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Couple relationships : the effect of education on gender equality

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Abstract: El objetivo fundamental de la sociología es el estudio y la comprensión del cambio social. Una vez que se identifican sus causas, se busca comprender si dicho cambio producirá mayor o menor igualdad social. Una de las dimensiones donde la cuestión de la (des)igualdad tiene una gran relevancia para la sociología es el género. El género entendido como una categoría construida a partir de las diferencias biológicas entre mujeres y hombres es una de las divisiones fundamentales de las sociedades contemporáneas. Por esta razón la comunidad científica ha mostrado un gran interés por su influencia en las desiguales oportunidades vitales de mujeres y hombres. Sin embargo, no existe un consenso entre los expertos sobre si las desigualdades basadas en el género han tendido a reducirse en las últimas décadas, o, por el contrario, estas se han mantenido sin cambios sustanciales, a pesar de ciertas mejoras observables en las condiciones de vida de las mujeres. Esta controversia se explica por el hecho de que el género es un concepto multifacético, lo cual dificulta la identificación del conjunto de dimensiones que pueden explicar porque mujeres y hombres disfrutan de diferentes oportunidades vitales. La tesis se inserta en este debate para investigar el papel de la educación en las desigualdades de género observadas en la relación de pareja dentro de la familia y a lo largo del tiempo. En particular, su objetivo principal es analizar en detalle si las pautas de homogamia educativa mantenidas en las últimas décadas en el proceso de emparejamiento han producido un cambio significativo hacia una mayor igualdad de género en la relación entre los esposos. La tesis sostiene que existen dos procesos alternativos a través de los cuales la educación de la pareja puede inducir una relación de género más equilibrada entre los miembros de la pareja. Por un lado, el creciente nivel educativo de las cohortes más jóvenes. Por otro lado, la tendencia observada a emparejarse compartiendo el mismo nivel de estudios (homogamia). Aunque ambos mecanismos, a menudo, se presentan en la literatura especializada como estrechamente unidos, la tesis discute los motivos de por qué deberían ser tratados separadamente si lo que se busca es profundizar el conocimiento de los motivos subyacentes a las pautas de desigualdad de género observadas en las parejas. Los tres capítulos sustantivos de la tesis se centran en tres aspectos interrelacionados de la vida íntima de los esposos donde la educación jugaría un papel clave en las pautas de desigualdad de género observadas: la división del trabajo domestico, los valores y actitudes de género y hacia la familia, y el riesgo de divorcio. Para el análisis empírico realizado se utilizan datos longitudinales y de uso del

tiempo provenientes del panel de hogares británico (BHPS) y de un estudio financiado por British Telecom (Home Online Study) sobre uso del tiempo y de las nuevas tecnologías, también con un componente longitudinal. Los principales resultados de la investigación muestran la compleja relación entre educación e igualdad de género en la pareja. Concretamente, la educación de las mujeres juega un papel mucho más decisivo que la de los maridos. Respecto a la homogamia, aunque cuando ambos esposos comparten altos niveles educativos, el riesgo de divorcio se reduce sustancialmente, no parece ser una garantía por si solo de una mayor igualdad de género en la relación de pareja. Por último, un resultado clave de la tesis es que el efecto igualador de la creciente educación de los esposos, se ve compensado por las 'expectativas normativas' de ambos esposos que tienden a perpetuar roles de género tradicionales en la vida de pareja.

Instituto Juan March de Estudios e Investigaciones

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COUPLE RELATIONSHIPS: THE EFFECT OF EDUCATION ON GENDER EQUALITY

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Esta obra se presentó como tesis doctoral en el Institute for Social and Economic Research de la Universidad de Essex el 27 de julio de 2010. El Tribunal estuvo compuesto por los profesores doctores D. Mark Taylor y D. Gøsta Esping-Andersen.

Álvaro Martínez Pérez es licenciado en Ciencias Políticas y de la Administración por la Universidad Complutense de Madrid (UCM). Formó parte de la decimosexta promoción de estudiantes del Centro de Estudios Avanzados en Ciencias Sociales del Instituto Juan March, donde obtuvo el título de Máster en 2005. Realizó su tesis doctoral en el Centro bajo la supervisión del Prof. Fabrizio Bernardi y en la Universidad de Essex bajo la dirección del Dr. Malcolm Brynin.

A mi padre, Manuel Martínez Chacón (1946-2000):

No pudiste acompañarme hasta aquí, pero tu amor y
tu recuerdo han estado siempre conmigo.

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ABSTRACT

This thesis investigates the role of education in the extent of gender inequality in couple relationships. In particular, the interest is on whether the spouses' education has brought about a significant switch towards greater equality and fairness within the couple in the family life. The dissertation argues that there are two alternative processes through which the spouses' education may induce more equal gender relationships between wives and husbands; on the one hand, the increasing educational attainment of the spouses; on the other hand, their tendency to marry homogamously. Although these two mechanisms are often presented in the literature as inherently linked, the thesis discusses why they should be separated out for a better understanding of the patterns of gender equality within the couple.

The three substantive chapters concentrate on three interrelated family domains where education is regarded as a key factor for the extent of gender equality and fairness in the couple: the division of housework, the gender and family values of the spouses and the decision to divorce. For the empirical analysis both longitudinal and time-use data from the British Household Panel Survey and the Home on Line Study are used. The main results of the thesis show the complex relationship between education and equality in the couple. Concretely, wives' education seems to be more important than husbands' own education. Also, albeit homogamy, concretely highly educational homogamy, significantly reduces the risk of divorce it does not appear to be a guarantee on its own for greater equality between the spouses. Interestingly, the positive effect of education on more balanced gender relationships in the couple appear to be hindered by the pervasiveness of the normative expectations regarding the traditional gender roles of the spouses.

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CHAPTER 1. INTRODUCTION

1.1. Introduction

Sociology is ultimately interested with the study of social change. Once its main forces are identified sociologists seek to advance our knowledge as to whether these are expected to trigger more equality or deepen some of the observed inequalities. One of the dimensions where the issue of increasing (in)equality acquires substantive meaning is the one of gender. Gender understood as an ascribed social category based on biological sex, is one of the most basic divides in all societies. It is for this reason that the scholarly community has for so long devoted attention to how gender conditions the life chances of women and men in our societies. Yet the extent of its effect remains disputable with some scholars adhering to a more positive view where inequalities based on gender appear to be reducing in recent decades (Blau, Brinton and Grusky 2006) while others take a more negative stand to stress the pervasiveness of the gender divide across societies regardless of some improvements in women's living conditions (Epstein 2006).

This controversy is related with the fact that gender constitutes a multilayered phenomenon, therefore, identifying the several dimensions that explain why women and men encounter different opportunities in their lives is not an easy task. This dissertation assumes this reality and acknowledges that even though it pays special attention to how the position of women within the household shapes some of the inequalities they face, especially

those related with the family, other spheres such as the labour market or politics are important determinants for a comprehensive account and a better understanding of women's position in current society. However, it is also true that despite the complex interconnections among the different spheres that account for the extent of gender inequalities, the family is at the core of this process as most of them unfold from the unequal roles of the spouses within the family (Harkness 2008).

Particularly, the dissertation is devoted to the study of the evolution of inequalities in couple relationships over the life course. The main interest is in the role that women's and men's education and of educational homogamy may have on the observed inequalities between the spouses, especially on their different roles at home and on their likely influence over the life chances of wives and husbands. The substantive question of the thesis is whether the current trend of high educational homogamy has actually altered the relationship between the spouses towards one based on new principles of gender equality in their family arrangements. The common wisdom among scholars of social stratification is that highly educated couples are establishing the union on new foundations of equity and fairness. They argue that the marital behaviour of these couples is driven by a shared preference set where principles of gender equality are common in their daily lives (Blossfeld and Timm 2003; Evertsson and Nermo 2007; Schwartz and Mare 2005). However, far from taking this argument for granted, this dissertation analyzes whether high education has actually fostered equality between the spouses. To do so, it seeks to distinguish the individual effect of the increasing educational attainment of the spouses from that of high educational homogamy. Indeed, some of the key findings of this thesis challenge the argument that high educational homogamy itself guarantees more equity and fairness in the family life of couples. Thus, while women's roles at home appears to be changing as their educational attainment increases, this switch is not accompanied by a similar adaptation in men's roles independently of their level of education. Hence, the positive

effect of high educational homogamy assumed in the literature is, at least, blurred regarding the internal family arrangements of the couple. Overall, the analyses presented in this thesis call for a reconsideration of the role of education in triggering more egalitarian principles in the daily lives of couples. More specifically, what this dissertation shows is that the classical argument regarding the gains associated with high educational homogamy should also consider that there may be other factors that make it difficult for education alone to bring about significant changes in the family arrangements of the spouses. The main results indicate that the strength of the deployment of traditional gender roles in the couple is a key factor that hinders the role of education as a leading factor to equality and fairness between the spouses.

Within this substantive interest, there are three main aspects that this dissertation addresses:

1) The role of education in the evolution of the division of housework between the spouses.

2) The role of reciprocal influences between partners and of education in the resemblance of their gender and family values.

3) The role of education and the division of housework in the risk of divorce.

The study of these issues requires a careful examination of the role of education. As advanced, it is important to disentangle whether the extent of gender inequalities between the spouses in the three domains analyzed stem more from the individual effect of each spouse education or from the patterns of positive assortative mating on education. To address the true effect of education on gender inequality I follow a twofold strategy. Firstly, I compare the individual effect of education with the joint effect of the education of the couple. Secondly, I take a comprehensive view of the education of the couple by considering the entire educational gradient. This strategy allows me to isolate the individual and joint effects of education as well as to capture differences along the educational gradient of couples that may be

related with current trends of positive assortative mating on the basis of high education (Blossfeld and Timm 2003; Schwartz and Mare 2005). In the next section I shall briefly review previous studies on the changing role of women and how this is fostered by their increasing educational attainment and its impact on the process of coupledom. In section three I shall discuss the importance of taking a life-course approach when studying the inequalities and social stratification dynamics that unfold in the couple relationship over time. In section four I present the outline of the thesis discussing the main research questions and summarizing the main findings of the three substantive chapters. Finally, in section five I conclude with a presentation of the main characteristics of the data used throughout the dissertation.

1.2. The changing role of women: The role of education and of educational homogamy

The progress made in the last decades towards a more equitable social status of women is clearly observed in the new roles they enjoy in almost all spheres of life at least in western societies. It is nonetheless an ongoing process in which forces of the past coexist with dynamics that move in favour of further transformations towards more equality between genders. In a recent contribution Esping-Andersen (2009) depicts contemporary society as characterized by multiple equilibria which explains why it is possible to find, at once, such wide variability in the living conditions and opportunities among women within the same historical period. The author argues that the explanation must be sought in the unfinished nature of the revolution in women's new roles where three very different scenarios with distinctive implications in terms of gender equality are found:

1) A Becker-equilibrium[1]

[1] Although Becker's formulation of his model of family behaviour is gender neutral, it is commonly acknowledged that it depicts well the

2) A Liberation-equilibrium
3) An unstable-equilibrium

The *Becker-equilibrium* emerged in the aftermath of the Second World War. It implies a bimodal pattern of gender and family behaviour as exemplified in Becker's theory of the family (Becker 1991[1981]). The fundamentals of this equilibrium are: a nuclear family with the male as breadwinner, and the female as home-maker; early marriage and first-births combined with high fertility; stable partnerships and low rates of divorce, singlehood, and childlessness.

The *Liberation-equilibrium* has in the last decades challenged the main assumptions that underline the *Becker-equilibrium*. It is based on a contrasting set of normative and behavioural fundamentals that stem, above all, from the intense gains in women's educational attainment in recent decades and their desire for greater economic autonomy that comes with their incorporation in the labour market. All these changes have permeated and redefine family life both in the role of women as mothers and in the foundations of the couple relationship.

The *Unstable-equilibrium* arises precisely because the *Liberation-equilibrium* is far from being dominant. It is linked with a basic mismatch between women's aspirations for more equality and the difficulties they face to realize them because of societal and family constraints. Interestingly, although Hakim's preference theory (Hakim 2000) argues that the different types of women according to their desires for work or home activities are more the result of a voluntary option than of social constraints, her distinction among *home-centred*, *work-centred* and *adaptive* women coincides with Esping-Andersen's multiple equilibria society, at least, with regard to the value orientations and preferences of the representative woman of each societal equilibrium.

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basis of the male breadwinner and female homemaker model which was the norm in the sixties and seventies. In this sense, this equilibrium could be also called *traditional equilibrium.*

The coexistence of well defined diverse pathways for women is clearly observed at the societal level. The next tables show the evolution in the last decades of some relevant indicators in order to better understand the changing role of women as well as the still persistent inequalities in different societal contexts. The four European countries represent the classical scenarios in terms of welfare regime configuration as formulated by Esping-Andersen (1990; 1999). This comparison is important because social policy is characterized as the exogenous driver that may facilitate progress in favour of greater gender equality. Accordingly, the persistent variability in the welfare provisions that, explicitly or implicitly, tackle the most important aspects behind the observed gender differences is, then, closely related with the co-existence of the triple equilibrium society depicted recently by the author (Esping-Andersen 2009).

The labour market participation of women is clearly the first indicator to consider when analyzing the changing role of women in our societies. Table 1.1 shows the evolution of women's employment rates (the ratio of employed women over the total number of women in the working age) in the United Kingdom, Denmark, Germany, and Spain. These are overall rates that include both full and part-time work given the importance of part-time arrangements for women. In Denmark both women and men have higher employment rates and the gender participation gap has remained relatively low at around 12 percent. The other three countries show a very similar pattern: a constant increase in women's employment rate which has accelerated over the last decade in a context of rapid economic growth while a certain decrease in the males' rate is also observed. Interestingly, at the end of the period the gap is very similar for Denmark, Germany, and the UK (of around 12 percentage points) even though at a different level of employment rates for both men and women. Spain is, on the other hand, a contradictory case. It is the country in which the largest advancement in women's employment rate has occurred over the last four decades, a process that has especially accelerated in the last ten years but where the gender

gap is still of 20 percentage points, around 60 percent larger than the average difference for the other three countries.

Table 1.1. Employment rate by sex (persons aged 15-64 years old)

	1970[a]		1980[b]		1990		2000		2008	
	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women
DK	--	--	76	64	80	71	81	72	82	74
DE[c]	89	46	81	50	75	52	73	58	76	64
ES	87	29	77	28	72	32	73	42	75	56
UK	--	--	77	54	82	63	79	65	78	67

a) For Spain the data shown correspond to 1972.
b) For Denmark the data shown correspond to 1983: For the UK to 1984.
c) Data for West Germany up to 1990.
Source: OECD Labour Force Survey (Harmonised).

The inequality in the way women and men pursue their labour market careers is evident in the gender gap in part time work. For instance, according to recent information available at EUROSTAT in the last quarter of 2008 while only 7.7 per cent of employed men were part-time workers in the EU-27, 31.1 percent of women chose this working arrangement as their way to participate in the labour market. This gender gap in the different intensity of involvement in the labour market has marked implications for the lives of women and men. Table 1.2 reports the patterns of time-use among employed women and men on a normal weekday. The information comes from time-use studies carried out in the four countries in a joint European effort to create a harmonised time-use data set covering all the EU member states. Although the method of data collection for the Danish survey does not make its results fully comparable with those of Germany, Spain, or the UK some interesting patterns in the four countries appear clearly in the table. Overall, there are no big differences in the way employed women and men spent their time as far as travel, sleep and personal care related activities are concerned. This means that the most significant differences are concentrated in those activities closely related with leisure and productive time, either in the labour market or at home, that is, precisely those activities that

clearly affect the quality of life of individuals. Indeed, when the paid labour and housework rows are added up the gender differences for the four countries almost disappear. The relevant question for this thesis is whether the differences between paid and unpaid labour for women and men are the consequence of a free choice or, on the contrary, the gap arises out of social and normative constraints. The increasing labour market participation of women together with the progress made in their educational attainment suggest that the unequal gender division between paid and unpaid duties is not, in most cases, a voluntary decision. Indeed, as chapter four shows this inequality appears to have different implications for the wellbeing of the spouses: wives' satisfaction with their relationship is consistently lower than that of their husbands.

Interestingly, even though the data reported in Table 1.2 do not come from a sample of couples as the ones used in the rest of the chapters of the thesis, I find similar gender differences in the patterns of time use between partners to those that exist among employed women and men.[2] More importantly, these differences are very much alike across European countries, although time constraints are more evident for employed women in Spain as compared to their counterparts in Denmark, Germany, and the UK given their higher share of time in the labour market and the time spent at home doing the chores. A good indicator of these gender differences between paid and unpaid labour activities are those studies showing that women's time-use decisions regarding work and housework activities are jointly determined and, besides, that time devoted to housework has a negative association on their wages (Bryan and Sevilla-Sanz 2008).

Altogether the information provided in these two tables indicates that gender differences within and across countries cannot be fully accounted for without considering the effect that

[2] Clearly, a high proportion of these men and women are, for each side, partnered since it is a sample of adult individuals who are employed. In this sense, the shares shown in the table can be taken as complementary patterns of time-use.

the institutional framework, particularly the extent to which the system of welfare provision responds to women's needs, has on their personal choices regarding basically labour market participation and homemaking activities.

Table 1.2. Time-use structure of employed men and women in a normal weekday (percentages)

	Denmark[a]		Germany		Spain		UK	
	Men	Women	Men	Women	Men	Women	Men	Women
Work, study	19	15	21	16	26	21	24	17
Domestic Work	10	15	8	14	8	14	8	14
Travel	5	5	6	6	6	6	6	6
Sleep	32	33	33	34	34	34	34	35
Meals, personal care	11	12	10	10	10	10	8	10
Free time, unspecified time use	22	22	22	20	18	15	20	18
TOTAL (Hours)	24	24	24	24	24	24	24	24

a) The data for Denmark is not directly comparable due to the sample design of the Danish Time-Use Study. The sample covers women and men aged 20 to 74 years old.
Source: EUROSTAT Report "How is the time of women and men distributed in Europe" (2006).

