Educational Assortative Mating and Household Division of Labor:
A Pan-European Perspective

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Abstract (150 words)

Educational homogamy has been increasing for a long time in the Western world but there has been much more research on describing and explaining this trend than actually looking at its consequences. Economic theory predicts that educational heterogamy is related to division of labor in accordance with comparative advantages in household and market production, but there has been few tests of this hypothesis in the light of the changes in educational homogamy. The aim of this paper is to study the importance of educational assortative mating in determining the division of labor in the family. First we make a detailed analysis of Sweden 1990-2000 using time diary data, and then we look at the same issues from a comparative perspective using survey data for a number of countries in Europe. Preliminary results indicate an association between assortative mating and the division of labor, but only for couples with children.

Extended abstract

Since the mid-20th century, scholars have pointed to the role of comparative advantages between partners in determining the division of paid labor in the family. Becker's specialization theory (1973, 1974) was among the most important early contributions. His theory accounted for the dominance of the male-breadwinner family by emphasizing the importance of differences in the earnings potential for intra-household specialization and trade. Later contributions endorsed the role of comparative advantages, yet shifted attention away from the male-breadwinner family. In line with the growing participation of women in education and employment, this led to more gender neutral accounts of specialization theory, e.g. bargaining theory (Manser & Brown 1980). While educational heterogamy is supposed to lead to specialization, educational homogamy is expected to lead to more equal division of labor in the household.

The long-standing theoretical interest in the importance of comparative advantages between partners in determining household division of labor has not been matched by a parallel empirical interest. Empirical research on the division of paid and unpaid labor in the family has mainly been limited to studying individual effects and, more recently, also partner effects. For example, the education of the individual and partner are accepted as determining factors for labor market participation (e.g. Blossfeld & Drobnič 2001), but little is known about the effect of educational assortative mating (EAM), i.e. the effect of educational differences and similarities between partners (see, however, Dribe & Nystedt 2013 for a recent study on earnings). This is surprising, not least in light of the more equal opportunities for men and women in education and employment and the concurrent increase in educational homogamy all over the Western world (e.g. Schwartz & Mare 2005; Esteve et al. 2012). Taken together, this urges an examination of whether there are, in contemporary society, *gender-neutral* specialization patterns in which the partner with the highest earnings potential, man or woman, takes up the largest share of paid labor and the other partner does more unpaid work?

In this paper we look at the importance of EAM in determining the division of labor in the family. First we make a detailed analysis of Sweden 1990-2000 using time use data, and then we look at the same issues from a comparative perspective using survey data for a number of countries in Europe. The focus will be on the importance of *educational homogamy vs heterogamy*, as educational differences are likely to shape partners' comparative advantages in the labor market and in the home. Educational attainment, in contrast to current wages, generally precedes labor market entry, and is less likely to be affected by previous decisions concerning paid work.

The effect of EAM will be considered while taking into account the family life cycle (i.e. the presence of children and age of youngest child). The presence of (young) children in the family is important because they make activities like child care and routine housework increase substantially. It often restricts female labor market participation, and it has been shown to promote a more traditional

division of labor in many situations, though not so much in the Nordic countries compared to elsewhere (Dribe & Stanfors 2009; Craig & Mullan 2010; Neilson & Stanfors 2014).

First, we focus on the importance of own education and EAM for partnered men's and women's time use in Sweden and how it changed during the 1990s. We use data from the two waves of the Swedish Time Use Survey (SWETUS 1990/91 and 2000/01) conducted by Statistics Sweden. Data include information on how respondents spend their time on about 100 different activities within a 24-hour period. Time allocated to different activities was reported, by each respondent, in 10-minutes intervals for one weekday and one weekend day. We use a sample of cohabiting and married men and women (ages 20-64 years, N> 5,000). We only use primary time use activities as dependent variables; five main groups (paid work, routine housework, maintenance housework, child care, individual leisure) and two residual categories (sleep and other) that together sum up to the full day (1440 minutes). We distinguish between weekdays (Monday–Friday) and weekends (Saturdays and Sundays) because the time use patterns are likely to be quite different on weekends and weekdays.

Our preliminary results support the expected associations between own education and paid work and routine housework among both men and women. Yet results indicate that, net of other factors, the expected positive association between education and paid work is inconsistent (and insignificant) among parents. When it comes to routine housework, the expected negative association across the educational gradient is visible for mothers throughout the 1990s, but for fathers the association is reversed as less educated fathers spend significantly less time doing housework than their more educated counterparts in particular in 2000/01. Highly educated fathers and mothers devote significantly more time on child care than those with less education, and the time differential (in minutes) between those with the highest and lowest levels of education seem to grow for all between 1990/91 and 2000/01 (17 to 28 minutes per weekday for men, and 26 to 32 minutes per weekday for women) indicating a trend towards intensive parenting. As for recreational activities, the pattern is the same, irrespective of family status and of gender (more or less); education is negatively associated with sleep and other activities, but positively associated with individual leisure.

