

What is your couple type? Gender ideology, household work and babies

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Abstract

This paper examines the consistency between gender equality in opinions and attitudes (i.e. gender equity) and equality in the division of household labour by building a typology of couples that combines the two dimensions. The typology identifies four types of couples: 1) gender unequal attitudes and consistent (gender equal) housework sharing; 2) gender equal attitudes and inconsistent (gender unequal) housework sharing; 3) gender unequal attitudes and inconsistent (gender equal) housework sharing; 4) gender equal attitudes and consistent (gender equal) housework sharing. Building on the argument put forward by McDonald (2013), we assess the impact of the couple typology on the likelihood for childbearing, using two-wave panel data of the Bulgarian, French and Hungarian Generations and Gender Surveys. The impact of the typology varies with parity and gender: taking as reference category the case of gender equal attitudes and gender equal division of housework, the effect of the other couple types on a new childbirth is strong and negative for parity one and female respondents, while it largely disappears for other parities.

1 Introduction

The emergence of new family behaviour has attracted considerable interest among demographers, economists and sociologists alike. Alongside these new behaviours, most countries have witnessed a dramatic change in gender roles and attitudes. Whereas some European countries, most notably the Nordic ones, have moved towards gender egalitarianism, others appear to have experienced a stalled gender revolution with persistent incoherence between gender equality in the individual-oriented institutions of the public sphere on the one hand, and family-oriented institutions on the other (McDonald, 2000a). Indeed, recent studies suggest that gender equality at the family level increases fertility, whereas low gender equality associates with lower fertility (e.g. Neyer et al., 2013; Oláh, 2003; Duvander and Andersson, 2006). McDonald (2013) argues that when comparing different countries, higher gender equality regarding housework, care and external work may very well lead to higher fertility. More importantly however, as one moves away from the male breadwinner model of high fertility, it is the potential mismatch between gender equality (i.e. the actual sharing taking place across gender) and gender equity (the perceived fairness to women and men), that drives childbearing decisions. This idea implies an important difference between what is observed across countries, and the actual dynamics and behaviour taking place within societies. As gender equity refers to what is perceived as fair (which is not the same across societies), whereas equality refers to the actual outcome in terms of sharing, the mismatch between the two might result in “unfulfilled expectations” - a feeling of disappointment perhaps, where one possible consequence is lower fertility. To exemplify, if the female partner have liberal attitudes for what concerns gender roles (i.e. scores high on gender equity), whereas the male partner do not fulfil those expectations through sharing of household tasks, she might derive lower satisfaction from the partnership, which in turn may lower the chances for the couple agreeing on having children, which presumably lowers overall fertility (Mencarini, 2014). The arguments have important policy implications. Low fertility in Europe is driven by high rates of childlessness and a low rate of fertility progression from one to two children. If gender equity and equality play a role for fertility outcomes, then clearly an important policy initiative would be to improve equal opportunities for men and women, much in line with those policies introduced in the Nordic countries over the last couple of decades.

In this study we tackle this issue directly. We construct an index that measures individuals' perception about gender equality (i.e. equity) and compare this to an index that captures actual sharing between couples within the household. The first is derived from a battery of questions in which respondents are asked to agree or disagree with regards to statements surrounding gender roles. The latter index is instead based on a battery of questions asking to what extent couples share household tasks. We hypothesize that a large discrepancy between the two indices reflects disagreement and potential conflict in the household, and would therefore lead to lower likelihood of having children. A close match between the two indices, in contrast, should reflect stronger agreement, and therefore lead to higher rates of fertility. We test our hypothesis by using the two-wave panel data of the Generations and Gender Surveys, a set of comparative surveys, which includes not only detailed information about household work and its division between partners, but also information about individuals gender ideology. Attitudes and actual sharing is measured in

the first wave, whereas the outcome of interest refers to childbearing events happening between the two waves (i.e. three years later). For simplification, the two indices are used to create a couple typology. They identify four types of couples: 1) gender unequal attitudes and gender unequal housework sharing, 2) gender equal attitudes and gender unequal housework sharing, 3) gender unequal attitudes and gender equal housework sharing, and 4) gender equal attitudes and gender equal housework sharing. The analysis, made on Bulgarian, French and Hungarian couples, shows that controlling for country differences and separating the model by gender and parity, the typologies differ in the rate of fertility progression. In particular, we find discrepancies between equality and equity to lower the probability of having more than one child.