If the configuration of the welfare regime is stressed in Esping-Andersen's work and others' as the exogenous driver towards a greater equalization of women's and men's lives, education clearly constitutes the endogenous one. Endogenous because together with the social demand for a more skilled workforce that has pushed both women and men to get further in education and the associated expansion of compulsory schooling, women's will for better living standards and perhaps also for greater autonomy in their lives may have particularly driven their progress in educational attainment over the last few decades. For instance, data from UNESCO shows that, at least for the last two

decades, the proportion of female graduates among all graduates is well above 50 percent (55 percent on average).[3] Indeed, previous studies has shown that, in historical terms, analyzing data for the last century which covers the majority of the countries in the world, the female surplus in higher education is a quite recent phenomenon that can be traced back to the beginning of the nineties (Schofer and Meyer 2005: see Table 5). The reasons for this remain largely unknown even though recent research suggests that together with differences in resources related to family background and academic performance women's higher incentives to attain higher education largely explain the growing female advantage in college completion (Buchmann and DiPrete 2006). These incentives manifested in women's changing economic role in dual earner-societies have indeed increased the importance of women's education for a better attachment in the labour market (Blossfeld 2009). Interestingly, recent contributions report that the increasing educational attainment among young cohorts has considerably weakened class inequalities in the rates of college completion, especially among women (Breen *et al.* 2010). This is another example of the relevance of education for the life chances of women in our societies.

It is perhaps the confirmation of this general pattern across countries which better shows that in the interplay between those institutional factors that could account for women's increasing educational attainment and their own preferences to get higher education, the latter is much more an important factor than the former in order to advance towards a more equal gender society. The dissertation builds upon the protagonism of women in higher education to study its effects for the family life, particularly for the relationship between the spouses over time regarding their family activities and gender values as well as for the quality of the relationship.

It is a well known social phenomenon that people are more likely to marry those who are like themselves. Accordingly, the

[3] *Source:* UNESCO Online Database (www.uis.unesco.org).

higher educational attainment of women should have induced an observable change in the patterns of partnership formation from an ascriptive to an achievement-oriented basis, that is, from the role of inherited characteristics such as parental social class and wealth to the role of educational attainment, largely dependent on own capabilities (Kalmijn 1991a; Kalmijn 1991b). Indeed, classical contributions on this field report that educational homogamy at high levels of education is on the increase (Mare 1991; Schwartz and Mare 2005). Other authors, nonetheless, based on cross-country comparisons over time doubt that this trend can be easily generalized given the historical and socioeconomic differences across countries and the impact they may have on the educational attainment of women and men around the world (Hakim 2000; Smits, Ultee and Lammers 2000; Ultee and Luijkx 1990).

Even if we leave some room to the possibility that high educational homogamy may not be growing at the pace some authors suggest, there is less doubt about the consequences that higher educational attainment is having for the process of partnership formation. On one hand, colleges and universities have clearly become settings in which partnerships are formed (Blossfeld and Timm 2003; Kalmijn and Flap 2001; Mare 1991). On the other hand, this has also probably reduced the opportunities for intermarriages at the extremes of the education distribution. Altogether, as Esping-Andersen (2009) shows, positive assortative mating is deepening traditional inequalities and creating new forms of polarization across household headed by partners with high versus low levels of education.

1.3. A workable definition of gender equality: Scope and limitations

The discussion in the previous section has depicted a complex panorama for the appropriate definition of the concept of gender equality in the family life of the couple that this thesis addresses. Clearly, regardless of the progress made by women, persistent

differences in employment rates by gender indicate that gender equality within family life does not imply an equal distribution of domestic chores. Furthermore, according to the data used in this thesis, wives on average contribute only 30 percent of the total labour income of the family. Despite the increasing educational attainment of the spouses which could bring new ideals of equality and fairness in the couple, the gender differences in paid labour involvement and the associated incomes affect the bargaining position of the spouses at home regarding homemaking activities. Moreover, given these income differentials between the spouses, even if education could facilitate a more balance division of the chores between them, this is likely to create second order effects in the form of net income and efficiency losses if, for instance, a highly educated husband engages more in housework while he reduces the time spent in paid labour activities.

Also an equal distribution of the domestic chores between the spouses could imply welfare losses if the preferences or 'tastes' of the spouses are very different. Women, for instance, may prefer to do more unpaid than paid work compared with their male partners. (The extent to which such preferences are exogenous to the actual amount of housework they do or to other influences such as socialization goes beyond the scope of this discussion). A similar concern could arise if there are sizeable differences between the spouses in how much leisure time they enjoy. If this the case, and the wife, for instance, enjoys more free time than the husband, a larger contribution from his side would not imply greater equality. However, time diary data from the Home On-Line Study suggests that the average weekly leisure time of the spouses seems very much alike both for indoor activities (37.30 for wives and 37.90 for husbands) and outdoor leisure activities (11.10 for wives and 11.42 for husbands).

This thesis focuses on a limited concept of gender equality in the family that seeks to identify whether patterns with similar levels of education also have a more equal distribution of housework activities all else equal (income, time constraints or preferences), To put it simply, more equal does not mean here a

fully balanced share of the chores within the couple. Substantively, the thesis seeks to identify whether education may help re-define the traditional gender roles of the spouses at home in line with the more recent gender roles typologies proposed by scholars working in the field of gender equality (Breen and Prince Cooke 2005; Hakim 2000). Such re-definition has been also labelled as a 'feminization' of the life course trajectories of men as a response to the observed 'masculinization' of the life course trajectories of women that comes with their increasing involvement in the labour market (Esping Andersen 2009 and 2002). For men 'feminization' would mean a greater involvement of them in caring and homemaking activities. Thus, the thesis aims at identifying whether the education of the spouses is associated with a certain attitudinal change of the spouses in how they organize their family arrangements. This is achieved not only by comparing the behavioural outcomes of couples at different levels of education but also, through longitudinal analyses, over time.

Such a re-definition of the gender roles associated with patterns of educational homogamy has been recently found in childcare by Bonke and Esping Andersen (2009). The authors find that caring for children is far more egalitarian among highly educated parents but remains traditional and gendered among low educated couples. Although childcare is not the focus of this thesis, the logic of educational homogamy being associated with a more balanced engagement of the spouses in routine housework drives the workable definition of greater gender equality used throughout the dissertation.

1.4. A life course approach for the study of inequalities in couple relationships

A couple relationship commonly entails changes for the life of each of the spouses. These changes can be of two kinds. The first one includes those that are likely to take place when partners form their union. The driving factor here is the change from singlehood

to coupledom. The second one refers to those changes that take place over the duration of the relationship. In this latter one the interrelationship between the partners and the influence of the context along time are the determining factors. Altogether these two sources of change stress the role of the family as a social unit that influences the individual life courses of its members. It is for this reason that when analyzing gender inequalities among adult individuals and how they evolve over time, taking the couple as the unit of analysis and the family as the place to study them is a necessary condition for a better understanding of how life chances of women and men still differ in our societies.

We have witnessed in recent years an increasing interest among scholars in the study of the social stratification dynamics that unfold in the couple relationship. A common theme in this research is the study of the labour market careers of the spouses, the influence they exert on each other's success, and how the household and family contexts affect differently wives and husbands (Blossfeld and Drobnic 2001; Bernardi 1999; Bernasco 1994). Although with some variation across countries this research finds that there are positive spillover effects between partners in such a way that the success of one partner influences positively the career of the other. Furthermore, the same pattern of positive influence has been reported for the case of the indirect effect of positive assortative mating on education in the labour market success of the spouses (Brynin and Francesconi 2004). This reciprocal influence is, nonetheless, unevenly distributed between partners given the unequal effect that the family responsibilities have on wives' labour market prospects as compared to their husbands. In addition, the negative side of spousal influences has also been shown for the higher risk of unemployment among couples when one of the spouses loses their job (Ultee, Dessens and Jansen 1988).

There are also a few studies focusing on other possible sources of influence among couples, basically in attitudes and values. For instance, in the realm of political behaviour some recent contributions have found an interesting pattern of unequal

influence by which husbands affect more their wives' political attitudes than wives do on their husbands'. This result might of course simply be explained in terms of the higher interest of men in politics rather than of an inherent gender inequality (Zuckerman 2005; Zuckerman, Dasovic and Fitzgerald 2007). Finally, studies on reciprocal influences in other value dimensions such as gender and family attitudes show that in this case wives are the ones leading the process of spousal adjustment. The explanation complements that of political homogamy among couples: wives influence more their husbands' attitudes towards the family and gender roles because of their role as home-makers (Kalmijn 2005). Also for the case of a more intense adjustment in partners' family values the matching on education appears as a critical indirect social process. That is, educational homogamy, seems to act as a proxy people may use in order to increase the chances that their partners will share with them similar views towards gender and family issues (Brynin, Longhi and Martínez 2009).

The focus of this dissertation on the life-course of couples and in the inequalities that unfold over time places this research within an area of social stratification inquiry that has been growing rapidly in the last few decades: the sociology of the life-course. Life-course sociology constitutes one of the most promising research programmes in contemporary sociology. This approach considers individual life courses in terms of the effects on people's lives of institutions and structural opportunities that shape their personal decisions. It stresses the importance of the mutual interdependencies that affect one's life, and how tight these linkages are woven while leaving room for individual decision-making at various life stages, and for life-long planning (Mayer 2009; Mayer 2004). Life course patterns in the case of couples denote the sequence of events in various life domains that span from the time of partnership formation to its dissolution (either through the death of one of the spouses or due to marital break-up). Some of the life course events that this agenda covers are those just mentioned but there are also other individual decisions such as residential mobility (Ferreira and Taylor 2009) or those

related with the timing of family formation (Martín García and Baizan 2006) which unfold over time and have deserved attention from a life course presepctive. While some of them appear to reflect more freely the will of the spouses, in general, the social context, either in the form of constraints or opportunities, also affects the decisions taken by individuals.

The framing of individual choices by the wider social context has allowed sociologists to speak of the "institutionalization" of the life course. This is, for instance, visible in age-related informal norms like the ones prescribing a good age for marrying, leaving home or getting a child; to age-related legal norms like the ones establishing school enrolment or pension eligibility (Diewald and Mayer 2009). There are of course, other forms of social ordering of the life course but all of them are related with a certain time and sequencing of events. It is time, then, which constitutes the main dimension of life course sociology. Accordingly, a pre-requisite for the advancement of the research agenda on this field has been the availability of longitudinal datasets that allow following the life course of individuals over time as well as the development of suitable empirical techniques for this kind of analysis.

In particular for the case of couple analysis over the life course the existence of household longitudinal datasets has been the decisive factor that has enabled research on the changing nature of the inequalities between partners over time (Blossfeld and Drobnic 2001). In section 1.5 I explain the main characteristics of the samples of couples used through the dissertation drawn from two different sources: the British Household Panel Survey and the Home On-Line Study. In addition, each chapter includes a detailed explanation of the methods and research strategies employed to address the specific research questions and hypotheses presented.

1.5. Outline of the thesis

Building upon the existing research on the life course of couples this dissertation aims to clarify the role of education on

the extent of gender inequalities between the spouses, on one hand, and how they evolve over the duration of the relationship, on the other hand. As anticipated the thesis specifically seeks to shed light on whether the increasing educational attainment of women has actually translated into more equal and balanced gender relationships between the spouses. To do this the substantive interest lies in identifying whether patterns of inequality in the couple are better explained by the individual level of education of wives and husbands or by the joint effect of their education, particularly by the matching on education. As I shall discuss in more depth in the three substantive chapters, the normative implications for the evolution of gender inequality in the couple and in society at large are very different if the individual effect of each partner education predominates that of the joint effect of the education of the couple. This is even more the case if within the individual effect of education, the educational attainment of one of the spouses, either the wife's or the husband's, plays a more important role for the extent of gender equality in the relationship.

Thus, in order to shed light on the issues raised in this introductory chapter of the dissertation, the thesis seeks to answer the following general research questions:

What is the role of education in the patterns of gender inequality within the couple?

Does the individual or the joint educational attainment of the spouses have the largest impacts on these inequalities and how they evolve over time?

These general research questions are answered through the study of three substantive dimensions of the couple relationship mentioned above: the role of education on the division of housework between the spouses, the role of education on the resemblance between the gender and family values of the spouses and the capacity of each partner to influence the other's values

directly or through the family arrangements, and, finally, the role of education and the division of housework in the process of union dissolution.

The thesis comprises five chapters, including the present introduction. The next three are the substantive chapters. Each of the chapters present a series of hypotheses after having reviewed the main theoretical approaches related with the topic under study. Thus, chapter 2 analyzes the role of education on the evolution of the share of housework within marriage. The chapter shows that neither the matching on education nor the increasing educational of the spouses actually lead to a significant equalisation of each partner's contribution to total amount of housework in the couple. Indeed, the reduction observed in the time highly educated wives devote to housework seems to stem more from the time constraints they face given their participation in the labour market than from a greater involvement of their husbands in the housework activities at home. Moreover, the analysis identifies an interesting pattern of behaviour when wives are more educated than their husbands. In this case, far from observing a more balanced share of the chores, the inequality increases because the wife takes over more housework compared to wives with lower levels of education while the husband's contribution remains marginal. This finding goes in line with the compensatory strategy of the 'doing gender' theory traditionally applied to income inequalities for breadwinner wives. Altogether, the results of the chapter suggest that the forces that shape the roles of the spouses within the family are resilient to adapt to the social change induced by the increasing educational attainment of women and the matching on education of the spouses.

Chapter 3 studies the effect of education in how similar the spouses are in their gender and family values as well as the role of other family and contextual factors in the different capacity of each partner to influence the other's values. Thus, while the direct reciprocal influence between the gender values of the spouses appears to be symmetrical, women's traditional roles within the family are associated with relevant gender differences with

husbands becoming more traditional through the role saliency of their wives at home. In the same vein, the findings also suggest a very different pattern in the relationship between partners' high education and their gender and family values: highly educated wives are more egalitarian than their male counterparts. This gender misfit between values and education may be interpreted as reflecting that most often women's traditional roles at home come at the cost of their own personal satisfaction with the relationship while highly educated husbands adapt more easily to these family arrangements. In addition, it is the high education of the wife more than the husband's which leads to an increasing alignment between the gender values of the spouses.

Chapter 4 analyzes the effect of education and the division of housework on the quality and stability of the relationship. Particularly, it concentrates in the role of educational homogamy and the 'doing gender' behaviour, based on differences in the level of education of the spouses, on the risk of divorce. The results suggest that while the gendered specialization in housework activities prevents against divorce, the 'doing gender' behaviour of couples where the wife is more educated than the husband has, in the long run, negative consequences for the stability of the relationship since the unequal division of housework of these couples significantly increases the likelihood of divorce over time. Clearly, if highly educated wives are open to adjust to a more traditional gender role this seems to be, in any case, a transitory option in the expectation that this arrangement will change. When it does not, wives opt to leave an unsatisfactory union. On the contrary, in line with previous research, chapter four also shows that the matching on education of highly educated partners is a guarantee for a more stable union. Interestingly, for these couples it seems that the positive effect of husband's high education is slightly stronger than wives' own high education which highlights an interesting partner effect most likely related with women's expectations of greater equality and fairness in the relationship regarding the high education of their husbands.

Finally chapter 5 presents the conclusions of the thesis, discusses its main contributions and highlights some areas of interest for further research.

1.6. The data

The British Household Panel Survey

The British Household Panel Survey (BHPS) is the main data source used in the three substantive chapters of the dissertation. It is an ongoing household panel aimed at collective representative information on individuals and households in Great Britain (the United Kingdom from wave 11 onwards). Its main goal is to collect data on a wide range of socio-economic, attitudinal, and health variables. The original sample was drawn in 1991 to a nationally-representative sample of about 5,500 households. Since then the dataset has collected information every year adding new questions and topical modules to the core questionnaire. The sample members are followed even when they move from the original households to constitute new ones with the only condition that they remain within the territory of the UK and live in non-institutional accommodation. One advantage of the BHPS over most standard surveys is that it collects information on every member of the selected households aged 16 years and over.[4] This kind of information permits the examination of individual behavior within the family context, as well as the reciprocal influences among family members and how they affect the individual's life chances.

Since the main interest of this dissertation lies in the effect of time on couple's lives and family outcomes much of the analysis presented, either descriptive or multivariate, will be longitudinal

[4] From wave 4 onwards young members of the household aged 11 to 16 years old are also asked to complete a reduce form of the main questionnaire with some specific questions related with their daily lives (Youth Questionnaire).

taking advantage of its panel design. The main issue in any longitudinal analysis is attrition (i.e. the reduction in the number of interviewed people due to permanent drop-outs). For this reason, weights are used as appropriate. The panel is also unbalanced (people appear in it for different lengths of time).

