and economic inequalities are reproduced, gender inequalities are either occluded or ignored. Women continue to be benchmarked in relation to male norms, entering a matrix of declared and hidden rules (Lynch, Grummell and Devine, 2012). Thornton (2013, p. 128) argues that the neoliberal turn, the corporatisation of the university and the embrace of academic capitalism is contributing to the re-masculinisation of the academy and academic capitalism exercises an incidental gender effect. Danowitz-Sagaria and Agans (2006, p. 51) found that unchanged structural and attitudinal barriers have continued to reinforce gender differences, placing expectations on women to
assimilate into a male dominated organisational culture, while Bagilhole and White (2011) and Thornton (2013) suggest that managerialism perpetuates gender inequality through masculinised forms of control and the devaluation of teaching. Hey (2011, p. 218) found that the increased emphasis on research productivity, competition for research funding and devaluation of teaching is gendered, while Dillabough and Acker (2008) make a connection between the gendered academic division of labour and the declining impact of public service objectives in neo-liberal universities. Academic capitalism has produced the ideal academic, who ‘evinces a distinctly masculinist hue in contrast to the less-than-ideal academic’ who is more likely to be both casualised and feminised (Thornton, 2013, p.127). In this article, we are concerned with the operation of academic capitalism as manifest in the career practices of STEM academics which reinforces gender differences and maintains the gender order.

**Individualism and career practices**

As a dominant political rationality, neo-liberalism normatively constructs individuals (Rottenberg, 2014) and promotes the belief that humans exist to participate in the market (Treanor, 2007). Under academic capitalism, the researcher is produced through multiple metrics that have a market value through the prestige economy of global league tables (Amsler and Bolsmann 2012; Lynch, 2014; Morley, 2016).

The central principle of individualism is that people can and should, may and must, actively steer their own lives, behaving as a ‘reflexive product’ (Giddens, 1991, p. 32). Neo-liberalism is a discourse that works on and through individual desire, making individuals want to win on its terms (Zabrodska, Linnell, Laws and Davies, 2011). Thus, adults voluntarily choose to engage in paid work because employment is the route to economic self-sufficiency and promotes self-esteem (Bauman, 2000; Giddens, 1991; Rose, 1992). However, structures may constrain the choices available to individuals (Adkins, 2002; Anthias, 1999; Lash, 1994). For Franklin, Lury and Stacey (2000, p. 75), ‘it is the requirement of the exercise of the will which is the decisive means by which the global citizen is established’, while Gray (2004, p.158) notes it is important to examine the ways in which globalisation and individualism identify ‘choice’ as individual agency, ‘but which produce new regulatory effects’. Morley (2016, p. 33/34) argues that individualism is evident as financial goals for research become embodied and internalised as academics refashion their
desires, resources and priorities to align with dominant performance indicators. McKinnon (2005) claims women today are the bearers of a new self, a neo-liberal subjectivity, one based on individualism and self-invention from the perspective of individualisation theory, which has led to the popular notion of ‘having it all’. Feminism in the academy has been ‘seduced’ by neo-liberal corporate models that are increasing competition (David, 2014; Fraser, 2009) suggesting that women simply need to learn to play the corporate game more effectively (McRobbie, 2013; Rottenberg, 2014). However, as Morley (2016, p. 34) argues, despite the advice to women to ‘lean in’ (Sandberg, 2013), there continue to be some disturbing indications of how gendered privilege ‘intra-acts’ with the global research economy to ensure that women remain firmly shut out.

