ACHIEVING GENDER EQUALITY IN THE CONSTRUCTION PROFESSIONS: LESSONS FROM THE CAREER DECISIONS OF WOMEN CONSTRUCTION STUDENTS IN THE UK

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In the UK women remain under-represented in the construction workforce, despite calls for gender equality. Research into the persistence of gender inequality in construction has investigated barriers and solutions to women's recruitment, retention and progression in the industry. It is thought that recruitment into the industry can be supported by developing an understanding of the influences on those women that have entered construction. Using qualitative interview data, this paper explores the career decisions of women studying construction-related courses in the UK. Existing research has identified some of the factors that influence women's career choices, including key people, such as parents and teachers, existing knowledge of construction professions, skills and ability, and perceived career rewards. These factors underline the need to raise awareness of the industry from an early age and to tackle gendered socialization processes. This research, however, goes further by analysing women's identity through their career decisions, considering the implications of this for improving gender equality in construction. Specifically it finds that identity is often contested ground for women construction students who, at times, uphold gendered stereotypes about women's suitability for so-called 'masculine' work such as construction, yet also subscribe to an ideal that the sector is accessible to all who want to work in it. Unlike most career choice research, this highlights the problematic nature of entrenched gender stereotypes and the need to consider the views of women in the sector when striving for cultural change aimed at achieving gender equality.

Keywords: career, equality, gender, organizational culture, sociology.

INTRODUCTION

In the UK women remain numerically and hierarchically under-represented in the construction workforce, despite calls for gender equality from both ethical and business perspectives. Women represent approximately 10% of UK construction workforce (European Commission, 2008), 18% of civil engineering students and 31% of architecture, building and planning students (HESA, 2009). This is clearly below average with women representing 47% of all those in employment and 57% of all university students. This is despite evidence that construction needs to diversify in order to sustain its development and growth (Gurjao, 2006). Furthermore, while the

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industry has sought to address the under-representation of women, through various initiatives, progress to date has been relatively slow and inconsistent.

Research into the persistence of gender inequality in construction has investigated barriers and solutions to women's recruitment, retention and progression in the industry. Much of this has focused on the cultural and structural barriers women face in construction education and occupations (see for example, Dainty and Bagilhole, 2006; Fielden *et al.*, 2001; Greed, 2000; Lingard and Francis, 2006; Watts, 2007; Whittock, 2002). However, it is also thought that recruitment into the industry can be supported by developing an understanding of the influences on those already employed in the sector (Powell *et al.*, 2004). For example, investigating reasons women have chosen to study or work in construction, in order to learn how other women may be encouraged into the industry or to address factors that may discourage women, such as poor careers advice or lack of knowledge about the industry. As such, this paper uses qualitative interview data to explore the career choices and decisions of women studying construction-related courses at a university in the UK. It also goes beyond this by investigating the relationship between career decisions and women's identities as women in construction and considers the implications of these findings for improving gender equity in the sector.

CAREER CHOICES

Career choice theory has identified numerous reasons and influences that affect young people's career decisions, and in particular why they may choose an engineering-related career. These include: socializers, such as teachers and parents (Dick and Rallis, 1991; Jawitz and Case, 1998; Johnson and Stewart, 1997; Powell *et al.*, 2004); career rewards, such as job prospects and salaries (Jawitz and Case, 1998; Metz, 2007; Orndorff and Herr, 1996; Powell *et al.*, 2004; Shell *et al.*, 1983; Woolnough, 1994); contact with engineering, including exposure to engineers (Jawitz and Case, 1998); educational experiences, including enjoyment or ability in particular subjects (Evetts, 1996; Jawitz and Case, 1998; Powell *et al.*, 2004; Shell *et al.*, 1983; Woolnough, 1994); social identity, including a desire to make a contribution to society, working as a team, wanting to be different (Jawitz and Case, 1998); and, engineering activities, including an attraction to practical activities, enjoyment of problem-solving and a desire for varied work (Jawitz and Case, 1998; Shell *et al.*, 1983; Woolnough, 1994).

