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What Made Him Change? An Individual and National Analysis of Men's Participation in Housework in 26 Countries

M. José González
E-mail: mjose.gonzalez@upf.edu

Teresa Jurado-Guerrero
E-mail: tjurado@poli.uned.es

Manuela Naldini
E-mail: manuela.naldini@unito.it

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Department of Political & Social Sciences
Universitat Pompeu Fabra
Ramon Trias Fargas, 25-27
08005 Barcelona
http://sociodemo.upf.edu/

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Abstract

We offer new evidence on multi-level determinants of the gender division of housework. Using data from the 2004 European Social Survey (ESS) for 26 European, we study the micro and macro-level factors which increase the likelihood of men doing an equal or greater share of housework than their female partners. A sample of 11,915 young men and women is analysed with a multi-level logistic regression in order to test at individual level the classic relative-income, time-availability and gender-role values, and a new couple conflict hypothesis. At individual level we find significant relationships between relative resources, values, couple's disagreement, and the division of housework which support more economic dependency than "doing gender" perspectives. At the macro-level, we find important composition effects and also support for gender empowerment, family model and social stratification explanations of cross-country differences.

Keywords

Domestic Division of Labour, bargaining, gender, housework, relative resources, European Social Survey, Cross-national Comparisons

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Introduction

Is the male-breadwinner family about to vanish amongst young cohorts? This model, widespread after the World War II, imposed rigid gender roles whereby men were supposed to be in the labour market and women in domestic and caring activities. We now see that the 'mid-(twentieth) century social compromise' (Crouch, 1999) has been radically modified, because it is particularly unrealistic and difficult to sustain in societies with growing economic, personal and family-life uncertainty. The economic instability arises from labour-market deregulation and the flexi-economy (i.e. short-term contracts, self-employment, irregular schedules, and so on), and the family uncertainty from the increase in marital dissolution, shorter union duration, and higher rates of re-unions and consensual unions. Altogether, the gains from gender specialisation in market or home-production are less clear and risky in post-modern societies. However, the fact remains that changes in the gender division of housework are relatively modest, while women have significantly increased their working time in the labour market.

The aim of this article is to explore the conditions under which high degrees of gender equality emerge within young-adult couples in post-industrial societies. The indicator selected for 'gender equality' is men's share of domestic activities. We rely on two main theoretical approaches, the first largely socio-economic, the second centred on preferences and culture. But we also expand the analysis into a third dimension, which is the national institutional context. We build on current explanations which interpret men's participation in domestic activities as the result of women's relative resources and constraints. In addition, we acknowledge recent research which captures men's perception of women's empowerment and capacity to 'walk away' from unwanted relationships, as well as the role of people's attitudes to the gender division of paid and unpaid work. In order to achieve our research goal we develop a comprehensive multi-level and cross-national analysis on how men's and partners' characteristics as well as national contexts influence male participation in household work.

The analysis is structured in five large sections. The first section reviews the main theories explaining trends and cross-national differences in the domestic division of labour. The second section reviews recent empirical studies on the gender division of housework. The third section describes the theoretical model and main hypotheses. The fourth section describes the data, variables and method. The fifth section discusses the main results. The article concludes with a discussion of the statistical results and an interpretation of the multiple interrelations connecting men, women, the family, the labour market, and the institutional context.

1. Couple's Domestic Division of Labour: Main Theoretical Explanations

This section critically summarises the theoretical debate on the determinants of the division of housework. In order to structure the extensive body of research conducted since the early 1970s, we have summarised different approaches according to the main explanatory device used by their proponents: relative resources and bargaining theories; gendered norms, attitudes and values, and the role of the national/cultural context.

Maximising family utility, relative resources and bargaining models

Since the 1960s, neo-classical economics were concerned with the issues confronted by men and women in allocating their time and wealth so as to maximise family well-being. The basic model assumes that considerable efficiency gains are yielded by the traditional division of labour in which the husband specialises in market work and the wife in homework (Becker, 1981). In this specialization model, the main goal of the family is to maximise its joint utility or satisfaction. Specialisation is thus the result of the relative advantages for home and market production of each partner, estimated by their relative market earning power.

Many authors argue, however, that this approach neglects important issues, such as the non-economic benefits of marriage associated with companionship or affection, women's financial dependency through the process of specialisation, institutional 'distortions' due to the unequal access to market opportunities or normative gender roles, or the fact that the comparative advantage of an individual does not necessarily remain the same over the life cycle (Blau, Ferber and Winkler 2001). It further assumed a normative concept of rationality without considering the variation in social norms or ideologies, the extent to which the notion of rationality is itself subject to change (Duncan and Edwards 1999), and the very unlikely premise that women share homogeneous patterns of actions and orientations regarding family and waged work throughout all Western societies (Pfau-Effinger 1998).

In addition, family consumption and production decisions are today, more than in the past, the result of a bargaining process between partners who seek to maximise their personal interests. Women's increasing education and earning opportunities have profoundly altered their bargaining power in the household. Bargaining models proposed by economists and based on game theory deploy the notion of 'threat point'. Divorce threat-point (or external threat-point) models emphasize that bargaining within marriage is conducted under the menace of the possibility of divorce (Bittman *et al.* 2003). The bargaining power of each partner is then determined by the level of well-being that each would attain if he or she were unable to reach a cooperative solution within the partnership. This point is normally imposed by the partner better able to 'walk away' from the marital deal (Blau, Ferber and Winkler 2001). Another version of the bargaining model (Lundberg and Pollack 1993) considers a threat point internal to the marriage. Here the spouse can use economically-based bargaining power to get the other partner to do housework. Thus, in the traditional division of labour, women had a weak 'threat point', whereas they are now progressively attaining more 'voice' to assert their preferences. From this perspective, gender affects housework only indirectly, through its effect on relative resources.

Gendered attitudes and values

A second theoretical view on household allocation of work is a more sociological one and considers how gender influences the division of work. The socialization-in-gender-attitudes theory suggests that people socialized to believe in gender segregated work and roles will conform to those norms. The gender ideology/socialization perspective also offers an account of change over time. For instance, Gershuny *et al* 1994 propose the existence of a 'lagged adaptation', arguing that the gendered division of work will change across generations as women's increased employment encourages more egalitarian childhood experiences and socialization practices. Since these changes are slow, other explanations have been put forward. Since the 1980s a strand of research has emphasized two facts: most women continue to perform more family work than their partners, and most of them are happy with their marriages and partnerships, despite an unequal distribution of family work. These facts have contributed to the rise of preference theory as developed by Hakim (2000). Hakim argues that women can be classified into three different preference groups: home-centred, adaptive, and work-centred women. Women in the first and second groups may be happy doing more homework than their partner, since family life and children are their main priority in life, or at least they are so during a certain period of their life cycles. Women's differentiation according to diverging preferences and lifestyles is seen as a product of free choice in the context of affluent modern societies.

Other sociological approaches reject the idea that women can be distinguished according to their preferences and go beyond the passive role of individuals proposed by socialization theories. Drawing on symbolic interactionist, phenomenological, ethno-methodological and feminist understandings of everyday life, they suggest that household work has a symbolic significance and is embedded in complex and shifting patterns of social relations (Coltrane, 2000, 1209). Men and women have different gender identities, and they want to be recognized as a "competent member of a sex category with the capacity and desire to perform appropriately gendered behaviours" (Coltrane 2000: 1213). This means that many sociologists have discarded the traditional norms, attitudes, and "individual choices" arguments and shifted to new perspectives such as "doing gender".

The main idea of "doing gender" is that individual behaviour is affected by expectations held by the others. Individuals "do" and produce gender in everyday activities. This view of gender (West and Zimmerman 1987, Connel 1987), which focuses on social interactions and accountability to other expectations, reject the assumption that people are automatically socialized into rigid gender roles. Wives perform housework in order to enact their femininity symbolically, while husbands avoid it for symbolic masculinity reasons. According to authors, such as Brines (1994), the more a husband relies on his wife for economic support, the less housework he does, in order to compensate symbolically for this non-traditional economic relation. Bittman et al. (2003) likewise argue that "gender trumps money" when women provide more income than their husband, in opposition to what bargaining theory predicts. The violation of gender norms induces either the wife or the husband (or both) to "gender display" (Goffman, 1976), moving towards more traditional behaviour in order to neutralize the deviance. According to this "doing gender" perspective, the gender division of labour is mainly a social practice which

is created and reconstructed by women and men, as well as by social institutions such as family, the welfare state and labour market (see Daly and Rake, 2003, p.38).

