The impact of women's relative earnings and gender equity on the recuperation of fertility among older couples in Britain

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1. Motivation

1.1 The recuperation of fertility in Britain

Recent childbearing patterns in Britain can be characterised as postponement followed by significant recuperation. In Figure 1 achieved family size by age is plotted for recent cohorts compared to those born in 1960. We see successive declines in achieved family size up until around age 30. After this age, achieved family size increases relative to the baseline suggesting that some recuperation is made. In fact, completed family size in England and Wales has remained only a little below replacement level. This postponement and recuperation of fertility is closely related to the social polarisation of the timing of childbearing, with a significant minority of women (often from poorer socio-economic backgrounds) entering motherhood in their teens and early twenties. At the same time the average age at motherhood has increased significantly due to a large fraction of women (usually those most educated) delaying motherhood until their late thirties and early forties (Chandola, Coleman and Hiorns, 2002; Sigle-Rushton, 2008; Rendall et al., 2010; Berrington and Pattaro, 2011).



Figure 1: Achieved family size by age (relative to 1960 cohort), selected birth cohorts. Eng & Wales Females.

Source: Office for National Statistics, 2010

However, only about one half of women who remain childless at age 30 who intend to have a child go on to become a parent (Berrington, 2004) and among recent birth cohorts the proportion who will ultimately remain childless is around 20% (ONS, 2010). There is a question, therefore, as to what differentiates those who do and do not successfully recuperate their fertility at later ages.

Whilst much UK research has focused on the determinants of early childbearing (see for example Berrington et al., 2005; Kneale and Joshi, 2008) little work has been carried out on the factors associated with the recuperation of fertility at older ages, although the presence of a partner and higher educational attainment are known to be important (Berrington, 2004; Berrington and Pattaro, 2011). In this paper we focus on couples as the most appropriate unit of analysis (Folbre, 1983) and examine the extent to which the man's and woman's relative resources and gender equity are associated with the transition to parenthood after age 30. Such analyses require detailed data on couples, for a large,

representative sample, ideally collected prospectively over the life course. The 1970 British birth cohort study provide such an opportunity, especially given the new availability of information from the 1970 cohort from the age 38 interview.

2. Relative resources, gender equity and fertility

In the search for explanations for cross-national differences in levels of childbearing. authors have increasingly looked to gender equity in paid and unpaid work as a possible explanation. McDonald (2000) argues that very low levels of fertility, for example seen in Southern Europe, result from high levels of gender equity in institutions such as higher education and employment combined with low levels of gender equity in the family. This concept is similar to the so called "stalled revolution" as discussed by Hochschild (1989). Recently, a number of studies have attempted to examine the association between gender equity and fertility at the individual level. It is generally assumed that couples where men do more of the domestic work will be more likely to become parents since men will be more orientated towards family sphere and women in such couples will be more willing to take on childrearing responsibilities. However, the empirical evidence is inconsistent (Torr and Short, 2004; Mills et al., 2008; Purr et al, 2008; Cooke, 2009; Westoff and Higgins, 2009; Craig and Siminski, 2011; Miettinen et al., 2011). We suggest that such inconsistencies are to be expected for a number of reasons. First, different findings will exist according to the institutional context – as found for example by Mills and colleagues (2008) comparing the Netherlands and Italy. Second, differences will be found according to whether the outcome of interest is fertility intentions (e.g. Mills et al; Miettinen et al., 2011) or achieved fertility (e.g. Torr and Short, 2004; Craig and Siminski, 2011). Third, we would also expect the impact of gender equity on childbearing to differ according to whether the outcome of interest is transition to first (e.g. Rosina and Testa, 2009) or higher order births (e.g. Torr and Short, 2004). Fourth, different authors have used different concepts to define gender equity - some focusing on gender role attitudes, others focusing on share of domestic work and yet others focusing on how satisfied individuals are with their share of domestic work. Recent discussion has also highlighted the importance of differences in question wording (e.g. in analyses of the impact of men's gender attitudes on fertility (Puur et al 2009; Westoff and Higgins, 2009). Finally, it may be the case that the gender equity may only be important in influencing childbearing among some sub-groups of the population. For example, it is likely that the share of domestic work might be particularly crucial in the decision making of women who work full-time.

