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What is your couple type?

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Abstract

BACKGROUND
It is increasingly acknowledged that not only gender equality, but also gender ideology plays a role in explaining fertility in advanced societies. In a micro perspective, the potential mismatch between gender equality (i.e. the actual sharing taking place in a couple) and gender ideology (i.e. gender equality in attitudes, as proxy for gender equity), may drive childbearing decisions.

OBJECTIVE
This paper assesses the impact of consistency between gender equality in attitudes and equality in the division of household labour on the likelihood of having another child, for different parities.

METHODS
Relying on two-wave panel data of the Bulgarian, French, Czech, Hungarian and Lithuanian Generations and Gender Surveys, we build a couple typology defined over gender attitudes and housework sharing. The typology identifies 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; 4) gender equal attitudes and gender equal housework sharing. The couple types enter into a logistic regression model on childbirth.

RESULTS
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 all the other couple types on a new childbirth is strong and negative for the second child and female respondents.

CONCLUSIONS
The consistency between gender equality in attitudes and the actual equality in housework sharing is only favourable for childbearing as long as there is gender equality in both the dimensions.

Keywords: Fertility, gender equity, gender equality, gender couple typology, GGS survey

¹ The authors are listed in alphabetical order and all of them contributed equally to the paper.
1. Introduction

In the last few decades most developed countries have witnessed a dramatic change in gender roles and attitudes. Whereas some European countries, most notably the Nordic ones, have moved peremptorily towards gender egalitarianism both in the public sphere (i.e. the education system and the job market) and in the private one (i.e. the housework and childcare gender role-set), other countries appear to have experienced substantive changes on the first sphere but less in the family sphere, a feature epitomised as the “stalled gender revolution” (Hochschild and Machung 1990). Recent studies suggest that gender equality at the family level is also linked to reproductive behaviour, and stronger gender equality appears to be associated with higher fertility (e.g. Neyer et al., 2013; Oláh, 2003; Duvander and Andersson, 2006). McDonald (2013) argues that when comparing different countries, higher gender equality may very well lead to higher fertility, but, more importantly however, as one moves away from the male breadwinner model, it is the potential mismatch between gender equality (i.e. the actual sharing taking place across gender) and gender equity (i.e. 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”, and such a feeling of disappointment may lower fertility. To exemplify, if the woman has liberal attitudes for what concerns gender roles (i.e. score high on gender equity), whereas the man does 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 and Sironi, 2012; Aassve et al. 2014a). There is some evidence suggesting that indeed inconsistency between sharing attitudes and actual division of housework reduces the likelihood of continued childbearing also in high gender-equal society such the Swedish one (Goldscheider et al. 2013).
Our analysis follows up on these ideas and tackles the issue directly. Our hypothesis is that the variation in gender equality with respect to equity matters for explaining childbearing outcomes. Considering the couples’ 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 gender division of household chores has a negative impact on childbearing behaviour. The analysis is made on a sub-set of European countries based on the Generations and Gender Surveys (GGS) in which information concerning equity and equality at the household level is available. These countries with such information are Bulgaria, Czech Republic, France, Hungary, and Lithuania. Controlling for country differences and separating the model by gender and parity, we show how a couple's typology (defined over gender attitudes and gender housework sharing) differs in the rate of fertility progression.
2. Theoretical background and literature review

2.1. Gender equality and fertility

It is now increasingly acknowledged that gender equality plays a role in explaining fertility differential in advanced countries. For instance, Myrskylä et al. (2011) argue 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 appears lower in those countries where gender equality is low. The numerous studies considering the effect of gender equality on fertility tend to differ in that they use different measures of gender equality, the key disparity coming from some focusing on objective measures of country institutions, whereas others focus on actual sharing taking place within couples.

As for the macro perspective, Mills (2010) tested the impact of six indices representing various dimensions of gender equality on fertility intentions. Only two of them proved significantly linked to fertility. The GDI (Gender-related Development Index), 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 (the European Union Gender Equality Index), 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, because the GDI portrays gender equality from a macro perspective, as it reflects gender equality in human development in a society, whereas the EU-GEI, in contrasts, is a summary measure representing gender equality as it is aggregated from the couples’ actual behaviour.