Connecting individual and societal context

Scholars adopting a gender perspective have emphasized the multilevel effect of gender, and they have identified several ways in which national state and institutional contexts, through its politics, policies, laws or, broadly defined welfare state, influence gender relations and are in turn influenced by gender relations (see Bittman et al. 2003). Recent integrative approaches treat gender itself as a socially constructed stratification system (Risman, 2004; Connell, 1987). According to Risman (2004), gender can be defined as a social structure which differentiates opportunities and constraints based on sex-category. This has consequences at three different levels: 1) at individual level, for the development of gendered selves; 2) during interaction, as men and women face different cultural expectations; 3) at institutional level, where explicit regulations on resource distribution and material goods are gender specific. This means that, in explaining the gendered allocation of housework, it is important to study expectations at the cultural level (i.e. the differential expectations attached in a given society to being a mother and a father, a husband and a wife) and to the institutional level, where explicit regulations on resources distribution, organizational practices, ideology and legislation are gender-specific. Conceiving gender as a social structure means that analysis is made of how it is embedded in the individual, interactional, and institutional dimensions of society.

As Bittman et al. argue, it is not possible to ascertain whether observed processes that cannot be predicted from relative resource theory operate through "internalised assumptions, preferences, or values, as in the traditional view of internalized norms, or through pressures to render oneself "accountable" by doing gender. But either view suggests "pressure for women to do and men to avoid housework" (2003, p. 191). For this reason it seems promising to focus on men and women who break with gender norms. Many women may have home-centred preferences at some point of time, but there are also many couples who have conflicts about family work, and women who are not satisfied with the division of unpaid work in their intimate relationships, and even women who avoid or exit a relationship due to conflict on this issue. Moreover, there are men who cooperate on relatively equal terms with their female partner in family work. Thus, not all women prefer to do more homework than their partners and not all men do less domestic work than their wives. This is why preference theory and gender-attitudes perspectives cannot simply replace economic and exchange perspectives, and the latter continue to be applied to housework research.

To date, theories have focused on explaining individual and relational mechanisms on the micro-level and few have sought to offer a macro-micro link to explain why national contexts influence the division of housework, even when controlling for composition effects related to differences in the prevalence of certain types of

people and couples. In the next section, we review the main research on cross-national variations in the division of housework.

2. Cross-National Differences in the Gender Division of Housework: empirical evidence

Very few empirical studies have attempted to explain the gendered division of housework at micro level within the broader macro-level system. Here we discuss the main contributions. The first most prominent study, by Breen and Cooke (2005), integrates bargaining and preference in a multi-level model. It develops a game theoretical approach to family bargaining, in which the division of domestic work depends on gender ideology and women's economic capacity to threaten with divorce. The study uses a typology that accounts for heterogeneity in preferences for homework among men and women. They argue that only *Autonomous* women, i.e. women with strong preferences for autonomy, can negotiate a more equal division of the domestic work with their partners, because they can more credibly threaten them with exit from the marriage. On the men's side, only *Cooperators* and *Adjusters* will contribute to domestic tasks, the latter only if their female partners are *Autonomous* women.

Breen and Cooke predict that on a country level the societal division of domestic labour will be more evenly distributed across gender, if the proportion of *Autonomous* women and male *Cooperators* and *Adjusters* reach sufficiently large proportions. They test this idea with ISSP (1994) data for 22 countries, and find a significant effect of the interaction of the national proportions of *Adjusters* and *Autonomous* regressed on the national rates of men participating in domestic tasks. In our view, there is a contradiction between the theoretical model and the empirical test, and limited theorization about how economic resources and gender ideology relate to each other. We do not know, for instance, the extent to which there are economically independent women who have *traditional* preferences with respect to domestic work, and economically dependent women who happen to have *autonomy* preferences.

Batalova and Cohen (2002) analyse the division of domestic labour in 22 countries, finding that several micro-level factors are associated with higher men's cooperation in domestic work: having a non-traditional gender ideology, being younger than 47, having a higher education, wives earning more money than their husbands, husbands not working full-time, and wives working full-time. Having cohabited before marriage also has a positive effect on cooperation across all countries, although its intensity varies by country. According to their multi-level model, context variations account for "a greater share of the variance in housework division of labour across countries than do the controls" introduced at the couple level. Married couples share household tasks more in countries with high cohabitation rates and high female empowerment. The authors do not know, however, whether these national factors are due to institutional differences related to legislation and public policies, culture or gender ideology, or whether they are due to composition effects of couples' characteristics not accurately measured in the models.

In a 13-country comparative study on the division of household labour, Davis and Greenstein (2004) also find important cross-national differences in the participation of men in domestic work. This study reveals that results of comparisons diverge according to who is informing about the couples' situation. First of all, because women are less likely to report that their husbands perform at least half of the domestic work, and secondly because multivariate analyses reveal different results if male and female are sampled separately. With respect to individuals' characteristics, this study finds support for the hypothesis that wives with the same education level as their husbands are more likely to have a more egalitarian distribution of housework, while this is not the case if the woman has a higher education than her husband.[1] A lower economic dependency of women and women's full-time employment also increase the probability of having a more equal distribution of unpaid work.[2] With respect to cross-national differences the authors propose general ideas which are not tested.

Fuwa (2004) shows that macro-level political and economic gender inequalities (measured by the Gender Empowerment Measure produced by the UN) limits the effect of individual level variables (relative resources, time availability and gender ideology) on the division of household labour in 22 countries. The most egalitarian countries are those with higher GEM index, while the less egalitarian are those with a lower index. More importantly, Fuwa finds that women's employment situation and gender ideology have stronger equalizing effects on the gender division of household labour in countries where there is less gender inequality in the labour market and political spheres. In a more recent article Fuwa and Cohen (2007) analyze the effects of some social policies regarding women's employment and work/family conflict on the division of household labour in 33 countries. The authors find, amongst other things, that housework is more equally shared between the genders in countries with an absence of discrimination against women in access to employment and with entitlement to long parental leave, but the same cannot be said for public childcare and the presence of affirmative action.

Geist (2005) shows that time availability, relative resources, and gender ideology, are important determinants of the division of housework. However, these micro-level patterns are not sufficient for understanding macro-level differences in the division of household. According to Geist, welfare states may create a framework that is more conductive to specific arrangements of housework. The author investigates how micro-level patterns of division of domestic work are associated with broadly defined welfare regimes across 10 countries. Countries with conservative regimes have a lower level of equal sharing, and there are higher levels of equal sharing in social democratic countries. The liberal regime is more heterogeneous. Welfare states structure the effect of individual characteristics on the division of housework, although the individual level determinants (gender ideology, response capacity and relative resources) are stronger in liberal regimes than in social democratic and conservative ones, and different for men and women.

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1 This applies to the female sample, but not to the male sample, where domestic labour is more equally distributed if the woman has a higher education than the husband.

2 Again differences emerge between the male and the female samples. Only in the male sample can this relationship be observed.

Crompton (2006) also takes an institutional perspective and studies six countries. She finds the most egalitarian division of housework in the United States, Norway, Great Britain and Finland, and the least egalitarian in France and Portugal. In the Scandinavian countries, governments have promoted policies that encourage men to share more domestic work, while in Portugal such policies have been non-existent. In the case of France, social policies in the last decade have emphasised the objective of attaining gender equality, and there is a generous supply of child-care services, but this does not seem to have led to more equal housework sharing. Following Windebank (2001), Crompton suggests that British men's greater cooperation on domestic tasks may be a consequence of a more flexible labour market, and lower public support for childcare, which on the one hand enable them to do more housework and, on the other, force them to it. At individual level, Crompton finds that having a lower education, having a child in the household, being married, being older, not having a liberal gender role attitude, and women not working full-time increase domestic traditionalism. In a another piece of research on Britain, the Czech Republic and Norway with ISSP data for 1994 and 2002, Crompton et al. (2005) obtain similar results and find a new relationship: the probability of a traditional division of domestic work increases in all three countries when men earn more than women.