The recursive relationship between agency and structure has been theorised (Giddens, 1984). It is the repetition of the acts of individual agents which reproduces the structure. Social structures have no inherent stability outside human action because they are socially constructed. For Giddens (1984), practices are those social actions that recursively produce and reproduce the structures that constrain and enable actions. Practices link the agentic capacity of organisation actors with the structural features of the organisations. They reflect the dynamic constitution of this duality and avoid ‘objectivist reification’ on one hand, and ‘subjectivist reduction’ on the other (Taylor, 1993, p. 47). In this article, practices and practicing refer to ‘arrays of human activity centrally organised around shared practical understanding’ (Schatzki, 2001, p. 11). Practices are embodied and a skilled body is basic to their accomplishment (Martin, 2003, p. 361). Practicing is the means by which the gender order is constituted at work (ibid, p. 354). Gendered practices stand for a class of activities that are ‘available for people to enact in a situation in accord with the gender institution’ (ibid, p. 354). In the male dominated academic STEM environment, gendered cultural scripts (Martin, 2003) are drawn on by academics who engage in these practices, consequently these practices tend to be more achievable and likely to be engaged in by men, with consequences for perpetuating men’s advantage and women’s disadvantage. However, people practice different kinds of gender, not generic forms, and there is variation in the way men and women enact these practices.

By selecting specific career practices as exemplars, we recognise the centrality of people’s actions to organisational outcomes (Feldman and Orlikowski, 2011). The three practices selected are exemplars of practices which were ‘internalised as a regulatory
mechanism’ (Morley, 2014, p. 457) which enhance an academic’s stock of academic capital. None of these practices are peculiar to academic capitalism, but they have acquired a particular significance in that context. Professional visibility involves recognition within the field, brings prestige and material and symbolic benefits, which enhance an individuals’ academic capital, because professional visibility is instrumental in increasing opportunities to collaborate on grant applications, to increase research output, obtain invitations to present at international conferences, and position the academic for employment elsewhere. However, Bagilhole and Goode (2001) found that self-promotion is in itself gendered and women tend to be excluded from all male networks, while Lynch and Ivancheva (2015) found that those who are well known internationally in academia are disproportionately men.

Developing contacts with powerful local allies within their organisations was also recognised as important for acquiring academic capital. The use value of powerful allies is that they can allocate resources, including funding and appointments, impart insider information, and make introductions to powerful others. In predominantly male dominated contexts, such as STEM disciplines in universities, men have an advantage because of processes such as homosociability whereby men benefit from social relations with other men. Morley (2008) and Grummell, Devine and Lynch (2009) found that careers are progressed through informal homosociality, coalitions and networking. Bagilhole and Goode (2001) found that in terms of academic careers, individualism is the myth while male support systems are the reality, in the process disadvantaging women who accept the former and are excluded from the latter.

The practice of managing time appropriately was selected because time must be managed and invested in various value-adding activities if it is to be converted to academic capital. This is an individualised process, in the manner of ‘do it yourself scheduling’ (Urry, 2004 p.126), where the responsibility falls to the individual. Within academic capitalism, time is a limited resource (Menzies and Newson, 2007). Walker (2009) argued that academic capitalism produces a distinct ideology about time and described three common pressures relating to time in academic capitalism: no time; efficient use of time; and a moral imperative surrounding the use of time. Time must be used not only efficiently but also morally, in the pursuit of only those activities which the organisation values (research and funding) (O’Connor and O’Hagan, 2015). A long hours culture may also be linked to the
decline in the number of academic positions available, and the simultaneous increase in the number of students. This leads to high levels of competition for faculty positions. A long hours culture is presented as gender-neutral (O’Connor, 2015), however, it disproportionately disadvantages academics with familial responsibilities (Lynch and Ivancheva, 2015), no matter how elasticated they try to be (Devine, Grummell and Lynch, 2011). The new market-led academy (Slaughter and Leslie, 2001) imposes expectations of performativity that only a care-less worker can fully satisfy (Moreau, Osgood and Halsall, 2007).

However, some academics resist academic capitalism. Resistance is ‘consciousness or action, whether structurally or subjectively determined, either collectively or individually engaged’ (Gottfried, 1994, p. 109). Most academics have internalised and normalised the values of academic capitalism, particularly those in structurally vulnerable positions (Chan and Fisher 2008; Collyer, 2014). Specifically, by examining the way academics engage in career practices, we reveal the way the structural features of academic capitalism operate at the macro level of the organization, and the agentic capacity of academics to engage (or not) in these practices at the micro-level. This shows how structure is perpetuated, reproduced and altered through social action.

