Gender egalitarianism and life-long singlehood: A multilevel analysis

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Abstract

Our focus is on women who by age 40 have never experienced a longer-term (more than six months' duration) heterosexual co-residential partnership.[1] Our main concern is with the influence of the diffusion of gender egalitarian attitudes on singlehood across educational strata. Its incidence is about three percent of households across the European Union, ranging from a low of 1.5 percent in Denmark and Sweden to a high of 7 percent in Ireland and Portugal.

What explains such cross-national variations? Our main thesis is that they are closely correlated with prevailing levels of gender egalitarianism. We expect low levels where traditional couple life prevails. In turn, as gender symmetric norms eventually diffuse throughout the population, we should observe a return to low levels of non-partnering. In this study, we apply multilevel modeling to 25 European countries and focus in particular on differences in non-partnering across levels of education.

Introduction

Singlehood is increasingly dominating the overall household structure, driven by population ageing (widowers), youth leaving the parental home, and elevated divorce risks. In this study we hone in on a numerically small segment of this category, namely never-partnered women. Its incidence is about three percent of households across the European Union, ranging from a low of 1.5 percent in Denmark and Sweden to a high of 7 percent in Ireland and Portugal.

What explains such cross-national variations? Our main thesis is that they are closely correlated with prevailing levels of gender egalitarianism. We expect low levels where traditional couple life prevails. In turn, as gender symmetric norms eventually diffuse throughout the population, we should observe a return to low levels of non-partnering. In this study, we apply multilevel modeling to 25 European countries and focus in particular on differences in non-partnering across levels of education.

[1] Wiik and Dommermuth (2014) adopted the same age criterion.

Most studies of lifelong singlehood have focused on psychological and health effects (see for example Kohler et. al (2005). Sociological analyses are few and far between, which is undoubtedly related to its rare occurrence. And some, like Kiernan's (2000; 2002), are predominantly descriptive. Exceptions are the studies of Dykstra and Poortman (2010) and Wiik and Dommermuth (2014), both of which – as also we shall -- focus on socioeconomic differentials of never-partnering (in, respectively, the Netherlands and Norway).

The analyses to follow build on recent theoretical work which emphasizes the influence of prevailing gender values on marital behavior (Esping-Andersen and Billari 2015; Goldscheider et.al, 2015). The gist of the argument is that the revolution of women's roles will provoke a phase of marriage-cum-partnership decline as long as society fails to adapt. But as normative acceptance of gender egalitarianism takes hold we should expect a return to higher rates of partnering.

We pay special attention to differences across education levels. The higher educated were initially the vanguard of women's role change and also of the Second Demographic Transition manifestations such as higher divorce propensities, lower fertility and singlehood (Lesthaeghe, 2010). We would, similarly, expect they will also, at a later stage, spearhead the diffusion of gender egalitarian relationships.

Where gender roles remain traditional, higher educated (career) women should be less inclined to marry. This, it is argued, is a by-product of their greater employment/earnings opportunities and, consequently, a lesser need to rely on a male partner's earnings (Oppenheimer 1997).[2] However,we expect that higher educated women will be more inclined to marry in gender egalitarian societies, in part because men will here compete for women's economic resources on the marriage market (Schwartz 2010); and in part because an egalitarian division of gender roles allows women to combine family and careers. In other words, the effect of women's education on marriage should be less negative when gender roles are more egalitarian (Kalmijn 2013).

The 'multiple equilibrium' framework espoused by Esping-Andersen (2009) and Esping-Andersen and Billari (2015) hypothesizes a U-shaped relationship between gender roles and marriage (as well as fertility and union stability). It predicts that different stages of the transition from a traditional to a 'gender-symmetric' family model should be associated with different demographic responses. Where the traditional male-breadwinner norm remains dominant, we should expect high rates of partnering (and fertility). And as mentioned above, we should expect a significant decline in the phase of transition – a phase marked by the lack of adaptation to women's new roles and normative uncertainty. But as gender egalitarian norms eventually become dominant, both as regards attitudes and behavior, we should see, once again, a rise in partnering.