Cooke's analysis (2007) for the USA shows the extent to which policy affects relative gender power within the household. Cooke illustrates how public policy can alter "relative gender power". After controlling for women's individual resources, she finds that laws and policies enhancing women's economic power in the event of divorce (i.e. receipt of transfers, child support, etc.) predict that men in couples will perform a greater share of household tasks. Another longitudinal study, for German couples (Cooke 2007), shows that there is great variation in the gender division of housework within a couple over the life cycle.

To sum up, the state of the art reveals important shortcomings in cross-national studies. First, as illustrated in Table 1, cross-national country groupings significantly differ, and particularly so when classifying liberal and former Soviet countries. To be noted, for instance, is the discrepancy in the classification of Poland and Great Britain. This may be the result of differing definitions of housework and differences in the types of couples included in the analysis. This problem is difficult to solve, because, contrary to paid employment, there is no international standard on how to measure household work in international surveys. For the time being, researchers can only be very explicit about what is measured and which sample of people they use.

Table 1: International Country Classifications of Gender Division of Housework, early-mid 2000s

Male cooperation	Batalova & Cohen (2002)	Davis & Greenstein (2004)	Fuwa (2004)	Geist (2006)	Fuwa & Cohen (2007)	Crompton (2006)	Our ESS (2004) based classification
High	Canada East Germany Great Britain Israel New Zealand Norway Sweden USA	Estonia Hungary Czechosl. Russia	E-Germany Norway Sweden USA Canada	Social Democratic countries	Denmark Poland Slovakian Republic Latvia	Finland Great Britain Norway USA	Sweden Denmark Norway Ukraine Slovakian Republic Finland Luxembourg United Kingdom
Medium	Australia Bulgaria Russia Slovenia Netherlands W-Germany	UK United States		Liberal regime countries			Spain Iceland France Czech Rep. Estonia Netherlands Hungary Slovenia Italy Austria Ireland
			Ireland Italy Japan		Cyprus Portugal Spain Japan	France Portugal	Belgium Switzerland Germany Poland Portugal Greece Turkey
Low	Austria Czech Rep. Ireland Italy Japan Northern Poland	Slovenia Japan West Germany Poland		Conservative regime countries			

Source: own elaboration.
Note: samples and definitions differ across studies.

Second, hypotheses about the causal link between macro and micro level factors are relatively new and difficult to test statistically. Some researchers find that welfare-states differences are related to cross-national differences in housework division, but with some important exceptions. Other researchers emphasise context effects more and examine the influence of specific social and gender policies (child care, parental leave, affirmative actions, female employment regulations, policies for divorced women). Some of these studies show that micro level factors affect housework division differently depending on the context. This means that bargaining processes on the couple level and the role of individual gender attitudes and values do not necessarily influence housework division in the same way in all countries. Here our intention is to contribute to the development of macro/micro link hypotheses with new ideas and new empirical evidence.

3. Under what Conditions Do Cooperative Men Emerge? Theoretical Model and Hypotheses

There are particular national contexts which favour the more equal sharing of housework, but there are also diverse factors operating at individual and couple level which determine the final gender division of housework. Consequently, the

gender division of domestic work should be approached using a multi-dimensional model which takes account of individual, couple, and country factors.

As previously discussed, some authors argue that advanced capitalism has enabled women to choose the division of domestic work according to their preferences (Hakim, 2000). Yet it is difficult to determine the extent to which these preferences simply reflect adaptation to individual life circumstances. We do not have longitudinal data with which to test the role of values in the gender division of labour over the life course. In our view, the ideal theoretical model should acknowledge the role of values as well as the chances of living autonomously and bargaining within the couple at both micro (individual or couple) and macro level (societal).

On the individual and household level, we propose the following hypotheses:

1. The **relative resources** of the partners, as measured by the proportion of each partner's income with respect to the total household income, influence the division of housework. We will find cooperative men in households where the woman's income is equal to or higher than the man's.

2. As time availability is an important determinant of housework, we hypothesise that in partnerships where the women are subject to important **time-constraints** due to long working hours men will be more cooperative.

3. If at least one partner expresses **egalitarian gender values**, there is a greater likelihood that the male partner is cooperative than in partnerships where a partner has a clear preference for a traditional division of household work.

4. Couples who **disagree** on the division of housework are involved in a process of renegotiation of gender roles. This is why we assume that, within these couples, men will tend to be more cooperative. Especially women who carry a dual burden will seek to renegotiate the division of domestic work.

Micro variables are not isolated from the national context, because women's capacity to negotiate with their partners is closely related to their resources with which to live independently and their ability to "walk away". Women's relative resources at individual level are influenced by the distribution of resources at societal level and by the timing of women's gender role. Moreover, men's justifications for refusing to assume an equal share of domestic activities are closely related to gender norms and to the general institutional context in which they live. As already mentioned, research has shown that the country in which people live influences their gender division of housework. In relation to the macro/micro link, we perform a new test of some of the explanations already proposed about why country differences matter for the gender division of housework, and we go further by offering some new explanations. We will retest GEM (Gender Empowerment Measure), gender ideology and childcare services for theoretical reasons, and as a way to test the effect in recent data. In addition to previous studies, we include a dimension of social stratification, i.e. the proportion of people in upper-class occupations. Thus, on the one hand we replicate previous macro-variables, and on the other, we introduce new family and class contexts which in our view may

influence resources and perceptions within couples. In contrast to previous research, we restrict the sample to couples where the men is aged between 25 and 47 in order to decrease the heterogeneity of life-conditions of the group and to ensure that the macro-variables affect this group of people in a similar way, in particular childcare services, employment in service-class jobs, and non-traditional couples.

We therefore test the following five macro-micro relationships:

1. Country differences may be due to composition effects. Country contexts that favour male cooperation in housework are those with higher proportions of cooperative male groups. If their behaviour is aggregated at national level, it produces a cooperative country effect (**composition effects hypothesis**).

2. Countries with higher gender-equality in the public sphere (i.e. political, economic and decision-making participation) may be also those where gender-equality is more widespread in the family sphere (**gender empowerment hypothesis**).

3. In countries with high levels of divorce and consensual unions, women and men may perceive the couple's continuity as conditional on a satisfactory relationship. This context situation may strengthen women's capacity to walk away and weaken men's position in negotiations on the couple's housework division (**family pluralisation hypothesis**).

4. A more egalitarian division of housework may be the consequence of the existence of a larger service class (upper class in the Erikson-Goldthorpe class schema), because such couples have a greater capacity to externalise housework (**social class context hypothesis**).

5. In countries where traditional gender roles and values prevail, men may have fewer incentives to perform a large proportion of domestic tasks and, women may be "happier" with performing a traditional family role (**male-breadwinner model hypothesis**).

These hypotheses are not independent from each other, as shown below. However, the aim of this analysis is to explore their individual capacity to reduce the cross-country variation not accounted for by composition effects of individual and couple-level factors. Details on the methodology follow.