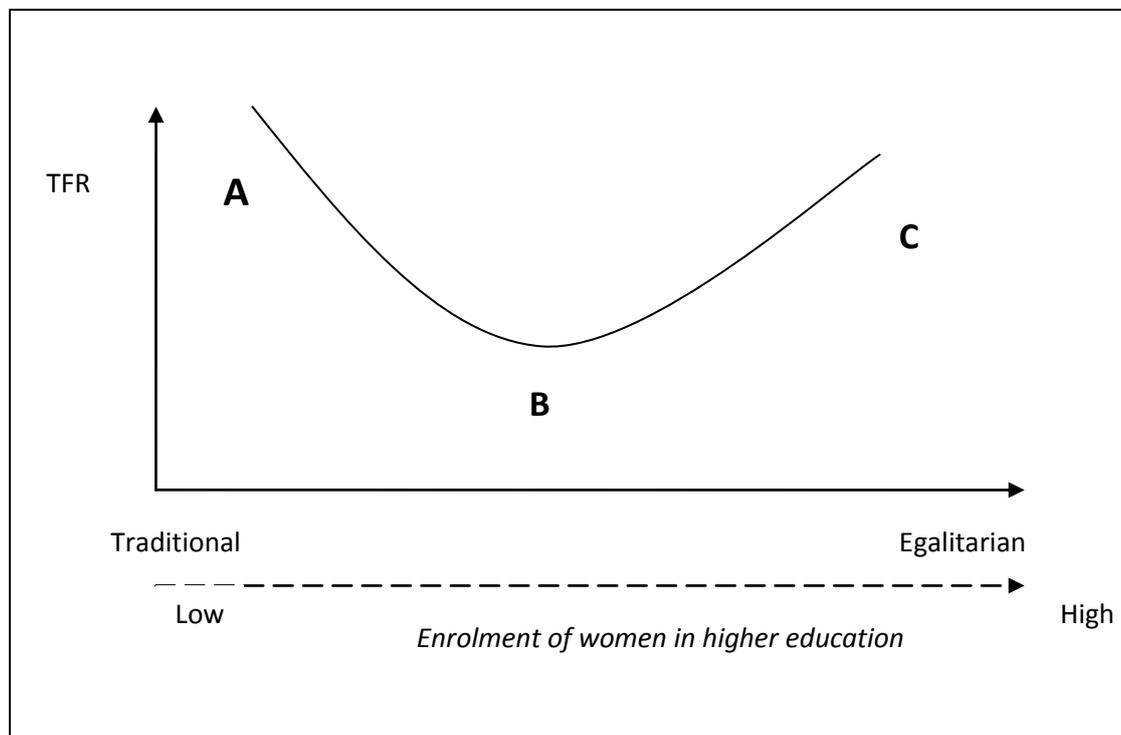
2 Background

2.1 Theory

It is now increasingly acknowledged that gender equality plays a role in explaining low fertility. For instance, Myrskylä et al (2012) argues that the recent upswing in fertility observed for highly developed countries can be explained by the way countries differ in gender equality. In other words, fertility is lower in those countries where gender equality is low. Esping-Andersen (2009) and Esping-Andersen et al (2013) also make a compelling case for why gender equality may matter for observed fertility levels across advanced societies. The contribution by McDonald (2000; 2006; 2013) makes an important point however: it is not necessarily gender equality per se that matters for fertility, rather it is the potential gap between gender equity and equality that affects couples' decision making with regard to childbearing, and hence driving overall fertility levels. The concept of gender equity refers to what is perceived as fair for men and women. Gender equality, in contrast, refers to the objective measures of equality across gender. For instance, a society where institutions are in place in order to promote equality across gender, and where one also observes equality in for instance earnings, occupation and education, would be considered as gender equal. In a fully egalitarian society one would expect a close match between gender equity and equality, and therefore high fertility, and this argument is consistent with Myrskylä et al (2012), but also with Aassve et al (2014), the latter arguing that in gender equal societies, there is not only a close match between equity and equality, and hence high fertility, but also the subjective wellbeing associated with childbearing. However, as Esping-Andersen (2009) points out, such consistency between equity and equality may not be in place as societies make a transition from the male breadwinner model towards an egalitarian one. Figure 1, which is taken directly from Aassve et al. (2012) puts a clearer picture to the idea. Here the horizontal axis measure expansion in women's education, which can be thought of as an approximation of women's revolution to use the language of Esping-Andersen. As is indicated, fertility (i.e. TFR) should be high in the egalitarian society (here indicated by point C) under the assumption that the egalitarian society indeed provide services and support to make gender equality possible. Point B, in contrast, would be transitional stage in which women are gaining higher education and empowerment. The argument of McDonald is that with gender equity changing in the sense that women's preferences are shifting - most likely as a result of educational expansion

among women, fertility will become lower in so far institutions do not follow suit. Point B is in other words a stage in which there is a sizeable gap between gender equity and equality.

Figure 1: Potential fertility scheme following the transition from a male breadwinner society to an egalitarian one



There are three important points to be made from this analysis. First, gender equality has both macro and micro components. The macro perspective would refer to the institutions that society provides in order to ensure equality across genders, and this means infra-structures such as childcare provision on one side, and national policies ensuring that men and women are treated on equal in terms for what concerns education, work and careers. The micro perspective refers instead to the family sphere, in that gender equality cannot be ensured in so far there is no equal sharing of household tasks. This relates to the second issue, which is that gender equity may very well be gender specific. In other words, men and women may differ in the way they evaluate fairness. Here persistency of social and cultural norms may play an important role. That is, despite there being societal institutions evolving enabling gender equality, there might still be an equity - equality gap in the family sphere. The third point is that we are here considering a transitional phase. In the male breadwinner model of the sixties and the seventies, here represented by point A, fertility might be high because there is no gap between gender equity and equality - despite the fact that point A postulates low gender equality. A successful transition to point C, depends consequently on both the macro perspective (i.e. diffusion of institutions at the national level) and the micro levels - the latter meaning increased willingness of men to share household tasks. As is argued in Aassve et al. (2014), the speed of this diffusion may be closely linked to long standing and deep rooted cultural differences across countries. Finally, it is important

to keep in mind that despite there being a transition towards egalitarianism, there will necessarily be heterogeneity at the micro level. A society dominated by the male breadwinner idea, may still have individuals and couples that have rather gender egalitarian attitudes. Likewise, gender egalitarian societies may also consist of couples who subscribe to the male breadwinner idea.

Our analysis follows up on these ideas, though we are not able to follow up on all the implications of the theoretical outline given here. Still, our assumption is that the variation in gender equality with respect to equity matters for explaining childbearing outcomes. Considering the housework sharing as the translation of “acted” gender equality at the micro-level, and gender attitudes as the proxy for gender equity, we hypothesize that an inconsistency between gender equality in attitudes and the actual division of household work has an impact on childbearing decisions. On the other hand, as it will be clear from Section 3, our data do not capture the within-couple difference in gender attitudes (though we do in terms of sharing household tasks).