Those studies focusing at the micro level on sharing of household tasks (i.e. actual division of household work), tend to find a positive association of gender equality both with fertility intentions and fertility behaviour (e.g. Cooke, 2008; Mills et al., 2008; Oláh, 2003; Tazi-Preve, 2004; Torr and Short, 2004). The burden of domestic care more frequently lies with the female
partner, even in the most advanced societies, but it is nevertheless mitigated by several couple characteristics. For instance, being part of a dual-earner couple and the time spent by the woman in the labour market matter for the extent women are able to undertake childcare tasks and household work (Gershuny, Bittman, & Brice, 2005; Tanturri and Mencarini, 2009). 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 households where sharing took a more traditional patterns. This is in 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 it was already shown previously for the Italian context by Mencarini and Tanturri 2004).

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 the impact of 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 correlate with the extent sharing of household tasks takes 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 equality increased not only the degree of equality within the home, but also the likelihood of having a second birth. More specifically, access to private childcare significantly increased the chance 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.

2.2. Gender ideology and fertility

An important distinction emerging in the literature about gender and demographic behaviour is that between the concept of gender equity on one hand and gender equality on the other hand (McDonald 2000 and 2013; Neyer et al. 2013). The concept of gender equity refers to “fairness of treatment for women and men, according to their respective needs. This may include equal treatment or treatment that is different but which is considered equivalent in terms of rights, benefits, obligations and opportunities” (ILO, 2000). It is distinct and different from the concept of gender equality, which is more straightforward in the sense that it can be measured simply by comparing outcomes for men and women in areas such as education, employment, wages, participation, health, and so on. Gender equity is a more subtle concept that allows for different outcomes for men and women so long as men and women regard the outcomes as fair. Thus, gender equity is about perceptions of fairness rather than equality of outcome. What is considered being fair by gender varies by context and cultures, and historical periods. The perception itself of gender fairness is therefore conditioned by the cultural-institutional context. For instance, women can be perceived to live in a fair gender context when the actual gender equality is very low or, on contrary, even for societies where the gender equality is quite high, some women may perceive the prevailing cultural-institutional gender context as being unfair (Mencarini 2014a, 2014b).

There are now several studies looking at the role of gender attitudes, the focus being especially on the extent in which “gender ideology” determines division of household work. Gender role attitudes, often measured by batteries of questions about gender role-set, can be considered a
proxy of the gender equity. 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, 1996; Coltrane, 2000).

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 measurements (Mills et al. 2011). Puur and colleagues (2008) using data from the 2001-2003 surveys of the DIALOG project conducted a comparative analysis on men in Austria, Estonia, East and West Germany, Italy, Lithuania, Netherlands, and Poland. Their results showed that more egalitarian men – in terms of opinions and attitudes about gender equality (i.e. gender equity) – desired to have, and actually had, more children than traditional men. 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), they 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 (2009) used opinions on the role of the woman in society and her choice between work and children. As already highlighted in an extensive literature review by Coltrane (2000) on household labour, gender attitudes tend to predict better men’s participation in housework than women’s. Furthermore, gender ideology may matter differently for men and women: Kaufman (2000) showed that egalitarian women were less likely to intend to have a child, and actually have a child, than traditional women, whereas egalitarian men were more likely to intend to have a child than traditional men. Miettinen et al. (2011) found that men with either traditional or egalitarian attitudes had higher fertility intentions and desires compared to men with intermediate gender attitudes, independently of their family values.
2.3. Gender equity-equality gap and fertility

McDonald (2000; 2006; 2013) makes an important contribution to fertility theories by introducing the possible role for the *gap* between equity and equality: 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. This argument is consistent with Myrskylä et al. (2011), but also with Neyer at al. 2013 and Aassve et al. (2014b), 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 that low inconsistency between equity and equality brings about higher subjective wellbeing associated with childbearing. Esping-Andersen (2009), making a compelling case for why gender equality may matter for observed fertility levels across advanced societies, points out that 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. As explained by Aassve et al. (2014b) in the path of “women's revolution”, to use the language of Esping-Andersen, there might be for some countries the transitional phase, when gender equity changes 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 (thereby leading to a gap between gender equity and equality).