Evidence also indicates, however, that career decisions are strongly influenced by gender (Whittock, 2002). This may be a major component in the under-representation of both women and men in particular occupations, but even among those in the same career or occupation, there are likely to be gender differences in reasons for choosing such a path. A number of studies, for example, have identified different reasons for women and men choosing engineering. Dick and Rallis (1991), for example, found that pay is a more important factor in career choice for men than women. Woolnough (1994) and Lewis *et al.* (1999) showed that women are more influenced by involvement with human issues and appear to have a strong social ethic (Gill *et al.*, 2008). Woolnough (1994) also found that men cited scientific hobbies and 'fiddling with gadgets' more often than women. Shell *et al.* (1983) concluded that men are more influenced by their experience of engineering-related activities, while women seem more attracted by the characteristics associated with the career itself. They also found women to be influenced by a wider variety of factors than men. Rosati and Becker (1996) discovered that men are encouraged more by their fathers than women, although others have argued that women often have a family connection with

engineering (Gill *et al.*, 2008). Evetts (1996) and Gill *et al.* (2008) showed that women are more likely than men to credit a teacher with encouraging them to study engineering. Gill *et al.* (2008) also found that ability in mathematics and sciences was cited more by women than by men. Finally, Kent and Stublen (1995) found that women more than men cite 'wanting to be different' as a reason for choosing to study science or engineering.

These factors underline the need to raise awareness of the industry from an early age and the need to tackle gendered socialization processes. Previous career choice research has not, however, considered the consequences of specific career decisions, such as 'wanting to be different' for gender equity. This paper therefore explores how women construction students' gendered and professional identities may be related to their career decisions and the potential implications of this. Some of the key issues around identity are first investigated below.

IDENTITIES

Identities are thought to be fluid and constantly negotiated, both by ourselves and others (Ford, 2006; Lawler, 2008). It is therefore argued that individuals can occupy multiple subject positions and identities (Collinson, 2003) and that, at times, these identities may be in tension with one another. Individuals may also emphasize different aspects of their identity at different times and places. Thus Bruni and Gherardi (2002) indicate that individual identity is not fixed, but rather it is constructed through enactment and performativity (Butler, 1990). Furthermore, McLean *et al.* (1997) suggest that identity is not usually a conscious process, which means that the ideas individuals hold about themselves can be contradictory and inconsistent. Sinclair (2005) argues that women may learn an array of influence tactics depending on the context, who they are working with, how much power they have and whether influencing upwards or downwards. Women may also experience contradictions in gender identity as a result of perceptions that gender equality has been achieved. This discourages women from participating in feminist discourse and a collective female identity, instead pursuing individual freedoms (Budgeon, 2001; Volman and Ten Dam, 1998). Martin (2003) suggests that we need to consider whether people practice femininities and masculinities because they choose to or because situations require particular practices. The association between identity and gender performance is critical in exploring women's experiences and behaviour in male-dominated occupational cultures such as construction (Womeng Consortium, 2006). These concepts will be drawn upon again in the analysis of women construction students' career decisions.

RESEARCH METHODS

Building on previous research in the fields of career choice theory and identity theory, this research aims to explore the implications of women's career decisions for gender equality in construction by developing an understanding of women construction students' identities. The findings presented here are based on part of a larger study exploring women engineering students' experiences of engineering education and the workplace (during industrial placements). The data analysed for the purpose of this article is based on interviews with 14 second year undergraduate women studying construction-related degree courses (such as architectural engineering, civil engineering, construction management, surveying and transport management) at two British universities. The qualitative interviews were semi-structured and designed to explore a number of issues including, career decisions, experiences of their learning

environment, reasons for choosing to go or not to go on industrial placement and future career intentions. With the agreement of participants, the interviews were recorded, then transcribed verbatim and anonymized prior to being analysed with the aid of NVivo. NVivo was used to employ an approach informed by grounded theory, searching for meaning in the data and generating theory from rich, detailed descriptions in the interview transcripts.

FINDINGS

The interviews revealed much about the reasons women construction students had chosen to study construction-related courses (reported in Powell, 2009; Powell *et al.*, 2004), supporting existing evidence around the career decisions of women in science and engineering. Factors impacting on career decisions included.

- Influence of socializers (such as parents and teachers).
- Knowledge of the industry (gained through careers advice, insight courses and friends and family in the industry).
- Subject ability (particularly in maths and science) and practical skills.
- Perceived career rewards (such as salary, future prospects, employability); and,
- Social identity (for example, wanting to make a contribution to society).

