Paying the price: the impact of maternity on career progression of women scientists and engineers in Europe

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Abstract

Women have succeeded in entering professional careers in science, engineering and technology in increasing numbers, yet there are still few women in higher level positions especially within major global companies. This paper draws on qualitative interviews with 28 female scientists and engineers from across Europe, to highlight the career costs that they experience as a result of taking maternity leave and of subsequently working part time. Some of the assumptions within company culture that prevent women who return after career breaks from achieving their full potential are explored. These include the importance given to availability, visibility and flexibility, as well as the impact of different cultural norms relating to gender and parenting.

Keywords: women; career breaks; maternity; science; engineering

1. Introduction

The retention and progression of women employees after maternity is of widespread concern and has been the focus of a number of high profile initiatives by global companies (Hewlett 2007). The so-called glass ceiling has prevented women from reaching positions of power and influence across all occupational sectors and while these patterns are well recognised and documented, changes have been slow to come about and entrenched behavioural and cultural factors continue to reinforce traditional gender stereotypes. Within the SET sectors these issues are more acute, exacerbated by the lower numbers of women that enter employment, and the perpetuation of masculine work cultures that are resistant to change (Bagilhole 2007). Such gendered occupational segregation has been a persistent contributory factor in perpetuating inequality for women resulting in lower pay and status. With only a few exceptions, women's concentration in sectors such as health, services and education and under-representation in scientific and technical areas is still a prominent feature in most industrialised countries.

As well as empirical studies, numerous initiatives have tried to remedy the under-presentation of women within SET education and employment, and to support their career progression (Phipps 2008). Although there is some agreement on the problem, understanding the causes and possible solutions has been more complex and it now widely acknowledged that there are a number of intersecting factors contributing to the so-called leaky pipeline in these occupational sectors (Bebbington 2002, Blickenstaff 2005). Once in employment, there are a number of key 'attrition points', most notably after maternity and at mid-career level, when women leave or fail to achieve the career progression gained by their male colleagues (Hewlett 2008).

Expectations of professional career development in science and engineering have traditionally assumed a linear trajectory of uninterrupted employment. Many aspects of organisational culture, especially in male dominated sectors, still operate with the traditional model of male 'breadwinner' in mind and taking a career break is a deviation from this ideal. Moreover gender stereotyping can shape and influence decision making by women professionals and their managers at this crucial time and can have implications for career progression and development.

There is now increasing interest in examining the cultural issues that contribute to the persistence of gender inequalities in SET, recognising that changes in legislation or short term injections of effort and funding are not sufficient to change underlying gendered practices and cultural norms, whether this is in industry or within the scientific research community (Bagilhole et al 2007). Moreover, the introduction of equality and diversity policies within organisations does not necessarily make a significant difference if cultural norms and assumptions are not challenged within organisations (Liff 1999, Lee et al 2007).

Women's SET employment in Eastern European countries has received little attention in the research literature and yet offers an important perspective on this issue. There is evidence that occupational segregation was not as pronounced during the communist era and that women made some inroads into traditionally male sectors (Brainerd 2000). Yet despite this, the experiences of Eastern European women in SET attest to the resilience of underlying gender norms in the absence of measures to tackle workplace culture - although gender equality was espoused, underlying cultural norms were not examined or challenged especially in terms of women's access to power and authority and the gendered divisions of domestic and family responsibilities were left unchallenged and indeed reinforced (Herman, 2007).

Within SET companies there are usually both technical and managerial career routes and for those reaching mid or high level scientific and technical roles (male of female) there is often nowhere further to climb on the career ladder – there are opportunities to move from technical/ scientific roles to management but this entails giving up on technical identity which some women are reluctant to do, having struggled to assert their presence in a male dominated field. With such considerable investment in the technical identity there is perhaps less incentive to leave this behind, which is what is required for a move into senior management. (Faulkner 2007, Simard 2008). Moreover in some companies, the options to move out of technical careers and into a managerial role are limited to particular stages in career progression (usually in their mid thirties) and not possible at a later age. Decisions about promotion into management happen at precisely the time when many women are either taking breaks or have slowed down their career in order to raise a family. This is a general phenomenon but particularly marked in SET companies which have dual career trajectories (both technical and managerial).

2. Methodology

This paper is based on 28 qualitative interviews with women engineers and scientists as part of the EU WiST2 project[1]. The interviewees were identified by companies participating in the project who nominated them for interview. Most had taken career breaks for maternity apart from one who had an extended period of sick leave, another who took time out for personal study unrelated to her work and a third who took leave to care for elderly parents. The majority returned directly to the same or similar jobs in the same companies after their (relatively short) period of leave. The sample spanned 6 EU countries and included two women working outside of Europe. Interviews were conducted using a semi structured interview schedule – participants talked about their careers or working lives within the context of other aspects of their personal and domestic lives forming a narrative or chronological account.