An important point to be made from this analysis is that gender equality has both macro and micro components. The macro perspective refers to the institutions that society provides in order to ensure equality across genders, and this means infrastructures 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. In the predominantly male breadwinner model of the sixties and the seventies fertility might have been high because there was no gap between gender equity and equality - despite the low gender equality. A successful transition to an egalitarian society 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 partners to share household tasks. As is argued in Aassve et al. (2014\textsuperscript{b}), the speed of this diffusion may be closely linked to long standing and deep rooted cultural differences across countries. This relates to the fact 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 societal institutions evolving, thereby enabling gender equality, there might still be an equity – equality gap in the family sphere, which is maintained through persistency in those norms. Finally, it is important to keep in mind that, despite the 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.

Furthermore gender equal attitudes and a gender equal division of household labour 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 automatically 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 whether this combination of “declared” and “acted” gender equality has an impact on childbearing decisions.

What is clear from the current literature is that very few consider both the equity 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 on 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). Relying on the Swedish Young Adult Panel Study (YAPS), the authors combine 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 reduces the likelihood of childbearing.
3. Data and measurement

3.1. GGS 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 concern fertility, partnerships, gender and intergenerational relations, expressed in care relations and in the organization of paid and unpaid work. Our sample is derived from the two waves of the Bulgarian, Czech, French, Lithuanian and Hungarian surveys. The first wave of the data was collected in 2004 in Bulgaria, in 2005 in France and Czech Republic, in 2006 in Lithuania and between the end of 2004 and the beginning of 2005 in Hungary. The second wave was collected three years later for all the countries except Hungary (four years later). Whereas other surveys from the GGP also offer two observational points in time, only these five surveys offer satisfactory variables regarding gender attitudes and the division of household work on which the couple typology is built. Information concerning division of household tasks is only available for co-residing partners, thus couples in which partner are not living together are excluded. Moreover, we include only individuals who live with the same partner in the two waves. Homosexual couples are excluded. The sample is further restricted to include only women aged up to 45 years. The total number of observations in the cleaned sample is thus 9,326.

Whereas these surveys provide 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 is reported by the respondents. This has important implications for our measure of gender ideology on the 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

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2 In particular, the German dataset had a different range of response values in the variables regarding housework, compared to the other countries; the Dutch dataset missed one variable regarding housework and seven variables on gender attitudes we need to build the couple typology; the Australian one missed many items on attitudes and Georgian on had a sampling strategy with replacement of respondent which impedes to exploit the panel dimension properly.
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: on the one hand, the respondent might be biased in the way he or she reports sharing of household tasks, and 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 within the couple.

3.2. Typology of couples

Our dependent variable is defined as a binary variable taking the value 1 if the couple has a child between the two waves, zero otherwise. In the regressions we include a wide range of control variables capturing age, employment, education and financial situation of the members of the couple, marital status and satisfaction with the relationship with the partner. The key explanatory variable, however, is the couple typology which we build from the combination of gender attitudes and information about the extent of sharing between partners of household tasks. Attitudes towards gender equality derive from eight items, selected 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 scale. The first two items belong to the theme of gender equality inside the couple relationship (“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”). Then there are other three items on the issue of gender equality within the family (“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”). The final three items refer to the issue of gender equality within society (“When jobs are scarce, men should have more right to a job than women”, “A woman has to have children
in order to be fulfilled” and “A man has to have children in order to be fulfilled”). These latter two questions do not refer to gender equality attitudes directly and they are not comparative of men and women, if taken alone, but they compensate each other when considered together in a sum, as it happens with our attitudes index. Furthermore, they do show strong correlation with the other items suggesting that an agreement to these statements also reflect more traditional attitudes - also for what concerns gender.3

For the division of housework the question is framed as follows: “Please tell me who does the following tasks in your household” where the items on routine household work 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.4

The first step of creating the couple typology consists of 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 reflects the lowest possible value of attitudes towards gender equality (i.e. highly conservative) and 40 refers to the maximum level of gender equal attitudes. In the second stage we measure the extent to which the distribution of housework between the members of a couple 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. An

3 The reliability of this set of items on gender attitudes is tested through Cronbach alpha for each country, whose score is 0.59 for Bulgaria, 0.68 for Czech Republic, 0.65 for France, 0.57 for Hungary and Lithuania.
4 The Cronbach alpha for the items on the division of household tasks is 0.77 for Bulgaria, 0.75 for Czech Republic, 0.57 for France, 0.7 for Hungary and 0.74 for Lithuania.
important element of constructing the sharing 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 represents a situation where the woman does all of the housework, while on the opposite, an overall score of +8 suggests a couple in which the man does all of the housework.