2.2 Literature review

There are now several studies looking at the role of gender attitudes. Referred to as gender ideology, the focus has been on the extent in which it determines division of household work. The vast majority of studies supports the idea that gender ideology to some extent affects actual division of household work, whereas the former in turn, is driven by difference in social networks, and the cultural and institutional context within couples live (e.g. Blair and Johnson, 1992; Greenstein, 1996a). Only more recently have studies focused on the way gender ideology may also affect childbearing decisions. Here the evidence is more mixed, a feature largely driven by the use of different measurement (Mills et al 2011). Puur and colleagues (2008) using data from the 2001-2003 surveys of the DIALOG project, conducted an analysis on men aged 20-44 in Austria, Estonia, East and West Germany, Italy, Lithuania, Netherlands, and Poland. Their results showed that more egalitarian men desired to have and actually had more children than traditional men, a feature observed for both childless men and fathers. In response to that finding, Westoff and Higgins (2009) replicated the analysis by using the same country data (except East Germany) but from the European/World Value Surveys. In contrast to Puur et al (2008), Westoff and Higgins reported negative association between men’s egalitarian attitudes and fertility. As Goldscheider et al. (2010) explained, the contrast in those findings was to a great extent driven by differences in the way gender ideology was measured. Puur et al. (2008) relied on opinions on the man’s and the father’s role in the family, whereas Westoff and Higgins used opinions on the role of the woman in society and her choice between work and children (Goldscheider et al., 2010).

The number of studies considering the effect of gender equality on fertility is also growing. These studies tend to differ in that they use different measure of gender equality, the key disparity coming from some focusing on objective measures of country institutions, whereas others focus on actual sharing taking

place between couples. Those studies focusing on sharing of household tasks (i.e. actual division of household work), tend to find a positive association with fertility levels (e.g. Oláh, 2003; Tazi-Preve, 2004; Mills et al., 2008; Torr and Short, 2004; Cooke, 2008). The motivation is straight forward: the burden of domestic care more often than not lies with the female partner, even in the most advanced societies. It is however, mitigated by several couple characteristics. For instance, dual-earner couples and the time spent by the woman in the labour market matters for the extent women are able to undertake childcare tasks (Mencarini & Tanturri, 2009) and household work (Gershuny, Bittman, & Brice, 2005). Tazi-Preve et al. (2004) tested whether an unequal distribution of household chores and childcare duties had a negative effect on the desire to have children. Gender equal men expressed stronger desires for children, compared to those men living in household where sharing took a more traditional patterns. This is contrast to Torr and Short (2004) who found that both those being gender equal and those subscribing to a highly traditional division of household work, had higher likelihood of progressing to having the second child, thereby reflecting a U-shape relationship. Mills et al. (2008), while analyzing Italy and the Netherlands, showed that an unequal division of household work has a negative impact on women's fertility intentions only when they already bear a heavy load in terms of work hours and childcare, in particular if they are working women in Italy.

As for the macro perspective, Mills (2010) tested the impact of six indices representing various dimensions of gender equality on fertility intentions. The six indices were the Gender-related Development Index (GDI), Gender Empowerment Measure (GEM), Gender Gap Index (GGI), Gender Equality Index (GEI), the European Union Gender Equality Index (EU-GEI) and the Social Institutions and Gender Index (SIGI). Only two of them proved significantly linked to fertility: the GDI, an index introduced by the United Nations Development Program in 1995 which reflects educational attainment and income, corrected by the existing gender inequalities, was found to be positively associated with fertility intentions. On the contrary, the EU-GEI, measuring the equal sharing of paid work, income resources, decision-making power and time (including childcare and leisure time) in a country, was found to be correlated with lower fertility intentions. The opposing effects are not necessarily contradictory. The GDI portrays gender equality from a macro perspective, as it reflects gender equality in human development in a society. The EU-GEI in contrasts is a summary measure representing gender equality as it is aggregated from the couples' actual behaviour.

Nordic countries perhaps represent an exception regarding the link between gender equality in housework and childbearing: a study set in Sweden revealed that while the correlation between couples being more gender equal in terms of housework sharing and childbearing was positive, this effect disappeared when controlling for demographic variables such as age and parity (Nilsson, 2010). One possible explanation behind this is that gender equal housework division on childbearing is mitigated by the effects of successful family policies (Oláh, 2003). Indeed, family-friendly services and policies matter for fertility and probably correlates with the extent sharing of household tasks take place. When comparing Italy and Spain during the 1990s by means of the European Community Household Panel, Cooke (2008) concluded that increases in women's employment equity increased not only the degree of equality within the home, but also the beneficial effects of equality on having a second birth. More specifically, access to private childcare

significantly increased the likelihood of childbearing in Spain, whereas a larger amount of childcare carried out by the father produced the same effect in Italy, particularly among employed women. The characteristics of the fathers may also influence fertility through gender equality in the household. Sullivan et al. (2014) showed that the larger contribution of younger, more highly educated fathers to childcare and domestic work in very low-fertility countries is likely to facilitate an upturn in fertility.