3. Results

Women in this study differ from classic 'returners' who have been out of the workforce for many years. They had taken short breaks (average 7 months) so that the issues relating to loss of skills and confidence were not as acute. Moreover all of them had returned to the same employer after their break, therefore they were not facing the difficulties of finding new employment.

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[1] WiST 2 (Women in Science and Technology) project run by Science and Society

Among the interviewees, sharing some of the childcare with a partner was very common, but most women still took main responsibility for family work. Even if both partners worked part time, women tended to work less hours than their partners. There were one or two exceptions of couples who had reversed roles completely, with their husband or partner taking extended leave and primary responsibility for childcare, but these women still regarded themselves as unusual and were considered to be exceptional role models and pioneers by their colleagues. More frequently, after maternity leave, women increasingly allowed a partners career to accelerate at the expense of their own. Thus, despite their high level qualifications and potential for career success, these women SET professionals were constrained by traditional gender role expectations within their immediate families and social networks and these attitudes continued to form an important influence on decisions that would influence later career prospects.

They were on the whole keen to return to their jobs and exhibited strong career motivation – after all they had undertaken several years of higher education and specialist training in order to reach their current position. This was a clear driver for most of them in wanting to return to work. Only a few mentioned the financial necessity of continuing with their employment. Many also expressed the need to maintain their own professional identity in addition to their role as parent - they wanted to do something for themselves other than being a mother. For many their return to work was achieved despite expectations that they should take a longer break and spend more time at home especially if they had more then one child. For example

I feel a social pressure - people keep asking me "So you are going to stop working now with two children" and I say no I want to keep working. .. in France we have special systems with funding from the government to stay at home and take care of your children so I had some remarks from friends and from colleagues which say when are you coming back, will you take one or two years off to care for your children - but I am not planning such a thing. I prefer going back to work, it was not the case for the first child but I feel it more for the second P22

The impact of maternity breaks is hard to measure accurately especially the longer term impact, and is beyond the scope of this research. What is clear though is that women who have recently experienced taking a break and returning do feel that there is a 'price to pay' when they become a mother. Some try to minimise this penalty by working hard to be just as productive and available as they had previously been – others perceive they are faced with a choice and elect to slow down their career progression at this crucial time. Even after a short break, there were significant issues that emerged for many of the women, often associated not just with the break but also with subsequent part time working on their return.

The timing of maternity leave (often in mid to late 30s) was significant. For one or two who had children in their late 20s or early 30s, this earlier maternity allowed them time to 'catch up' towards the end of their 30s after several years of part time work. Later maternity (late 30s or early 40s) was also seen as being an advantage if women were already established and valued by the company, and their position secured. They seemed to have more bargaining power in their negotiations about working hours and conditions. It seemed they were familiar with the unwritten rules within the company and knew what they would need to do to secure their position.

The interviews revealed a number of assumptions within SET company cultures which together acted as potential barriers to women's progression. A common factor, particularly in the energy sector, was the need for overseas travel which was considered crucial for career progression. This took the form both of long term 'missions' as well as shorter term visits

To go abroad for the company is very important for [your] career ...what you can say when you work here is if you want to be a manager and so on it's very important to travel P11

This was closely linked to the notion of **availability** – and for those who were not constantly available, a perception that they were falling short of expectations which could have career implications.

> *... I think it's not the travel itself that's important, it's the fact that you're already setting some kind of restraints, it doesn't look too good if they want you to go somewhere and you keep saying "no I can't, no I can't" because of X Y Z, whatever.P16*

Yet stereotypical assumptions were made about women's availability once they became mothers, particularly in terms of travel, which were not always based on real constraints.

> *there tends to be a lot of assumptions made about what mothers can or can't do. There are all kind of trips being discussed: "lets' not ask [S] because she can't go." ...Maybe I'm not able to go but I'd at least have liked to have been asked.P16*

With this expectation of an 'ideal' worker being constantly available, women taking career breaks and/or working part time felt they were marginalised and as mothers were not regarded as 'normal' employees. For example one interviewee felt that colleagues treated her differently once she became a mother and regarded her as less productive even though she was in fact working on a full time contract

> *a" lot of women with babies are not working full time so I was considered as not working full time – I **WAS** working full time but I was a mother so I couldn't get the job I wanted. They considered that I wasn't working full time" P20*

These attitudes were not just in the minds of individual colleagues or managers, but in some cases embedded into organisational systems. In one example a women who had been on maternity leave spoke about being reprimanded by a manager for her reduced contribution to the project budget hours - the financial accounting system had not taken this into consideration so it reflected badly on the productivity of her group.