In other words, the 'multiple equilibrium' framework predicts a reversed U-shaped relationship over time. Singlehood will be especially high in the periods of transition from one

[2] Note, however, that Oppenheimer's primary expectation is postponed partnering rather than sustained singlehood.

dominant partnership model to another. When gender egalitarianism becomes the norm, we should expect that the share of never-partnered women will decline. In our study we test both linear and curvilinear relationships between gender equity and singlehood.

This study contributes to the now ample research linking demographic behavior to the diffusion of gender egalitarianism and, more narrowly, to the scarce literature on never partnering, which we here approach from a cross-national perspective.

Gender roles, education and partnering

There is a large literature that examines the changing links between marriage and education. The evidence suggests that higher education and economic autonomy is associated with deferred marriages (e.g., Dykstra and Poortman 2009, Goldin 2014; Goldstein and Kenney, 2001; Kalmijn, 2013). This, it is argued, is a by-product of longer educational trajectories and also their reduced reliance on a male partner's earnings. However, recent research has documented a reversal of this pattern. In some societies, highly educated women now appear to have greater chances of marriage compare to their low educated counterparts (Domimguez-Folgueras and Castro-Martin, 2008, Goldscheider et al. 2001, Heard, 2011, Thornton et al 1995, Torr 2011).

The emerging positive link between female education and partnering is, no doubt, a consequence of altered marital motivations. The conventional rationale of maximizing role specialization is giving way to a greater emphasis on consumption maximization and possibly also greater partner similarities in tastes and interests. The logic of marriage markets is, in other words, changing: where women would once compete for resource-strong men, men are now increasingly competing for women's economic resources (Oppenheimer 1988, Oppenheimer and Lew 1995, Sweeney, 2002, Schwartz 2010).

If men increasingly prioritize women with a strong career potential, this seems to imply an acceptance of that partnerships imply gender symmetries in terms of both paid and unpaid work. Recent research, most notably Kalmijn (2013), has indeed linked partnering behavior to gender egalitarianism. Partnering probabilities will rise linearly in tandem with the progress of gender egalitarianism. The "multiple equilibrium framework" posits, in contrast, a curvi-linear effect: partnering is likely to decline in the early phase of women's role change and will recover only when the diffusion of gender egalitarianism reaches a relatively advanced stage.

Contemporary research has highlighted a parallel trend which is likely to influence the link between education and partnering, namely the expansion of education among women. Recent studies suggest that that the resulting greater diversity of social background among the higher educated translates into different marriage (and also fertility) outcomes: a mismatch of social origin and educational attainment is found to deter marriage and childbearing. Musick et al. (2012) find a negative marriage effect of college attendance for those who originate in the lower social strata. This is, they argue, because they are unwilling to marry someone with similar social origins but less education.

Here we seem to encounter a problem of endogeneity. Women from more humble social origins in pursuit of higher education may, in the first place, have weaker family preferences – as Brand and Davis (2011) find with regard to fertility.

Due to the absence of systematic evidence, it is not clear whether either gender role change or educational expansion influences the chances of never-partnering. As Dykstra and Poortman (2009) note, postponement and never-partnering are likely to be driven by different mechanisms. Still, postponement may, at the end of the day, lead to permanent singlehood.

Their study of the Netherlands indicates that the association between economic resources and permanent singlehood has hardly changed over time: high-resource women and low-resource men are always more likely to remain single (Dykstra and Poortman 2009). Wiik and Dommermuth (2014) report similar results for Norway. Their study tests, but finds no support for, the hypothesis that female singlehood will decrease in tandem with women's enhanced economic independence. It also rejects the hypothesis of an "education-specific marriage squeeze", according to which the prevalence of women in tertiary education may translate into increased singlehood among highly educated women.

While these two country-specific studies fail to uncover any changes in the correlates of lifelong singlehood, there is clear evidence that the incidence of sustained singlehood varies substantially across European countries (Kiernan 2004). There is also evidence that the proportion of women (aged only 25) who had never experienced a co-residential partnership has increased across cohorts. This is particularly clear in Spain, Italy, and West Germany; a smaller increase is found also in East Germany, Great Britain and France. The same study finds no change in the proportion of never-partnered in Norway and Switzerland. In some countries, such as Sweden, Finland, Poland the proportion never-partnered actually declined (UN 2002, p. 61-52). These trends are most likely to capture postponement behavior rather than persistent singlehood. And yet, as we shall see, we find similar levels of variation in never-partnering (by the age of 40) across nations.