The core information utilized in this dissertation is the information collected at the individual level with each of the adult household's members since the date the household was selected as part of the panel. From the original data I have developed a couple dataset linking the information of each individual to her/his spouse (or cohabiting partner). The final dataset keeps only those couples for which both partners are present in the panel. Clearly, this could introduce some selection effects if the reasons for those couples in which only one spouse has been interviewed are not random. For instance, it could happen that the absent partner at the time of the interview is so because she or he is working. This would imply that the working sample under-represents the number of couples who follow either very traditional family arrangements (the wife is homemaker and the husband breadwinner or very modern ones in the opposite scenario). Yet these two effects are likely to cancel out if the probability of being interviewed is similar for working wives and husbands. Regardless of this issue for the couple-level analysis carried out in this thesis it is of key importance to work with couples in which both partners have been interviewed in order to establish possible gender differences between the spouses. To proceed with the study of the role of education on gender inequality over marriage I have reconstructed the marital history of the couples interviewed using the information provided by the woman given its better reliability as compared with the self-reported marital histories by the men interviewed. This has provided me with three basic variables for the study of the couple relationship over the life course. They are: the duration of the observed relationship, its sequence in the marital history of the wife, and whether it is a marital or a consensual union. This reconstruction has been possible thanks to the consolidated marital, cohabitation and fertility file which contains retrospective

information about the lifetime histories of the sample members with the subsequent panel data information related to the respondents' partnership and childbearing histories.[5]

Most of the analysis is carried out using a selection of couples aged between 25 and 55 years old during their presence in the panel (SAMPLE A). This age range has a twofold aim. On one hand, the lower band of 25 strengthens the likelihood that the couples have completed their education by the time they are first observed in the data. This is crucial in order to use education as an indicator of homogamy at the time of coupledom. Finally, the upper band fixed at the age of 55 years old restricts the analysis to couples of working age. This avoids the potential bias of overrepresenting traditional couples in their gender attitudes as a by-product of aging which may have an impact on the study of the gender values of the spouses examined in chapter three as well as on the lower risk of divorce of these couples, a key issue for chapter four. However, this sample selection does not affect the proportion of married and cohabiting couples over time. Table 1.3 compares the working sample (SAMPLE A) with the whole sample of couples (SAMPLE B). It shows the distribution of couples in the two samples by year and marital status in the two samples. Overall the proportions are very similar in the two cases. Finally, only couples where both partners report positive housework time are kept in the sample.

[5] The reconstructed family history file was developed by Chiara Pronzato while at ISER, University of Essex and it is held for public use at the UK Data Archive

Table 1.3. Main characteristics of the samples used in the analysis, by marital status and year (frequencies and percentages)

	SAMPLE A %		SAMPLE B %			
Year	Married	Cohabiting	Married	Cohabiting	Total SAMPLE A	Total SAMPLE B
1991	93	7	91	9	1,378	2,004
1992	90	10	89	11	1,894	2,985
1993	89	11	89	11	1,814	2,843
1994	89	11	88	12	1,796	2,829
1995	87	13	86	14	1,762	2,791
1996	86	14	85	15	1,819	2,831
1997	86	14	85	15	2,081	3,324
1998	84	16	83	16	2,035	3,287
1999	84	16	84	16	2,798	4,596
2000	83	17	83	17	2,778	4,583
2001	83	17	84	16	3,263	5,404
2002	82	18	84	16	2,862	4,766
2003	82	18	83	16	2,777	4,752
2004	81	19	83	17	2,675	4,580
2005	81	19	83	17	2,586	4,463
TOTAL					34,318	56,038

Source: BHPS 1991-2005.

The Home On-Line Study

In addition to the BHPS, in chapter two I have also used a couple dataset drawn from the Home On-Line Study (HoL). The HoL is a short panel of three waves which comprises three different sources of information: a household questionnaire, an individual questionnaire and a weekly diary of activities, to all of which the members of the household aged 16 or above are asked to respond.[6] In its original format the diary information included records for each day of the week. Each day had 96 variables representing every quarter hour in the day, starting at 4am. Each variable had 35 codes for the activities used in the diary. The start day was left to the respondent and was therefore close to random. From this format several aggregate variables were derived

[6] The dataset also includes a children's diary for those aged between 9 and 15 but they are not used in the analysis presented in chapter two.

accounting for the different activities performed by each individual in the week. The diary also includes primary and secondary activities (those performed while doing a primary activity).

The first wave was conducted between October and December 1998, the second wave in January 2000 and the third in February 2001. As a result of attrition the sample size of individuals who both answered the questionnaire and the diary varies between waves. It is 1093, 649 and 723 individuals, respectively. The household response rate was 57% in wave 1 and 68% thereafter. The survey oversampled homes with computers in wave one, while homes which dropped out of the survey in wave two were replaced. Both household and individual non-response were adjusted through a detailed weighting scheme. For the purpose of the analysis presented in chapter two I have created a couple dataset that comprises all couples who answered the housework question in the individual questionnaire and all the housework-related activities in the diary component either as the primary or the secondary activity, and where both partners reported positive housework time in the two measures. Childcare is not included since the housework question only asks for the time spent in routine housework, cooking, cleaning, doing the laundry, over a normal week with no direct reference to childcare activities). The final sample pooled from the three waves contains 583 couples.

The advantage of the couple dataset drawn from the HoL study is that it allows comparison of self-reported time in housework activities through two methods of data collection: diary and direct (generally called 'stylized') questions. As the analysis of chapter two will show there are considerable gender differences in the level of accuracy of wives and husbands regarding their report of housework activities: wives seem to provide much more reliable estimates of their housework activities with no significant differences between the diary and the questionnaire method, while husbands seem to over-report their contribution to housework through stylized questions. The main conclusion is that standard questionnaire methods may provide a conservative measure of the

extent of gender inequality in the division of housework between the spouses that needs to be considered when drawing substantive arguments. Interestingly, highly educated husbands provide more reliable estimates of their true contribution to the housework activities of the couple than those with lower levels of education.

CHAPTER 2. THE ROLE OF EDUCATION IN THE DIVISION OF HOUSEWORK WITHIN MARRIAGE

2.1. Introduction

The unequal division of housework in the couple is a well established fact that has deserved extensive scholarly attention in the last decades.[1] Previous research has considered the gender-specific relationship between family and work commitments to explain how partners share the domestic chores (Hakim, 1996 and 2000; Shelton, 1996). All these studies build upon the social change undergone by the family since the end of the World War II when women started taking over labour market duties that traditionally were performed by men. Thus the increasing labour market participation of women, with its associated effect on more independence, triggered a fundamental change in the sociological and economic analysis of the family with the move away from the efficiency models based on an unitary conception of the family

[1] The term "couple" refers in this thesis to heterosexual couples including both cohabiters and married couples. Previous research has shown that marital status relates with a different bargaining behaviour of the partners which translates into distinctive family outcomes. The reason would mainly lie on the different expectations partners have about the stability and length of the relationship. For the case of housework see: Stratton (2004), South and Spitze (1994) and Shelton and Daphne (1993).

(Parsons, 1951; Becker, 1991), to a view based on bargaining and negotiation (Giddens, 1992; Chiappori, 1988) in which family members are treated as individual actors. Within this analytical framework the chapter's main contribution is to disentangle the role of education in how partners share the domestic chores.[2] In particular, it will concentrate on whether the increasing educational attainment and the tendency of women and men to marry homogamously in terms of education has fostered more gender equality in the division of housework within the couple. The answer to this question is not an easy task since very different individual decisions and negotiations around how to share the housework can lead to the same observed outcome. Thus, a more balanced division of the domestic chores may have little to do with gender equality if this stems more from the purchase of substitutes in the market thanks to the larger income of highly educated spouses. If this is the case, this more equal behavioural outcome is not the result of a fundamental shift in attitudes towards equality but to the material gains of the matching on education which facilitates a reduction of the unequal division of housework within the couple.

A switch towards gender equality and fairness in the couple stems, instead, from a greater involvement of highly educated husbands in housework. This is especially relevant since despite the increased labour market participation of women and the narrowing of the gender pay gap, the husband's contribution to the material resources of the family is bigger than that of their wives

[2] Even though the focus of this chapter is on couple-level and individual factors it does not neglect that other macro-level elements typically analyzed in political economy research such as welfare regimes, economic development, female labour-force participation or the distribution of skills among the workforce, may also affect family life. For instance, some recent works linking traditional political economy arguments and macrosociological ones on the welfare state have shown that these are important elements in explaining the division of housework at the individual level (Iversen and Rosenbluth, 2006; Hook, 2006; Geist, 2005; Fuwa, 2004).

even among highly educated couples. This means that if, once the resources of the spouses are controlled for, we observe a greater participation of highly educated husbands in the domestic chores, this can be interpreted as greater gender equality. However, it may also be the case that far from a true redefinition of the gender roles of the spouses, the husband's growing participation in housework arises out of the increasing bargaining power of his highly educated wife who, even if her resources are still lower than the husband's, may credibly threaten to break-up the relationship if he does not increase his contribution to housework. Whether this more equal outcome is the only result of the changing bargaining power of the spouses or it also includes a normative swift towards gender equality is an issue that needs to be addressed empirically.

This brief description of how the increasing educational attainment of the spouses may affect their division of housework depicts a complex panorama of the role of educational homogamy on the gender equality in the couple. Indeed, traditional theories of family behaviour that deal with the division of housework at home struggle to explain the paradox of living in an era where high education has meant a shift towards a great social value on egalitarian family arrangements while persistent gender inequalities remain in family and household organization, particularly regarding the division of housework. Building upon recent research this chapter will also seek to shed light on this apparent contradiction between gender values and education (Bühlamann, *et al.* 2009). Concretely, my aim is to identify whether the societal pressure towards egalitarism has actually permeated the private lives of the spouses. To do so, I will investigate whether an independent effect of gender values on the division of housework exists over and above the impact of the educational attainment of the spouses (Davis and Greenstein 2009). This issue has important consequences. In particular, it follows that if the gender and family values of the partners are not fully determined by their level of education we can better understand a key mechanism behind the persistent inequality in the division of housework even among highly educated spouses.

The analysis will show that there is indeed no perfect correspondence between high levels of education and partners holding egalitarian values towards gender or family issues. The substantive reasons behind this are specifically addressed in chapter three of the dissertation. Clearly, while people's values are to a large extent a reflection of educational attainment, gender and family values are also affected by the actual circumstances of the couple (family arrangements and life-cycle events). This may explain why such heterogeneity between partners' education and gender values actually exists. Indeed, Bühlamann (2009) shows that life-cycle events that unfold over marriage such as changes in the fertility history or in the labour market career of the spouses may weaken the egalitarian effect of high education explaining, in turn, a good deal of the conflicting relationship between the education and values of the spouses as well as the existence of gender differences within the couple.

In addition, the persistent inequality in the division of housework can also stem from the adaptative behaviour of the spouses. This explanation is stressed by the gender identity theories in sociology and economics. For these approaches why *breadwinner* wives (as measured traditionally by income differentials) still do more housework than their husbands can be explained by the gendered meaning both partners assign to housework and how they use this meaning in order to solve the discrepancy between their ascribed roles at home and the dependency of the husband on their wife's resources (West and Zimmermann, 1987; Bielby and Bielby, 1989; Brines, 1994; Greenstein, 2000). Thus, it has been found that when wives earn more money than their husbands far from reducing their contribution to housework this goes up. In this paper I will study whether the same outcome occurs for those couples in which the wife has higher education than the husband and try to disentangle whether this is a one-sided response (from the wife increasing her share or the husband reducing his) or a two-sided phenomenon with both partners acting, at the same time, in opposite directions.

As stated above, together with the individual characteristics of the spouses (education, values) life cycle events that unfold over marriage are key factors in how the unequal share of housework evolves. In this vein, the final contribution of the chapter makes use of the longitudinal data used throughout the dissertation in order to study the influence of events such as changes in labour market trajectories of the couple (and the associated shifts of income), the birth of children together with changes in the educational level of the spouses and of their values on how the division of housework evolves over the duration of the relationship. This dynamic analysis enables examination of whether these events have a similar effect on both spouses' contribution to housework or, on the contrary, they are gender-specific, affecting unequally the time wives and husbands spend doing the chores.

The analysis presented in this chapter is carried out using two household surveys: the British Household Panel Survey (BHPS) and the Home On-Line Study (HoL). From the original data with the individual and household level information, two couple dataset were developed matching all partners present in the surveys. The use of the couple dataset drawn from the HoL, a short panel with a weekly diary of activities that also contains direct questions on the time spent in different activities over a normal week allows me to address a methodological issue of interest in the study of the housework division of labour between the spouses: how reliable are partners in providing their time spent doing the chores in diaries versus questionnaires and why there may exist significant gender differences in this recall bias. In general there is consensus that diaries are much more accurate than questionnaires (Kan 2008; Kan and Pudney, 2008; Gershuny 2000). In addition, the use of the two couple datasets allows comparison of the key results of the analysis using both sources of information and also to be drawn conclusions on how much diary and questionnaire methods of data collection contribute to the observed inequality in the division of housework. The results of this comparison highlight that wives are consistently more accurate in reporting

how much housework they do since their deviation between the questionnaires and the time-use diaries regarding housework activities is smaller than their husbands'. Men clearly over-report their contribution when they are asked through questionnaires. All in all, time use information, either in the form of questionnaires or diary of activities is of paramount sociological importance since it allows the measurement of household productive activities which are regarded as key factors for a better understanding of the role of women in current society (Gershuny and Sullivan, 1998).

This chapter is organised as follows. In section two I shall discuss the literature and previous research and present the research questions and hypotheses analyzed. In section three the methods and variables used are described. Section four presents and discusses the results of the descriptive and multivariate analyses. Finally, the chapter ends with the concluding remarks.

2.2. Theoretical framework, research questions and hypotheses

Housework is a routine activity in which the couple engages every day. As such there are multiple factors, circumstances and arrangements that may affect how partners share the domestic duties and how such division changes over the duration of their relationship. The theoretical perspective of this chapter integrates previous contributions that have addressed the division of housework, especially the gender ideology perspective, with the research devoted to educational homogamy. It also adopts a life-course perspective which allows for changes in the sharing of housework between partners over time. This section presents the main hypotheses that can be drawn from this integrative theoretical framework.

2.2.1. The domestic division of labour: Theoretical perspectives and models explaining the division of domestic labour within couples

Women's labour force participation rate, although still lower than that of men, has been increasing since the late 1960's in most western countries. This fundamental change has brought a new approach to the study of the family: the 'male breadwinner model' has been replaced by the 'dual earner model' in which both partners participate in the labour market to reflect that the time constraints of the couple force new arrangements in the home to share the domestic responsibilities. Therefore, the household has currently become a central focus of research to address topics related with social stratification and to study different dimensions of inequality at the individual level. As Esping-Andersen points out (2002: 29):

> "[…] and, once adult, it is the household that gives meaning to the unfolding life course. It is here that social advantage and disadvantage are transmitted and activated; it is here that social risks and needs find primary expression; and it is also here that the primary social safety net is found".

This citation provides the general framework for studying the life chances of individuals in relationship with their position in the household. Since the household is made up of individuals and the relationships that link them, studying, for instance, how couples agree on a particular division of the housework load should improve our understanding of gender inequality forces within the family. There is a vast literature that shows the importance of the persistent gender imbalance in the distribution of domestic chores between men and women in industrialized countries (two recent examples are: Shelton, 1996 and Gershuny, 2000). Scholars from both sociology and economics have sought to explain the stylized fact that women still perform the lion's share of housework even when their engagement in the labour market resembles their partners'. Some sociologists have labelled this phenomenon as one

of 'lagged adaptation' (Fisher *et al.,* 2006; Gershuny *et al.,* 2005; Gershuny, 1994 and 1988) which refers not only to the delay in men's adaptation to women's work, in particular through undertaking more housework, but also to only a partial adaptation. As a result women suffer the so-called double burden of participating more in paid work but barely being compensated with a reduction in domestic work (Shelton, 1996).

Several competing theories and models of household behaviour in social research account for this empirical regularity. In economics the study of the family assumes a particular decision-making based on the different assets (economic, cultural, educational) and interests (unitary, non-cooperative or collective) that individuals bring into the family. The aim is to study the different outcomes observed such as the division of time between housework and work activities within the couple or decisions concerning fertility. The first influential model was the unitary model developed by Becker (1991). In this model the household is considered as a unit with its own unique utility function. Decisions that maximize this utility are taken jointly by the spouses. This model is criticized because of two possibly competing implications to which the implicit assumptions in the theory give rise: either 1. that members of a couple have identical preferences; or 2. that there is one decision maker (van Klaveren *et al.,* 2006). Neither seems realistic as a general theory.[3] In fact, Becker's model seems to be a *post hoc* formalization of a particular, historical, model of the family: the family of the post-war period in which the male was the main household provider (Brynin and Schupp, 2000). An alternative approach relies on bargaining models, either non-cooperative, in which each partner optimizes her or his own utility function and takes the behaviour of the other as given (Lundberg and Pollak, 1993), or collective (Chiappori, 1988; Vermeulen, 2002) in which both spouses also have their

[3] The joint decision rule has not only been criticized in economics (apart from the alternative models reviewed in the text see Weiss, 1997) but in sociology as well (Giddens, 1992).

own utility function but a collective and efficient result arises thanks to transfers between partners. Yet partners are not only individuals who happen to live together. They do, to some extent, become 'fused together' and it is therefore necessary to try to examine how far this is the case, and what effects it might have on the distribution of domestic work. Sociological approaches seem more promising in this respect.

There are three main sociological theories concerning the division of household labour. On the one hand, the time availability perspective assumes the sort of rationality common in economic analysis, particularly that of the Becker's model. It states that the division of labour between spouses is rationally allocated according to the availability of household members' time and the amount of housework to be done (England and Farkas, 1986). Hence, women's and men's time in housework is strongly related to the time spent in the labour market as well as to the family structure. On the other hand, the relative resources theory argues, in line with the bargaining models in family economics, that the allocation of housework reflects power relations between men and women. The level of relative resources partners bring into the relationship determines how much domestic work each one performs: education and income are the main proxies to measure such power imbalances (Greenstein, 1996; Brines, 1994). Finally, the gender perspective states that the doing of housework is much more than the availability of resources or a rational choice decision; it is also a symbolic enactment of gender relations. This explains why there is not a simple trade-off between labour and housework between partners. The importance of this approach is that it takes into consideration people's preferences, understood as the behaviour that arises from the combination of values and beliefs and the context in which the person is embedded (thus, gender roles are deeply rooted views held at the family and society levels and not only a matter of the individual herself) about how to organize her life-time, and also the inter-relationship between partners' preferences (West and Zimmermann, 1987; Bielby and Bielby, 1989; Brines, 1994; Greenstein, 2000).