In this paper we argue that a more precise definition of what is meant by gender equity within a household is required. Furthermore, we consider the impact of gender equity within a broader conceptual framework (Figure 1) which also considers a number of couple characteristics including the man and woman's relative levels of education and relative earnings (Corijn et al, 1996). Previous research has shown that knowledge of both partners is also useful in explaining fertility behaviour (Berrington, 2004; Jansen and Liefbroer, 2006; Rosina and Testa, 2009).

We use the respondent's attitudes towards gender roles to test the relationships between egalitarian attitudes and childbearing, We might expect to find different effects for male and female cohort members, and according to whether the respondent is working full or part time, or is economically inactive. The respondent's reports of their share of housework is used to test whether respondents living in couples where men do more of the domestic work will be more likely to become parents. The paper discusses our theoretical expectations regarding the impact of relative earnings and relative education on the transition to parenthood for men and women. For example, we anticipate that couples where they are both in the higher earning quartile will be likely to become parents since the income effects are likely to offset the economic opportunity costs of childbearing. Whereas we suggest that couples in which the woman is the main earner will be less likely to proceed to have a child. We anticipate that fertility intentions as expressed at age 30 will have strong independent effect on the transition to first birth. Finally, we expect that socio-economic differentials in recuperation will be reduced once intentions are included in the model due to the association between higher education and higher earnings and more positive intentions.

Figure 1. Conceptual Framework



2. Data and Methods

The analysis is based on the 1970 British Birth Cohort – a study of all those born in one week of April, 1970 who have been followed up at ages 5, 10, 16, 30, 34, 38 (see http://www.cls.ioe.ac.uk/studies.asp?section=000100020002). We take as our sample all those who were in a couple but childless (and not pregnant) in the month of the age 30 interview (2,561 respondents). We start our period of observation at the age 30 interview since it as at this interview that a wealth of information concerning the cohort member and their partner was collected. Our dependent variable is the probability of a first conception (leading to a live birth) subsequent to this interview and is censored either at exact age 38 or earlier if the respondent is one of the minority who are lost to the study between 30 and 38. Our model is a discrete-time hazards logistic model. Time varying variables include partnership status (married <2yrs; married 2-3 yrs; narried 4+yrs; cohabiting <2 yrs; cohabiting 2-3 yrs; cohabiting 4+ yrs; not in a partnership; repartnered). Fixed variables from the age 30 interview include both partners' levels of education, both

partners' net wages (measured in gender-specific quartiles), woman's share of domestic work, respondent's gender role attitudes and respondent's fertility intentions. Models are run separately for male and female cohort members.

3. Results

We find that, among the 1970 cohort, childbearing at later ages is more likely to be intended, and more likely to occur, to those with highest levels of education. Recuperation is most likely among married couples, especially in the first few years following marriage. Childlessness is more common among cohabiting couples and those who experience a partnership dissolution. Among men in a couple, those who are unemployed or in part time work are no less likely to have a child. This is interesting given that unemployment was found to be an important predictor of childlessness among all men (Berrington and Pattaro, 2011). This suggests that the link between unemployment and childlessness among men acts via an inability of unemployed men to attract a co-resident partner. Childless women in couples who are not employed are less likely to have a child – in part this is likely to reflect an underlying selection effect such as poor health.

Fertility intentions remain important independent predictors of entry into parenthood when other factors are controlled for and the inclusion of intentions into the model reduces the impact of socio-economic variables. This reflects the fact that, among the select group who remain childless at 30, childbearing is more intended among the socio-economically advantaged.

We find evidence of significant couple effects: Recuperation of fertility is strongest among couples where female partner or both partners have degree level qualifications. Recuperation is also high among couples where both have highest earning quartile. There is some evidence that couples in which the female partner is a high earner and the male partner is a low earner fertility may be postponed or foregone, but the sample size of this group is quite small.

We only find modest support for the importance of gender equity on transition to first birth in Britain: On average, respondents with higher levels of education and those in cohabiting unions had more egalitarian gender role attitudes. There was also a more equal share of domestic work in cohabiting unions as compared with marital unions. Whilst more egalitarian attitudes were associated with a lower propensity to have a child (at least for women), the division of domestic work was not found to be related to entry into parenthood.

4. Next steps

We are currently developing our analyses, for example to consider additional covariates such as the respondent's work history both prior to and subsequent to the age 30 interview. We will include further covariates to describe the past childbearing of the respondent's partner and hence identify any "second family effects". We will also consider models which censor the couple if they split up and models which take into account the selection into childlessness at age 30.

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