An important aspect in this context is that gender equal attitudes and a gender equal division of household labor do not necessarily go hand in hand. According to Press and Townsley (1998), changing social perceptions of the appropriate domestic roles results in reporting biases that do not necessarily correspond to actual changes in the division of housework. Furthermore, women are more likely to respect the declared appropriateness of gender sharing of home tasks than men (Baxter, 1997). This suggests that couples will differ in the combination between gender equality in attitudes and the actual division of household work. This is an important element, because even in highly egalitarian societies, some will nevertheless have very conservative attitudes towards gender roles. The key question is if this combination of “declared” and “acted” gender equality has an impact on childbearing decisions. The hypothesis is that a close consistency between attitudes and behaviour, in terms of gender equality, increases fertility at the micro-level, though this is yet to be tested rigorously.

What is clear from the current literature is that very few consider both the equity side and the equality side to understand the effect on fertility. The study by Miettinen (2008) makes a step in this direction by focusing on women's satisfaction with housework sharing (and its role for childbearing). This is of interest because it indirectly takes into account both equity and equality. That is, the extent to which a woman is satisfied with the amount of household sharing of tasks, would not only depend on the actual sharing that takes place, but also what she would consider as fair. Studies integrating directly both actual sharing behaviour and gender ideology as determinants of fertility are very few. To the best of our knowledge the only study so far is the one by Goldscheider et al. (2013). They use the Swedish Young Adult Panel Study (YAPS), and combines attitudes about sharing of childcare and housework declared before parenthood. These measures are then held up against actual sharing of domestic tasks reported four years later. Their findings support the idea that inconsistency between these two measures reduced the likelihood of continued childbearing.

3 Data and measurement

3.1. The data

The data used in our empirical analyses are from the Generations and Gender Programme (GGP), a data source of nationally comparative surveys whose core topics are fertility, partnership and the intergenerational and gender relations, expressed in care relations and in the organization of paid and unpaid work. Our sample is composed by the two waves of Bulgarian, French and Hungarian surveys, having an original number of

observations equal to 15,878 and respondents aged from 18 to 83. The first wave of the data was collected in 2004 in Bulgaria, in 2005 in France and in XXXX in Hungary, while the second wave was collected three years after the first for Bulgaria and France and four years later for Hungary. Admittedly, the choice of these three countries drives from data availability. The GGS offers also longitudinal information for Germany, but as the childbearing measure in that case is dubious yielding rather small sample size in the second wave, it was left out of the analysis. Although the French gender ideology is less traditional than the Bulgarian and Hungarian ones and the dual earner model is more widespread in Bulgaria than in France, they also have elements in common. For instance, childcare infrastructure is fairly developed in all three countries and the use of externalized childcare is common also for very young children (Stoilova et al., 2011). Vitali and Mendola (2013), comparing second and fifth round of ESS (i.e. 2004 and 2010 data) shows that in France about 22.5% of families consists of couples with similar earnings versus 24.4% in Hungary, while the two countries has an equal share of women as main earners in their couple (around 16.6%) in 2004. But data on the 2010 round of ESS, shows that the equal earner families drastically increased in France, surpassing Hungary where the figure remained stable. France moved to 36.9% of equal earners families (vs. 24.0% in Hungary) and to 51.7% of men as main earners in their families (vs. 63.9% in Hungary).

Whereas the GGS provides relatively rich information about household members, in particular about the respondent's partner and children, it is important to keep in mind that partners are not interviewed. The respondent's perspective is kept throughout the questionnaire, so all information about the partners are reported by the respondents. This has important implications for our measure of gender ideology on one hand and sharing of tasks on the other. For the latter, the respondents answer to what extent the partners share, whereas when asked about gender attitudes, these refer to that of the respondent only. In this sense there is potentially an asymmetry when mapping information from respondent's to couple's perspective. This is a caveat of our analysis to be kept in mind. On one hand the respondent might be biased in the way he or she reports sharing of household tasks; men are less likely to report that their partners contribute significantly more to housework than they do, compared to their partners' self-declared amount of housework. Consequently, men may tend to overestimate their contribution to domestic labour (Kiger & Riley, 1996). On the other hand we cannot establish the gender ideology of the partner, which may matter for the extent disagreement arises among the couple. Information on the division of household tasks is available only for co-resident couples, thus respondents without a partner or with a non-resident partner are excluded, together with couples experiencing a disruption between the waves. Homosexual couples were excluded to avoid complexity in the study of gender relations and the age range was restricted to women until age 45, consistently with other studies on childbearing. The cleaned sample includes 8,064 individuals living with the same partner in both waves. Our dependent variable is a dummy for a new childbirth between the waves. In the regression we include a set of background variables regarding age, employment, education and financial situation of the members of the couple, together with satisfaction with the division of household work.

3.2. Typology of respondents

The key explanatory variable of interest is a couple typology built from the combination of gender attitudes and sharing of household tasks. Attitudes towards gender equality derives from eight items according to their sensitivity to issues regarding gender equality inside the couple, the family and the society. Questions are items of agreement on a Likert-like 5-point: “In a couple it is better for the man to be older than the woman” and “If a woman earns more than her partner, it is not good for the relationship”, belonging to the theme of gender equality inside the couple relationship. Other three items are “If parents divorce it is better for the child to stay with the mother than with the father”, “When parents are in need, daughters should take more caring responsibility than sons” and “A child needs a home with both a father and a mother to grow up happily”, belonging to the issue of gender equality within the family. The final three items are “A woman has to have children in order to be fulfilled”, “A man has to have children in order to be fulfilled” and “When jobs are scarce, men should have more right to a job than women”, belonging to the issue of gender equality within society.

For the division of housework the items include: preparing daily meals, washing the dishes, shopping for food and doing the vacuum-cleaning. The possible answers are “always respondent”, “usually respondent”, respondent and partner about equally”, “usually partner”, “always partner”, “always or usually other persons in the household” and “always or usually someone not living in the household”. We include these last two response values in the category “respondent and partner about equally”, assuming that the decision to outsource household labour represents ability and willingness to reduce the partner’s workload. All the items were properly reversed in order to have the same direction with respect to the concept to be measured and in order to be seen in the perspective of the couple.