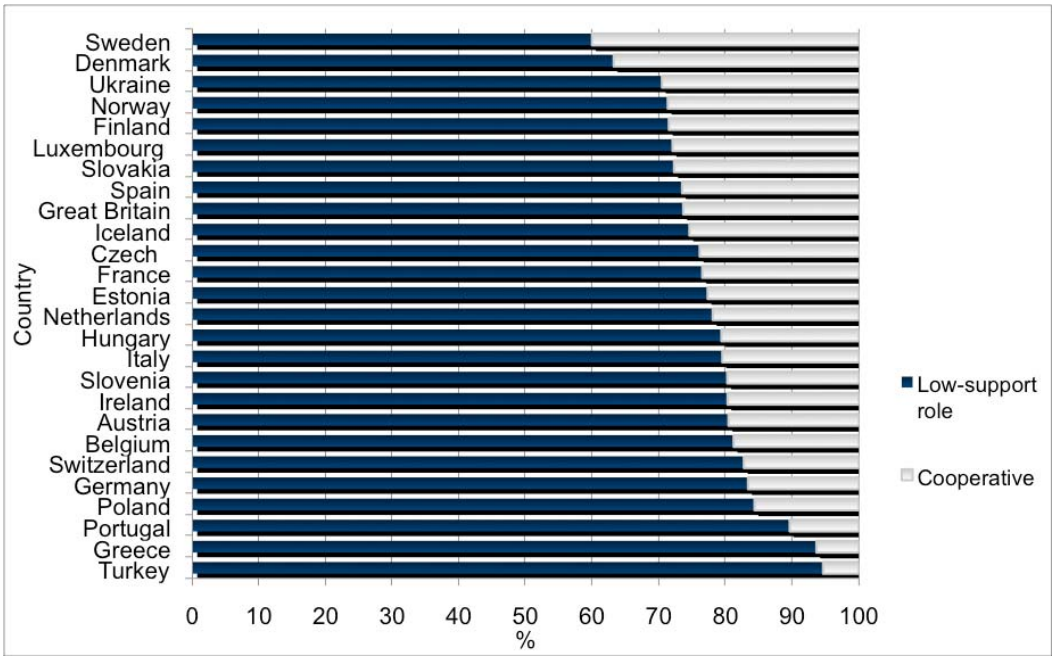
4. Data and method

The analysis is based on the European Social Survey (the ESS). This survey has been designed as a time series data (collection takes place every two years) representative of all individuals' aged 15 and over resident within private households. The questionnaire consists of a 'core' module, which is relatively constant from round to round, plus 'rotating' modules that focus on specific themes. The second round provides information relevant to our analysis on 'Family, Work, and Well-being' (26 countries participated in round 2). This module explores in

particular atypical work, spouse's employment, and spouse's contribution to household chores.

Domestic work is captured in the survey by the question: 'On a typical weekday about how many hours, in total, do people in your household spend on housework for your home?' This is then followed by another question, which asks about the fraction of time that each partner spends on housework. Looking at both partners, we have created a new variable consisting of the fraction of domestic work undertaken by the male partner. This has been coded into two categories: those who are reluctant to cooperate (they either do much less or a bit less housework than their female partners), and those who are cooperative (they do half or more of the housework). The variable is described in Figure 1. The dependent variable is therefore the relative amount of housework that men perform compared to their female partners. It has been coded into two large categories.

Figure 1: Distribution of men aged 25-47 according to their contribution to housework in relation to female partner, 2004



Source: ESS, 2nd round (weighted data).
Data: European Social Survey, 2004 (weighted data)

The analysis excludes other family responsibilities such as care work. Domestic chores may cover a wide range of activities, which must be differentiated in terms of their work-load, personal gratification and gender identity implications. Research has shown that care activities must be considered separately from domestic work (Coltrane, 2000; Gershuny, 2000), owing to the fact that child care and elderly care are also very different in their requirements and implications. Coltrane distinguishes between two types of domestic work tasks: those which are routine work, very time-intensive and less pleasant, and those which are of occasional nature and tend to be more rewarding. He calls the first "routine"

housework and the second "occasional" housework. The ESS data do not permit distinction between different household tasks, but they allow a distinction to be drawn between care and housework.

In order to predict men's share of domestic activities, three main analytical levels were included in the regression analysis (for further details on the construction of variables see Tables 2.1 and 2.2):

- The independent variables at individual and couple level used to test our hypotheses were *women's contribution to the household income*; *women's working hours*; *gender values*; disagreement on *organising housework*. It should be noted that the last two variables do not capture men's gender values or conflict, but rather the respondents' answers. One half of the respondents were men and the other half were women, who gave information about themselves and on their male or female partners respectively.

- A series of variables were introduced to control for confounders: *age of male partner*; *labour market situation*; *education level*; *age* and *number of children*, *absolute hours of housework*, *years living together as a couple*, *type of union*; *gender of respondent* (to control for a well-established gender bias in housework hours estimation according to the respondent's gender); *couple's labour market situation*; and the combined *couple's educational resources,* which was meant to be a proxy for the social class of the couple, in turn related to differences in values and income.

- In order to test the macro-hypotheses we introduced five context variables: *Gender Empowerment Measure* (GEM)[3], *traditional-gender-values context* (percentage of ESS respondents agreeing with the statement "a woman should be prepared to cut down on her paid work for the sake of her family")[4]; by the participation rates in *day-care for children under three*[5] (in countries where the employment of mothers with small children is institutionally supported through child-care services, women may be better able to continue full-time employment in a similar way to their partners, which in turn may affect the negotiation of housework within couples); by the *non-traditional family patterns context* (rate of consensual unions with

3 The GEM value is an index which takes account of the gender distribution of seats in parliament; of legislators, senior officials and managers; of professional and technical workers; and the ratio of estimated female to male earned income.

4 The sample comprised coupled women and men aged 25 to 47. Data were weighted.

5 These include different types of public and private institutions (centre-based care, family day care and pre-school) depending on the country (see Table PF13.1: Typology of Childcare in "OECD Family Database"; http://www.oecd.org/els/social/family/database).

respect to total unions)[6]; and by the *weight of the service class* (proportion of ESS respondents belonging to the service class)[7].

This analysis relied on two-level logistic models that included about 12,000 individuals (Level 1) grouped into 26 countries (Level 2). We used a two-level logistic regression model to examine the probability that a coupled man chooses to cooperate in daily domestic activities in the household (coded 1) rather than providing some support or being reluctant to cooperate (coded 0). The log odds of binary choice were posited as a function of individual, couple and other demographic control variables at a household level (Level 1), and various central characteristics at the national level (Level 2).

Multilevel analysis has been increasingly adopted in social scientific research in order to examine multilevel data comprising levels of individuals, families or countries (see Raudenbush and Bryk, 2002).[8] There were several reasons for using a multi-level in our analysis. First, it enabled us to disentangle the question of whether it is context (the effect of national institutions or prevailing values) or composition (effects due to the country's composition of different types of people) that explains differences between higher-level units; and second, it enabled us to take account of the hierarchical structure of the data (e.g. individuals nested in countries);

Formally, the model can be written as:

Level 1 (men's individual & partner's characteristics):

$$\log\left(\frac{\rho_{ij}}{1-\rho_{ij}}\right) = \beta_{0j} + \beta_{1j} + \sum_{q=2}^{Q} \beta_{qj} \mathrm{X}_{qij} + r_{ij,}$$

Level 2 (country):

$$\beta_{0j} = \gamma_{00} + \sum_{S=1}^{S} \gamma_{0S} W_{sj} + u_{0j,}$$

Where:

ρ_{ij}	is the probability that a man i in country j chooses to cooperate in domestic activities,
β_{0j}	is the level-1 intercept,
β_{1j}, β_{qj}	Are the coefficients for level-1 explanatory variables,
X_{qij}	is a vector of other level-1 explanatory variables,
r_{ij}	is a level-1 random effect,
γ_{00}, γ_{11}	Are level-2 intercepts,
W_{sj}, W_{j}	Are the coefficients for level-2 explanatory variables,

6 Consensual unions (National Census) with respect to total couples.

7 The service class refers to Erikson and Goldthorpe's class categories I (Higher service) and II (Lower Service), which include legislators, senior officials, managers and professionals (excluding small entrepreneurs and own-account workers) (Erikson and Goldthorpe, 1992). They are based on ISCO-88 occupation categories. Data were weighted.

8 We used xtmelogit STATA function for multilevel mixed-effects logistic regression.

$u_{0j,}u_{1j,}$ Are level-2 random effects.

5. Main results

What induces men to be cooperative (doing half or more of household tasks) rather than having a low supportive role in different societal contexts? In this comparative framework, the first hypothesis we can think of is that most gender differences in the household division of labour are due to pure compositional effects. In other words, if Italy had achieved the Swedish educational structure and female labour-market situation, it would display levels of male cooperation in housework similar to those in Swedish society. To what extent do we have compositional effects in this sample of 26 countries? The answer is partly given by Table 2, which compares the relative risks of men being cooperative in two different logistic regression models: the null and the full model.