Research questions and hypotheses

Our focus is on women who by age 40 have never experienced a longer-term (more than six months' duration) heterosexual co-residential partnership.[3] As noted above, our main concern is with the influence of the diffusion of gender egalitarian attitudes on singlehood across educational strata.

The failure to partner can, as discussed earlier, be related to rival factors. At the individual level there are a host of idiosyncratic reasons why any given woman prefers (or at least ends up in) singlehood. As Buss et.al (2001) show, preferences regarding mating have changed radically over the past half century, among both men and women. Financial prospects,

[3] Wiik and Dommermuth (2014) adopted the same age criterion.

attractiveness, and life-style choices have become much more decisive (see also Pampel, 1983). Additionally, women's earnings power, and hence economic independence, allows any individual much more freedom to choose. At the societal level, the growing gender gap in educational attainment, and in particular at the tertiary level, is likely to create asymmetries in marriage markets – i.e. a shortage of marriageable males. In any typical OECD country, women now outpace men in university level education by a substantial margin (Esteve et.al, 2012). On average the female: male ratio hovers between 1.2-1.3 (OECD, 2014: Table C3.1).[4] The latter suggests that there are roughly 20-30 percent more women than men with tertiary level education. [5]

Our main hypotheses can be summarized as follows:

* in line with earlier research (Arpino et al. 2015), we expect to find that gender egalitarianism does affect singlehood;

* the degree of normative diffusion across educational groups will influence the relative probability of singlehood across educational levels;

* the diffusion of gender egalitarianism will first affect the higher educated, i.e. we expect to find a stronger (and earlier) effect of egalitarianism here. And we predict that educational disparities in singlehood will be particularly large in the 'transition phase', i.e. when gender egalitarianism takes hold among the highly educated, but has not yet gained broad acceptance within the less educated population;

* the effect of gender egalitarianism can be stronger or weaker depending on individuals' social origin; we expect that highly educated women from high SES origins will be more susceptible to gender egalitarianism than women coming from the families with low educated (and typically more gender traditional) origins.

Data, variables and methodology

Our analyses are based on European Social Survey data for 2002-2012. The ESS is a biannual survey that measures the values and behavior of European citizens and how they change over time. The questionnaire for each round contains a core module plus rotating modules. The core module monitors change and continuity on socio-economic, political and demographic variables.

We select 25 countries, and restrict our analyses to the sub-sample of women aged 40-55 (birth cohorts of 1947-1972). We compare women that are or that have been in a partnership (marriage and/or cohabitation) with those that have never partnered (defined as life-long single). The 40-55 age specification is chosen because failure to have partnered by age 40 very likely will imply life-long singlehood. Our total sample is an n=34000 (ca.).

[4] Norway and Sweden boast an exceptionally high ratio (1.5). In contrast, Belgium and Germany present a gender-balanced profile.

[5] Adressing the much larger population of persons living alone, Klinenberg (2012) cites a number of factors that promote 'going solo': more wealth gives us freedom to choose, the internet allows us to be connected, and the evolution of urban sub-cultures.

To test our hypotheses we estimate with multilevel models. The ESS database has a hierarchical, multi-level structure with two levels, where level 1 units are individuals nested within level-2 units, that are (25) countries.

Our dependent variable assumes the value of zero if the interviewer has been (or is) in a partnership, while it assumes the value of one if she has never partnered.

Our measure of gender egalitarianism (derived from the data for both sexes) derives from the statement: "When jobs are scarce, men should have more right to a job than women". The respondents who disagree or strongly disagree with the statement were classified as having gender-equitable views. Following earlier research (Arpino et al 2015) we examine the effects of Gender Egalitarianism and of the Educational Egalitarianism Gap. The first represents the percentage of gender-egalitarian respondents in a specific country. The Gap indicator measures the difference between the share of gender- egalitarians among the high versus low educated.