The first index is built summing up the scores from the items on *attitudes*. Scores range from 1 (strongly agree, meaning low attitude toward gender equality) to 5 (totally disagree, meaning high attitude toward gender equality). As there are eight items, the index spans in the interval [8, 40], where 8 reflect the lowest possible value of attitudes towards gender equality (i.e. highly conservative) and 40 refers to the maximum level of gender equal attitudes.

The other index measures the extent the distribution of housework among the members of the couples is gendered. Initially the index is built by adding scores from -2 to +2, where -2 is assigned to each answer assessing that a specific task is always performed by the woman inside the couple, -1 if woman does that task usually, 0 if the partners equally share the task, +1 if the man usually does the task, and +2 if that task is always performed by the man. We consider that there is “unfairness” when house duties are done by the woman or by the man (not unexpected, very rarely do we find men doing the majority of household tasks). An important elements of constructing the index in this way is that we allow for compensation among duties, meaning that tasks are given the same weights and are perfectly substitutable. In other words, cooking can be compensated by the activity of shopping for food or cleaning. Given that we use four items, the sharing index is in the range [-8, +8], where - 8 means a totally unfair couple, where the woman does all of

the housework, on the opposite, an overall score of +8 suggesting a couple in which the man does all housework duties.

The two indices are clearly different in nature since one goes from 8 to 40, and the other -8 to +8 where the value zero represents perfect sharing. In other words, if both partners are consistently gender equal in both sharing and attitudes, the value 40 would match the value zero. In other words, the indices cannot be easily be combined by simple arithmetic operations - hence the construction of the typology. The suggested typology is presented in Table 1.

TABLE 1 - Typology of respondents

		Attitude toward egalitarianism inside the couple	
Respondent's sex	Unequal sharing of housework Unfairness toward:	LOW	HIGH
WOMAN	WOMAN	1	2
WOMAN	MAN	3	4
MAN	WOMAN	5	6
MAN	MAN	7	8

Here “low attitude” refers to scores from 8 to 24 and “Unequal sharing” refers to scores from -8 to 0. As already mentioned, the burden of unequal sharing lies predominantly on women, and as a result, the very few cases of men experiencing unequal sharing against them, were collapsed into equal sharing.

Description of typologies

Table 1 produces eight categories as follows, where the first four refer to female respondents, the other four to male respondents.

Type 1: Female respondent living in a traditional family since she does most of the housework, but where she also has traditional attitudes towards gender roles. There is in other words consistency between sharing and gender attitudes.

Type 2: Female respondent who lives in a traditional family since she does most of the housework, but she has a strong egalitarian attitudes. There is consequently inconsistency between sharing and attitudes.

Type 3: Female respondent who live in a non-traditional family, since the majority of the housework is done by the partner, but where she thinks that those should be her duty (she has weak egalitarian attitudes)

Type 4: Female respondent living in a non-traditional family since the male partner does the majority of the housework, but to which she potentially disagrees, since she has strong attitudes in favour of egalitarianism.

Typologies from five to eight are originated by interviews to men.

Type 5: Male respondent who lives in a traditional family since the partner is doing majority of household work, bringing about consistency since he has conservative gender attitudes.

Type 6: Male respondent who live in a traditional family, as the female partner is doing the majority of household work, but to which is potentially disagrees since he has strong egalitarian attitudes.

Type 7: Male respondent who live in a non-traditional family, since the female partner is doing less household work than the male respondent, but to which he potentially disagrees since he has strong traditional attitudes, bringing about inconsistency between sharing and attitudes.

Type 8: Male respondent living in a non-traditional family, since he does the majority of the household work, but is consistent with his strong egalitarian attitudes.

As already alluded to, some of these groups have very small sample sizes, since very rarely do men dominate in terms of undertaking household work. Consequently we simplify the eight categories into four. Categories 1 and 5 forms a new group which we term “Consistent inequality”. The couples in this group are characterised by gender unequal division of housework (mostly done by women) and gender unequal attitudes. “Consistent equality” is our second group characterised by gender equal division of housework (i.e. the man does not do less than the woman) and attitudes, and composed by categories 4 and 8. “Inconsistency 1” is the combination of gender unequal division of housework and gender equal attitudes, and made up by unifying categories 2 and 6. The last group we term “Inconsistency 2” and is a combination of gender equal division of housework and gender unequal attitudes. Table 2 gives the frequency of these four couple types for the three countries.

TABLE 2 - Percentage distribution of couple types

	Bulgaria N=3,386	France N=1,797	Hungary N=2,881
Consistent inequality: gender unequal division of housework, gender unequal attitudes	67	25	71
Inconsistency 1: gender unequal division of housework, gender equal attitudes	22	53	17
Inconsistency 2: gender equal division of housework, gender unequal attitudes	8	4	9
Consistent equality: gender equal division of housework, gender equal attitudes	3	18	3

Looking towards Table 2, we see that Bulgaria and Hungary are very similar. It is of interest to observe that the majority of couple are of the consistent inequality type, suggesting that the male breadwinner model is still highly prevalent. 22 and 17 percent respectively belong to Inconsistency 1, in which the couple have egalitarian attitudes, but where the woman is bearing the brunt of the household work. Interestingly the consistent inequality is extremely small in this two countries. Not unexpected, France very much stands out. The consistent inequality is considerably lower than what is the case for Bulgaria and Hungary, but perhaps most interestingly is the group Inconsistency 1 which stands at 53%. Thus, a large proportion of the French sample report that they have gender equal attitudes, but where the majority of housework nevertheless fall on women. Moreover, only 18% of the French sample report consistent equality.