Here “low attitude toward egalitarianism” refers to scores from 8 to 24 of the index on attitudes, being 24 the midpoint of the interval 8-40, and “gender unequal sharing of household work” refers to scores from -8 to 0 of the index on housework. 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 gender equal sharing.

Table 1 shows country differences in the mean of both the index portraying gender equality in the attitudes of the respondents, and the index of gender equality in the division of household work of the couple.

Not unexpectedly, France is the country with the highest average gender equality both in the reported attitudes and in the division of household labour. Bulgaria and Hungary are far behind on the path of gender equality, compared to France. This is especially the case for the attitude index, and we see that the Hungarian sample in particular score low on attitudes.

Three additional unsurprising findings can be seen in Table 1. First, female respondents declare on average a more gender unequal division of household labour than male respondents - in all countries. Second, women do far more housework than men (full equality should be around the zero). Third, 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 will be analysed by our regression analysis. It is possible that some men who declare gender equal attitudes but do not comply with what is asserted, 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 their expressed opinions on gender equality does not follow through.

Table 2 presents the proposed classification of couples in types. In the group named “Consistent inequality”, couples 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 gender equal attitudes. “Inconsistency 1” is the combination of gender unequal division of housework and gender equal attitudes, whereas “Inconsistency 2”, which is the combination of gender equal division of housework and gender unequal attitudes. Table 3 gives the percentage distribution of these four couple types for the five countries of our dataset.

Looking towards Table 3, we see that Bulgaria and Hungary are very similar; Czech Republic and Lithuania are very similar to each other, and not so different from Bulgaria and Hungary. In these countries the majority of couples are of the Consistent inequality type, suggesting that the male breadwinner model is still highly prevalent. Interestingly, the Consistent equality group is extremely small in Bulgaria and Hungary, but somewhat larger in Czech Republic and Lithuania. For the Inconsistency 1 type (where the couple has egalitarian attitudes, but where the woman is bearing the brunt of the household work), we find much higher frequencies. Not unexpectedly, France very much stands out. The Consistent inequality couple type is considerably lower than what is the case for the other countries, but perhaps most interestingly is the group Inconsistency 1, which stands at 53%. Thus, a large proportion of the French sample reports that they have gender equal attitudes, but the majority of their household work nevertheless falls on women. Moreover, only 18% of the French sample reports consistent gender equality
TABLE 1 – Descriptives of the indices of gender equity and gender equality by country

| GENDER EQUITY AND EQUALITY | Bulgaria N=3,386 | Czech R. N=656 | France N=1,797 | Hungary N=2,881 | Lithuania N=606 |
|---------------------------|-----------------|----------------|---------------|-----------------|-----------------|
| Average Index for gender equality in the attitudes, female respondents (range: [8,40]) | 20.9 (0.09) | 21.9 (0.23) | 26.4 (0.17) | 19.4 (0.12) | 23.1 (0.22) |
| Average Index for gender equality in the attitudes, male respondents (range: [8,40]) | 20.8 (0.11) | 21.6 (0.28) | 26.2 (0.18) | 19.7 (0.14) | 22.6 (0.21) |
| Average Index for gender equality in housework, female respondents (range: [-8,+8]) | -3.9 (0.06) | -4.1 (0.14) | -3.2 (0.09) | -4.2 (0.06) | -3.7 (0.17) |
| Average Index for gender equality in housework, male respondents (range: [-8,+8]) | -3.2 (0.07) | -2.4 (0.17) | -2.2 (0.1) | -3.1 (0.07) | -3.2 (0.16) |

Standard errors in parentheses

TABLE 2 – A typology of couples

| Division of household work | Level of gender equality in the attitudes as reported by the respondent |
|----------------------------|-----------------------------------------------------------------------|
|                            | Below the midpoint | Above or equal to the midpoint |
| Gender unequal             | Consistent Inequality | Inconsistency 1 |
| Gender equal               | Inconsistency 2 | Consistent Equality |