By examining academics’ engagement with these practices, this article demonstrates that gendered practices are the means by which academic capitalism is perpetuated, the incidental gender effect of academic capitalism produced and the gender order maintained.

Methodology
This study was concerned with the way gender affects the career trajectories of women and men and was undertaken as part of a wider European research project investigating structural and cultural barriers to women’s careers in STEM. Four case studies were undertaken on universities in Bulgaria, Denmark, Ireland and Turkey. A constructivist-interpretative paradigm was adopted which assumes a relativist ontology (Denzin and Lincoln, 2013 p. 26-27). A qualitative methodology was employed in the grounded theory tradition (Padgett, 2008). The research sample included both men and women, selected on the basis of their positions and gender. Thus, the numbers of men and women at early-, mid- and senior levels in the four case studies was established: these being operationalised
at points where there appeared to be critical thresholds, i.e., the points at which the numbers of women increase/reduce dramatically. The majority of participants were selected by random sampling. However, purposive sampling was necessary where there were few available respondents. Overall the sample includes 106 (57 male, 49 female) academics and researchers across the four universities.

There were different methodological practices for conducting empirical research in these different organisations. Formal ethical approval was not required in three of the universities and was required and received in the fourth. In all cases, respondents signed consent forms. In three universities, information letters, brochures and project information was provided to respondents prior to interview. All interviews were recorded and transcribed. In two universities respondents received transcripts post interview. Respondents are identified by the country in which they are currently employed, this was not necessarily their birthplace, given the mobility of academic careers (Bulgaria (BG), Denmark (DK), Ireland (IE) and Turkey (TR)), their gender (M/F) and a unique identifier number.

In order to understand people’s experiences of their own careers, interview guides were developed which contained questions such as *What personal competences and/or characteristics do you think are necessary for a successful career in this University?* Do you *engage in any activities designed to develop these competences?* Specify. Respondents spoke about career practices in response to these questions. Questions related to gender included: *Has gender affected your career progression in a positive or negative way?* Specify; *Have personal or domestic issues influenced your career decisions?* Qualitative data analysis software was not available in all four languages so manual data analysis was undertaken. Content analysis was used, because it is a systematic, replicable technique for compressing many words of text into fewer content categories based on explicit rules of coding (Krippendorff, 1980; Weber, 1990). Each code was a word or piece of text from the interview transcripts and a cross-national coding map was developed. Analysis of the qualitative data involved extrapolating conceptual categories from the codes, followed by cycles of further coding, categorisation and theory building through the emergence of categories in the data (Charmaz 2006, p. 188). Coding facilitated ‘fracturing the data’ (Holton 2007, p. 266) which was then brought together in new ways that conceptualised and explained what was emerging. Neither career practices nor academic capitalism were
an explicit focus of the research but emerged as categories in all four cases from successive readings of the transcripts.

**Gendered academic capitalist practices**

In the context of academic capitalism, key career practices which align with the values of the institution enhance the individual’s academic capital. We focus on three such key career practices: achieving professional visibility, acquiring local political connections and managing time appropriately.

**Achieving professional visibility**

Respondents in the different universities, both men and women, were all agreed that visibility has an essential use-value although they disagreed regarding which activities would bring most visibility. For some, it was journal editorship (TR/M/23); while for others it was being invited to present their own research (DK/F/16). Others considered both these activities important as well as being an invited member of the national Research Council:

Professional visibility is highly critical. For instance, getting invited as a speaker and giving a presentation, becoming a member of any juries, attending scientific meetings, participating in TUBITAK (The Scientific and Technological Research Council of Turkey) Project Meetings... Such activities are all important in terms of a researcher’s relation with other colleagues. It’s really significant to spend time with other researchers. ..... Especially if you are an invited speaker, then, this really makes a difference to your visibility (TR/F/19).