4 Results

Descriptive statistics

TABLE 3 - Descriptive statistics. Mean or frequency of model variables by country

	Bulgaria N=3,386	France N=1,797	Hungary N=2,881
Index for gender equality in the attitudes, female respondents (range: [8,40])	20.9 (0.09)	26.4 (0.17)	19.4 (0.12)
Index for gender equality in the attitudes, male respondents (range: [8,40])	20.8 (0.11)	26.2 (0.18)	19.7 (0.14)
Index for gender equality in housework, female respondents (range: [-8,+8])	-3.88 (0.06)	-3.21 (0.09)	-4.23 (0.06)
Index for gender equality in housework, male respondents (range: [-8,+8])	-3.17 (0.07)	-2.22 (0.1)	-3.08 (0.07)
Satisfaction with the division of household labor, female respondents (range: [0,10])	7.97 (0.05)	7.75 (0.06)	8.22 (0.05)
Satisfaction with the division of household labor, male respondents (range: [0,10])	8.85 (0.04)	8.53 (0.05)	8.9 (0.04)
Household characteristics			
The household is able to make ends meet (range: [1,6])	2.20 (0.02)	3.47 (0.03)	3.28 (0.01)
Couples with a new childbirth between the two waves (%)	13	24	22
Parity	1.65 (0.02)	1.68 (0.03)	1.60 (0.02)
Married couples (%)	87	67	82
Relationship quality (range: [0,10])	8.75 (0.03)	8.63 (0.03)	8.87 (0.03)
Woman's characteristics			
Employed (%)	70.5	80.1	83.4
Average number of hours worked (0 hours if unemployed)	29.5 (0.38)	27.7 (0.40)	30.5 (0.39)

Level of education -ISCED scale	3.14 (0.02)	3.78 (0.04)	3.63 (0.02)
Age	34 (0.11)	35 (0.15)	34 (0.12)
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Man's characteristics			
Employed (%)	74.7	92.1	88.2
Average number of hours worked (0 hours if unemployed)	34.9 (0.40)	39.4 (0.38)	39.5 (0.34)
Level of education - ISCED scale	2.98 (0.02)	3.58 (0.04)	3.49 (0.02)
Age	38 (0.12)	37 (0.18)	37 (0.15)
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Standard Deviations in parentheses			

Table 3 reports descriptive statistics of the variables that are directly or indirectly part of our model, computed by country. The first two rows show country differences in the mean of the index portraying gender equality in the attitudes of the respondents, the following two rows illustrate the same for the index of gender equality in the division of household work of the couple: these indexes are the basis of the couple typology, whose distribution is summarized in Table 2. Not unexpected, France is the country with higher average gender equality both in the reported attitudes and in the division of household labor. Bulgaria and Hungary are far behind on the path of gender equality, compared to France: this is true especially for the attitudes index and especially for Hungary. Three other unsurprising findings can be seen in the first four rows of Table 3: 1) female respondents declare on average a more gender unequal division of household labor than male respondents - in all countries; 2) women do far more housework than men (full equality should be around the zero); 3) there is a wider gap between the levels of housework division reported by female and male respondents than between their reported attitudes toward gender equality. This fact seems to anticipate the mismatch between gender equity, observed in attitudes, and gender equality, observed in the sharing, that we are going to test: it is likely that a subset of the group of men who declare gender equal attitudes do not comply with what asserted, thus they may prefer to report a higher contribution to the household work than the real one; an alternative interpretation could be that women feel the need to emphasize their effort in the domestic work, while expressing opinions on gender equality or traditionalism does not receive the same attention from them. Consistently with the findings on housework sharing as reported by female and male respondents, the former declare on average less satisfaction with the division on household labor than male respondents in all of the countries, although there are only minor differences in the country levels; similarly, there are minor country differences for the self-reported relationship quality, which appears quite high and shows low standard deviation.

For what concerns the other household characteristics, household deprivation seems more compelling in Bulgaria than in the other countries, and especially compared to France. Marriage is far more widespread in Bulgaria and Hungary, but the average number of children born does not change much across countries. Interestingly, over the period covered by our panel 24% of couples from the French sample

reported childbearing, against the 22% of Hungarian couples, which is in contrast the Bulgarian sample, where only 13% reported childbearing. In the age range selected, employment rates are quite high, with slightly different patterns for men and women. Unemployment is more prevalent in Bulgaria, while the highest level of female employment is found for Hungary, and the highest level of male employment in France. The average number of hours worked in a week by women does not follow straightly employment patterns, compared to men's: employed women work for more hours in Hungary and Bulgaria, suggesting that in France part-time work is more common than in the other countries, as already found in the literature (Aassve et al., 2014). In the end, education levels are lower in Bulgaria, for both sexes, and slightly higher in France compared to Hungary.