TABLE 3 - Percentage distribution of couple types

| Percentage distribution of couple types | Bulgaria N=3,386 | Czech R. N=656 | France N=1,797 | Hungary N=2,881 | Lithuania N=606 |
|----------------------------------------|-----------------|----------------|---------------|-----------------|-----------------|
| Consistent inequality: gender unequal division of housework, gender unequal attitudes | 67 | 58 | 25 | 71 | 48 |
| Inconsistency 1: gender unequal division of housework, gender equal attitudes | 22 | 26 | 53 | 17 | 34 |
| Inconsistency 2: gender equal division of housework, gender unequal attitudes | 8 | 9 | 4 | 9 | 9 |
| Consistent equality: gender equal division of housework, gender equal attitudes | 3 | 7 | 18 | 3 | 9 |

100 | 100 | 100 | 100 | 100
4. Results

4.1. Descriptive results

Table 4 reports descriptive statistics of the variables involved in our regression models. For what concerns the household characteristics, given the lack of information on household income, our proxy variable is a question asking “A household may have different sources of income and more than one household member may contribute to it. Thinking of your household’s total monthly income, is your household able to make ends meet…” with answers from “with great difficulty” (value 1) to “very easily” (value 6). Relationship quality is measured on a 0-10 point scale, following the question “How satisfied are you with your relationship with your partner/spouse?”. Concerning the partners’ characteristics, education is measured according to ISCED levels, while employment is asked through a question on the types of present work and daily activities. In our sample, employed people are individuals with a job and regular earnings, and include therefore all those employed and self-employed, those momentarily on maternity leave, paternal leave or childcare leave, those working in a family business or farm, and also those in military or civil service. Students, retired, homemakers and other individuals unable to work are excluded from the category of employed people. In the regression models, education is represented by a dummy taking value 1 if the person is graduate, whereas employment is coded by a set of three dummies, representing the cases of unemployment, individuals working from 1 to 39 hours worked per week, and those working at least 40 hours worked per week.

Looking at the descriptive statistics, the ability of the household to make ends meet seems more compelling in Bulgaria than in the other countries, and especially compared to France. Marriage is far more widespread in Bulgaria and Lithuania, with the lowest rate of 67% for France, whereas the average number of children ever born in these country samples does not vary much. Interestingly, over the period covered by our panel, 24% of couples from the French sample reported childbearing, against the 13% in Bulgaria and 17% among the Lithuanian couples, which is in contrast with 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 by women does not follow exactly the employment patterns when compared to men. 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 the lowest in Bulgaria, for both sexes, and slightly higher in France compared to Hungary.

TABLE 4 - Descriptive statistics. Mean or frequency of model variables by country

| HOUSEHOLD AND COUPLE CHARACTERISTICS |   |   |   |   |   |
|-------------------------------------|---|---|---|---|---|
| The household is able to make ends meet (range: [1,6]) - mean | 2.2 | 3.1 | 3.5 | 3.3 | 3.5 |
|                                      | (0.02) | (0.05) | (0.03) | (0.01) | (0.04) |
| Couples with a new childbirth between the two waves (%) | 13 | 19 | 24 | 22 | 17 |
| Parity (i.e. mean number of children ever born) | 1.7 | 1.7 | 1.7 | 1.6 | 1.6 |
|                                      | (0.02) | (0.04) | (0.03) | (0.02) | (0.04) |
| Married couples (%) | 87 | 86 | 67 | 82 | 90 |
| Relationship quality (range: [0,10]) – mean | 8.8 | 8.8 | 8.6 | 8.9 | 8.5 |
|                                      | (0.03) | (0.06) | (0.03) | (0.03) | (0.06) |

| WOMAN’S CHARACTERISTICS |
|-------------------------|
| Employed (%) | 70.5 | 87.5 | 80.1 | 83.4 | 82.3 |
| Average number of hours worked (for employed) | 42.6 | 40.6 | 34.4 | 39.1 | 39.2 |
|                                      | (0.22) | (0.40) | (0.29) | (0.22) | (0.51) |
| Graduated (%) | 23.4 | 35.4 | 40.6 | 21.7 | 14.0 |
| Mean age (in years) | 34 | 34 | 35 | 34 | 34 |
|                                      | (0.11) | (0.24) | (0.15) | (0.12) | (0.28) |