The findings discussed below, however, focus explicitly on the career choice factors that previous research suggests may be most gendered and those that reveal an insight into these students' identities. It will become clear that students' explanations of career decisions often overlap and are often contradictory. It is thought that this is a result of the women negotiating complex discourses concerning their relationship with gender and their field of study (French, 2005). As Rich (2005) suggests, conflicting views may occur because women adopt an individualist position that makes it difficult to challenge the structural constraints they face. It is also likely that in many instances this was the first time the interviewees had consciously thought about some of these issues. Martin (2006), for example, states that people routinely practice gender without reflecting on it. While it may seem strange that women working in a male-dominated environment may not have thought about this, this has often become the 'norm' for such women. This is demonstrated in the following quote.

> *Everything I've done, I've been used to being the only girl there. I'm quite used to it, it doesn't bother me" (quote from Carolyn).*

Skills, abilities and attributes

> *I first started to think about engineering towards the end of GCSEs, because I realized I was a lot better at sciences and maths (quote from Jill).*

As with previous career choice research, the women interviewed often cited their ability in certain subjects, their interest or aptitude for practical skills and personal attributes they perceived made them suited to being engineers. However, some of the women simultaneously held stereotypical views on the type of people best suited to a career in construction, with suggestions that men are better suited to construction because of the way their brains work.

> *Although there are some women out there who want to go and play in the mud and enjoy surveying all day long, most women don't and that's*

> *because of fundamental differences between women and men (quote from Andrea).*

This reveals some interesting tensions with women's accounts of their own experiences, ability, interests and motivations as individuals who enjoyed practical skills and playing with 'boys toys'. Despite women's obvious ability in these fields (SHEFC, 1997, suggests women are often better qualified than their male counterparts), often by their own acknowledgement, women continued to perceive differences between women and men as innate ("girls can't think like guys"). In upholding these stereotypes women seem to be disassociating themselves from other women and aligning themselves with their male peers: they are the exception to the rule. However, the reinforcement of the stereotypes also seems to pre-empt any criticism they may encounter in the sector and also justify any suspicions they may have of other women in the sector. These stereotypes are also in contrast to women's perceptions that any woman could pursue a construction career, if only they were interested in the subject. This may relate to existing evidence that suggests young people perceive gender inequality to be eradicated and that women and men now experience equal opportunities (Rich, 2005; Volman and Ten Dam, 1998).

Employability

> *I thought that it might play in my favour, because applying as a girl, they're trying to get girls in engineering, therefore if, on paper, me and another candidate were exactly equal, the fact that I was a girl would perhaps go in my favour and help me get on (quote from Eve).*

While women perceived that an engineering-related degree would be valuable regardless of the career they chose to pursue (this was particularly relevant for students' whose courses included a management component), some of the women interviewed also felt that their gender may increase their employability. This is because they thought that organizations may be seeking to employ women engineers to increase or improve the diversity of their workforce. This is similar to research by McIlwee and Robinson (1992) and McLean *et al.* (1997) who found that men perceived that women would find it easier to get employment because they were women. This clearly undermines women's status as 'good engineers' who are worthy of their jobs. This also seems directly linked to women's perceptions of gaining a place on their course, "to balance out the numbers" and had some negative consequences in terms of making women doubt their own abilities. It may also have more long-term consequences for women who perceive the engineering workplace as increasingly equitable, since 'getting in' to the industry, is not the same as 'getting on'. This is similar to patterns in the 'feminized' sciences, such as medicine, biology and pharmacy, which remain highly gender segregated by specialisms and where the increased presence of women has not necessarily effected gender segregation (Fielding and Glover, 1999).

Social identity

> *I really wanted to do something different. I'm the only one doing this course and everyone is like, 'why?' That's something new isn't it? So really, I like to be different (quote from Melanie).*

In addition to a desire to make a contribution to society through engineering, a key issue for women students appeared to be a desire to be different and relishing the challenge of working in a male-dominated industry. This seems to highlight a

rebellious (and perhaps feminist) streak in some of the women interviewed, as it was a particularly relevant factor for women who, at some point, had been told that construction was a career for men. While in contrast to women's adherence to gendered stereotypes, this is supported by existing research that suggests some women enjoy challenging traditional male orthodoxies (Rich, 2005). As noted previously women also seemed to distinguish themselves as having more in common with men than with other women. For example, stating that women in civil engineering need to be more "strong-minded, energetic, ambitious, aggressive" (quote from Jill) than other women and as the following quote shows.