We also find effects of heterogamy on time allocation, but only among parents. Fathers' involvement in unpaid work in the home is significantly affected by EAM with both time for routine housework and child care increasing when the spouse has higher education. In 1990/91 fathers partnered with women with less education did about ten minutes less child care per weekday, all else equal, whereas those with more educated partners spent ten minutes more on child care than otherwise similar men partnered with women with equal educational attainment. This heterogamy effect (in couples where the woman is less educated) persists throughout the 1990s. But in 2000/01, fathers whose partners have more education spend substantially less time (72 minutes per weekday) on paid work and almost 40 minutes more on routine housework than otherwise similar men partnered with women with equal educational attainment. For mothers, there are virtually no effects of heterogamy; the only statistically significant result, in line with doing gender rather than the specialization and

bargaining/relative resources hypotheses, is that mothers partnered with less educated partners spend more time (24 minutes per weekday) on routine housework than homogamous women.

These results are robust to model specifications. Regressions without controls for spousal education give highly similar results on how education is associated with time use. Moreover, regressions that include indicators of own as well as spousal employment render the same results, which indicates that the results are not driven by time or income constraints, but rather by behavioral differences rooted in the orientation to time use.

In the second part of the paper we take our analysis into the 21st century and look at the same questions from a pan-European perspective. Based on pooled cross-national data from the Generations and Gender Survey (GGS), we compare the division of paid and unpaid labor in households across Europe (including Sweden)[1] by utilizing measures of respondent's and partner's involvement in paid work, routine housework, and childcare. We select countries based on the contention that more gender-equal households allocate time more evenly, and the fact that Sweden and its Nordic neighbors are reputed to be the most gender-equal countries in the world, more so than Continental, Southern and Eastern Europe. Whereas Sweden and the other Nordic countries have the highest female to male employment ratio there is variation across the continent and several countries (especially in Southern Europe) have demonstrated a much lower female to male employment ratio (OECD 2014). There are also vast differences in the degree of familialism and social infrastructure (such as care leave, day care facilities, etc.) provided to support more gender-equal behavior in the labor market and in the home. This divergence provides an excellent opportunity for testing the general importance of comparative advantages between partners for the division of paid and unpaid labor in the family, and to distinguish any clustering of countries respecting equal gender roles in the labor market and the home.

References

Becker, G. S. (1973). A theory of marriage: part I. *Journal of Political Economy* 81: 813-846.

Becker, G. S. (1974). A theory of marriage: part II. *Journal of Political Economy* 82: S11-S26

Blossfeld, H-P., & Drobnič, S. (2001). *Careers of Couples in Contemporary Society: From Male Breadwinner to Dual-Earner Families. Oxford*: Oxford University Press.

Craig, L., & Mullan, K. (2010) Parenthood, gender and work-family time in the United States, Australia, Italy, France, and Denmark. *Journal of Marriage and Family* 72: 1344-1361.

Dribe, M., & Nystedt, P. (2013). Educational homogamy and gender-specific earnings: Sweden 1990-2009. *Demography* 50:1197-1216.

[1] The countries investigated are Sweden, Norway, the Netherlands, France, Germany, Austria, Italy, Poland, and the Czech Republic.

Dribe, M., & Stanfors, M. (2009). Does parenthood strengthen a traditional household division of labor? Evidence from Sweden. *Journal of Marriage and Family* 17:33-45.

Esteve, A., Garcia-Román, J., & Permanyer, I. (2012). The gender-gap reversal in education and its effect on union formation: The end of hypergamy? *Population and Development Review* 38:535-546.

Manser, M., & Brown, M. (1980). Marriage and household decision-making: A bargaining analysis. *International Economic Review* 21:31-44.

Neilson, J., & Stanfors, M. (2014). It's about time! Gender, parenthood, and household divisions of labor under different welfare regimes. *Journal of Family Issues* 35: 1066-1088.

OECD (2014). Short-term Labour Market Statistics. Accessed from http://stats.oecd.org.

Schwartz, C. R., & Mare, R. M. (2005). Trends in educational assortative marriage from 1940 to 2003. *Demography* 42:621-646.