A significant contributor to professional visibility is the opportunity to develop relationships which lead to professional collaborations and an appropriate network of contacts: ‘Generally, the contacts are indispensable for the success in one's career’ (BG/M/22). Similarly, a male respondent acknowledged: ‘Actually, my career began to gather speed when I managed to build up international contacts and to have collaboration with colleagues from abroad, it merely opens one’s eyes and broadens one's horizons’ (BG/M/12). Another male respondent stressed the individualised responsibility for creating this visibility: ‘You have to be proactive, you approach people and build new contacts and
maintain contacts’ (DK/M/9). Both men and women recognised the importance of professional visibility for the acquisition of academic capital. However, women were more likely to see this as difficult for themselves. A woman noted the male dominated nature of networks, in which she felt unable to participate and which limited her ability to achieve professional visibility:

> It shouldn’t be any harder [for women] but it does seem to be. But I think in terms of networking as a woman, because most of the networking is done in a social environment ...If I was at a conference on my own and I didn’t know anybody, then I’d be very reluctant to go into the bar and network on my own (IE/F/19).

The male dominated social locations in which networking takes place are difficult for women to access. Another woman also noted that academic networks are male dominated: ‘networks are crucial for better relations in academia and getting socialised is easier for men compared to women’ (TR/F/17). No man mentioned gender in this context, suggesting that gender is invisible to men in the male dominated STEM area.

Developing collaborations on research publications is facilitated by respondent’s mobility, and international mobility is often considered to be a crucial prerequisite for professional visibility: ‘I have been to Sweden for research and I have also been to George-Tech University. Going abroad is very critical in my career’ (TR/M/15). To achieve international visibility, one must have time to do the promotional work that internationalising one’s work requires, not only writing and research time, but also travel time, networking time, conferencing time and general self-promotional time. Family responsibilities (including child care and other caring responsibilities) are still regarded as primarily women's responsibilities. Women were more likely to speak of the impact of domestic responsibilities on their ability to network around conferences:

> I’d go to a conference and I’d, (.) I wouldn't stay the whole time. I would just go and do my papers, stay a day or two and come back. I wouldn't, you know, I wouldn't do all the networking, I’d come home to sort of be with the kids (IE/F/40).
There were occasional references by men to similar pressures: ‘Conference participation and in general getting out on international [work] is difficult while my kids are small’ (DK/M/10). Thus parenthood created difficulties in terms of travelling to achieve professional visibility for this man. Primarily, however, it was women who were affected by family responsibilities.

While both men and women regarded professional visibility as important in achieving academic capital, it was more accessible and achievable for men in all contexts. The cultural scripts drawn on relate to scientists being male, STEM arenas being male, and family responsibilities largely being female, reflecting societal gender orders. The practice of achieving professional visibility has gendered consequences in terms of perpetuating men’s advantage and women’s disadvantage which reinforces gender difference and maintains the gender order in STEM.

**Cultivating local political connections**
The practice of cultivating powerful others was seen as important but only by men: ‘it depends on one’s aims. If a person wants to attain higher positions, degrees or titles, s/he should keep close contacts with people in management positions’ (BG/M/15). Another male respondent described loyalty to powerful others as essential: ‘I should say that loyalty is very important! Loyal people generally succeed in their careers’ (BG/M/19). A male academic noted: ‘The people around you are the ones who can easiest get you promoted’ (DK/M/4). ‘Paying forward’ and creating bonds of indebtedness is normalised in the academic environment:

> It’s a promotion competition. If you’ve nobody on the other side of the table fighting your case, you’ve no chance...You arrange [that] through [favours], you know. ...Because...when they pick up the phone and ask you to do something you do it. And you do it not just once you might do it fifty times. So, when your application goes in you’d expect them to support you (IE/M/23).