| MAN’S CHARACTERISTICS |
|-----------------------|
| Employed (%) | 74.7 | 94.1 | 92.1 | 88.2 | 91.1 |
| Average number of hours worked (for employed) | 46.1 | 48.2 | 42.6 | 44.9 | 43.8 |
|                                      | (0.27) | (0.42) | (0.30) | (0.22) | (0.52) |
| Graduated (%) | 14.3 | 26.6 | 33.2 | 17.3 | 15.7 |
| Mean age (in years) | 38 | 37 | 37 | 37 | 37 |
|                                      | (0.12) | (0.28) | (0.18) | (0.15) | (0.30) |

Standard errors in parentheses
4.2. The effect of couple typology on childbearing

As can be seen from Table 5, we made 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 greater than 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 (i.e. “consistent equality” type). Thus, the three couple types reported in Table 5 represents deviations from that typology. Robust standard errors are estimated, thereby adjusting for the country clustering.

Three major results are immediately evident from Table 5. First, we find that the coefficients of the couple types differ in significance for men and women. Secondly, the typology matters in most part for parity one, whereas it has no impact for the onset of childbearing (i.e. parity zero), while it has an impact only for men, and with reversed sign, when considering birth orders over the second. As suggested by the literature, parity one is a threshold salient for gender processes at the household level, and where it receives their influence (e.g. Oláh, 2003; Torr and Short, 2004).

For female respondents and parity one (i.e. progression to 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 with gender unequal housework sharing, or with both characteristics together, 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 the “Inconsistency 1” type, which has a straightforward reasoning. This category consists of 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. Women might be experiencing a feeling of disappointment due to unfulfilled expectations since they are gender
equal, but at the same they have to cope with a traditional housework sharing. This kind of mismatch decreases the likelihood of further childbearing.

The third category, i.e. the “Inconsistency 2” type, is less intuitive in the sense that it is harder to understand why the partners would organise themselves in this 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 (not displayed here) shows 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 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, and at the end the time availability. Perhaps, if these external conditions were different, the housework sharing would have been more gender unequal, as gender unequal attitudes would make us predict. These arguments suggest 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 concentrated in Bulgaria and Hungary), so do not constitute a large contribution to the overall progression to second childbearing.

The group “Consistent inequality”, representing couples where the respondent declared
gender unequal attitudes and the household work was consistently gender unequal, thus exemplifying the male breadwinner model, also associates with lower rate of fertility progression. This result is not consistent with the simple equity-equality hypothesis put forward by McDonald, since “Consistent inequality” should 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” arrangement represents by far the largest groups in all the countries but France (see table 1), and includes 58% of the overall sample. The impact of “Consistent inequality” is consequently driven by the Eastern European countries which make up 92% of this group. There are several possible explanations for the pattern of “Consistent inequality” observed for Bulgaria, the Czech Republic, Hungary, and Lithuania. 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 1990s (Robila, 2004; Szelewa & Polakowski, 2008), reverting in the direction of the male breadwinner model. Moreover, the structural changes following the collapse of the socialist regime were not accompanied by a shift to less traditional values in these societies, and this contributed to their fertility decline (Spéder and Kapitány, 2014).

Table 5 also reports estimates for the control variables’ effect. These results are quite consistent with the literature. In particular we controlled for the age of the man and the woman of the couple, for higher education for partners (being her education not significant, whereas his higher education has a positive effect in two models for parity 1 or higher); for the quality of the relationship (which is in several cases statistically significant for parity zero – where, in terms of average marginal effect, its impact is higher than that of the couple type – and parity 1 in the model for female respondent); for the occupational status of her and him in the couple (noting that his
occupational status matters more often).  