The null model, which contained only the country as an explanatory variable, identified men's propensity to be cooperative in daily domestic tasks across countries, where Scandinavian countries together with Ukraine occupy the highest positions, and Poland, Portugal, Greece or Turkey the lowest. In the full model, which contained all independent and various control variables (see the variables description in the Appendix), some cross-national differences disappeared or diminished. Norway, Finland, Switzerland and Germany were no longer significantly different from the grand mean, and living in Sweden or Denmark became less different. In other words, once we controlled for couples' human capital, labour-market position and all other variables, men in the former four countries and in eleven others behaved like the average men in the sample. However, apart from these 14 countries, 12 countries remained significantly different from the grand mean, even when controlling for a large set of composition effects. Thus, men's propensity to be cooperative is not only determined by micro-level factors, but to an important extent also by the national context. These country differences can be analyzed more adequately with multi-level models.

In order to explore the mechanisms operating at the national level we estimated different multilevel logistic regressions in order to reduce the cross-country variance as much as possible; that is, we sought to identify the context factors that make men perform a cooperative role rather than a low-supportive role once micro-variables are controlled for. Individual choices were modelled as nested within state-level influences. In other words, we estimated a random intercept model where β0ij was a random intercept that varied across individuals and countries and could be conceptualized as men's general propensity to adopt a cooperative role. Furthermore, the level 1 equation was also affected by differences among countries (*j*). The term π0j was a random intercept representing the general propensity for country *j* to have men adopting a cooperative role. The results of the models are set out in Table 3 that reports fixed effects, which can be interpreted as the regular output from a logit model. The Table also reports the estimated variance components or country differences ($\Sigma=\sigma_u^2 I$). Level-2 coefficients reflect random effects at the country level. A likelihood-ratio test comparing the model to ordinary logistic regression is provided and turns out to be highly significant for these data; meaning that we accounted appropriately for the multilevel structure of the data.

Table 2. Logistic Regression on Men Choosing to Perform a Cooperative Instead of a Low-Support Role (countries' relative risks)

	Null model	***Full-model***
Sweden (523)	2.5 ***	2.0 ***
Denmark (427)	2.2 ***	1.7 ***
Ukraine (460)	1.6 ***	2.0 ***
Norway (524)	**1.5 *** **	**1.2**
Finland (523)	**1.5 *** **	**1.2**
Luxembourg (478)	1.5 ***	1.6 ***
Slovakia (411)	1.4 ***	1.4 *
Spain (440)	1.4 **	1.4 **
Great Britain (463)	1.4 **	1.4 **
Iceland (178)	1.3	0.8
Czech Republic (694)	1.2	1.1
France (478)	1.2	1.1
Estonia (458)	1.1	1.1
Netherlands (484)	1.1	1.1
Hungary (364)	1.0	1.0
Italy (324)	1.0	1.3
Slovenia (325)	0.9	0.6 ***
Austria (564)	0.9	1.0
Ireland (494)	0.9	1.2
Belgium (502)	0.9	0.7 **
Switzerland (571)	**0.8 ***	**0.9**
Germany (678)	**0.8 ** **	**0.8**
Poland (521)	0.7 **	0.7 **
Portugal (503)	0.4 ***	0.5 ***
Greece (535)	0.3 ***	0.3 ***
Turkey (736)	0.2 ***	0.5 **

Note: The null-model only contained country as explanatory variable. The full-model instead controlled for the same micro-level variables as in Table 3. The coefficients reflect deviations from the "grand mean" rather than deviations from the reference category. Unweighted sample (see column 1) is in parentheses, but the models were estimated with weighted samples.

We next present the results of the seven different multilevel models. First we comment on the results of our control variables. We then move to the results of our micro-level independent variables and finish with interpretation of our macro-level results.

It should be noted that we used cross-sectional data which imposed some limitations on our estimations given that men's propensity to cooperate in the household may vary over time relatively to life and family-cycle changes, as for instance the increased work-load in families with children. We could not predict the life and family course events which lead to greater male participation in housework, but we controlled for these to some extent. First, we restricted our sample to couples, and men aged 25 to 47 years old.

Table 3: Estimated Coefficients of Two-Level Logistic Regression for Men's Choice to Cooperate in Domestic Activities

Level 1 (individual and couple):	Model 0 (countries)	Model 1 (man)	Model 2 (couple)	Model 3 (GEM)	Model 4 (Gender values)	Model 5 (Childcare)	Model 6 (Consensual unions)	Model 7 (Service class)
Household's hours of domestic work								
3-4 hours		-0.35 ***	-0.24 ***	-0.24 ***	-0.24 ***	-0.24 ***	-0.24 ***	-0.24 ***
5+ hours		-0.37 ***	-0.07	-0.06	-0.06	-0.07	-0.07	-0.07
Missing		-0.55	-0.07	-0.04	-0.05	-0.09	-0.06	-0.08
She tells about him		-0.48 ***	-0.84 ***	-0.84 ***	-0.84 ***	-0.84 ***	-0.85 ***	-0.84 ***
Cohabiting		0.12 *	0.09	0.08	0.08	0.08	0.08	0.08
Missing		0.33	0.23	0.24	0.22	0.23	0.22	0.22
Years living together								
9-19 years		-0.05	-0.04	-0.04	-0.04	-0.04	-0.04	-0.03
6-8 years		0.04	0.13	0.14	0.14	0.14	0.14	0.14
5 years or fewer		0.07	0.16	0.16	0.17	0.16	0.17	0.17
Refusal/Don't know		0.32 *	0.35 *	0.36 *	0.36 *	0.36 *	0.39 *	0.40 *
Male age 35-47		0.11 **	0.09	0.09	0.09	0.09	-0.09	-0.09
Youngest child 0-3 years old		-0.27 ***	-0.08	-0.08	-0.08	-0.08	-0.08	-0.08
Youngest child 4-12		-0.13	-0.06	-0.05	-0.06	-0.06	-0.06	-0.05
Youngest child 13+		-0.14	-0.18 *	-0.17	-0.18	-0.18	-0.18	-0.18
Number of children		-0.16 ***	-0.11 **	-0.11 **	-0.11 **	-0.11 **	-0.10 **	-0.11 **
A woman should cut down paid work for the sake of family:								
Neither agree nor disagree		-0.23 ***	-0.17 ***	-0.17 ***	-0.17 ***	-0.17 ***	-0.17 ***	-0.17 ***
Agree strongly /Agree		-0.53 ***	-0.41 ***	-0.40 ***	-0.40 ***	-0.40 ***	-0.40 ***	-0.41 ***
Don't know		-0.34	-0.17	-0.15	-0.15	-0.16	-0.12	-0.13
Man's secondary education		0.24 **						
Man's tertiary education		0.41 ***						
Missing education		1.00 ***						
Unemployed men		1.00 ***						
Inactive men		1.14 ***						
Missing		-0.09						
Couple's disagreements about housework: Several times a month or fewer			-0.21 ***	-0.21 ***	-0.21 ***	-0.21 ***	-0.21 ***	-0.22 ***
Once a week or more			-0.51 ***	-0.51 ***	-0.51 ***	-0.51 ***	-0.51 ***	-0.51 ***
Missing			-0.05	-0.04	-0.04	-0.05	-0.01	-0.01
Couple's relationship with labour market:								
He employed & she not employed			-0.19 **	-0.19 **	-0.19 **	-0.20 **	-0.19 **	-0.20 **
She employed & he not employed			0.60 ***	0.60 ***	0.59 ***	0.59 ***	0.60 ***	0.60 ***
Both not employed			0.60 ***	0.60 ***	0.59 ***	0.59 ***	0.59 ***	0.59 ***
Other & missing			-0.01	-0.01	-0.02	-0.02	-0.01	-0.01
Couple's Human Capital								
He/she basic and she/he secondary education			0.50 ***	0.50 ***	0.49 ***	0.50 ***	0.47 ***	0.48 ***
Both secondary education or he/she tertiary and she/he basic education			0.54 ***	0.55 ***	0.53 ***	0.54 ***	0.50 ***	0.52 ***
He/she secondary and she/he tertiary education			0.59 ***	0.60 ***	0.57 ***	0.58 ***	0.54 ***	0.55 ***
Both tertiary education			0.75 ***	0.76 ***	0.74 ***	0.75 ***	0.70 ***	0.72 ***
Woman's contribution to household income:								
Her earnings<1/2			0.25 **	0.25 **	0.24 **	0.25 **	0.22 **	0.22 **
Her earnings about 1/2			0.75 ***	0.75 ***	0.74 ***	0.75 ***	0.72 ***	0.72 ***
Her earnings>1/2			1.07 ***	1.07 ***	1.06 ***	1.07 ***	1.04 ***	1.04 ***
Woman's working hours:								
She works <35 hours			0.30 ***	0.29 ***	0.30 ***	0.29 ***	0.29 ***	0.28 ***
She works 35-40 h			0.60 ***	0.60 ***	0.60 ***	0.59 ***	0.59 ***	0.59 ***
She works 41+h			0.87 ***	0.87 ***	0.86 ***	0.86 ***	0.86 ***	0.85 ***