Another male respondent also suggested cultivating powerful allies: ‘I would stress contacts with people more advanced in their careers than you’ (BG/M/22). In addition to doing favours for those in senior positions, it was also suggested by an established academic that ‘managing’ those in powerful positions is essential: ‘how I manage the Dean and the
President will probably have, will effect ... how I'm seen performing in this office. If I manage upstairs well enough to keep my guys happy, that would be a success’ (IE/M/23).

Other male respondents suggested that acquiring power, by taking a management position, was also a way to develop relationships with powerful others: ‘My career began accelerating from the moment I became director of a department, and I think, it boosted very strongly my interests, my ambition, my work, and that was a turning point in my career’ (BG/M/21). Similarly, it was noted that taking on the role of Head of Department provided a colleague with sufficient power to dramatically increase his academic capital: ‘there was an associate prof and ... he built his research group around [being Head of Department], because he was Head [of Department] he could do what he liked’ (IE/M/23).

Only male respondents recognised the significance of cultivating local political connections to enhance their academic capital. However, women noted the gendered nature of political allegiances (DK/F/23), while it was also noted: ‘Some colleagues have succeeded because of their ties with the right people, but yet, I have managed to become professor due to my own efforts’ (BG/F/23). These women may be implicitly referring to their own exclusion from such support systems.

The practice of developing coalitions of support within their own institutions, by acquiring connections with those in management positions, being loyal to them and doing favours for them has a particular use-value in the context of academic capitalism. It is important in achieving academic capital, however, it was only practiced by men in the Bulgarian, Danish and Irish universities, while women noticed their male colleagues engaging in this practice. The absence of references by male and female respondents in Turkey to developing political connections may reflect the highly elite character of the Turkish university system, and women’s unwillingness to name disadvantage on the basis of gender in the context of class privilege (O’Hagan, 2015). The cultural scripts drawn on relate to scientists and STEM arenas being male, reflecting societal gender orders. The practice of cultivating local powerful connections perpetuates male advantage and women’s disadvantage and maintains the gender order in STEM.
Managing time appropriately
Academic capitalism creates a demand to work long hours and academics in all contexts referred to the long hours’ culture. The experience of no time arises from the need for competing priorities to be juggled in the context of intensification of work and compression of time. Academic capitalism has increased productivity demands on all academics. It was occasionally recognised that managing time in order to achieve academic capital can exact a high personal cost, even for men:

The very successful (academics) are generally obsessed. And they don’t really have anything else going on in their lives. And they’re, as a result, bad fathers and bad parents and bad husbands and bad friends because they don’t have the time for anything else. And that’s the sacrifice that they make, to be the best in their field. So being the best in your field doesn’t always equate with being the best person in your life or for yourself, so it’s something, that you either decide to go with or not (IE/M/36).

Both male and female respondents accepted that academic capitalism creates a competitive culture: ‘It is a competitive job and we are all competing in different areas...people are desperately trying to take over your lab space and everything’ (DK/F/23). One academic suggested that in the competitive environment of the university, the expectation to work long hours has been normalised:

Be industrial, you know, work hard. Be productive and ... do a fifty, sixty hour week it’s (...) You know, I don’t think - there’s no real short cuts, there's no real short cuts to that.... Yea, and I think maybe fifty, sixty hours is too much, but I, I think that’s reality, it's competitive (IE/M/23).

Similarly a junior female academic noted:

I rarely leave here before six or seven and that would be quite rare. And I bring work home with me, or I go home and have dinner and come back in here. I work all weekends as well (IE/F/41).
In academic capitalism, efficiency on its own is not sufficient, there is a moral imperative to spend time on those activities which the organisation values (funding and research). Time in this context is a moral issue as time not spent on producing can be thought of as time theft. One of the most important ways academics achieve academic capital is to engage in activities which improve their research and publication record:

You have to prioritise [your time]. You have to apply for funding that is obvious. And you have to supervise students, you have to do your research, you have to submit papers for publications — if you don't do this you are simply out of research (DK/M/9).