Regression results

TABLE 4 - Logit regressions: the impact of the couple types on a new birth (reference couple type: Consistent equality. Couple types reported as in Table 2)

	Parity 0		Parity 1		Parity>1	
	Men	Women	Men	Women	Men	Women
Consistent inequality	0.24 (0.35)	0.50 (0.34)	-0.28 (0.41)	-0.95** (0.43)	1.06 (0.65)	-0.51 (0.47)
Inconsistency 1	-0.43 (0.34)	-0.04 (0.32)	-0.17 (0.40)	-0.74* (0.43)	0.53 (0.65)	-0.22 (0.47)
Inconsistency 2	0.42 (0.41)	0.61 (0.47)	-0.23 (0.49)	-1.61*** (0.55)	1.24* (0.73)	-0.48 (0.63)
Age of the man	-0.05** (0.03)	-0.06*** (0.02)	-0.09*** (0.02)	-0.03 (0.02)	-0.00 (0.02)	-0.05** (0.02)
Age of the woman	0.02 (0.03)	-0.06** (0.03)	-0.02 (0.03)	-0.12*** (0.02)	-0.08*** (0.03)	-0.04 (0.03)
Medium education of the man	-0.09 (0.40)	0.04 (0.40)	0.12 (0.35)	-0.05 (0.32)	-0.22 (0.34)	-0.54** (0.26)
High education of the man	0.14 (0.46)	0.17 (0.45)	0.31 (0.45)	0.44 (0.38)	0.28 (0.45)	-0.48 (0.36)
Medium education of the woman	0.28 (0.41)	-0.01 (0.47)	-0.01 (0.34)	-0.25 (0.33)	-0.35 (0.34)	0.12 (0.27)
High education of the woman	0.36 (0.46)	0.30 (0.51)	-0.02 (0.41)	-0.19 (0.38)	-0.49 (0.48)	0.25 (0.35)
The man is employed	0.39 (0.55)	0.14 (0.51)	0.66 (0.46)	0.26 (0.40)	-0.70 (0.49)	0.02 (0.43)
The woman is employed	-0.39 (0.60)	0.65 (0.51)	0.34 (0.53)	0.37 (0.43)	1.25** (0.57)	-0.06 (0.41)
Satisfaction with housework division	0.03 (0.08)	0.08 (0.06)	-0.11 (0.08)	0.08 (0.06)	-0.14* (0.08)	0.04 (0.05)
Medium-low household deprivation	-0.20 (0.31)	-0.35 (0.32)	0.02 (0.26)	-0.09 (0.21)	-0.34 (0.32)	0.15 (0.23)
No household deprivation	0.02 (0.47)	0.00 (0.44)	-0.01 (0.46)	-0.54 (0.38)	0.73 (0.46)	0.01 (0.44)

Man's hours of paid work	-0.01 (0.01)	0.01 (0.01)	-0.01 (0.01)	-0.00 (0.01)	0.00 (0.01)	-0.00 (0.01)
Woman's hours of paid work	0.00 (0.01)	-0.01 (0.01)	-0.01 (0.01)	-0.01 (0.01)	-0.04 ^{***} (0.01)	-0.01 (0.01)
Relationship quality	0.14 (0.10)	0.10 (0.10)	0.09 (0.09)	-0.02 (0.07)	0.12 (0.10)	-0.03 (0.07)
France	-0.43 (0.36)	-0.24 (0.33)	1.76 ^{***} (0.30)	1.38 ^{***} (0.26)	0.92 ^{**} (0.38)	0.38 (0.27)
Hungary	-0.52 [*] (0.29)	-0.18 (0.28)	0.70 ^{***} (0.26)	0.68 ^{***} (0.23)	0.44 (0.33)	0.27 (0.25)
Constant	-0.33 (1.23)	0.88 (1.20)	2.27 ^{**} (1.07)	3.38 ^{***} (0.87)	0.27 (1.21)	1.57 [*] (0.91)
<i>N</i>	411	496	689	999	1521	2044

Standard errors in parentheses * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

As can be seen from Table 4, we make estimation separately by parity. Parity zero refers to the transition to having the first child, whereas parity one refers to the progression to the second child, and parity >1 refers to any higher order births. As for the four couple types, the reference category is the one referring to egalitarian attitudes and gender equal sharing. Thus, the three couple types reported in Table 4 represent deviations from that couple type.

Three major results are immediately evident from Table 4. First, we find that the coefficients of the couple types differ in significance and magnitude for men and women. For women the impact of the typology is stronger and statistically significant. Secondly, the typology matters in most part for parity one, whereas it has no impact for the onset of childbearing (i.e. parity zero). As suggested by the literature, parity one is a threshold salient for gender processes at the household level, and it receives their influence (e.g. Oláh, 2003; Torr and Short, 2004). Thirdly, where the typology is significant, the couple types seem more able to explain the likelihood of a new birth than the majority of the other covariates: only the age of the partners and the country dummies have a quite persistent significant impact.

For female respondents and parity one (i.e. progression the second birth), the three couple types are significant and show a negative impact on the likelihood of having another child between the waves, compared to the couple type of egalitarian attitudes and gender equal housework sharing. This implies that women with gender unequal attitudes, or gender unequal housework sharing, or both gender unequal attitudes and a gender unequal household work division, are less prone to have a second child than women with gender equal attitudes and gender equal housework.

For each different couple type, an explanation can be drawn. We start with Inconsistency 1, which has a straightforward explanation. This category contains couples where the respondent declared gender equal attitudes, but the household work was gender unequal, the latter referring to women taking the bulk of the housework. Focusing on the female sample first, where the effect is clearly negative compared to having a second child, one would argue that women here have a strong sensation of disagreement with the male

partner. They might be experiencing a feeling of disappointment due to unfulfilled expectations since they are gender equal, but at the same time they have to cope with a traditional housework sharing. This kind of mismatch decreases the likelihood of further childbearing.