Continuation Table 3

	Model 0	**Model 1** (man)	**Model 2** (couple)	**Model 3** (GEM)	**Model 4** (gender values)	**Model 5** (Childcare)	**Model 6** (Consensual unions)	**Model 7** (Service class)
Level 2 (country):								
Gender Empowerment Measure (GEM):								
0.622-0.66				0.08				
0.692-0.788				0.19				
0.794-0.875				0.28				
0.887-0.91				0.60 **				
Missing data (Luxembourg)				0.73 *				
% Traditional Family Values:								
25-44%					-0.42 **			
45-59%					-0.25			
>=60					-0.58 **			
% Childcare Aged 0-3:								
11-20%						0.53 **		
21-30%						0.15		
31-40%						0.42 **		
<40%						0.44 *		
No data (Ukraine)						0.62 *		
% Consensual Unions:								
1-5%							0.50	
6-16%							0.61	
18-25%							0.89 **	
No data							1.07 **	
% Service Class:								
21-31%								0.52 ***
32-50%								0.66 ***
Intercept	-1.30 ***	-0.63 ***	-1.81 ***	-2.05 ***	-1.48 ***	-2.04 ***	-2.46 ***	-2.37 ***
Variance components:								
Level 2 (country) σ_u^2: s.d.	**0.4903**	**0.4186**	**0.3885**	**0.3299**	**0.3401**	**0.3194**	**0.3279**	**0.3305**
	(0.0732)	(0.0650)	(0.0622)	(0.0554)	(0.0567)	(0.0544)	(0.0549)	(0.055)
Intraclass variation:	0.129	0.113	0.105	0.091	0.093	0.088	0.090	0.091
Log likelihood =	-5861.12	-5175.30	-5175.32	-5171.75	-5172.60	-5171.28	-5168.42	-5168.67
Prob > chi2 =	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Legend: Reference categories are reported in Appendix Table. * p<0.05, ** p<0.01, ***p<0.001; numbers within parentheses indicate standard errors. Data Source: ESS, 2nd round. Note: Sample size and outcomes of descriptive statistics are unweighted. The interclass variation estimated following assumption of the logistic model: $pi^3/3$.

What induces men to be cooperative (doing half or more of household tasks) rather than having a low supportive role in different societal contexts? In this comparative framework, the first hypothesis we can think of is that most gender differences in the household division of labour are due to pure compositional effects. In other words, if Italy had achieved the Swedish educational structure and female labour-market situation, it would display levels of male cooperation in housework similar to those in Swedish society. To what extent do we have compositional effects in this sample of 26 countries? In a previous paper we performed two logistic regression models, the null and the full models, which compare the relative risks of men being cooperative (anonymised, 2009).

The null model, which contained only the country as an explanatory variable, identified men's propensity to be cooperative in daily domestic tasks across countries, where Scandinavian countries together with Ukraine occupy the highest positions, and Poland, Portugal, Greece or Turkey the lowest. In the full model, which contained all independent and various control variables (see the variables description in Appendix 1), some cross-national differences disappeared or diminished. Norway, Finland, Switzerland and Germany were no longer significantly different from the grand mean, and living in Sweden or Denmark became less different. In other words, once we controlled for couples' human capital, labour-market position and all other variables, men in the former four countries and in eleven others behaved like the average men in the sample. However, apart from these 14 countries, 12 countries remained significantly different from the grand mean, even when controlling for a large set of composition effects. Thus, men's propensity to be cooperative is not only determined by micro-level factors, but to an important extent also by the national context. In order to explore the mechanisms operating at the national level we estimated different multilevel logistic regressions in order to reduce the cross-country variance as much as possible; that is, we sought to identify the context factors that make men perform a cooperative role rather than a low-supportive role once micro-variables are controlled for. Individual choices were modelled as nested within state-level influences. The results of the random intercept models are set out in Table 1 that reports fixed effects, which can be interpreted as the regular output from a logit model. The Table also reports the estimated variance components or country differences ($\Sigma = I$). Level-2 coefficients reflect random effects at the country level. A likelihood-ratio test comparing the model to ordinary logistic regression is provided and turns out to be highly significant for these data; meaning that we accounted appropriately for the multilevel structure of the data.

It should be noted that we used cross-sectional data which imposed some limitations on our estimations given that men's propensity to cooperate in the household may vary over time relatively to life and family-cycle changes, as for instance the increased work-load in families with children. We could not predict the life and family course events which lead to greater male participation in housework, but we controlled for these to some extent. First, we restricted our sample to couples, and men aged 25 to 47 years old.

Second, we controlled for the number of years living together in the couple, the number of children, and the age of the youngest child. In addition, we controlled for the type of relationship: marital or consensual union. In regard to these variables, we expected that couples with a brief history, few years living together, in a

consensual union would be more inclined to share household tasks, compared with men in a long-established marriage, who may have accommodated to a more traditional division of labour. Coefficients go according to our expectations, although, only in model 7 did very recently formed couples (5 years or fewer) show a significantly positive effect on the log odds of men performing a cooperative role. Being in a consensual union, as compared to a marital union, only proved significant in model 1, but the effect disappeared after controlling for couples' characteristics in model 2. Therefore, other factors besides the type of relationship seem to influence the emergence of a cooperative man. The variables 'Age of the youngest child' and 'men's age' were significant in model 1, but the effects disappeared when other controls were introduced in subsequent models. Only total number of children remained significant over all models, showing that the average European man with increasing number of children is less likely to perform a cooperative role when many other characteristics are controlled for.

We also included two variables controlling for two important confounders. The first referred to the total amount of hours a particular household devotes to domestic tasks during a typical weekday. It goes without saying that it is much easier to perform a cooperative role in households where large part of the work is externalised (done by a third person) or where individuals allocate few hours to housework. The results are very clear: male cooperation diminishes according to the increase in housework load. The second control variable referred to the person providing the information. There were two options: a man directly informed about the portion of time he personally assumed (reference category in the models) or his female partner informed about the portion of time he assumed. The hours estimated may depend very closely on his and her perception of the respective effort put into domestic work, which in turn depends on gender norms and values. The results are very clear-cut: when the information about men's participation in domestic work is gathered indirectly (she informs about him) the estimates significantly diminish (all models). Hence one should be aware that men's cooperation in housework tends either to be overestimated by male respondents or underestimated by female respondents.

We estimated the extent to which the fact that one of the partners holds very traditional values determines men's participation in domestic work. We captured this dimension with the respondent's reaction to the following statement: "a woman should be prepared to cut down on her paid work for the sake of her family". The results indicate that the holding of very traditional values reduces the likelihood of finding a cooperative man. It is significant that the net effect of gender values' traditionalism is reduced with the introduction of couples' characteristics and women's bargaining power (model 2 compared to model 1). However, the persistence of an effect after controlling for bargaining power and time-constraint effects confirms our third micro-level hypothesis on gender egalitarian values.