This respondent indicates that his focus is on research, and does not refer to teaching activities. Typically, women carry higher teaching loads, the allocation of which may be linked to not cultivating local political connections, as powerful others allocate resources and tasks, which can disproportionately disadvantage those without such allies. Thus a woman academic noted: ‘I was promised teaching loads would be reduced if I worked in the research council and stuff (. ) [It] couldn’t be done...It couldn’t be done for me, it could be done for others previously, but not for me’ (DK/F/23). Another woman also claimed that she had a higher teaching load than her colleagues: ‘my teaching load is by far the biggest in the department...You see, that's the thing, you can’t ask me to increase my research profile if ... I'm going to be teaching twenty hours a week’ (IE/F/41). The unequal allocation of teaching loads to women ensures they cannot manage their time in order to achieve the same academic capital as their male colleagues.

Maternity, the ultimate reflection of women’s embodiment, reflects a morally inappropriate use of time. Both men and women offered maternity as the reason for women’s underrepresentation at senior levels:

I am not trying to put myself down here but I think of course I will not be as brilliant as some of the other guys who produce 12-14 papers because they have maybe different family circumstances - and then I was ...told that I would never become a professor because my CV will never be able to catch
up with some of the rest here. ...And this was coming from a top level, so it was very, very, very discouraging (DK/F/16).

This woman had taken time out for maternity, which was not acknowledged in measuring research output. Another woman also saw research and maternity as incompatible:

It is very difficult because once I research, at least in my field in scientific research, it is very competitive. And it is. Like you have to maintain a good track [record] of publications and you cannot have that if you have to do parenting as well as developing your career. So it is very complicated to have both things. Because now if I stop research - when I would like to come back to research, how can I do that? Who would hire me? (DK/F/6).

Thus, this woman reckons not only that it is difficult to combine research output with caring responsibilities, but stopping research for any length of time would jeopardise her career – ‘who would hire me’?. Perhaps for that reason, women in the Irish and Danish universities supervised PhD students, wrote grant applications and submitted budgets during their maternity leave, even though maternity leave is a statutory entitlement. However, they were still penalized in promotion processes for taking maternity leave. Women’s working during maternity leave is seen as an individualised choice, however it reflects the dominant STEM concept of the scientist as one who lives for his work and has no other responsibilities.

It is both essentialised and normalised that women do not progress at the same rate as men because of maternity: ‘Particularly the women I personally know, most of them are engaged more in child caring, so it’s normal for them to lag behind. This is pretty normal, since they are mothers’ (BG/M/12), while another male academic noted ‘getting married and having children are very influential for the careers of female researchers. Especially when a female scientist has a child, this situation becomes even more disadvantageous for her’ (TR/M/13). In another instance, a male supervisor highlighted the problems created by a post-doctoral researcher who became pregnant less than a year into an industry based project. As he saw it: he ‘had to fight with the agency to get the maternity leave allowed, so they gave us a small extension on the project, but the industry wasn’t happy... the project
never recovered’. He suggested that the funding structure affected his future hiring intentions, and ultimately his belief that STEM and maternity are incompatible: ‘if I have another project, do I go for a woman who is not child bearing?’ (IE/M/23).

Both men and women worked long hours in order to achieve academic capital, particularly in the Danish and Irish universities, perhaps reflecting a more intense form of academic capitalism in those contexts. The cultural scripts drawn on in managing time include the stereotype that scientist = man, that women are stereotypically more suited to teaching and that maternity and caring responsibilities are incompatible with scientific careers. Male respondents in the Bulgarian, Irish and Turkish universities essentialised and normalised maternity as an inappropriate use of time in STEM, reflecting the gender orders in those contexts. The practice of managing time in academic capitalism disadvantages women, reinforces gender difference and maintains the gender order in STEM.