As early as the beginning of the 1980s there was already some research that addressed how sex roles shapes women's and men's life chances (Miller and Garrison, 1982). However, it is Hochschild (1989), based on her very well known qualitative research, who first established a typology of gender roles binding the work and home spheres.[4] She distinguishes between two ideal polar types of gender strategies according to the way partnered women and men organize their time between labour and domestic duties: these are the traditional and egalitarian types. Later, Hakim's (1996, 1998, 2000, 2003) 'preference theory' paid specific attention to the role of individuals' values in respect of household arrangements. Ever since, a complete account of couples' decisions making must consider the specific role of gender.[5] The author argues that with the changing role of women in current society, preferences are becoming increasingly heterogeneous. This makes it possible to establish a threefold typology of men and women according to the priorities they hold with respect to work and family responsibilities. Thus, it is possible to find women and men who are "home-centred", "adaptative", or "work-centred". In Hakim's classification there is no distinction of the types by gender. However, since there is no complete correspondence between women's and men's expectations with respect to the other sex as far as the process of partnership is concerned, it is possible to find all types of couples along the threefold typology. This classification has been further enriched with the gender-specific one proposed by Breen and

[4] Contemporaneously, Bourdieu (1984) also refers to the existence of two ideal types of women: those of the working class for whom work is a constraint which weakens as husband's income rises; and those of the privileged classes for whom work is a choice, as shown by the fact that female employment rate does not decline as status rises.

[5] Breen and Prince Cook (2005) point out that prior to these decisions, individuals' preferences on these matters already play a role in the form of partner's behavioural expectations during the process of partnership. Hence, it should not be strange to find high levels of similarity in couple's gender values.

Prince Cooke (2005) in their study of partnership formation where men are defined as cooperators, adjusters, and hardliners according to their willingness to participate in the domestic chores. In addition, the three types proposed by Hakim are renamed as Autonomous, Transitional or Traditional accounting for their willingness to pursue a professional career wile making work more or less compatible with motherhood.

Tables 2.1.A and 2.1.B provide a descriptive approximation to the two ideal classifications of attitudes regarding work and family responsibilities using the BHPS couple dataset drawn for the core analysis of this dissertation. To construct wives' and husbands' typologies the level of (dis)agreement of each partner on two statements measuring key work and family issues have been used. The specific wording of these statements is shown at the bottom of each table as well as the cut off points selected for each typology. In addition to the overall distribution of wives and husbands within each type, the breakdown by level of education is provided in order to show evidence that the educational gradient does not fully account for wives' and husbands' values regarding the interplay between work and family responsibilities. The results also show clear gender differences. First, wives have on average, more egalitarian values than husbands. Second, education and values are more closely related for wives than for husbands. This may indicate that women do not assume freely the double burden between new work responsibilities and traditional family duties but that they do it at high personal costs given the lack of involvement of their husbands.

Table 2.1.A. Wives' typology according to Hakim (2000, 1996) and Breen and Prince Cooke (2005) classification

Type	%	Level of education	%
Work centered/Autonomous	72.72	Low	49.28
		Medium	75.28
		High	83.95
		N	*2,060*
Adaptative/Transitional	14.59	Low	23
		Medium	14.09
		High	10.20
		N	*413*
Home centered/Traditional	12.69	Low	27.72
		Medium	10.63
		High	5.86
		N	*360*
N Total	2,833	N Total	2,833

The wording of the two statements combined to construct each spouse' classification read as follows: *A pre-school child is likely to suffer if his or her mother works* and A *husband's job is to earn money, a wife's job is to look after the home and family*. They are measured through a 5-points Likert scale according to the level of agreement of the respondent. Work-centered or Autonomous wives are those who disagree or strongly disagree with both statements. Adaptative or Transitional spouses are those who neither agree nor disagree with the statements. Home centered or Traditional wives those who either agree or strongly agree with the two statements.
Source: BHPS: 1991-2005 (cross-sectional weights used).

Table 2.1.B. Husbands' typology according to Hakim (2000, 1996) and Breen and Prince Cooke (2005) classification

Type	%	Level of education	%
		Low	45.70
Coperators	60.37	Medium	58.90
		High	68.66
		N	*1,710*
		Low	26.35
Adjusters	19.54	Medium	19.28
		High	16.29
		N	*554*
		Low	27.95
Hardliners	20.09	Medium	21.81
		High	15.04
		N	569
N	2,833	N	2,833

The wording of the two statements combined to construct each spouse' classification read as follows: *A pre-school child is likely to suffer if his or her mother works* and A *husband's job is to earn money, a wife's job is to look after the home and family*. They are measured through a 5-points Likert scale according to the level of agreement of the respondent. Coperators husbands are those who disagree or strongly disagree with the statements. Adjusters those who neither agree nor disagree. Hardliners are those who either agree or strongly agree with the two staments.
Source: BHPS: 1991-2005 (cross-sectional weights used).

In short, the theoretical perspectives reviewed above emphasize the role of resources, gender values and time constraints in the division of housework. Interestingly, they are often more complementary than it is often acknowledged. They share the common goal of trying to provide a parsimonious explanation on how the changing role of women and men in the society may affect their family arrangements and the decision-making around housework. Building upon these contributions in the next section below I present the main research questions and discuss the rationale behind the hypotheses that will be tested in the empirical analysis.

2.2.2. The role of couple's education in the division of housework within marriage

Based on the above discussion this chapter aims to answer the following general research question:

Has educational homogamy lead to a greater equality in the division of housework between the spouses?

This question gives rise to two competing hypotheses, which are developed below. Homogamy (a concept denoting 'like marries like') is one of the central topics in sociological research in the study of the processes of partner selection. It has been defined as the tendency of individuals to partner with others with whom they share similar attributes. Its sociological importance hinges upon it being regarded as an indicator of the degree of openness in society (Kalmijn, 1998). Since homogamy implies that people are more likely to look for a partner within certain boundaries (either personal or social), when the opposite happens it is viewed as a confirmation that members of different groups accept each other as social equals. In other words, the higher the level of homogamy in a given society the higher its closure and level of inequality, while a society characterised by high levels of heterogamy (that is, intermarriage across boundaries) is regarded as an open and more equal one. Research is not conclusive though: some authors find evidence in favour of the social closure hypothesis based on the high rates of positive assortative mating measured by educational attainment (Mare, 1991; Schwartz and Mare, 2005) whereas others' results seem to confirm the social openness hypothesis (Ultee and Luijkx, 1990; Smits *et al.,* 1998; Raymo and Xie, 2000).[6]

[6] The fact that educational credentials are nowadays a decisive element in partnership selection does not neglect that positive assortative mating on physical attributes may play a role as well (Belot and Francesconi 2006).

The expansion of education in the last decades has fuelled a fundamental change in the way individuals partner. The relevance is now on achievement rather than ascription in the patterns of assortative mating (Kalmijn, 1991). In the past certain inherited characteristics such as wealth, ethnicity and religion were the fundamental forces behind marital selection (Westermarck, 1903). Nowadays, education has replaced these as the key factor influencing people's partner choice, thanks in particular to the increasing participation in higher education in recent decades (Schofer and Meyer, 2005), a phenomenon of which women are the protagonists (Buchmann and DiPrete, 2006). The new role that educational institutions play in fostering partnership is widely recognised in the literature as is the shift towards achievement that this move entails (Blossfeld and Timm, 2003; Kalmijn, 1998; 1991; Smits *et al.,* 2000).

As advanced in the introduction of the chapter, the rationale behind a direct effect of positive assortative mating on education for a more balanced division of housework between partners stems from two possible alternative mechanisms: the accumulation of resources that highly educated couples enjoy may allow them to outsource the domestic chores reducing mostly the wife's contribution of housework with almost no effect on their husbands' behaviour. Secondly, this outcome may also arise out of highly educated husbands' greater involvement in family arrangements including housework activities. Such an increase should also reduce the workload of the wives. The implications of these two alternative scenarios in terms of greater equality are obviously different. While the first one does not alter the grounds of a gender traditional relationship, the second indicates a clear shift towards gender equality which is especially relevant given that even among these highly educated couples the husband is still very likely to contribute more to the family income and work longer hours. Previous studies suggest that higher education has not change dramatically traditional arrangements within the couple. They show that husband's contribution to housework appears neutral to any effect of education (Davis and Greenstein,

2009; Shelton, 1996). The empirical analysis presented below seeks to provide evidence that will allow me to confirm or refute these findings as well as discussing the implications for the position of the spouses within the couple. Therefore the hypothesis concerning the effect of homogamy reads as follows:

HOMOGAMY HYPOTHESIS: Positive assortative mating on education facilitates a more balanced division of housework between highly educated spouses.

From the above discussion it follows that if a husband's reluctance to contribute to housework, independently of his level of education, actually exists it means that any reduction of the total amount of time spent by the couple in housework activities that we may observe when both partners are highly educated is mostly the consequence of their resources which allow the wife to reduce her contribution to housework by outsourcing some of the chores. Alternatively, the high educated wife may also decide to do less housework as a way to solve the trade-off between work and family responsibilities. Interestingly, none of these scenarios that may lead to a reduction in the observed gender gap in housework foster greater equality in the couple. As indicated above it is only when highly educated husbands, who still contribute more to the resources of the family and work more hours than their wives, increase their time devote to housework which can be regarded as indicative of a shift towards more equality in the couple. Altogether these alternative explanations highlight the importance of analyzing carefully the complex relationship between the increasing educational attainment of the spouses and the extent of gender equality in the couple.

As I have also argued in the introduction a better understanding of how partners negotiate the division of housework should consider both the effect of education and the values of the spouses towards gender and family issues. Clearly, educational homogamy as such has a strong cultural, social and emotional underpinning. Much behaviour arises out a need to fit

with others, out of a desire to conform to the expectations of others; and also simply from shared interests like those developed between spouses. Nevertheless, similarity does not mean equality in the outcomes at the social or individual level.

Traditionally, there has been little discussion of the relationship between education and gender values assuming that the former are a reflection of the latter. Indeed, it was argued that when partners select each other on the basis of education this may also indicate a certain selection on values and preferences (Schellenberg, 1960; Snyder, 1964). However recent contributions suggest that such a by-product of the selection on the basis of education is far from being perfect. Moreover, as I have shown in the above tables, there seems to be a clear gender divide between the extent of the fit between gender values and education for wives and husbands. In this regard, some authors emphasize that a plausible explanation for the persistent inequalities in the division of housework within the couple has to do with the mismatch between education and gender values. To put it simply, the social change in favour of gender equality brought about by the increasing educational attainment of men and women, especially in the younger cohorts, has not fully translated into more equal gender relationships within the family. For instance, Hochschild and Machung (1989) argue in their key study, based on a series of interviews, that individuals have two types of gender ideologies at once: 'ideologies on top' and 'ideologies underneath'. They could, for instance, hold specific beliefs about women's employment and men's domestic responsibilities ('on top ideologies'), but their own lived experiences could reflect a potentially different reality of shared work ('underneath ideologies').

In the same direction Bolzendhal and Myers' more recent contribution (2004) provides an explanation for the divide in gender values with women consistently being more egalitarian than men, a pattern confirmed also for the couples analyzed in this dissertation. They argue that gender ideologies are a function of interest-based or exposure-based explanations. Interest-based

explanations rely on the interest structures of individuals, that is, personal goals. Hence, the differences found in the extent of egalitarian values between men and women may be due to fact that their interest structures are culturally expected to be different. In this regard, these expectations become real in their consequences, for instance, in the persistent gender inequalities in the division of housework between the spouses. On the other hand, exposure-based explanations provide a broader picture since they refer to social change dynamics related with the exposure of individuals to gender equality ideas and their likely impact on their behaviour. Therefore, these two explanations are similar to the 'on top ideologies' and 'underneath ideologies' reviewed above. Interestingly, both give insights in order to understand the lack of fit between education and values as well as the direct effect of values on the extent of inequality in the division of housework based on the different roles that wives and husbands deploy at home. The empirical analysis below will seek to provide evidence of the direct effect of gender values on how the spouses share the chores as well as on its relative importance regarding the effect of education.

Another issue on the relationship between couple's education and how they share the domestic chores that deserves attention is how educational inequalities between the spouses, particularly when wives are more educated than their husbands, may affect the way they divide the housework. This case which was very rare some decades ago has become more relevant with the increasing educational attainment of women. As previously discussed, traditional bargaining theories in family economics or the relative resources approach within sociology would argue that since wives' personal endowments are higher than those of their husbands, their male partners should take over the bulk of the housework. However, empirical findings show that this is far from being true: the increasing bargaining power of women and the easier outside options to marriage have not led to any significant reduction in the amount of housework they do. On the contrary, some authors have found, for the case of income

inequalities, that *breadwinner* wives even increase their contribution to housework (Bittman *et al.*, 2003). The 'doing gender theory' in sociology (West and Zimmerman, 1987; Brines, 1994; South and Spitze, 1994) or the contribution from economics with the 'economic model of identity' (Akerlof and Kranton, 2000) provide a parsimonious explanation to this empirical regularity: when husband's endowments are less than those of his wife a gender norm violation occurs. In this case, the wife, the husband or both will respond to this violation by moving to a more traditional behaviour in order to neutralize this deviance. The empirical consequence of this switch is that the gender inequality in the division of housework will remain even when the wife earns more (or is more educated) than the husband. Hence, gender ideology would be a more powerful determinant of the domestic division of labour than the material distribution of resources between the spouses. Some empirical evidence of this approach can be found in Fernandez and Sevilla Sanz (2006), Crompton *et al.* (2005), and Brines (1994). Therefore, the 'doing gender' hypothesis applied to educational inequalities would be as follows:

DOING GENDER HYPOTHESIS: For those couples in which the wife is more educated than the husband an increase in the unequal share of housework is observed reflecting wives' larger contribution

In short, in this section I have presented the two main hypotheses regarding the role of education on the division of housework. It has also discussed the theoretical basis for a direct effect of values on how balanced the share between the spouses is. All this will be carefully examined in the empirical analysis presented below.

2.3. Data, methods, and variables

The data used for the analyses presented in the next section are two couple datasets drawn from two different sources of data. For the core analysis I use the waves 1991 to 2005 of the BHPS. For the methodological contribution of the chapter, the sample of couples comes from the three waves of the HoL study (years 1998 to 2001). The main characteristics of these derived datasets as well as the criteria followed in the sample selection have been explained in detail in the introductory chapter of this dissertation. In what follows I discuss the features of the methods used for the empirical analysis. Finally, this section ends with the presentation of the variables introduced in the analysis.

2.3.1. Regression methods: Panel models

The main empirical analyses carried out are based on a series of additive models aimed at testing the hypotheses discussed above. The longitudinal structure of the data makes it possible to control for the effect of unmeasured individual characteristics that may be affecting partners' contribution to housework such as their skills to perform the domestic chores which help explain the spouses' unequal contribution to housework. Here I choose a random effect estimator (RE) since couple's education, the main covariate of interest, after applying the criteria of sample selection in order to be used as an indicator for positive assortative mating, has little variation over time.[7] The alternative FE estimator which only uses intra-individual change will not allow an appropriate and meaningful estimation of the effect of education on the division of housework given its low within individual variation (Wooldridge 2002).

[7] For a more detailed discussion on sample selection and its effect on couple's education see the data section on the introductory chapter of the dissertation.

A random effects estimator procedure is characterized by the fact that the unmeasured constant characteristics are part of a composite error term assumed to be uncorrelated with the explanatory variables. Thus, the usual equation is written as follows:

$$DV_{it} = \alpha + X_{it}\beta + \varepsilon_{it} \quad (1)$$

where:

$$\varepsilon_{it} = v_i + u_{it} \text{ and } Cov(x_{it}, v_i) = 0 \quad (2)$$

v_i represents the part of the error term that is an individual-specific effect. Such effect is constant over time and can, in principle, be measured. u_{it} represents the stochastic part of the error term that is due to measurement error. As the assumption of uncorrelation between the individual fixed effect and the covariates is strong in order to relax and allow for some correlation I have re-estimated the key analyses of the chapter using full specification of model 4 in Tables 2.13 and 2.14 through the Mundlak approach. The Mundlak formulation involves augmenting the RE model with the individual means of the time varying characteristics. The main conclusions of the chapter are robust to this specification as the coefficients of the covariates are very similar to the standard RE estimator used in the chapter. A more detailed discussion on the procedure and the results can be found in the robustness check section and the full results using the Mundlak approach in Table A.2.17.

Through the RE estimator I estimate a series of static and dynamic panel models. In the static ones the main two dependent variables are:

The wife's weekly surplus of housework time: this variable is the difference between wife's and husband's time in housework activities over an average week.

The wife's weekly share of housework time: this variable represents the housework time undertaken by the wife in an average week as a proportion of the total time of the couple.

Previous research on the division of housework between partners has shown that it is important to combine the information provided by these two specifications in order to better understand the adjustment process between the spouses in response to the main covariates of interest: it can be either in the wife's, the husband's or in both sides at the same time. Overall, they give a clearer picture on the inequality patterns within the couple (Lee and Waite, 2005; Bianchi, *et al.* 2000).

The two dynamic models are especially suited to study the effect of life cycle events on changes in the division of housework between the spouses. In this case, the two main dependent variables are changes in wife's weekly surplus and share of housework over periods of two consecutive years. The change between *t-2* and *t* has been chosen because this is the frequency with which the series of variables regarding gender and family values used to construct the gender values of the couple have been asked. This gap of two years has also the advantage of allowing for a better estimation of the effect of changes in family and personal characteristics on changes in the division of housework within the couple.

Table 2.2 reports the main descriptive statistics of the dependent variables.