We also tested the role of disagreement on the division of housework (variable included in models 2 to 7). The results indicate that, contrary to our conflict hypothesis, the presence of disagreement on the division of housework has a negative effect on the log odds of men performing a cooperative role, net of bargaining and time constraint effects. In other words, a manifest disagreement on housework division (the couple disagrees often as compared to never or once a month) makes it less likely to find a cooperative housework arrangement. This is a

first finding, which should be studied further with a longitudinal design in order to gain better understanding of the causes and effects of such disagreement.

In the first model, model 1 in Table 1, we introduced two variables which controlled for the net effect of men's characteristics on the likelihood of sharing domestic work. These variables were men's education and men's position in the labour market. Both had the expected effects, as education significantly increases the chances of men cooperating in domestic work and the fact that they are out of paid work, either inactive or unemployed, also contributes to increasing their participation in domestic work. In model 2 we dropped these two variables and introduced couples' characteristics. We controlled for the fact that some women may be out of the labour market or searching for work (couple's relationship with labour market), which may obviously affect the couple's division of housework. In addition, the couple's combined human capital was used as a proxy for the couple's social class and economic ability to externalise housework (no information on paid housework was collected by the survey). Both variables worked in the expected direction, so that the likelihood of men's cooperation is lower in male-breadwinner couples (he is employed and she is out of paid-work) compared with dual-earner couples. Likewise, as the couples' human capital increases, it also increases the chances that men cooperate. This may be explained by the fact that couples with high human capital normally have more resources with which to externalise unpleasant tasks such as most domestic work is.

What role do relative resources play in the emergence of cooperative men? The results confirm our relative-resources hypothesis, since the chances of a man being cooperative increase in households where the woman's income contributes half or more of the household's income. In other words, men's changes are mainly driven by women's new economic role. The same applies to the time-constraints hypothesis which was validated in our models: men are more likely to cooperate in domestic work when women are absent from home for long hours. Thus, the log of the odds that men perform a cooperative role increases according to the increase in women's working hours. These results run counter to findings of "gender trumps money" as discussed in section 1, since the average European man in non-traditional gender settings does not compensate for his position by performing a low-support role: on the contrary, he is more likely to belong to the pioneers of more gender-egalitarian housework arrangements.

We now move to the analysis of level 2, which tested the role of aggregate variables in reducing the cross-country variance. In other words, we explore the extent to which our models were able to reduce the unexplained cross-country differences (models 3 to 7). The main difficulty when testing the effect of aggregate variables is that problems of multicollinearity may easily arise. Descriptive statistics, for instance, indicate a strong correlation between day-care for children under three and traditional-gender-values context (coefficient of correlation of -0.47), the weight of a large service class context and day-care coverage (-0.48), social class context and traditional values context (-0.52) and between a non-traditional family context and day-care coverage (0.72). In order to avoid this problem, we tested macro effects by introducing explanatory variables independently, and evaluated their respective power to reduce the unexplained country variance.

It should be noted that we estimated the null model (model 0) with the aim of assessing the amount of unexplained country variance in the absence of any explanatory variable. In the null model this variance consisted of a standard deviation of 0.49 or intra-class variation of 0.13. The inclusion of individual and couple variables reduced the intra-class variance to 0.11 or the unexplained standard deviation from 0.49 to 0.41 – that is, by 17%. This again confirms our composition effects hypothesis, since it is the aggregation of our micro-level variables that reduces the unexplained variance at level 2 to such a large extent.

We then tested the role of gender empowerment indicators, such as GEM (in model 3) or childcare coverage (in model 5), in explaining country differences in the male propensity to perform a collaborative role. We hypothesised that women in general would be more empowered to negotiate on housework within the couple in countries with a high degree of gender-equality in the public sphere (i.e. participation in equal terms in political, economic and in decision-making processes) as well as with well-developed family-friendly and employment-supportive services (indicated here by a large supply of day-care services for children). As a consequence, men would be more inclined to cooperate in housework. The results indicate that this is only the case when countries reach a threshold at which GEM is relatively high: above 0.887. As shown in the Appendix, Finland, Norway and Sweden are the only countries above that threshold. As far as childcare coverage is concerned, the results are mixed: childcare has a significant effect but it is not linear, since male cooperation is more likely in countries with medium coverage compared with low coverage. This may be due to comparability problems concerning the data, as mentioned before, or to the fact that macro-factors should in the future be introduced as a configuration of different determinants. The inclusion of these two macro-variables reduced the unexplained standard deviation by 15% and 18% respectively compared to the model with micro-level variables only (model 2 versus model 3 and 5 in Table 1). We thus find some support for the gender empowerment hypothesis, as did other researcher (see section 2).

We tested the male-breadwinner model hypothesis in model 4, where we expected that strong attachment to traditional values in a given society would negatively affect men's propensity to cooperate in domestic work. The results indicate that the strong weight of traditional gender values at country level significantly affects men's role, confirming our hypothesis and previous results, although there is no linear pattern. Yet a very high percentage of traditionalism (60% or more) reduces the log of the odds of finding a cooperative man. This macro-level determinant reduces the unexplained standard deviation by 12% (model 2 versus model 4 in Table 1).

We also addressed the family pluralisation hypothesis in model 6, which states that in countries with a high proportion of cohabitation women may perceive that they have more options beyond marriage and, therefore, that they are better able to walk away from unwanted relationships, which in turn empowers them in negotiations on equal terms with their partners. Again, the results suggest that this applies only when countries reach a certain threshold. In those countries where 18 to 25% of couples live in consensual unions, men tend to be more cooperative. This variable reduces the unexplained standard deviation by 16% (model 2 versus model 6 in Table 1).

Finally, we tested the post-industrial class context hypothesis in model 7 of Table1. We expected that in countries with a high presence of the service class (according to the EGP class typology) externalisation of housework may be more easily financed, in some places through the market and in others through tax-funded public services. This variable was highly significant and showed a clear linear pattern, so that a larger service class increases the chances of men being cooperative. Furthermore, this variable - similar to the two other variables (GEM and consensual unions) - provides a standard deviation of 0.33, which significantly reduces by 15% percent the deviation explained by the composition effects of micro-level variables in model 2.

To sum up, there are both individual and macro-variables affecting the chances of men being cooperative in housework. Some of these changes are motivated by the partner, given that women's relative resources and time-constraints promote men's greater participation in the distribution of domestic tasks as long as these tasks are not very demanding. The most interesting results, however, refer to the changes occurring at the societal level. This study shows that gender empowerment, consensual unions and the development of a large service class make men cooperate in housework.

6. Conclusions

We began this paper by stating two facts. First, women have significantly increased their labour-market participation in most industrial and post-industrial countries. Second, the gains from gender specialisation in market or home-production are constantly less clear and risky in the context of growing economic and family uncertainty. Given these two trends, it seemed particularly appropriate to explore under what conditions and in what contexts 'cooperative men' (i.e. those assuming half or more of household tasks) emerge. We explored this question taking the individual and societal levels into account.

Our data for 26 European countries show that the division of domestic labour is far from being equally shared by men and women. However, this study confirms the validity of micro-level hypotheses relative to bargaining and relative-resources perspectives, and it sheds doubt on the explanatory power of the "doing gender" approaches with respect to the sharing of domestic work. The likelihood that an average European man will cooperate in housework is significantly related to his female partner's contribution to the household income, and to her time dedicated to paid work. Frequent disagreements on how to divide domestic work is negatively related to men's involvement in housework, whereas egalitarian gender values within the couple prove to positively influence men's cooperation. However, men's cooperation also depends on the total amount of housework and the number of children. Men tend to be more cooperative when there are few children and little housework.

The cross-country comparison showed that men's propensity to be cooperative is due partly to compositional effects, and partly to differences at the societal level. The best single societal predictors for the emergence of "cooperative men" are: 1) women's empowerment through institutions that facilitate their participation in

politics and employment on relatively equal terms; 2) non-traditional gender values; 3) a high prevalence of consensual unions; and 4) post-industrial contexts with a high proportion of the service class. Our results suggest a positive and negative scenario for further male cooperation. The negative conclusion is that men cooperate when housework is small in amount and partly externalised. A positive interpretation stresses the importance of further empowering women in paid employment, and of promoting gender egalitarian values and non-traditional living arrangements.