**Resistance to academic capitalism**
Resistance can be passive by criticising the practices, but complying, or active, as in outright refusal to conform. While many academics in the four contexts accepted the need to acquire academic capital and engaged in the gendered practices of achieving professional visibility, cultivating powerful local connections and managing time, there were a minority who resisted the culture of academic capitalism passively, through verbal criticism in all contexts, and in the Irish organization, actively, through cynicism and opting out altogether.

**Criticism**
A minority of male and female respondents were critical of academic capitalism, suggesting it fostered competitive behaviours: [it is] a ‘bit kind of cut throat’ (IE/M/31); and: ‘it is very competitive, so you don’t get support...it is a competitive job and we are all competing in different areas and nobody is working together to the same common goals...it is not a supportive atmosphere’ (DK/F/23). The consequences of the competitive nature of academic capitalism led one man to admit to being: ‘very lonesome... some days to be honest, I do find it hard... and a lot of the time I say to myself, “this can’t be good for a lot of people”’ (IE/M/31). The gendered and competitive nature of academic capitalism led one woman to suggest that related behaviours have become institutionalised:
It is very scary, because they [competitive academics] do win. It works. If he pushes a few, especially the girls, to the side, then it will work for him and not for them. That won’t necessarily mean he has done more, he has just been pushing, because that is what it takes (DK/F/23).

Others were critical about cultivating local political connections: ‘politics is for politicians. I, no, I don't enjoy it, I don't enjoy it in the work place’ (IE/M/33). Other respondents suggested that a concern with acquiring academic capital impedes scientific achievement (BG/M/21), and that academic position does not always reflect research achievements:

Professorship is not always the most challenging aim. The most important and valuable aim is to be internationally recognized and reputed. It is much better to attract young people - people who want to work with you, than aiming solely for a certain scientific position (BG/M/14).

While it was acknowledged that publications may bring promotion, the pressure to publish can conflict with the purpose of the research itself:

If I am an engineer, getting an article published does not merely mean something to me. I become happy if I produce something that has an impact on people's lives. If you are only working to get articles published, then you get the points for promotion but this cannot give happiness (TR/M/23).

It was noted that it is possible to be promoted for doing those things which the institution rewards, however, these things are not necessarily good for the students, or the university:

Quite often of course people play the game, they are often more successful, no doubt about it. Yeah, just tick the boxes, you know, rather than doing good work, tick the boxes and get your promotion, which is something that doesn't appeal to me ... at all, I'd rather do good work (IE/M/43).
There is a contradiction between doing ‘good work’ and getting promoted in this man’s account. The focus on research at the expense of focusing on students and teaching was also noted:

Well yeah, and in terms of research excellence, publishing in top journals that’s it - the high impact journals. You know that’s, peer review journals, that’s research excellence ... they talk about you know, the number of PhD [students] and Masters [students], but nobody gives a damn [about them] (IE/M/25).

In summary, a minority of respondents (both men and women) in all universities criticised the academic capitalist culture on various grounds.

**Cynicism and opting out**

While it was acknowledged in all contexts that publications are rewarded over other activities, there were some academics who adopted a highly instrumental approach: ‘Sometimes that becomes a matter of playing the game. How many marks are you going to get for being an editor? How many marks are you going to get for writing another paper?’ (IE/M/35). Other respondents in the Irish university rejected the academic capitalist culture altogether: ‘I look around at what people have to do around here to get promoted and I don’t want to do it, because I won’t see my family as much as I want to’ (IE/M/17). Thus this man recognizes the incompatibility of family and an academic career and has opted out. A woman academic also rejects the drive for career advancement: ‘I don’t think I’m a career person…. I’m not driven by decisions based on my career’ (IE/F/32), while another woman academic rejects academic capitalism and the related career practices: ‘If I won the lottery I’d certainly become an independent [creative person]’ (IE/F/28). She enjoys teaching but would not hesitate to leave if finances allowed.