A common experience that women spoke of as a result of taking a career break was that a promotion had been missed or delayed

> *I could have got promotion at the time I got pregnant with my daughter - but when I told them I was pregnant, HR and my boss decided to wait until the time I came back and when I came back, it took me two years to get it - I was very annoyed. I got it eventually but two years after I should have P1*

There was also a fear that decisions would be taken while they were away and indeed this was frequently a reason that some women gave for returning sooner than they would otherwise have wanted to. Even if they had not experienced this personally as a consequence of taking a career break, there was clearly a perception that it was a risk they were taking.

> *I left the office for one year and one year for a woman at this period could lose you a lot of opportunity – P6.*

Returning to work on a part time basis following maternity leave was a common pattern but the prevalence of part time work opportunities differed significantly between countries – so for example it was virtually unheard of to work part time in Italy while this was considered the norm in the Netherlands where it was considered *"almost taboo to work full time if you're a mother"[P16]*

While part time work enabled a suitable combination of work and family life to be achieved, there was a perception by many of the respondents that this entailed a career penalty. This was linked to the notion of **visibility**. The quality and status of projects and assignments given to those on part time contracts was often less demanding and less significant. Certain types of work (project leadership for

example) were often assumed to require a full time position. Some women felt that the work offered to them as part timers was less visible and therefore compromised their promotion prospects because their work was literally not seen by those who counted

> *[when you are part time] you don't get the highly visible projects with a lot of exposure to the rest of the organisation which is generally seen as the best way to go to have a good career P17*

Part time working was often regarded negatively by management even if it was encouraged by company policy and there was a recognition that it would be career damaging. One manager advised a member of her team to save up her annual leave and use this to work reduced hours, so that officially she was still working full time. In other words, while the company's policy was to offer part time working, this was still considered problematic and not normalised within the organisation.

Nearly all of the respondents were very positive about the idea of **flexibility** in their working patterns, especially if that meant being able to work from home even occasionally, for example when their children were ill.

> *it's more like the results that count than the hours that you work. Nowadays with remote access it's also quite good that if I'm in a bit later I can also do another hour or so at home and also if they would get ill (I've been quite lucky they have been quite healthy over the past year) but potentially I could do some work from home.P4*

It was also a useful alternative to frequent travel.

> *In a year and a half I travelled only 3 times and my boss he understands this and he told me that if it's not strictly necessary we can manage with ....video conferences and teleconferences and online meetings P8*

4. Discussion and conclusions

Decisions made at time of maternity can be critical in determining future career progression. For example returning to work part time after maternity can be detrimental to career progression, or at least result in slowing down of progression. However there are signs this is changing among younger women and in departments where there are a critical mass of women working part time. There were also examples of older women who had succeeded despite periods of part time work – however they are still perceived within the company as pioneers and role models rather than 'normal' or 'ideal' employees

Even among those who continue to work full time after maternity leave, there is generally a reduction in the amount of 'availability' either for travel or for extra work on top of contracted hours. How this change is handled by managers and colleagues can impact on career progression opportunities. Similarly visibility of one's work can be crucial to career progression.

While most companies now have comprehensive equality and diversity policies, evidence from this study suggests that their implementation is variable and discretionary– in many cases line managers acted as interpreters of policies and were seen as gatekeepers to promotion and progression. In some cases managers were very supportive and devised creative solutions for women on their return from maternity leave. However in other cases colleagues and managers were less helpful.

National legal and welfare frameworks include substantial differences in entitlement to maternity and parental leave across the EU. Where leave is only available to mothers, this reinforces gendered roles in relation to parenting, both at a personal but also at a societal level – it is therefore more difficult for individuals to break with traditional patterns. In Nordic countries for example where there is substantial paternity leave, men are clearly encouraged to take an active role in childcare, while this is more

difficult elsewhere. These regulatory frameworks are both a reflection of, and instrumental shapers of national cultural difference. Combined with traditionally male work environments with the SET industries, they reinforce a particular view of mothers and their availability for work and career. The term Work Life Balance has entered everyday discourse as a short hand for policies that enable flexible working to be combined with family care, but also more widely as way to articulate the conflicts and dilemmas raised by changing work patterns and life choices.. For parents of either gender, the achievement of a balance between the demands of their working life and those of their other commitments becomes of paramount concern. Considerations are not just practical but also emotional and raise fundamental issues about gender roles as well as personal priorities and ambitions. These need to be addressed in a wider context as well as within company specific policies if we are to see real and sustainable change in the career progression of women in SET.

Biographical notes
Clem Herman is a Senior Lecturer in the Department of Communication and Systems at the Open University. She runs a pioneering online course for women returning to Science, Engineering and Technology and her recent research has been focused on the impact of career breaks for women in SET.

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