Table 2.2. Description of the dependent variables used in the multivariate analyses

Dependent variable	**N**	**Mean**	**Min**	**Max**
Wife's weekly surplus of housework time	19,732	11.91 hrs. (13.21)	-78	98
Wife's weekly share of housework time	19,732	72.95 % (19.15)	0	100
Change in wife's surplus (t-2, t)	16,548	0.22 hrs. (11.69)	-80	102
Change in wife's share (t-2, t)	16,548	-0.20 %. (17.09)	-86.67	89.90

Standard deviation between parentheses.
Source: BHPS: 1991-2005.

As the range for the change housework time variables and the wife's weekly surplus are large, the models presented have been re-estimated to check if the main results change due to the existence of any potential outliers. Not significant effects in the estimates were found after excluding those extreme cases.

2.3.2. Variables

What follows is a description of the couple-level variables used in the empirical analysis in the next section. Firstly, the covariates of the static models are presented:

Couple's education: From the original education variable denoting the highest level of education attained by the respondents two new recoded variables were created (one for each partner) with three categories: low (less than O level of GCSE), medium (nursing to O level), and high (high degree to other higher qualification). From these variables a single variable for the education of the couple was developed for all the possible combinations of partners' education. The different categories, where the wife always goes first, are: Low-Low, Low-Medium, Low-High, Medium-Low, Medium-Medium, Medium-High, High-Low, High-Medium, and High-High.

Couple's gender values: The BHPS contains a battery of questions that address directly people's opinions on family and gender related issues. They are asked every two waves in a 5-points Likert scale format which measures the level of agreement with the following statements: [8]

Do you personally agree or disagree…

All in all, family life suffers when the woman has a full time job.

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[8] In the original statements the level of agreement ranges from strongly agree, agree, neither agree nor disagree, and strongly disagree. The item-test correlation between the individual items and the summary indices varies between 0.54 and 0.78 for wives and between 0.50 and 0.77 for husbands.

A woman and her family would all be happier if she goes out work.

Both the husband and the wife should contribute to the household income.

Having a full-time job is the best way for a woman to be an independent person.

A husband's job is to earn money; a wife's is to look after the home and family.

Children need a father to be as closely involved in their upbringing as the mother.

In order to create the summary indices for wives' and husbands' values used to construct the final couple variable the statements were reversed as appropriate so that higher scores in the indices imply more traditional attitudes towards family and gender relationships. The Cronbach's alpha measuring the reliability of the indices is 0.71 for wives and 0.69 for husbands. These are comparable to earlier studies and around 0.70 is considered the standard level for an aggregate index of this sort to be a good indicator of the underlying dimension (Amato and Booth 1995; Kalmijn 2005). Egalitarian partners were considered those who scored two or less in their respective indices. Above two up to five were assigned as traditional in the couple's gender values. As before, the wife always goes first.

Couple's work status: This is a categorical variable grouping the wives and husbands into six groups. For wives it considers three different alternatives: no work, part-time work (30 hours a week or below) and full-time work (above 30 hours a week). For husbands only no work and full-time work is considered as the proportion of part-time workers in the sample used is below 2 percentage points. These are not included in the analysis.[9] Thus

[9] I have tried to estimate the models with a couple's working status variable that also includes those few cases of husbands working part-time but due to the small number of cases for the combinations between part-timer husbands and the work status of the wives, the models could not be appropriately estimated. Clearly, part-time work is not a common phenomenon for husbands aged 25 to 55 years old.

the variable has six categories: workless couples, those in which the wife does not work and the husband works full-time, those in which the wife works part-time and the husband does not work, those in which she works part-time and he works full-time, those in which she works full-time and he does not work, and those in which both work-full-time.

Wife's contribution to the spouses' labour earnings (0-100)*:* This is a continuous variable denoting the wife's contribution to the labour income of the couple. Also a quadratic specification of this variable is used to allow for non-linear relationships as labour income is a key aspect in the bargaining between the spouses.

Total household income (natural log): This is an indicator of family wealth but also of income pooling of the spouses. Only couples reporting positive household income were kept in the analysis.

Couple's age: This variable has three categories groping those couples in which the spouses have a similar age (up to three years of difference), those in which the wife is older, and those in which the wife is younger (the reference category).

Age of the youngest child in the household: This is a household level variable recoding the age of the youngest child present in the household. This variable has six categories: no children, children aged 0-2 years old, 3-4 years old, 5-11 years old, 12-15 years old, and more than 15 years old.

Marital status: This is a dummy variable where 0 groups consensual unions and 1 denotes married couples.

Later union: This is a dummy variable with value 0 if the observed relationship is the first in the marital history of the wife and 1 if it is a second or a later union.

Duration of the relationship: this is a continuous variable that summarize the number of years the wife has been in the observed relationship.

Husband's weekly contribution to housework: The total number of hours the husband contributes to housework activities is introduced in order to control for the total time the couple spends in the domestic chores.

Table 2.3 shows the summary statistics of these variables.

Table 2.3. Descriptive statistics of the explanatory variables used in the multivariate static analysis

Variable	Mean/Mode	Standard deviation
Couple's work status	Both work full-time (40 %)	
Age youngest child in the household	No children (39 %)	
Total household income (natural log)	7.81	0.61
Wife's share of labour income (0-100)	32	27
Wife's share of labour income (squared)	1766	2,490
Couple's age	Similar age (50 %)	
Marital status	Married (88 %)	
Later union	First union (71 %)	
Couple's education	Both high education (23 %)	
Couple's gender values	Both egalitarian (55 %)	
Husband's weekly contribution to housework	6.03	5.63
Duration	11	10

Source: BHPS: 1991-2005.

Finally, the covariates used in the dynamic models are based on those of the static analyses with the only differences that the variable *age of the youngest child in the household* has been replaced by the *number of children in the household.* This has been done in order to facilitate the construction of the dynamic variable that accounts for the patterns of stability and change in

the number of children over periods of two years. In addition, the variable *couple's age* has been replaced by the individual age of each spouse since they are time varying covariates themselves, as is the duration of the relationship. The other dynamic covariates, based on those explained above, focus on their most meaningful patterns of change and stability.

Table 2.4 reports the modal values of these dynamic variables for the categorical and continuous variables, respectively.

Table 2.4. Descriptive statistics of the explanatory variables used in the multivariate dynamic analysis (t-2, t)

Variable	Mean/Mode	Standard deviation
Couple's work status (dynamic)	Both stay working (85 %)	
Number of children in the household (dynamic)	Stay no children (38 %)	
Change in total household income (natural log)	-0.10	0.46
Change in wife's share of labour income (0-100)	-0.36	21
Wife's age	38.46	7.99
Husband's age	40.32	8.10
Marital status (dynamic)	Stay married (74 %)	
Number of relationship (dynamic)	Stay first union (59 %)	
Couple's education (dynamic)	Stay the husband more educated (29 %)	
Couple's gender values (dynamic)	Both stay egalitarian (42 %)	
Change in husband's weekly contribution to housework	0.04	5.37
Duration	11	10

Source: BHPS: 1991-2005.

2.4. Results and discussion

In this section I present the results of both the descriptive and multivariate analyses and discuss them in the light of the research questions and the hypotheses drawn from literature review aforementioned. To begin with, first the descriptive analysis will be presented.

2.4.1. Methodological issues: How do we best measure housework time?

The measurement of housework time is a key topic for the study of gender inequalities between partners. As stated in the introduction, the analysis presented in this section aims at making a contribution in this regard. To do so I use the HoL study which allows a comparison of patterns of time use in housework activities for the same sample of couples from a weekly diary of activities as well as for the standard questionnaire procedure. To improve the comparability of the two housework time variables the variable that gathers the information from the diary component considers the time spent in housework activities as primary and as secondary activity. Moreover, direct care activities (either with the elderly or with children) have not been included. The rationale for doing this stems from the wording of the question asking about the amount of time spent doing housework in the questionnaire component. The question reads as follows: *About how many hours do you spend on housework in an average week, such as time spent cooking, cleaning and doing the laundry?* Finally, the sample is reduced to those cases in which the wife and the husband are present in the survey and both have filled the diary and answer to the relevant information in the questionnaire.

Table 2.5 reports the mean comparison tests of the self-reported time in housework activities using the two measures for wives and husbands separately. The results suggest that wives are much more accurate than their husbands in recalling how much

time they devote to housework over a week as shown by the similar amounts of time reported through the diary and questionnaire methods. On the contrary, husbands seem to over-report their contribution to housework when the traditional direct questions are used. A similar result has been recently highlighted by Kan (2008) using the same dataset but for a broad comparison between men and women and not for couples. In addition to this recall bias, the table also shows the extent of gender inequality between partners: wives spend between three to six times more hours in the domestic chores than their husbands.

Table 2.5. Mean comparison test of wives' and husbands' weekly time of housework

	Source	Average housework weekly time	Difference	N
Wives	Diary	17.11 (9.07)	0.65	583
	Questionnaire	16.46 (10.43)		
Husbands	Diary	2.55 (3.08)	-3.41***	583
	Questionnaire	5.95 (6.45)		

*** p< .01 ** p< .05 * p< .1 (two tailed paired observations test).
Source: HoL: 1998-2001 (diary non-response weights used).

The analysis that follows in Table 2.6 shows the estimates of time spent doing housework for a typical type of couple using the diary and the questionnaire information. The typical couple is defined through a regression analysis where the control variables capturing their individual and family characteristics as well as patterns of time use in labour market and leisure activities are set in their mean and modal values for the continuous and categorical

variables, respectively.[10] The only difference between the diary and the questionnaire equations is that for the control variable of partner's housework time I have also use the diary or the questionnaire information where appropriate according to the dependent variable being estimated.[11]

The results are very informative for a better understanding of the consequences of the measurement tools (diary or questionnaire methods) in the research of the factors that explain the unequal division of housework within the couple: most of these studies, based on questionnaire methods of data collection, are probably underreporting the extent of inequality between the spouses due to the husbands' recall bias. Specifically, Table 2.6 shows that wives' predicted amount of weekly housework is nearly the same in the two equations while for husbands the deviation is over three hours a week in favour of the questionnaire equation. Hence, a simple comparison of these results provides a substantive finding: the extent of gender inequality varies dramatically according to the source of information. Concretely, the wife of the typical couple assumes seven times more housework than the husband. The final difference between the two measures in terms of the wife's surplus and share of housework is equivalent to three hours a week and a meaningful 10 percentage point average gap respectively between the questionnaire and the diary methods. However, direct questions of this type are more broadly available in the surveys

[10] The main characteristics of the typical couple are shown at the bottom of the tables. The full results of the RE can be seen in the Appendix (Tables A.2.1 and A.2.2).

[11] The remaining time use covariates come from the diary component of the couple dataset so as to guarantee that any difference found between the diary and the questionnaire equations are not due to further recall issues. Moreover, for the construction of the differences between the gender values of the spouses the same procedure for the core analysis using the BHPS explained in the methods section above is applied to a more reduce battery of statements measuring gender and family issues. Finally, no income variable was included because the drop in the sample size did not allow a good estimation.

(especially so in longitudinal datasets). This bias does not necessarily hinder research in this field but it is necessary to be aware of these problems and their implication for the appropriate measure of gender inequalities between the spouses in home productive activities.

*Table 2.6. Predicted housework time for a typical type of couple using representative values of the RE estimates for the diary and questionnaire equations**

	Wife's weekly time	Husband's weekly time	Wife's surplus	Wife's share (%)
Diary (DY)	15 hrs 28 min	2 hrs 3 min	12 hrs 56 min	84
Questionnaires (QT)	15 hrs 4 min	5 hrs 17 min	9 hrs 22 min	74
Diff (DY-QT)	24 min	- 3 hrs 14 min	3 hrs 34 min	10

*The typical couple represents a union where both partners have got medium education, they have no children, the wife is younger than the husband, work less hours in paid labour, spends less time in indoor leisure activities and more in outdoor leisure, and is more egalitarian in gender and family issues than him.
Source: HoL: 1998-2001.

It is legitimate to ask whether there are individual traits of the spouses (especially of husbands) behind this bias, in particular if education helps explain better quality answers in the questionnaire method. In order to answer to this question I have run two regressions where the time gap for each spouse housework time between the questionnaire and the diary methods are regressed on the respondent's education controlling also for the set of covariates used to depict the typical couple above. Results of the regressions in Table A.2.3 are interesting. They show that the husband's recall bias clearly depends on his education with high educated men providing more accurate estimates than those with lower education. For wives instead the gap is neither appreciable nor dependent on her education. Indeed, husband's education in the model for his gap is the only covariate significant in the two

regressions for each spouse's recall gap (β -1.59 $p < 0.10$). Table 2.7 shows the estimated time gap for our typical spouses as their individual level of education increases. Thus, while low educated husbands overestimate their weekly contribution to housework by more than four hours with the questionnaire method, the gap drops by almost two hours when they have higher education. Instead, the difference between the two methods for wives is statistically insignificant even though it drops by one hour comparing low with highly educated couples. Yet, it is clearly smaller than the effect found for the husband's education in his recall bias.

*Table 2.7. Predicted time gap between the questionnaire and diary estimates for a typical spouse according to his/her individual level of education**

Respondent's education	Wife's gap	Husband's gap
Low	-1 h 10 min	4 hrs 21 min
Medium	-49 min	3 hrs 34 min
High	9 min	2 hrs 46 min**

*The spouse's level of education is set at the modal value secondary education. The other covariates take the same value as in Table 2.6.
** Significant at 10 percent level.
Source: HoL: 1998-2001.

Substantively, the positive effect of husband's education in their recall accuracy suggests that highly educated men make better estimates of their contribution to housework than low educated ones. Whether or not this also implies a certain self-recognition of their low participation in domestic chores cannot be ascertained with this data. But if that was the case then such a result could be seen as an indicator of the awareness of highly educated men that their contribution to housework activities is far behind that of their spouses and, in contrast to low educated husbands, they do not overestimate their participation to report a socially desirable outcome (Kan 2008).

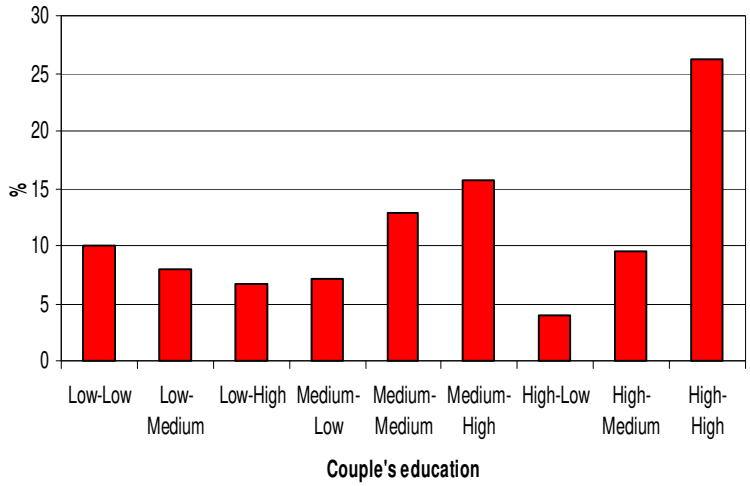
2.4.2. Descriptive analysis: The effect of education, family values and marriage on the domestic division of labour

In this section I turn to the role of education in the division of housework within the couple. The analysis presented also aims at discussing the relationship between the education of the spouses and their gender and family values as well as the extent to which a direct effect of values in the division of housework can be empirically supported. As I have argued in the theoretical section above there are grounds in favour of such a direct effect because even though education influences the gender and family values of the spouses these also reflect the family and actual circumstances of the couple. Thus, the analysis presented will allow me to draw conclusions about the relative importance of education and values on how the spouses share the domestic duties. Finally, the section ends showing descriptive evidence on how changes in personal circumstances affect the household division of labour. Particularly, it seeks to identify whether there are gender differences in how women and men respond to the division of housework upon partnership and whether such differences unfold over marriage. The former may be seen as an indicator of preexistent differences in the meaning that women and men assign to housework while the evolution of the division of housework over time provides relevant information on how life cycle and family events may intensify traditional gender roles over marriage through a more unequal share of housework between the spouses.

Figure 2.1 shows the distribution of the sample of couples used in the core analysis of this dissertation (couples aged 25 to 55 years old) by their level of education. The figure clearly shows the effects of the expansion of higher education on the current trends of positive assortative mating. The distribution of couples is skewed towards high levels of education (more than 25 percent of the couples used in the analysis have got high education). This figure is complemented with Figure A.2.1 in the Appendix where the distribution of couples by their level of education is plotted for different cohorts using the whole sample without any age

restriction. Indeed, this figure shows that high educational attainment among couples is a quite recent phenomenon starting in the period after the Second World War and intensifying since the sixties.

Figure 2.1. Distribution of couples by their level of education –wives first- (aged 25 to 55 years old; N =21,141)

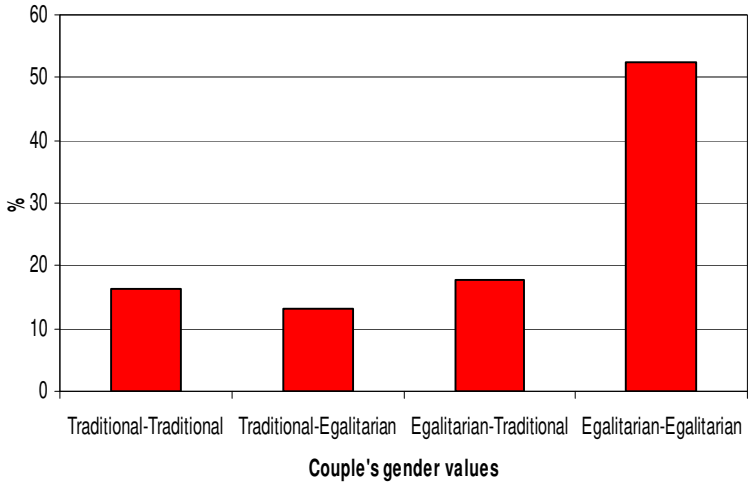


Source: BHPS: 1991-2005 (cross-sectional weights used).