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5 At this regard, note that most of the couples are married (see table 4) and that the category of respondents with the highest number of hours spent in the labour market is relatively small.
### TABLE 5 - Logit regressions: the impact of the couple types on a new birth

| Respondent | Parity 0 Men | Parity 0 Women | Parity 1 Men | Parity 1 Women | Parity >1 Men | Parity >1 Women |
|------------|--------------|----------------|--------------|----------------|--------------|----------------|
| (Ref: Consistent equality) |               |                |              |                |              |                |
| **Consistent Inequality** | 0.28          | 0.37*          | -0.43*       | -0.84***       | 1.05*        | -0.33          |
| (0.43) | (0.20) | (0.21) | (0.15) | (0.47) | (0.68) |
| **Inconsistency 1** (gender unequal housework, equal attitudes) | -0.37         | -0.22          | -0.40         | -0.68***       | 0.51*        | -0.08          |
| (0.45) | (0.34) | (0.29) | (0.13) | (0.28) | (0.42) |
| **Inconsistency 2** (gender equal housework, unequal attitudes) | 0.26          | 0.13           | -0.64*       | -1.22***       | 1.09*        | -0.59          |
| (0.40) | (0.33) | (0.36) | (0.37) | (0.51) | (0.54) |
| The household is completely able to make ends meet | 0.17          | 0.19           | 0.16         | -0.44**        | 0.69         | -0.17          |
| (0.50) | (0.23) | (0.44) | (0.16) | (0.48) | (0.27) |
| The couple is married | 0.99***       | 0.67***        | -0.39        | -0.01          | -0.17        | -0.52          |
| (0.16) | (0.15) | (0.29) | (0.43) | (0.57) | (0.41) |
| Relationship quality | 0.05          | 0.14*          | 0.06         | 0.05*          | -0.01        | -0.02          |
| (0.05) | (0.08) | (0.06) | (0.02) | (0.14) | (0.09) |
| Age of the woman | -0.02         | -0.07          | -0.05        | -0.11**        | -0.08        | -0.02          |
| (0.03) | (0.05) | (0.03) | (0.04) | (0.05) | (0.03) |
| The woman is graduate | 0.12          | 0.16           | 0.16         | 0.03           | -0.03        | 0.07           |
| (0.13) | (0.15) | (0.36) | (0.22) | (0.34) | (0.29) |
| (Ref. Woman is not employed) |               |                |              |                |              |                |
| The woman is employed and works up to 39 hours per week | 0.37          | 0.62*          | -0.28        | 0.15           | -0.31*       | -0.09          |
| (0.32) | (0.34) | (0.30) | (0.18) | (0.13) | (0.34) |
| The woman is employed and works at least 40 hours per week | -0.07         | 0.13           | -0.12        | -0.14          | -0.57        | -0.47*         |
| (0.26) | (0.36) | (0.09) | (0.29) | (0.40) | (0.22) |
| Age of the man | -0.04*        | -0.06*         | -0.07*       | -0.02          | -0.00        | -0.04*         |
| (0.02) | (0.03) | (0.03) | (0.02) | (0.02) | (0.02) |
| The man is graduate | 0.23          | 0.02           | 0.15         | 0.62***        | 0.42***      | -0.10          |
| (0.28) | (0.10) | (0.31) | (0.18) | (0.08) | (0.31) |
| (Ref. Man is not employed) |               |                |              |                |              |                |
| The man is employed and works up to 39 hours per week | 0.65*         | 0.16           | 0.75**       | -0.17          | -0.83*       | -0.45          |
| (0.32) | (0.31) | (0.25) | (0.21) | (0.34) | (0.29) |
| The man is employed and works at least 40 hours per week | -0.14         | 0.75***        | 0.20         | -0.03          | -0.97**      | -0.16          |
| (0.34) | (0.23) | (0.17) | (0.18) | (0.37) | (0.13) |
| **Hungary (ref. Bulgaria)** | -0.61***       | -0.16*         | 0.74***      | 0.63***        | 0.27***      | 0.30***         |
| (0.09) | (0.07) | (0.09) | (0.11) | (0.05) | (0.08) |
| **Lithuania** | -0.94***       | -0.43**        | 0.60***      | 0.30**         | 0.54***      | 0.28**          |
| (0.18) | (0.16) | (0.11) | (0.10) | (0.13) | (0.11) |
| **Czech Republic** | -0.99***       | 0.11           | 0.64***      | 1.35***        | -0.75***     | 0.15***         |
| (0.13) | (0.09) | (0.08) | (0.18) | (0.05) | (0.04) |
| **France** | -0.88**        | -0.07          | 1.61***      | 1.28***        | 0.95***      | 0.41            |
| (0.27) | (0.24) | (0.29) | (0.16) | (0.25) | (0.31) |
| **Constant** | 0.94*         | 1.13           | 2.27**       | 3.07**         | 0.12         | 0.97            |
| (0.53) | (1.00) | (0.69) | (1.05) | (0.82) | (0.63) |
| **N** | 493           | 559            | 812          | 1151           | 1799         | 2354            |