One of the features of academic capitalism is that it relies on individuals to be self-motivated, and want to ‘play the career game’. However, academic freedom, and a lack of
sanction, effectively allowed some academics to refuse to engage in career practices if they did not want to be promoted:

You can do as little or as much as you want. That’s seems to be how it is - you go so far... I can go further but do I really want to go further? And other people just love the drive and the cut and thrust’ (IE/M/42).

This man suggested that some colleagues enjoyed the competition, but he rejected it for himself, even though it meant he would not progress in his academic career. Thus although the majority engage with the culture of academic capitalism, there are a minority of men and women in the Irish university who opt out.

**Conclusion**

Universities are historically gendered organisations and despite recent fears about the feminisation of the academy, academic capitalism reinforces its masculinisation and exercises incidental gender effects (Thornton, 2013). This article identifies career practices as mechanisms through which academic capitalism is perpetuated, incidental gender effects achieved and gender orders maintained. Despite the focus on individualism in the neo-liberal university, academic capitalism does not challenge gender orders, but reinforces older hierarchies and traditional gender inequalities.

Individualism is the process through which the internalisation of academic capitalism occurs. At a micro level, academics internalise academic capitalism by engaging in the career practices of acquiring visibility, cultivating connections and managing time to acquire academic capital. These practices perpetuate academic capitalism in universities. Practicing is the means by which the gender order is constituted in STEM in universities (Martin, 2003, p. 354). These practices are gendered, and provide an indication of the way gendered privilege inter-acts with the global research economy to ensure that women remain firmly shut out (Morley, 2016). Most women and men indicate that they have internalised the obligation to engage in those activities which are valued in academic capitalism, however these career practices are differentially available to men and women, differentially enacted by men and women, and the cultural scripts drawn on reinforce gendered stereotypes (i.e.
that scientists are male and women’s greater responsibility for caring and teaching) (van
den Brink and Benschop, 2012).

Without exception, when men were asked if gender affected their careers, they said it had not, and were puzzled by the question, with many saying they had never considered this. This suggests that men are unaware of their male privilege, in male dominated STEM disciplines, in male dominated universities. With the exception of maternity, the ultimate marker of femaleness, men and women in most cases did not see the culture or practices as gendered. However, occasional men acknowledged the difficulty of combining an academic career with family life. Only when women found themselves unable to engage in activities to the same extent as their male colleagues did women recognise gendered barriers. Typically this was regarded as a personal issue for the woman to resolve herself, reflecting the gender order in society and in STEM. Women continue to be benchmarked in relation to male norms, entering a matrix of declared and hidden rules (Lynch et al, 2012).

In this study, academic capitalism was seen as fostering individualistic and competitive behaviours. Thornton (2014) found that neo-liberal reforms can create increasingly toxic and unhealthy workplace cultures. There were a minority of men and women who were critical, and an even smaller group in the Irish university who opted out arguably reflecting their secure tenured positions. It lies beyond the scope of this study to explore the reasons for such organisational variation.

Academics in all contexts engaged in these career practices. Practices are embodied and a skilled body is basic to their accomplishment (Martin, 2003, p.361). Thus, under academic capitalism, in all contexts, male bodies are skilled at those career practices which achieve academic capital, while women who may be no less skilled, find it difficult to achieve academic capital, because these practices are differentially available and achievable for women. The practices of professional visibility and cultivating political connections advantaged men and disadvantaged women, while managing time disadvantaged women.

This article contributes to understanding the way academic capitalism is perpetuated, by exploring the way academics have internalised academic capitalism as a regulatory mechanism and engage in career practices in order to acquire academic capital. Such career practices produce gendered effects. However gender variation existed and gender remains key to understanding variation between contexts, as it reflects the intricate relationship between forms of academic capitalism and different gender orders. In all
contexts, gendered career practices are the mechanism through which academic capitalism is perpetuated, gender differences reinforced, and the gender order in STEM is maintained.

References