We include as covariates women's age (and its squared term) and level of education. We codify the latter in four categories, low (ISCED 0-2); medium (ISCED 3-4); and high education (ISCED 5-6).

We additionally subdivide the highly educated women with regard to the education level of their parents. We differentiate between those who come from families where at least one of the parents had a higher education, and those where none of the parents had higher education. Parents' education in our study serves as a marker of the women's social origin. We hypothesize that the intergenerational transmission of gender attitudes and norms might play a role in partnering behavior. We hypothesize that gender egalitarianism is likely to be substantially stronger among those who combine high education levels with a similar parental background.

In the following models we include level 2 measures (one at the time):

*the diffusion of gender egalitarian attitudes, as defined above and, additionally its squared term.

* the gap in the gender egalitarianism between the higher and lower educated.

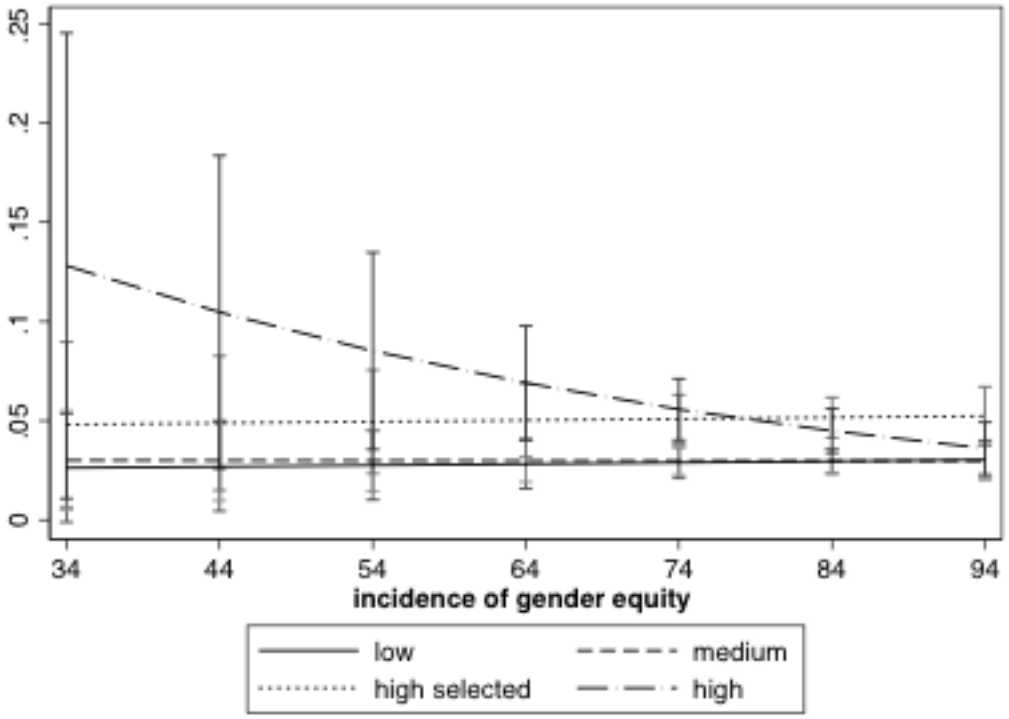
Preliminary results

The level of education is positively related to life-long singlehood, ie. higher educated women are more likely remain un-partnered (results not reported). And within the group of higher educated women, the probability is especially high for the upwardly mobile, i.e. those whose parents had low levels of education.

Graph 1 plots the predicted probability of remaining un-partnered by educational level against the values for gender egalitarianism. We note that the likelihood of singlehood is negatively related to the levels of egalitarianism only among those highly educated women who come from high educational origins. For these women, the estimations suggest that an increase in egalitarianism from 34% to 94% produces a 23 percent decline in the probability of life-long singlehood (from .13 to .03).

In contrast, more gender egalitarianism appears to have no impact among higher educated women from low educational origins.

Figure 1. Predicted probabilities of being life long single by levels of gender egalitarianism (95% confidence level intervals).