Figure 2.2 plots the distribution of couples by their gender and family values using the categorical variable explained in the methods section above. As expected the majority of couples are formed by spouses with egalitarian values (52 percent). Nevertheless, a significant proportion corresponds to unions where either both spouses or one of them can be classified as having traditional values. Moreover, the tendency of spouses to hold egalitarian gender values, as for education, has increased in recent

decades especially for the younger cohorts (see Figure A.2.2 in the Appendix).

Figure 2.2. Distribution of couples by their gender values –wives first- (aged 25 to 55 years old; N =21,141)



Source: BHPS: 1991-2005 (cross-sectional weights used).

Table 2.8 presents descriptive evidence of the relationship between partners' level of education and their gender values. In line with my previous discussion in the theoretical section it shows that even though education and values are clearly related both for wives and husbands there is room for internal variation so that there is a considerable heterogeneity between the education of the spouses and their values. Thus, while 74 percent of the high educated wives are egalitarian there is still a sizable 26 percent who appear to be traditional. The case for husbands shows a lower level of correspondence between gender values and education: 61 percent are egalitarian and nearly 39 percent traditional. Overall,

these results as well as the heterogeneity found by level of education in the typologies of partners according to their preferences between work and family responsibilities using Hakim's (2000) and Breen and Prince Cooke's (2005) classification suggest that values may indeed play a direct role in how the spouses share the chores independently of their level of education.

*Table 2.8. Distribution of wives and husbands with egalitarian traditional values by education (aged 25 to 55years old) –row %-**

Partners' gender values						
	Wife		Husband		N	
Partners' education	Egalitarian	Traditional	Egalitarian	Traditional	Wife	Husband
Low	61.83	38.17	55.46	44.54	6,555	5,634
Medium	66.80	33.20	60.25	39.75	5,618	4,758
High	74.33	25.67	61.55	38.45	5,627	7,408
				N Total	17,800	

* The correlation between each partner level of education and her/his gender values is: for wives r 0.12 $p < .00$; for husbands r 0.05 $p < .00$.
Source: BHPS: 1991-2005 (cross-sectional weights used).

The analysis that follows shows the effect of education and of gender values on the division of housework. Table 2.9 reports the mean comparison test of the amount of housework of each spouse separately by level of education using the BHPS and the HoL couple samples. The results are conclusive: wives with higher levels of education make a smaller contribution to housework. Those with low education contribute an average of 23 hours compared with 16 hours a week for those with high education using the BHPS; the relative contributions are 17 and 13 hours with the HoL diary information. These differences are statistically significant in both datasets. In the same vein, husbands with higher levels of education contribute less to housework than those with less education, but not as much as wives do. Concretely, the

average weekly contribution of husbands remains around five hours a week in the BHPS sample and drops to 3 hours a week with the diary information of the HoL study. Therefore, there is no descriptive evidence of a bigger involvement of husbands in housework as their education increases. Needless to say, given the observed larges differences between wives' and husbands weekly time in housework activities, at each level of education wives do significantly more housework than their partners.

Table 2.9. Mean comparison test of partners' weekly time doing housework by each partner level of education (aged 25 to 55 years old)

Wife's education	Housework time (mean)	Difference between levels of education (wife)[a]		Husband's education	Housework time (mean)	Difference between levels of education (husband)[a]	
BHPS (Questionnaire)							
Low	22.71 (14.03)	Med-Low	-3.75**	Low	5.85 (7.52)	Med-Low	-0.63**
Med	18.96 (11.97)	High-Low	-7.14**	Med	5.22 (5.41)	High-Low	-0.62**
High	15.57 (10.67)	High-Med	-3.39**	High	5.23 (4.90)	High-Med	0.01
HoL (Diary)							
Low	17.11 (8.63)	Med-Low	-1.95	Low	3.76 (4.57)	Med-Low	-0.40
Med	15.16 (8.67)	High-Low	-3.24**	Med	3.35 (2.79)	High-Low	-0.30
High	13.87 (8.39)	High-Med	-1.28	High	3.46 (2.59)	High-Med	0.11

a) The mean comparison tests reported in these columns is calculated on the difference between the average weekly contribution to housework of each spouse by her or his level of education as shown in columns two and five for the wife and the husband, respectively.
*** p< .01 ** p< .05 * p< .1 (two tailed paired observations test).
1.Average size of cells:
BHPS = 7,000.
HoL = 100.
Source: BHPS: 1991-2005 and HoL 1998-2001 (cross-sectional and diary non-response weights used).

Table 2.10 presents the results for the analysis of the effect of gender values on the division of housework. As for education,

they also show clear gender differences with egalitarian wives doing less housework than traditional ones. The average amount of housework for egalitarian and traditional wives is respectively 16 and 22 for the BHPS sample and 16 and 12 for the HoL diary information. As before, the effect of values on the husbands' contribution to housework is almost negligible: around 6 hours in the BHPS sample both for egalitarian and traditional husbands and 3 hours for the HoL sample. Again the relationship between values and the engagement in housework activities is stronger for wives than for husbands. Interestingly, at first glance, the effect of education and values on how partners share the chores seems to be of similar magnitude. The multivariate analysis below will allow me to better address this issue.

Table 2.10. Mean comparison test of partners' weekly time doing housework by each partner gender values (aged 25 to 55 years old)

Wife's gender values	Housework time (mean)	Difference between gender values (wife)[a]	Husband's gender values	Housework time (mean)	Difference between gender values (husband)[a]
BHPS (Questionnaire)					
Egalitarian	16.64 (11.47)	E-T -4.68**	Egalitarian	6.21 (5.66)	E-T 0.69***
Traditional	21.32 (13.10)		Traditional	5.52 (5.81)	
HoL (Diary)					
Egalitarian	12.30 (6.17)	E-T -3.55**	Egalitarian	3.39 (2.75)	E-T 0.02
Traditional	15.85 (9.02)		Traditional	3.37 (3.50)	

a) The mean comparison tests reported in these columns is calculated on the difference between the average weekly contribution to housework of each spouse by her or his gender values as shown in columns two and five for the wife and the husband, respectively.
*** p< .01 ** p< .05 * p< .1 (two tailed paired observations test).
1.Average size of cells:
BHPS = 4,500.
HoL = 100.
Source: BHPS: 1991-2005 and HoL 1998-2001 (diary non-response weights used).

As indicated in the introduction of this section, the final analysis of this section explores the role of the change in personal circumstances on how partners share the housework. To do this I first compare the self-reported time in housework activities of women and men who remain single between *t-1* and *t* and living on their own with those who form a couple over the same period of time. This strategy allows me to properly present the *net effect* of coupledom, that is 'uncontaminated' by the presence of any other relatives in the household, including children. Second, I analyze how the commitment of the spouses in housework activities evolves over time using the waves of the couple dataset drawn from the BHPS. Since the time span covers up to fifteen years such evolution can be indirectly linked with life-cycle events such as the birth of children or changes in the labour market trajectories of the spouses that may have happened over marriage.

Table 2.11 reports the results for the comparison of the amount of weekly housework of women and men who remain single and those who partner between *t-1* and *t* (as stated above the household size has been adjusted accordingly). The table shows two interesting findings. On the one hand, there is a completely different behaviour of women and men upon coupledom. While women significantly increase their amount of housework (by more than an hour per week), men significantly reduce theirs (by more than two hours per week). This result could suggest that there is a certain selection into partnership of men and women that hold more gender traditional views towards partnership. The issue of selection into partnership according to gender and family values will be addressed in the study of divorce in chapter four of the dissertation. On the other hand, it appears clearly that women and men seem to have different *tastes* or *predispositions* for housework since the amount of unpaid labour of women living on their own before partnering is significantly larger than that of their male counterparts.[12]

[12] Interestingly, in chapter three I also show that there is a gender-specific pattern in how women and men change their gender and family

Table 2.11. Mean comparison tests of change in housework weekly time as marital status of women and men changes from single to partnered from t-1 to t (with household size adjusted from 1 to 2 household members)

Women	Housework time (mean)	Difference (Single-Partnered)	Men	Housework time (mean)	Difference (Single-Partnered)
Remain single	9.25 (7.71)	-1.54***	Remain single	7.16 (6.54)	2.59***
N 3,322			*N 3,869*		
Change to partnered	10.80 (9.28)		Change to partnered	4.57 (5.33)	
N 852			*N 588*		
Difference (Women-Men)					
Remain single	2.09***				
Change to partnered	6.23***				

*** p< .01 ** p< .05 * p< .1 (two tailed paired observations test).
Source: BHPS: 1991-2005.

Tables A.2.4 to A.2.6 in the Appendix show the same type of analysis but for specific transitions to partnership (that is, from single to consensual union and from single to marriage) or for the change in marital status from consensual union to marriage. These analyses of specific transitions confirm the same findings as before. The picture varies though for the case of what happens with partners' housework time when the change is from being in a consensual union to a marriage: wives do not change their behaviour but husbands significantly increase their amount of housework even though by a little more than half an hour a

values upon partnership perhaps anticipating the different roles they are going to play in the couple. While both of them become significantly more traditional just married men become more traditional than their female partners. On the contrary, there are no differences between single women and men (see Table A.3.2 in the Appendix of chapter three).

week.[13] Overall, these results have provided two interesting insights: there are large gender differences between women' and men' *tastes* or *predispositions* for housework activities already before partnership. Such differences are further carried into the relationship with wives assuming a bigger amount of housework while their husbands reduce their contributions. What factors explain these different behaviours are beyond the scope of the chapter but it seems that differences in socialization may explain a great deal of them. The lessons that can be drawn for the main argument of the chapter are that greater gender equality in the couple requires not only that men engage more in housework activities but also that women adapt their behaviour upon partnership reducing their contribution.

Table 2.12 presents the results of the evolution of partners' weekly time across waves of the panel. The direct question gathering the information on time spent in housework activities in a normal week of the year has been asked yearly since wave two of the panel. Here I present the results of changes in the average scores over two consecutive waves of the panel so as two reduce the size of the table and provide more meaningful analysis also comparable to the dynamic panel models presented in the next section.

The results are in line with those previously discussed. Wives are the ones who not only do the bulk of the unpaid labour at home, but also those who increase it more over time, perhaps, as suggested, in response to life-cycle events that unfold over marriage. As a consequence, partners' inequality in the division of housework grows with the length of the relationship either measured as the wife's surplus in housework weekly time or as the wife's share over the total amount of time of the couple. Interestingly, the table also provides a clear example of the necessity of providing housework time information through the two alternative indicators. The surplus one reflects better the

[13] In this case the household size has been adjusted to remain of two members between *t-1* and *t,* so that these are childless couples.

evolution of the domestic workload of wives while the share indicator needs a considerable increase in wives' time to go up. Of course, this is so because husbands' contribution remains more or less constant over time so that wives' behaviour alone is responsible for reflecting changes in the couple's division of housework.

In addition, a further comparison is possible between the results of tables 2.11 and 2.12. While the difference in the contribution to housework between just married men who live only with their partners and those observed for a longer period in larger households (results of table 2.12 are not adjusted by household size) is of around one hour more for the latter, the same comparison for women highlights how much they are affected by changes in family circumstances: just married women spend nearly eleven hours a week in housework activities while this amount of time doubles after thirteen years of marriage. Even though in this descriptive analysis I am not controlling for other personal circumstances of the spouse such as their labour market statuses or incomes, these results suggest that women are the ones taking over the bulk of the domestic chores over the life course: from singlehood to partnership but also over marriage.

Table 2.12. Mean test scores of changes in housework over time

	t-1	*t*	*change*	*t-3*	*t*	*change*	*t-5*	*t*	*change*	*t-7*	*t*	*change*
Wives	17.96 (11.78)	18.14 (12.14)	0.17***	17.91 (11.41)	18.41 (12.40)	0.50***	17.69 (10.72)	18.80 (12.73)	1.11***	17.57 (10.58)	19.36 (13.19)	1.79***
N	23,903			16,009			10,055			6,077		
Husbands	5.42 (5.72)	5.40 (5.66)	-0.02	5.36 (5.58)	5.39 (5.73)	0.03	5.34 (5.50)	5.41 (5.84)	0.07	5.30 (5.40)	5.44 (6.12)	0.14*
N	23,903			16,009			10,055			6,077		
Wives' surplus	12.54 (13.52)	12.74 (13.77)	0.20***	12.55 (13.16)	13.03 (13.98)	0.48***	12.35 (12.53)	13.39 (14.25)	1.04***	12.26 (12.42)	13.92 (14.78)	1.66***
N	23,903			16,009			10,055			6,077		
Wives' share	75 (20)	75 (20)	0.00	75 (20)	75 (20)	0.00	76 (20)	76 (20)	0.00	76 (20)	76 (20)	0.00
N	23,903			16,009			10,055			6,077		
	t-9	*t*	*change*	*t-11*	*t*	*change*	*t-13*	*t*	*change*			
Wives	17.38 (10.40)	20.03 (13.78)	2.65***	17.40 (10.27)	20.48 (13.69)	3.08***	17.75 (10.47)	21.16 (14.60)	3.41***			
N	3,647			1,794			509					
Husbands	5.42 (5.43)	5.50 (6.16)	0.08	5.50 (5.59)	5.55 (6.15)	0.05	5.66 (5.88)	5.09 (5.50)	-0.57**			
N	3,647			1,794			509					
Wives' surplus	11.96 (12.31)	14.53 (15.34)	2.57***	11.90 (12.29)	14.93 (15.11)	3.03***	12.08 (12.94)	16.07 (15.48)	3.99***			
N	3,647			1,794			509					
Wives' share	75 (20)	76 (20)	1***	75 (21)	77 (20)	2***	75 (21)	78 (19)	3***			
N	3,647			1,794			509					

*** p< .01 ** p< .05 * p< .1 (two tailed paired observations test).
BHPS: 1991-2005.

In short, this section has provided a complete descriptive overview of the main issues the chapter addresses: the relationship between education and gender values, their role in the division of housework, and how changes in personal circumstances affect such distribution. All these elements are taken further in the multivariate analysis of the next section.

2.4.3. Modeling the division of housework within the couple: Multivariate analysis

The next two tables present the main analyses of this chapter in order to test the hypotheses outlined in the theoretical discussion regarding the role of education in the division of housework but also the direct effect of values in how partners share the domestic chores. The dependent variables are the wife's surplus and wife's share of housework, respectively. First I present an overall discussion of the results. Later on I provide a more detailed analysis of the hypotheses and main arguments drawn in the theoretical section. For these analyses RE panel models are employed. The models are estimated for the same sample of couples so as to allow comparability across models. In Table 2.13 Model 1 includes the control variables only. Model 2 adds the variable measuring the education of the couple. Model 3 excludes education and includes couple's gender values in order to check its isolated effect. Finally, Model 4 contains the full specification.

Although my main interest lies in model 4, the three first models allow for a discussion of the effect of relevant family and couple characteristics on wife's surplus of housework time as well as to isolate the effect of the two variables of interest: couple's education and gender and family values. Thus, starting from the effect of the control variables introduced in model 1, the couple's working status reduces the wife's surplus of housework only when she works full time and her partner does not work or when both partners work full time in comparison with jobless couples. Interestingly, the former reduction is stronger than the latter,

indicating, possibly, the effect of time constraints on breadwinner wives together with a larger involvement of their husbands in the chores. The analysis presented in Table A.2.14 suggests that in these couples husbands do not fully compensate for the wife's reduction in housework which may indicate that breadwinner wives either give up some housework or outsource it to the market. Moreover, this effect is statistically significant across models.

Another consistent result found first in model 1 is the positive effect of having young children at home as compared to childless couples in increasing the amount of housework of wives regarding the husbands' contribution. This result goes in line with previous research on the division of housework between the spouses. As for the age of the spouses, older wives undertake more domestic chores than those in which the wife is younger than the husband. In addition, the analysis also confirms that married couples follow a more traditional division of housework than consensual unions while wives in a second or later relationship benefit from a reduction in the gender gap in the time spent in housework activities.

Interestingly, the two income variables show the same egalitarian effect: as the wife's contribution to the labour income of the spouses and household income increase the gender gap in housework narrows. Nevertheless, the effect of household income is clearly stronger than that of labour income as shown by the test of the difference between the two coefficients (χ^2 14.47 $p < .000$). However, the quadratic specification of the wife's contribution to the labour income of the couple has the opposite effect on the wife's surplus of housework, that is, as her income increases relative to that of her partner the division of housework becomes more unequal. This result contradicts the bargaining models and fits better with the 'doing gender' theory discussed in the chapter. However, the linear specification of the variable is clearly stronger than the quadratic one which indicates that the marginal impact of the wife's contribution to income gets smaller as her contribution gets larger.

As I have suggested in the theoretical section above, the positive effect of the material resources of the couple in reducing the wife's contribution to housework may not actually indicate greater gender equality. Particularly, this is the case if the reduction comes simply from outsourcing some of the housework activities thanks to the income of the couple. Substantively, this finding suggest that it is clearly not enough with women's involvement in the labour market, and their associated gains in labour income, in order to increase their bargaining power and achieve a more equal division of housework as the bargaining models and the relative resources theory argue. In order to provide a clearer picture of the effect of the spouses' income in the division of housework I have run model 1 with the labour incomes of the spouses introduced separately in their linear specification. The results are very informative; they show that it is more the labour income of the wife that reduces her surplus of housework (β -0.01 $p < 0.00$) while the husband's income also marginally reduces the gap but the effect is marginally significant (β -0.0002 $p < 0.10$). In addition, household income is not significant (β -0.21 $p < 0.62$). Altogether, these results suggest that since the resources of the husband do not seem to matter much for a more balanced division of the chores, working women who, in turn, have their own income, are more likely to reduce her contribution to housework by giving up some, given their time constraints, than to do it through outsourcing in the market.[14] Finally the duration of the relationship has a consistently positive effect across models indicating that wives' surplus become more unequal over time.