The explanatory power of future models may be increased in two ways. First better modelling should be made of the micro-level mechanism of increased cooperation of men in housework. For instance, representative data should be gathered and studied on how much and what housework is externalised (i.e. paid in the market and/or done by a third person) in different settings and families. Second, the complexity of national contexts should be captured more precisely. To this end, the problem of small N and multicollinearity of macro-variables should be solved more satisfactorily.

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Appendix 1: Descriptive Statistics of Level-1 Variables

Level-1 (men) Variables (N: 12,658)	Freq. or mean	sd	sum
Dependent variable:			
Low-support role	0.78	0.41	9,527
Cooperative role	0.22	0.41	2,687
Household's overall number of hours of domestic work:			
Less than 3 hours (Ref. cat.)	0.39	0.49	4,939
3-4 hours	0.35	0.48	4,390
5+ hours	0.25	0.43	3,116
missing	0.02	0.13	213
Who is providing the information on domestic tasks?			
He directly informs (Ref. cat.)	0.47	0.50	5,918
She tells about him	0.53	0.50	6,740
Partnership:			
Marital union (Ref. cat.)	0.81	0.39	10311
Cohabiting	0.18	0.39	2,301
Missing data	0.00	0.06	46
Years living together:			
+20 years (Ref. cat.)	0.19	0.40	2,452
9-19 years	0.45	0.50	5,716
6-8 years	0.16	0.37	2,045
5 or less years	0.16	0.36	1,977
Refusal/Don't know	0.04	0.19	468
Men's educational level:			
Up to Primary education (Ref. cat.)	0.11	0.31	1,346
Secondary education	0.65	0.48	8,222
Tertiary education	0.24	0.42	2,988
Missing education	0.01	0.09	102
Men's relationship with labour market:			
In paid work (Ref. cat.)	0.48	0.50	6,023
Unemployed	0.03	0.17	377
Inactive	0.03	0.17	366
Missing	0.47	0.50	5,892
Men's age:			
25-34 (Ref. cat.)	0.33	0.47	4,217
35-47	0.67	0.47	8,441
Number of children	1.49	1.00	12.658
Age youngest child:			
Childless (Ref. cat.)	0.21	0.41	2,641
Youngest 0-3 years old	0.26	0.44	3,291
Youngest 4-12	0.37	0.48	4,680
Youngest 13+	0.16	0.37	2,046
A woman should be prepared to cut down on her paid work for the sake of her family?			
Disagree/ Disagree strongly (Ref. cat.)	0.31	0.46	3,922
Neither agree nor disagree	0.22	0.41	2,751
Agree strongly /Agree	0.45	0.50	5,693
Don't know	0.02	0.15	292
How often do you and your husband/wife/partner disagree about how to divide house-work?			
Never or once month (Ref. cat)	0.31	0.46	3,922
Several times a month or less	0.43	0.49	5,425
Once a week or more	0.14	0.34	1,739
Missings	0.03	0.17	381
Couple's relationship with labour market:			
Both employed (Ref. cat.)	0.48	0.50	6,136
He employed & she not	0.37	0.48	4,621
She employed & he not	0.07	0.25	855
Both not employed	0.07	0.26	910
Other & missings	0.01	0.10	136
Couple's Human Capital:			
Both basic education (Ref. cat.)	0.07	0.25	865
He/she basic and she/he secondary education	0.08	0.27	994
Both secondary education or he/she tertiary and she/he basic education	0.51	0.50	6,405
He/she secondary and she/he tertiary education	0.19	0.39	2,366
Both tertiary education	0.15	0.35	1,840
Women's contribution to household income:			
She does not have any source of earnings (Cat. ref.)	0.18	0.39	2,259
Her earnings<1/2	0.49	0.50	6,009
Her earnings about 1/2	0.22	0.41	2,700
Her earnings>1/2	0.11	0.32	1,392
Women's weekly working hours:			
She is not employed (Cat. ref.)	0.37	0.48	4,541
She works <35 hours	0.20	0.40	2,450
She works 35-40 h	0.28	0.45	3,396
She works 41+h	0.15	0.36	1,850

Data Source: ESS, 2nd round. Note: Sample size and outcomes of descriptive statistics are unweighted. It should be noted that this multilevel logistic analysis uses unweighted ESS data due to the simple fact that the STATA function (xtmelogit) used to calculate two-level modelling does not accept weights. These results, therefore, apply to this sample data and cannot be interpreted as a generalised outcome.

Appendix 2: Descriptive Statistics of Level-2 Variables

Level-2 (country) Variables (N: 26)				
Gender Empowerment Measure[1]	**Countries in each category:**	Frequency	sd	sum
0.298-0.614 (Cat. ref.)	Turkey, Romania, Ukraine, Hungary, Slovenia, Poland	0.19	0.39	2,406
0.622-0.66	Greece, Czech Republic, Slovakia, Estonia, Switzerland	0.21	0.41	2,669
0.692-0.788	Portugal, Italy, Ireland, France, United Kingdom, Austria	0.22	0.42	2,826
0.794-0.875	Spain, Germany, Belgium, Netherlands, Iceland, Denmark	0.21	0.41	2,709
0.887-0.91	Finland, Sweden, Norway	0.12	0.33	1,570
Missing	Luxembourg	0.04	0.19	478
% childcare coverage[2]				
<10% (Cat. ref.)	T, Poland, Cz. Republic, Austria, I, Hungary, Greece, CH, D	0.39	0.49	4,987
11-20%	Luxembourg, Ireland, Slovakia	0.11	0.312	1,383
21-30%	Spain, Portugal, United Kingdom, France	0.21	0.408	2,667
31-40%	Finland, Belgium, Netherlands, Sweden	0.16	0.367	2,032
>40%	Norway, Iceland, Denmark	0.09	0.285	1,129
Ukraine		0.04	0.187	460
% traditional values[3]				
<25% (Cat. ref.)	Sweden, Denmark, Finland, Iceland, Norway	0.17	0.38	2,175
25-44%	I, NL, Belgium, Slovenia, Ireland, Slovakia, UK, Greece, France	0.32	0.47	4,016
45-59%	Austria, D, Spain, Estonia, Poland, Cz. Republic, Hungary, Luxembourg	0.33	0.47	4,197
>=60	Switzerland, Portugal, Ukraine, Turkey	0.18	0.38	2,270
% service class[3]				
<21% (Cat. ref.)	Turkey, Greece, Italy	0.13	0.33	1,595
21-31%	Austria, Portugal, Poland, Cz. Republic, Slovakia, Ukraine, Estonia, Slovenia, Germany, Luxembourg, Norway	0.25	0.43	3,153
32-50%	UK, Hungary, Spain, Switzerland, Iceland, Ireland, France, Denmark, Belgium, Slovenia, Finland, Netherlands, Slovakia, Estonia, Germany, Luxembourg, Norway	0.62	0.48	7,910
% cohabiting couples[4]				
0% (Cat. ref.)	Turkey	0.06	0.23	736
1-5%	Czech Republic, Italy, Greece, Slovakia, Poland	0.20	0.40	2,485
6-16%	Netherlands, United Kingdom, Austria, Hungary, Switzerland, Germany, Ireland, Slovenia, Belgium, Romania, Portugal, Spain	0.46	0.50	5,866
18-25%	Sweden, Denmark, Finland, Estonia, Norway, Iceland, France	0.25	0.43	3,111
Data not available	Ukraine	0.04	0.19	460

Data Sources: [1] Human Development Report 2007 (data refer to different years between 1995 and 2006). [2] OECD Family Data Base 2008 (data refer to 2004, except for Estonia and Slovenia, whose data come from Plantenga and Remery, 2005 and for Switzerland and Turkey, whose data refer to the rate of children aged 3 due to a lack of other data). [3] Aggregated and weighted variables from ESS. [4] EUROSTAT 2008 (census data of 2001) with the exception of France (data come from survey *Étude de l'histoire familiale 1999),* Iceland (Statistical Office data for 2001) and Sweden (data from the European Household Panel 2001 wave). We do not know how many consensual unions in occidental sense exist in Turkey, therefore we have assigned the value 0, but this does not exclude other types of consensual unions. Note: Sample sizes and outcomes of descriptive statistics are unweighted.