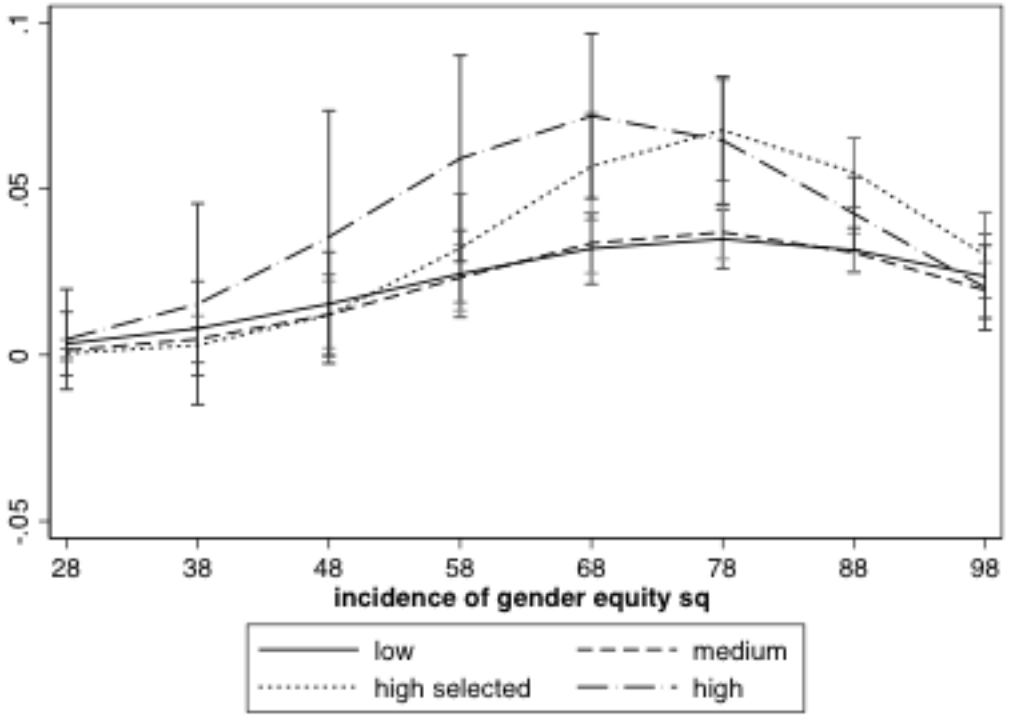


Note: we name the group of higher educated women with low educational background “high selected” and the group of higher educated women with high educational background “high”

Figure 2 plots the same predicted probabilities, but adds an interaction with the squared term of the incidence of Gender Equity. This model produces a better fit. Here we observe that both types of higher educated women face a comparatively greater likelihood of being life-

long single when estimated with intermediate values of the egalitarianism variable. But we also note that the probability falls quite steeply once gender egalitarianism values pass the 70 point mark.

Figure 2. Predicted probabilities of being life-long single by levels of gender egalitarianism (95% confidence level intervals).



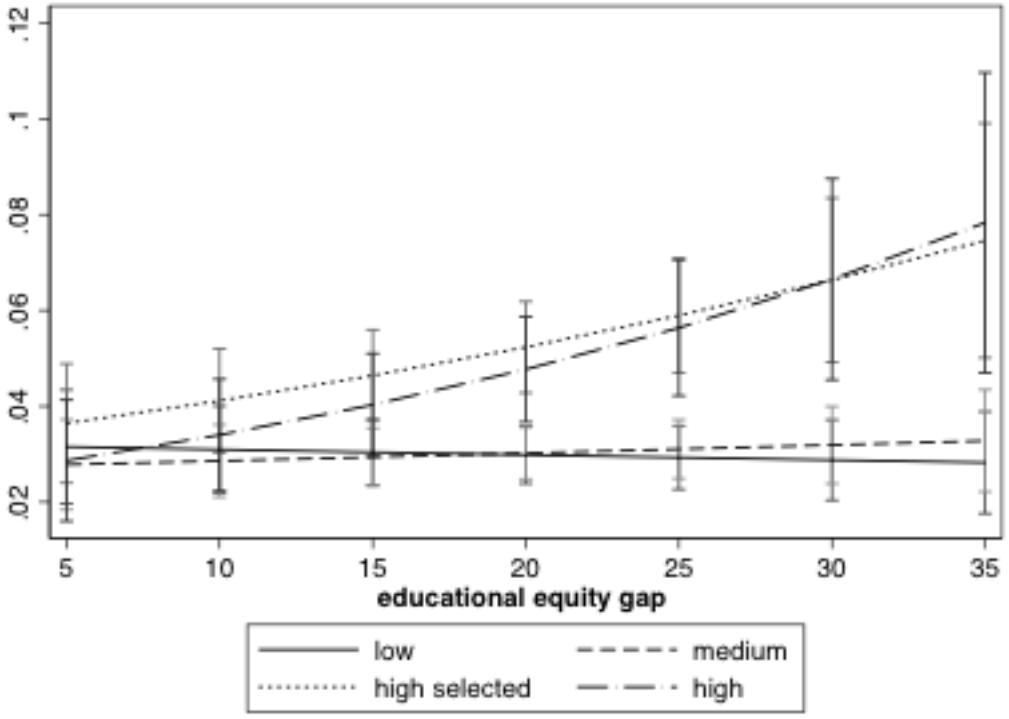
Note: we name the group of higher educated women with low educational background "high selected" and the group of higher educated women with high educational background "high"