With model 2 I begin the discussion of the hypotheses outlined above. The model introduces the variable measuring couple's

[14] The results for the dependent variable wife's share of housework are more gender-specific and in line with a classical bargaining behaviour between the spouses. Again, household income has no significant effect (β -0.53 $p < 0.37$) while the labour income of the spouses have an opposite effect on the share of housework, stronger for the wife's own income (β -0.002 $p < 0.00$) than for the husband's (β 0.0001 $p < 0.11$).

education and allows for a first discussion of the *homogamy hypothesis*. At first glance, the strong effect found for highly educated couples (a reduction in the wife's surplus of around five hours a week) seems to suggest that there are gains from partners' positive assortative mating at high levels of education as the *homogamy hypothesis* argues. This could suggest that wives' contribution to housework falls from the joint effect of the high education of the spouses. However, further tests are needed in order to see whether the equalizing effect is more an individual outcome of partners' increasing education. These analyses are presented below. To advance the results, they confirm that it is more the individual effect of the partners' education that helps explain the observed inequality in the division of housework between the spouses. Particularly, in line with the descriptive analyses presented above, it seems that the wife's high education makes the difference in reducing her contribution to housework independently of the husband's educational attainment. To what extent the effect of high education in reducing the wife's contribution to housework is a reflection of her preferences and tastes or an effect of education itself it is difficult to ascertain with the data available. However, as the analyses also considers the effect of gender and family values which could, at least, indirectly being measured their preferences for housework, it is likely that the effect found for education represents a *true* effect of education. Also, as I have discussed in the descriptive section it is likely that the effect of education is stronger for younger couples as they have attained higher levels of education and are also more egalitarian in family matters (Figures A.2.1 and A.2.2 in the Appendix show that this is indeed the case) which means that these couples keep a more egalitarian division of housework as compared to older ones.[15]

[15] As a further test I have run the full specification of model 4 in Tables 2.13 2.14 with an interaction between couple's education and the age of each spouse introduced lineally. The results show evidence that highly educated young spouses share the domestic chores more evenly between them.

Model 3 shows the effect for couple's gender values. In line with the theoretical discussion on the direct effect of gender values in the division of housework, the comparison between the coefficients of values and education highlight two important issues that deserve attention. On the one hand, traditional gender values have the opposite influence on the division of housework than couples' high education.[16] When partners hold traditional gender values this is associated with an increase in the gender gap of the time devoted to housework. On the other hand, this effect seems smaller than that of education. Indeed, using the full specification of Model 4 the difference between the coefficients for when both partners are highly educated and for when both partners hold traditional values is statistically significant (χ^2 116.76 $p \prec .000$) which suggests that education plays more a important role in the division of housework between the spouses than their values.[17] Despite this difference in favour of education, the full specification of model 4 shows that there is indeed a direct effect of values on the division of housework between the spouses which is independent of education as discussed in the theoretical section.

Thus, Model 4 shows that education does not offset the direct effect of values. The coefficients remain pretty much the same as those in Model 2 and 3 where education and values were introduced separately. As discussed in the theoretical section this may suggest that even though education influences the gender values of the spouses (especially those of wives) they are also affected by the actual circumstances of the couple that unfold over marriage. The postestimation presented below will provide a measure of the direct effect of values for a typical couple drawn

[16] The correlation between the two variables is very small but significant (r= -0.08, $p \prec .000$).

[17] Tables A.2.7 and A.2.8 in the Appendix presents the test of significance for the difference between the coefficients for education, the coefficients for gender values, and the combined differences between education and values using the specification of model 4 both for the wife's surplus and wife's share as dependent variable. These tests confirm the stronger effect of education over values.

from the mean and modal values of the variables in the sample used in the estimation.

Table 2.13. RE models of wives' surplus in housework time (BHPS)

Variables	(1) Model	(2) Model	(3) Model	(4) Model
Couple's education[1] (wife first)				
Low-Medium		-0.95		-0.99
		(0.75)		(0.74)
Low-High		-1.78**		-1.88***
		(0.73)		(0.73)
Medium-Low		-1.97***		-1.96***
		(0.70)		(0.69)
Medium-Medium		-3.26***		-3.30***
		(0.62)		(0.62)
Medium-High		-3.99***		-4.03***
		(0.61)		(0.61)
High-Low		-2.59***		-2.58***
		(0.77)		(0.76)
High-Medium		-4.80***		-4.84***
		(0.62)		(0.62)
High-High		-5.23***		-5.25***
		(0.58)		(0.58)
Couple's gender values (wife's first)[2]				
Egalitarian-Traditional			1.27***	1.23***
			(0.28)	(0.28)
Traditional-Egalitarian			1.30***	1.31***
			(0.31)	(0.31)
Traditional-Traditional			2.08***	2.14***
			(0.36)	(0.36)
Age youngest child[3]				
0-2 yrs. Old	1.91***	2.25***	1.88***	2.23***
	(0.44)	(0.44)	(0.44)	(0.44)
3-4 yrs. Old	3.28***	3.64***	3.30***	3.66***
	(0.46)	(0.46)	(0.46)	(0.46)

5-11 yrs. Old	4.11***	4.25***	4.10***	4.24***
	(0.29)	(0.29)	(0.29)	(0.29)
12-15 yrs. Old	3.37***	3.40***	3.39***	3.42***
	(0.26)	(0.25)	(0.26)	(0.25)
+ 15 yrs. Old	2.97***	3.17***	2.98***	3.19***
	(0.83)	(0.82)	(0.82)	(0.82)
Couple's work status (wife's first)[4]				
She doesn't work/He works ft	-0.86	-0.56	-0.77	-0.47
	(1.87)	(1.81)	(1.86)	(1.81)
She works pt/He doesn't work	-2.67	-3.10	-2.55	-2.98
	(1.94)	(1.89)	(1.94)	(1.89)
She works pt/ He works ft	-2.66	-2.50	-2.50	-2.34
	(1.86)	(1.80)	(1.86)	(1.80)
She works ft/He doesn't work	-7.74***	-7.91***	-7.39***	-7.56***
	(1.89)	(1.84)	(1.89)	(1.83)
Both work ft	-5.76***	-5.57***	-5.49***	-5.28***
	(1.86)	(1.81)	(1.86)	(1.80)
Couple's age (wife's first)[5]				
Similar age	0.16	0.24	0.18	0.26
	(0.29)	(0.29)	(0.29)	(0.29)
She is older	1.39***	1.21**	1.45***	1.26**
	0.16	0.24	0.18	0.26
Married	2.01***	1.77***	1.88***	1.64***
	(0.37)	(0.36)	(0.37)	(0.36)
Later relationship	-1.55***	-1.38***	-1.49***	-1.32***
	(0.32)	(0.32)	(0.32)	(0.31)
Log of household income	-1.76***	-1.01***	-1.74***	-1.00***
	(0.23)	(0.24)	(0.23)	(0.23)
Wife's share of labour income	-0.13***	-0.12***	-0.11***	-0.11***
	(0.02)	(0.02)	(0.02)	(0.02)
Wife's share of labour income (squared)	0.00***	0.00***	0.00***	0.00***
	(0.00)	(0.00)	(0.00)	(0.00)
Duration of relationship	0.09***	0.08***	0.09***	0.08***
	(0.01)	(0.01)	(0.01)	(0.01)
Husband's weekly hours of housework	-0.99***	-1.00***	-0.99***	-0.99***
	(0.02)	(0.02)	(0.02)	(0.02)
Constant	31.76***	29.19***	30.76***	28.18***
	(2.65)	(2.63)	(2.64)	(2.62)

Wald χ^2	4574***	4866***	4607***	4912***
Number of couple-years	10410	10410	10410	10410
Number of couples	3786	3786	3786	3786
R2 overall	0.37	0.39	0.38	0.39

Robust standard errors between parentheses (clustering by couples).
*** p< .01 ** p< .05 * p< .1 (two tailed paired observations test).
Reference category:
1. Low-Low.
2. Egalitarian-Egalitarian.
3. No children.
4. Both don't work.
5. She is younger.
Source: BHPS: 1991-2005.

Table 2.14 presents the results for the dependent variable the wife's share of housework over the total weekly time of the couple. In general results do not change from those found for the gender gap presented in the above table. The main difference is the better fit of the models and the stronger level of significance of the main effects found for the wife's surplus in housework weekly time.

Table 2.14. RE models of wives' share in housework time (BHPS)

Variables	(1) Model	(2) Model	(3) Model	(4) Model
Couple's education[1] (wife first)				
Low-Medium		-0.98		-1.04
		(0.79)		(0.78)
Low-High		-1.05		-1.16*
		(0.68)		(0.67)
Medium-Low		-1.76**		-1.70**
		(0.71)		(0.71)
Medium-Medium		-3.63***		-3.64***
		(0.63)		(0.63)
Medium-High		-4.31***		-4.31***
		(0.63)		(0.62)
High-Low		-2.26***		-2.23***
		(0.84)		(0.84)
High-Medium		-5.17***		-5.18***
		(0.68)		(0.68)
High-High		-5.82***		-5.83***
		(0.60)		(0.60)
Couple's gender values (wife's first)[2]				
Egalitarian-Traditional			1.84***	1.78***
			(0.31)	(0.31)
Traditional-Egalitarian			1.93***	1.95***
			(0.34)	(0.33)
Traditional-Traditional			2.49***	2.54***
			(0.35)	(0.35)
Age youngest child[3]				
0-2 yrs. Old	3.24***	3.60***	3.22***	3.57***
	(0.57)	(0.57)	(0.57)	(0.57)

3-4 yrs. Old	3.44***	3.80***	3.47***	3.83***
	(0.51)	(0.51)	(0.51)	(0.51)
5-11 yrs. Old	4.66***	4.79***	4.66***	4.79***
	(0.35)	(0.35)	(0.35)	(0.35)
12-15 yrs. Old	4.48***	4.49***	4.50***	4.52***
	(0.31)	(0.31)	(0.31)	(0.31)
+ 15 yrs. Old	4.77***	4.98***	4.78***	4.98***
	(0.96)	(0.97)	(0.95)	(0.96)
Couple's work status (wife's first)[4]				
She doesn't work/He works ft	-2.10	-1.85	-1.99	-1.74
	(1.55)	(1.48)	(1.54)	(1.47)
She works pt/He doesn't work	-1.83	-2.27	-1.70	-2.14
	(1.85)	(1.79)	(1.85)	(1.79)
She works pt/ He works ft	-2.35	-2.23	-2.18	-2.06
	(1.56)	(1.50)	(1.55)	(1.49)
She works ft/He doesn't work	-9.81***	-10.03***	-9.43***	-9.66***
	(1.84)	(1.78)	(1.84)	(1.78)
Both work ft	-6.15***	-5.99***	-5.86***	-5.70***
	(1.59)	(1.53)	(1.58)	(1.52)
Couple's age (wife's first)[5]				
Similar age	0.62*	0.70**	0.64*	0.73**
	(0.36)	(0.35)	(0.35)	(0.35)
She is older	2.23***	2.04***	2.29***	2.10***
	(0.63)	(0.62)	(0.62)	(0.62)
Married	3.29***	3.04***	3.16***	2.91***
	(0.52)	(0.52)	(0.52)	(0.51)
Later relationship	-1.78***	-1.61***	-1.71***	-1.54***
	(0.42)	(0.41)	(0.41)	(0.41)
Log of household income	-1.88***	-1.10***	-1.86***	-1.07***
	(0.25)	(0.26)	(0.25)	(0.26)
Wife's share of labour income	-0.14***	-0.13***	-0.13***	-0.12***
	(0.02)	(0.02)	(0.02)	(0.02)

Wife's share of labour income (squared)	0.00*** (0.00)	0.00*** (0.00)	0.00*** (0.00)	0.00*** (0.00)
Duration of relationship	0.16*** (0.02)	0.15*** (0.02)	0.15*** (0.02)	0.14*** (0.02)
Husband's weekly hours of housework	-2.34*** (0.07)	-2.35*** (0.06)	-2.34*** (0.07)	-2.35*** (0.06)
Constant	98.74*** (2.65)	96.02*** (2.63)	97.49*** (2.63)	94.77*** (2.61)
Wald χ^2	4074***	4459***	4174***	4574***
Number of couple-years	10410	10410	10410	10410
Number of couples	3786	3786	3786	3786
R2 overall	0.59	0.60	0.60	0.61

Robust standard errors between parentheses (clustered by pid).
*** p< .01 ** p< .05 * p< .1 (two tailed paired observations test).
Reference category:
1. Low-Low.
2. Egalitarian-Egalitarian.
3. No children.
4. Both don't work.
5. She is younger.
Source: BHPS: 1991-2005.

I have carried out a comparable analysis of the last two tables with the diary information of HoL dataset for the wife's surplus and share of housework dependent variables since as I have shown that diary information provides more accurate measures of the time spent in housework activities by husbands. The key results regarding the main explanatory variables of interests are shown in Table 2.15. The full specification is provided in Tables A.2.9 and A.2.10 in the Appendix. There are some differences between these models and those of the BHPS. These are due either to the drop in the sample size which has not allowed me to introduce the income variables or to the non-availability of some variables, notably the length and number of relationship. In addition, the age of the youngest child has been replaced by the number of children in the household. Importantly, these analyses confirm the main findings

discussed so far with the BHPS dataset, namely the direct effect of values on the division of housework (at least, for the wife's surplus model). They also show more clearly than with the analysis carried out with the BHPS that couple's positive assortative mating on high education may not be a determining factor behind a more balanced distribution of the domestic chores within the couple.

Table 2.15. Main results of the RE models of wives' surplus and share of housework (HoL: Diary information)

	DV: Wife's surplus			*DV: Wife's share*		
Variables	(2) Model	(3) Model	(4) Model	(2) Model	(3) Model	(4) Model
Couple's education[1](wife first)						
Low-Medium	3.00*		3.28*	2.76		2.97
	(1.82)		(1.81)	(1.94)		(1.92)
Low-High	3.10		3.69	0.26		0.03
	(3.63)		(3.96)	(6.35)		(6.66)
Medium-Low	-1.27		-1.49	-0.75		-0.85
	(2.08)		(2.07)	(2.34)		(2.34)
Medium-Medium	0.35		0.49	-1.36		-1.20
	(1.70)		(1.66)	(2.10)		(2.07)
Medium-High	0.03		0.34	0.42		0.79
	(2.08)		(2.13)	(2.31)		(2.35)
High-Low	-0.25		0.44	-1.07		-0.40
	(2.07)		(2.18)	(1.93)		(1.91)
High-Medium	-0.45		-0.27	-4.22*		-4.13
	(2.19)		(2.15)	(2.51)		(2.51)
High-High	-1.77		-1.52	-2.25		-2.03
	(1.85)		(1.81)	(2.25)		(2.21)
Couple's gender values (wife's first)[2]						
Egalitarian-Traditional		-2.72	-2.89		1.71	2.59
		(3.41)	(3.22)		(3.68)	(4.44)

Traditional-Egalitarian		2.00* (1.07)	2.25** (1.07)		2.09 (1.78)	2.28 (1.79)
Traditional-Traditional		3.26 (2.19)	3.84* (2.23)		1.43 (2.70)	1.99 (2.67)
Wald χ^2	194.8**	176.5**	208.8**	296.5**	264.5***	328.0***
Number of couple-years	290	290	290	290	290	290
Number of couples	244	244	244	244	244	244
R2 overall	0.36	0.35	0.38	0.64	0.63	0.64

Robust standard errors between parentheses (clustering by couples).
*** p< .01 ** p< .05 * p< .1 (two tailed paired observations test).
Reference category:
1. Low-Low.
2. Egalitarian-Egalitarian.
3. No children.
4. She is younger.
5. Both don't work.
HoL: 1998-2001.

As advanced above, once I have discussed the main results, the new analyses presented here will address in more detail the main hypotheses and arguments drawn in the theoretical section. To do this, I will make use of the estimates of Model 4 using the two dependent variables: the wife's surplus and the wife's share of housework.

Disentangling the role of education

To begin with and in order to find the effect of education on the division of housework in Tables A.2.11 and A.2.12 in the Appendix I have run the full specification of model 4 for the BHPS and the HoL couple datasets with each partner education introduced separately. At first glance, the results of the analysis using the BHPS couple dataset show a stronger effect of the wife's education on her surplus and share of housework even after controlling by her husband's education and the two income variables. The analysis with the HoL is more clear-cut though: it is her high education (and not the education of the husband) that

facilitates a more equal division of housework: when the wife has got high education her surplus drops by three hours a week which is equivalent to nearly 5 percent less in her share of housework. In addition, the test of difference for the coefficients of the spouses' education for the BHPS presented in Table A.2.13 confirm that it is also her high education that matters for a more balanced division of housework within the couple and not his education. Substantively, since in the BHPS analysis the effects of labour and household incomes are controlled for the effect of wife's education seem to suggest that it is the time pressure of her involvement in the labour market that makes the wife to undertake less housework while her husband does not offset directly for this reduction. To put it simply, these couples are either giving up some housework through a smaller contribution of the wife or buying out a substitute in the market.