Robust standard errors in parentheses (clustered at country level)  
+ p < 0.10, * p < 0.05, ** p < 0.01, *** p < 0.001
5. Conclusion

In this analysis we have constructed a four category couple typology based on gender attitudes and equality in household sharing using individual level data from five European countries. As outlined in our theoretical section, the underlying hypothesis is that consistency in attitudes and equal sharing of household has a positive effect on childbearing outcomes, whereas inconsistency should lower fertility. As we have shown, our results only give partial support to this hypothesis. Indeed, couples who are gender equal in attitudes and also have a higher level of sharing are more likely to have a second child. Whereas the two types of inconsistencies are associated with lower fertility, as we hypothesised, we also find consistent inequality to be associated with lower likelihood of having a second child. This means that male breadwinner couple types also have lower progression from parity zero to parity one for those countries considered here. Importantly, the couple typology becomes salient only when considering the second child. When we consider the onset of parenthood, there is no effect from the couple types. What is consistent with our hypothesis however, is that any inconsistency between attitudes and sharing tends to lower fertility through lower progression to second birth. It is interesting to note that for progression to higher order parities, family arrangements corresponding to “Consistent inequality” (i.e. fully traditional families) and “Inconsistency 2” (traditional attitudes and equal sharing of housework) have a positive impact on the likelihood of a new childbearing, but only in the model for male respondents. For the case of “Inconsistency 2”, this could suggest that when the family consists of a large number of children, fathers are also taking on a more relevant part of the housework, as a necessity for the family organization. As for “Consistent inequality”, the positive impact for male respondents might be driven by the fact that men will be more willing to have three or more children if the woman is doing most of the housework, and especially if they are a traditional family.

It is of interest, however, to compare our results with Goldscheider et al. (2013), who find that for Sweden 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. Being consistently unequal is not significantly different from being consistently equal. However their study focuses only on Sweden, a country where gender ideology and equality have come rather far. The comparison between our results and those previous results raises an interesting idea, namely, that the effect of the equity–equality gap may have different impact on fertility that depends on the stage in which the society has evolved in the equity and equality path. Our analysis is based on five countries, with at least two different cultural patterns (i.e. France and the others). We build here a couple typology using a unique threshold, equal for all the countries, to distinguish between gender equality and gender inequality either in housework or in attitudes. It is not unlikely that the salience of a couple typology depends on the distribution (and hence diffusion) of the groups contained within the typology. That said, it is important to keep in mind that despite the heterogeneity across European countries, our analysis brings further support to the argument that fertility becomes higher when gender ideology is not traditional and the woman does not bear a disproportionate amount of household work. Since low fertility in Europe is driven by relatively high rates of childlessness and a low rate of parity progression from one to two children, if gender equity and equality play a role for fertility outcomes, the arguments have important policy implications toward the improvement of gender equal opportunities. This would be in line with those policies introduced over the last couple of decades in the Nordic countries, where, fertility rates are above the European average level.

Whereas our overall results appear robust, it is important to point important caveats. The most important one is that we do not have partner specific information about attitudes. Our estimation might be biased from the fact that partners differ in their reporting of gender attitudes. Another important issue arises from the fact that the male response quality is often poor and it is well known that men tend to over-report their own contribution to household sharing (Baxter,

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6 We tried several specifications of the covariates, and the significance of the four types of couple was quite stable and drove us substantially to the same results. Moreover, when we specified in a different way the categories of the typology, replacing the typology in the models with the two indices of gender equality and equity in form of dummies and their interaction (which is equivalent to our type “Consistent equality”), we found confirmation for our current final results. A gender equal family arrangement consistent with gender equal attitudes affects positively the progression to the second birth.
1997). One should also emphasise that a full empirical test of the theoretical argument made, require a long comparative panel data. With the data points currently available from the GGS we are not able to address the inherent dynamic temporal argument, and we are not able to compare a larger number of countries.
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