The third category, “Inconsistency 2”, is less intuitive in the sense that it is harder to understand why the partners organise themselves in that way. As a reminder, Inconsistency 2 refers to gender unequal attitudes and gender equal household work. Consequently, for women, this is a case where she reports conservative attitudes, but where the couple nevertheless shares household work. Further investigation that we will not display showed us that compared to the other typology categories, “Inconsistency 2” is characterised on the one hand by a smaller proportion of employed men, and by a smaller average number of hours spent by men in the labour market. On the other hand, women belonging to this couple type are more likely to be employed and work for more hours than women in the categories “Consistent Inequality” and “Inconsistency 1”. Moreover, in the couple type of “Inconsistency 2” there is a greater proportion of employed women (83%) than employed men (79%). These facts suggest us that the housework sharing of “Inconsistency 2” might be gender equal due to external constraints, as for instance the labour market conditions of the couple. Perhaps, if these external conditions were different, the housework sharing would have been more gender unequal, as gender unequal attitudes could make us predict. It implies that “Inconsistency 2” for women is likely to be another case of “unfulfilled expectations”: female partners would have preferred a more traditional household organisation, but they are somehow pushed to share household tasks, as their male partners have a considerable amount of spare time, and in some cases women are the main earners. The underlying dynamics of this kind of couple cannot be determined with certainty and it might be that each observation in the group has specific features; nevertheless it has to be considered that the frequency of this category is relatively small, and in this sense these couples do not constitute a large contribution to the overall progression to second childbearing.

As for “Consistent inequality”, representing couples where the respondent declared gender unequal attitudes and the household work was consistently gender unequal, which exemplifies the male breadwinner model, is also associated with lower fertility rate of fertility progression. This result is not consistent with the simple equity - equality hypothesis put forward by McDonald, since Consistent inequality does in fact reflect a smaller gap between equity and equality. Consequently, our results would suggest that consistency between equity and equality is only favourable for childbearing as long as there is gender equality. The result is important, not least because the “Consistent inequality” represents by far the largest groups in Bulgaria and Hungary of 67 and 71 percent respectively. In other words, this group dominates in exemplifying the lack of progression to second birth in those two countries. In France, which is also the smallest country sample and thus it weighs less in the results, the distribution of the couple types is very different: only 25% of the couples belong to this group. It seems that the impact of “Consistent inequality” is driven by Hungary and Bulgaria, which together represent more than two thirds of the total sample. On the other hand, the case of “Consistent inequality” might not be salient for France, but its low sample size, especially once respondents are divided by gender and parity, does not allow the emergence of a clear pattern in the regression results.

Anyhow there are several explanations for the pattern of “Consistent Inequality” observed for Hungary and Bulgaria. The East European countries have experienced dramatic fertility decline after the collapse of the Communist regime. The fall of the Iron Curtain also brought about dramatic societal upheavals. Prior to the 1990s, the State provided support to families in the form of maternity leaves, child allowances and childcare facilities, and as such, outsourcing of traditional family activities was already in place, and consequently one would expect gender equity to lean towards the more egalitarian and liberal end. However, the socialist policies have undergone heavy revisions in the transition period after 1990 (Robila, 2004; Szelewa & Polakowski, 2008), and with the collapse of the socialist regime, it appears that many of these societies reverted in the direction of the male-breadwinner model rather than spurring a move to more egalitarian societies. As a result, Consistent inequality, are most likely made up of couples that have suffered both in terms of deprivation and through increased uncertainty. Consequently, the fact that they have lower fertility may not be attributed directly to the issue gender equality and equity. In light of this, it is important to keep in mind that the reference category (Consistent equality) for Hungary and Bulgaria is only 3 percent of the overall sample. This is consequently a very selected group in these countries.

5 Discussion and conclusion

Whereas our results confirm the gender equity - equality hypothesis in certain respects, they also raise important questions with the theoretical argument. First, we find only an effect for the progression to the second child, and the effect is only significant for women. The significant result suggest that indeed, couples who are gender equal in attitudes and also have a higher level of sharing indeed are more likely to have another child. Any of the other three configurations are associated with lower progression to second birth, and as such our findings give support to the hypothesis of McDonald.

On the other hand, the combination of gender equality and equity appears to have no impact on becoming a parent, not does it have much impact on progression to higher order parities. The fact that results differ for men and women as concerns the progression to second birth is a concern. One possible reason might be that the response quality for men is poor. As is well known, men tend to over-report their own contribution to household sharing (Baxter, 1997). Moreover, our analysis suffers from the fact that we do not have measures of gender attitudes for both partners of the couple. Our estimation might be obscured from the fact that partners differ in their reporting of gender attitudes. Nevertheless it might be the case that men do not give value to the quality of family organisation as women do, so their childbearing decisions may be driven by something else.

Our results are different from Goldscheider et al. (2013), who find that only women with gender equal attitudes and gender unequal housework (so, experiencing inconsistency) have less probability of having a child than women with equal attitudes *and* equal housework. In Goldscheider et al. (2013), being consistently unequal is not significantly different from being consistently equal, but the study by Goldscheider et al. (2013) focuses only on Sweden, and their indicator on attitudes is built on a single item

on the best family arrangement for a family with pre-school children. Besides the different way of portraying traditionalism and gender equality in attitudes, the fact of having only one country leads to a more clearly defined pattern. As we have three countries, with at least two different cultural patterns (i.e. France and the others), when we build a couples typology using a unique threshold, equal for all the countries, to distinguish between gender equality and gender inequality either in housework or in attitudes, we create enormous differences in the distribution of the typology by country. If we had set three different country-based thresholds, hypothetically based on the country-mean of gender equality in the attitudes and in housework sharing, and we had built the couple typology according to those thresholds, we would have had a more nuanced, but less coherent and comparable, couple typology. It follows that every couple type is more or less salient in a country depending on the distribution of the couple typology, and the union of different cultural contexts let emerge a complex evidence, rather than a clearly defined pattern.

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