Within a Multiple Equilibrium framework this inverted U-curve for the highly educated can be interpreted as follows: the incidence of singlehood should rise in the early stages of women's role change, i.e. before gender egalitarian norms have taken hold and society has yet to adapt adequately to women's new roles; but once gender egalitarianism becomes dominant in society, the 'marriage market' for highly educated women improves and, as a consequence, such women find it easier to reconcile family life with and careers.

Figure 3 plots the predicted probability of being life-long single by educational level along the distribution of our second egalitarianism indicator -- the Educational Gap measure (the distance that separates lower and higher educated in terms of their support for gender

egalitarianism). Here we observe that the educational gap has a positive effect on the likelihood of being single for higher educated women. Increasing the level of the gap from 5% to 35%, the predicted value of being life-long single increases for both groups of higher educated women by about 50 percent (from .03 to more than .07).

Figure 3. Predicted probabilities of being life-long single by educational egalitarianism gap (with 95% confidence level intervals).



Note: we name the group of higher educated women with low educational background "high selected" and the group of higher educated women with high educational background "high"

The gap measure captures in a sense the degree to which any given society is polarized along the gender egalitarianism dimension. A very large gap represents therefore a situation in which egalitarianism has failed to diffuse beyond the confines of the highly educated; a small gap – if combined with overall high egalitarianism values – should, in contrast, capture a society in which egalitarianism is becoming normatively hegemonic. The latter, in turn, signals the emergence of a new stable family equilibrium.

The Nordic countries, and Denmark *par excellence*, would on these criteria appear to be moving towards a gender egalitarian equilibrium. Here the overall gender egalitarian level is close to universal (a score of 91) and the gap between the high and low educated is narrow indeed (8 points) – as is the gap between men and women (7 points). Here, as in Sweden, we also find an internationally small incidence of life-long singlehood (around 1.5 percent).

This contrasts quite sharply the group of countries (like Austria, Germany, Ireland, Portugal, Poland or Spain) where the education and gender gaps are large combined with modest overall levels of egalitarianism. In these countries we find shares of never-partnered women that are 3+ times as high as in Denmark (in Portugal and Ireland, to exemplify, their share is 7.3). This, in our view, provides empirical support for our multiple equilibrium approach to understanding the dynamics that link the ongoing gender role revolution with family outcomes.

More generally, we also believe that our more aggregated findings give support to our theoretical framework. When pooling the data for all 25 countries we find that low levels of non-partnering are primarily found among the highly educated, and here it clearly makes a difference whether their social origins were of a humble or privileged nature, education-wise. This suggests of course that the diffusion of gender egalitarianism in Europe, as a whole, still remains at a relatively early stage, having 'infected' only a quite narrow social stratum.

There is obviously no law of nature that dictates that all societies will eventually settle into a new, stable gender egalitarian equilibrium – and thereby possibly reap the dividends thereof. Recent research on the U.S. case concludes, in fact, that the female revolution appears to have stalled midway (Cotter et.al, 2011).

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