> *It's sort of a challenge being in a male dominated industry. I get a bit of a kick ... I'm quite a laddish girl. I think if you're a bit kind of wet, I don't think a girl would go far (quote from Debra).*

GENDERED STEREOTYPES

> *Women aren't attracted to doing some kinds of jobs, like going on site. They'd prefer being in an office (quote from Anna).*
>
> *I think because of its nature, it's very practical and hands on, I think it will stay male-oriented (quote from Hannah).*

While women generally indicated that they thought a career in construction was equally available to both women and men, the evidence above seems to contradict this. Implicit in women's discourse, was the idea that only 'certain types' of women choose construction careers. As indicated above, this was reinforced elsewhere, when the women revealed very stereotypical views of women, and a belief in fundamental differences between women and men. In making these comments, the women seem to be at once highlighting the so-called 'fundamental' or 'natural' differences between men and women, but also dis-identifying themselves from their own gender, in making themselves an exception to the general rule of difference. Possibly as a result of these stereotypical and critical attitudes, the women also seemed reluctant to see more women participating in construction, stating "we're a novelty right now, you see" (quote from Samantha).

These findings seem to indicate that women construction students subscribe to stereotypical perceptions about women and men and 'innate' differences, which imply they believe men are more suited to a career in construction than women. Women construction students were found to value their status as a novelty and, in this sense, seemed to align themselves with (male) construction engineers rather than as women. Sinclair (2005) calls this 'queen bee' syndrome, and suggests it may simply be a result of being more comfortable with men than women and experiencing a certain frisson or excitement from being the minority gender. In the case of these women, they had often become accustomed to a male-dominated environment through their hobbies and educational choices. However, Rich (2005) and Budgeon (2001) indicate that women's perceptions of equality can result in disdain for women who appear weak or to have 'failed' to exercise their individual choice where they succeeded. Whatever the origins of male-identification, Sinclair states that 'these women enjoy the company of men, share interests and aspirations that are typically characterized as masculine, and perhaps seek their approval' (2005: 139). This is also similar to what Maddock and Parkin (1994) describe as 'the women as gatekeepers' culture, whereby women resist the idea of other women entering their workplace, occupation or profession. These attitudes have also been described in existing research as women's assimilation

or professionalization into the masculine cultures they experience daily (see for example, Dryburgh, 1999; Faulkner, 2006). While there is much debate around whether this is a deliberate strategy women adopt to cope in masculine environments or simply a result of 'becoming' a construction professional, it does not challenge the status quo. Any career success among such women is unlikely to promote the interests of women in the sector generally (Greed, 2000). It also raises questions about the concept of a 'critical mass': the idea that once there is a sufficient proportion of women in engineering, traditionally masculine cultures will no longer prevail. Williams and Emerson (2001), for example, suggest that if women account for at least 30% of the workforce the existing cultures may be challenged (see Powell *et al.* 2006 for further discussion of critical mass).

IMPLICATIONS AND CONCLUSION

This research shows that identity is often contested ground for women construction students who, at times, uphold gendered stereotypes about women's suitability for so-called 'masculine' work such as construction, y*et al.*so subscribe to an ideal that the sector is accessible to all who want to work in it. This highlights an array of contradictions in women construction students' discourse, suggesting that these women face a multitude of challenges, not only as a result of participating in a male-dominated environment, but also participating in a society where, on the one hand, equality seems to have been achieved, and on the other, entrenched stereotypes and gendered behaviour continue to persist. This indicates that women construction students are able to demonstrate some resistance to cultural norms on an individual level (for example, taking pleasure in the challenge of working in a male dominated industry), but that this capacity is also limited by structural inequalities in society and the industry that suggest construction is not a suitable career for women.

This highlights the problematic nature of entrenched gender stereotypes and the need to consider the views of women in the sector when striving for cultural change aimed at achieving gender equality. It suggests that while the industry may find new ways and approaches for promoting women's recruitment to the sector, which may or may not be successful, it does not necessarily mean that women's retention and progression will improve unless ensconced perceptions of the gendered nature of construction are also fundamentally challenged. This is particularly important given that these women are likely to act as gatekeepers to the industry for other women. However, it is also important that women are not situated as part of the problem by either researchers or industry. As women are widely perceived as outsiders in the construction industry, challenging the status quo further is likely to be a risk that most women are unwilling to take.

In conclusion, targeted initiatives, such as establishing networks or support programmes for women and promoting the value of a diverse workforce to employers, while important, are unlikely to have a dramatic impact on gender equity. It is therefore critical that the construction industry finds innovative ways to challenge cultural norms and gendered stereotypes among all its employees, including women as well as men.

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