The direct effect of values

In the theoretical section I have also discussed the grounds for a direct effect of gender values on housework independent of the role of education. Indeed, as I have just shown, the results of the analysis confirm that the gender values of the spouses may also affect the balance of the division of housework. Tables 2.16 and 2.17 provide a measure of their relative importance *vis a vis* education. The following analyses based on postestimation on a typical couple are done using the results of the full specification of model 4 presented in Tables 2.13 and 2.14 and assuming and average individual fixed effect (v_i) of the sample used.[18] The results confirm that there is a clear direct effect of couple's gender values on the division of housework for each level of education of

[18] The typical couple in this case corresponds to a union where both partners are egalitarian, with no children, have similar age, both are working full time, they are married couple, in a first relationship, have an average household income, the wife contributes 33 percent to the total labour income of the spouses, are together for 10 years and the husbands does six hours a week of housework.

the spouses. Nevertheless, as I have already discussed, the effect is stronger for education than for values. Thus, for the case of wife's surplus at each level of education a comparison between couples where both partners are egalitarian and another couple where both are traditional increases wife's surplus in around three hours a week. The same comparison done for education while holding constant the gender values of the spouses gives a difference of nearly six hours a week of reduction between low and high educated couples. The results for the wife's share variable are of around 2 and 6 percent for the effect of gender values and education, respectively.

Table 2.16. Predicted wife's surplus of time spent on housework according to the education and gender values of the spouses (ideal type of couple)

Couple's values	**Couple's education**								
	Low-Low	Low-Medium	Low-High	Medium-Low	Medium-Medium	Medium-High	High-Low	High-Medium	High-High
Egalitarian-Egalitarian	11 hrs 4 min	10 hrs 5 min	9 hrs 11 min	9 hrs 7 min	7 hrs 47 min	7 hrs 2 min	8 hrs 30 min	6 hrs 14 min	5 hrs 49 min
Egalitarian-Traditional	12 hrs 19 min	11 hrs 19 min	10 hrs 26 min	10 hrs 22 min	9 hrs	8 hrs 17 min	9 hrs 44 min	7 hrs 28 min	7 hrs 4 min
Traditional-Egalitarian	12 hrs 23 min	11 hrs 24 min	10 hrs 31 min	10 hrs 26 min	9 hrs 5 min	8 hrs 22 min	9 hrs 48 min	7 hrs 33 min	7 hrs 8 min
Traditional-Traditional	13 hrs 13 min	12 hrs 13 min	11 hrs 20 min	11 hrs 16	9 hrs 55 min	9 hrs 11 min	10 hrs 38 min	8 hrs 22 min	7 hrs 58 min

Source: BHPS 1991-2005.

Table 2.17. Predicted wife's share of time spent on housework according to the education and gender values of the spouses (ideal type of couple)

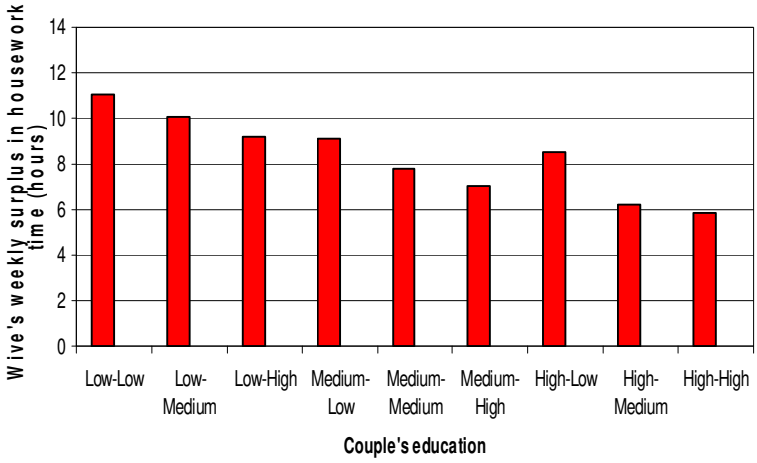
Couple's values	**Couple's education**								
	Low-Low	Low-Medium	Low-High	Medium-Low	Medium-Medium	Medium-High	High-Low	High-Medium	High-High
Egalitarian-Egalitarian	67.21	65.95	65.73	65.66	63.71	63.02	64.75	62.35	61.59
Egalitarian-Traditional	68.89	67.63	67.41	67.34	65.39	64.70	66.43	64.03	63.27
Traditional-Egalitarian	68.79	67.53	67.31	67.24	65.29	64.60	66.33	63.93	63.17
Traditional-Traditional	69.39	68.13	67.91	67.84	65.89	65.20	66.93	64.53	63.67

Source: BHPS 1991-2005.

Doing gender through housework

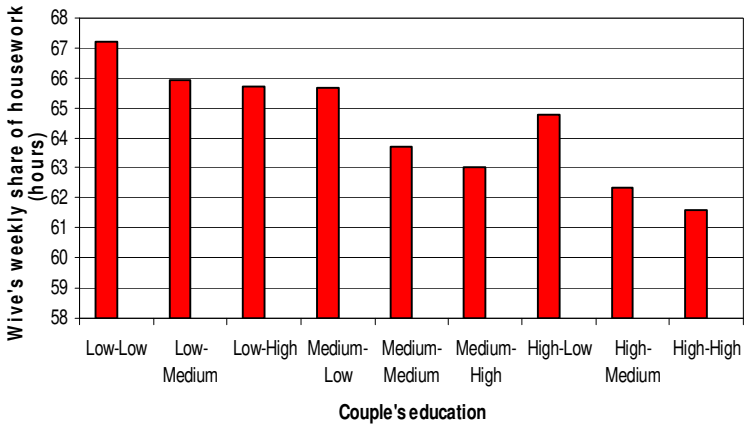
The discussion that follows addresses the *doing gender hypothesis.* As stated in the theoretical section previous studies have argued for the case of income inequalities that when wives are the *breadwinners* the spouses may adapt to a more traditional division of housework in order to solve this 'gender deviance'. Indeed, results presented in Tables 2.13 and 2.14 show that for those couples in which the wife has got high education and the husband low education the reduction in the wife's surplus and share of housework is smaller than for those with higher levels of education. In order to facilitate the interpretation of the coefficients Figures 2.3 and 2.4 below plot the variation in the two indicators of housework for the typical couple as the level of education varies. Thus, for those couples where there is a clear imbalance in the level of education in favour of the wife (she has high education/he is low educated) the gap of wife's time in housework activities is bigger even after controlling for the unequal income contribution of the spouses (the wife, on average, only contributes 33 percent of the total labour income of the couple). This provides a clear picture of the meaning of the 'doing gender' theory through the household division of labour based on educational inequalities between the spouses. It does not nevertheless show how this outcome is achieved between the spouses.

Figure 2.3. Predicted wife's surplus of time spent on housework according to the education of the spouses (typical couple)



Source: BHPS: 1991-2005.

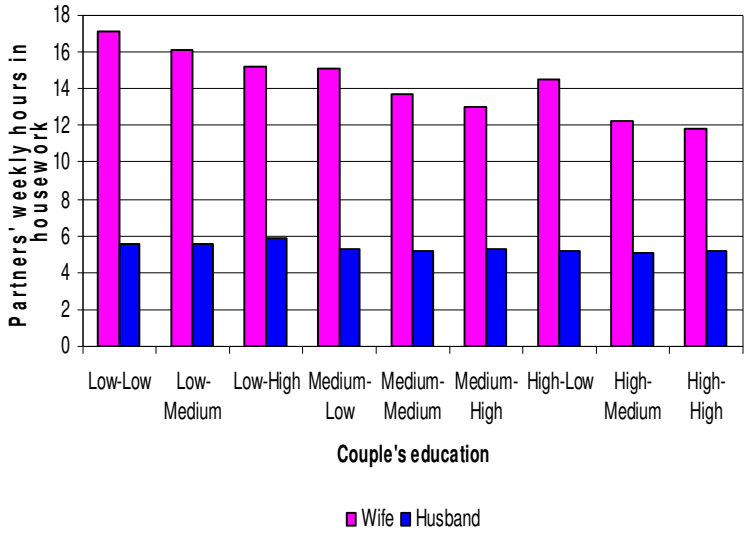
Figure 2.4. Predicted wife's share of time spent on housework according to the education of the spouses (typical couple)



Source: BHPS: 1991-2005.

In the analysis that follows I seek disentangle whether this *doing gender* outcome stems from the wife's, the husband's or a combination of the behaviour of the two spouses. To do this, I have run the full specification of model 4 used in the core analysis above for wife's and husband's amount of time doing housework as dependent variables while controlling for their partners' time. The results are provided in Table A.2.14 in the Appendix. In Figure 2.5 I show the spouses' separated predicted housework time according to the level of education of the couple. The figure clearly shows that it is the wife's increase on her time spent in housework that makes her surplus and share go up when she is highly educated and her husband, instead, has only got low education. Of course, the bigger inequality of these couples is also explained by the husband's reluctance to increase his contribution. Altogether, both behavioural patterns explain how partners may 'do gender' through the division of housework when there are educational inequalities between them.

Figure 2.5. Predicted partners' amount of weekly time in housework according to the education of the spouses (typical couple)



Source: BHPS: 1991-2005.

Finally, the chapter concludes with a discussion of the effect of changes in life course events, family and personal circumstances on the division of housework over marriage. In the descriptive analysis presented above I have shown that the share of the domestic chores between the spouses becomes more unequal over time. I now show the main results using marginal effects of series of dynamic panel models where the influence of key family and couple events together with changes in the education and gender values of the spouses is studied in relationship with the evolution of the division of housework in the couple.[19] Since the original sample of couples drawn for the

[19] As explained in the methodological section both dependent variables and the covariates in this dynamic analysis measure patterns of

analyses of this dissertation seeks to use education as an indicator of positive assortative mating; the number of couples that actually change their education over time is rather small. For this reason, I have also estimated the same models but for the whole sample of couples without any age restriction (SAMPLE B). The full results of the RE dynamic models for the change in the wife's surplus and the change in the wife's share of housework from *t-2* to *t* are shown in Table A.2.15 and A.2.16 in the Appendix.

Interestingly, the life cycle events that are clearly associated with changes in the division of housework between the spouses are their labour market careers and the bearing of new children born in the family while changes in the education and gender values of the couple play a less important role given that these are almost time invariant characteristics. This may suggest that while education and values are key factors in order to explain the level of inequality in the division of housework how this evolves over time is more dependant on the family and couple events that unfold over marriage. In order to provide a better picture of the effect of these factors the two tables below present the predicted changes in the division of unpaid labour for the typical couple used throughout the chapter (only the effect of the significant explanatory variables is shown).

The most significant finding in Tables 2.18 and 2.19 has to do with the changing effect of children. Couples who already have children share the domestic chores more unevenly than those with new babies born in the last two years. The combined interpretation of these outcomes suggests that husbands may increase their contribution to housework upon the birth of a child but they soon return to a more traditional division of housework afterwards. In addition, as expected an increase in the family income or in the wife's contribution to the labour income of the spouses are also associated with large reductions in the gender gap in the division

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change and stability from *t-2* to *t*. In order to increase statistical efficiency in the estimation of the models reference categories are fixed for the modal values of the categorical dynamic covariates.

of housework even though the effect of a change in the household income is stronger. Finally, couples with a traditional division between paid and unpaid labour and those where both partners are low educated adapt to an even more traditional division of the domestic chores over marriage.

Table 2.18. Predicted change in wife's surplus of time spent on housework as relevant family and couple characteristics change over time (typical couple)

	SAMPLE A	**SAMPLE B**
Change in wife's surplus as covariates change (t-2, t)		
A) Discrete change	*TOTAL CHANGE*	*TOTAL CHANGE*
Both remain low educated		24 min
Both remain different gender values		11 min
Both change from different gender values to both egalitarian	26 min	34 min
Stays two children	13 min	19 min
Stays 3 or more children	29 min	29 min
Change to one child	-3 hrs 05 min	-2 hrs 22 min
Change from one to two children	-1 hr 45 min	-1 hr 52 min
Change from two to three children	-2 hrs 50 min	-3 hrs 33 min
Both never work	4 hrs 52 min	
B) Marginal change	*MARGINAL CHANGE*	*MARGINAL CHANGE*
Wife's share of labour income	-4 min	-3 min
Household income	-1 hr 14 min	-58 min
Husband's housework weekly hours	-58 min	-57 min
Duration of relationship	2 min	1 min

Source: BHPS: 1991-2005.

Table 2.19. Predicted change in wife's shares of time spent on housework as relevant family and couple characteristics change over time (typical couple)

	SAMPLE A	**SAMPLE B**
Change in wife's weekly share (t-2, t)		
Change in wife's surplus as covariates change (t-2, t)		
A) Discrete change	*TOTAL CHANGE %*	*TOTAL CHANGE %*
Both change from different gender values to both egalitarian	0.50	
Change to one child	-4.21	-3.87
Change from one to two children	-1.91	
She works always/He never works	3.54	
B) Marginal change	*MARGINAL CHANGE %*	*MARGINAL CHANGE %*
Wife's share of labour income	-0.09	-0.08
Household income	-1.09	-1.17
Husband's housework weekly hours	-2.30	-2.26

Source: BHPS: 1991-2005.

In short, the empirical analysis discussed in this section has provided evidence to clarify the role of the increasing educational attainment of the spouses and of educational homogamy in the division of housework. The results have also confirmed the direct effect of gender and family values *vis a vis* education in how the spouses share the domestic chores. Finally, they have allowed the measurement of the effect of those life and family cycle events that unfold over marriage in the change of the division of housework between the spouses. In the concluding remarks that follow I shall discuss the implications of these findings both for

the research agenda on the determinants of the unequal division of the domestic chores in the couple and for the society as a whole, with a special focus on what these results seem to advance for the future of the gender relationships within the family.

2.4.4. Robustness checks

In this section I discuss the results of the robustness checks carried out to test to reliability of the main results of the chapter. As advanced in the methodological section the first one uses the Mundlak approach on the full specification of model 4 in Tables 2.13 and 2.14 for the wife's surplus and share of housework, respectively, in order to relax the assumption of the standard RE effects estimator of the independence between the individual unobservable fixed effects and the covariates. The Mundlak approach consists in augmenting the RE models by introducing the individual means of the time varying covariates (in our case the individual means of the couple's education, the difference between the age of the spouses, marital status and the dummy for whether the couple is a first or a later relationship in the marital history of the wife where not introduced). The results of this test are presented in Table A.2.17. A comparison between these results and those of Model 4 in Tables 2.13 and 2.14 indicates that they are very much alike both in terms of the significance of the coefficients and the sign of the effects which supports the main conclusions. For instance, the difference for the coefficients of couple's education is of around one hour less of surplus or one percent less of share when comparing the results from the standard RE estimator with those of the Mundlak approach but both are equally significant and with the same sign. The same applies for the gender values of the spouses whose effect are somewhat reduced with the Mundlak approach but significant and in line with the main conclusions drawn in the chapter. In this case, the individual means were introduced in the Mundlak specification. The same can be said for the effects of all the other covariates

either time invariant or not. The only difference is with the duration of the relationship which in the Mundlak approach becomes negative while in the standard RE estimator is positive, but in either case its effect is smaller than the main covariates of the model in which the key conclusions of the chapter are based.

A second robustness check tests the reliability of the effects found for the education of the couple as this is the main focus of the chapter and the thesis as a whole. This involves creating a more comprehensive measure of educational attainment, which distinguishes those spouses who do not have any qualification from those who have low educational credentials. Each spouse's education is therefore classified into four levels: no qualification, low education, medium education, and high education. From the two variables a new sixteen category variable that measures the couple's education has been derived. Some categories of this variable have very few observations which may hinder the adequate estimation of the models. This is particularly the case for when one spouse has no qualifications and the other is a graduate.

The full specification of model 4 in Tables 2.13 and 2.14 has been reestimated using this variable, with results in Table A.2.18. This shows that neither the main effects of education nor those of the other couple and family characteristics change when adding this more comprehensive educational classification. The effect of high education becomes stronger, but this is equivalent to less than one hour a week of reduction in the wife's surplus or below 2 percentage points of reduction in her share of housework.

Another issue that deserves attention is whether the well known sorting of women and men into different occupations within the same level of education may be more important than education itself, given that occupations give individual social prestige and status which, together with income, may affect the bargaining position of the partners at home. To test this I have created a couple's occupation variable using the collapsed Erikson and Goldthorpe social class schema based on occupations (1993) also incorporating non-working individuals. A summary of how the collapsed version has been created is available in Table

A.2.19. This takes four categories for each individual: No work, service class, intermediate class, and working class. From these four different groups, a sixteen category couple-level occupational class variable has been created.

Table A.2.20 shows the results of this analysis. These show that once the couple's occupational class has been introduced there are no significant changes in the effects found for education discussed in the chapter. They are somewhat smaller but comparable to those of Tables 2.13 and 2.14. For instance, there is a fall in the wife's surplus of 5.25 hours per week associated with highly educated couples in the original specification. Introducing occupation this falls to 4.96 a week. For the wife's share of housework the relevant effects are a 5.83 percentage drop in the original specification and 5.01 when including occupation.

Finally, the last analysis of this section addresses the dependency between housework time and paid labour time. In order to better understand the patterns of gender inequality in the division of housework between the spouses most of the discussion of the chapter has evolved around the interconnection between the unpaid and paid labour spheres and the extent of gendered patterns within them. To appropriately account for this dependency a system of simultaneous equations through two seemingly unrelated regressions models have been used.[20]

The first two simultaneous equations model the wife's time in housework and paid labour. The second two are for the husband's time in the two spheres. The key variables to address the issue of dependency are the time each respondent spent in the other sphere: that is, for the housework time equation, the time each respondent works in paid labour activities over the week. The opposite applies for the case of modelling paid labour time where the amount of time of each respondent doing the chores is the key variable. In addition, the equations for each spouses allows the measurement

[20] SUR equations are the key methodological tool of the third chapter of this dissertation, which contains a detailed explanation of them.

of possible cross-partner effects through the time the partner spent in the two spheres. The other control variables are those used throughout the chapter. The full results of the SUR equations are available in Table A.2.21 in the Appendix.

As expected the dependency between housework and paid labour time is much stronger for the wife than for the husband. Thus, for every hour the wife's spent in paid labour she reduces her housework time by nearly one third of an hour. Moreover, for every hour doing the chores there is a reduction in paid labour activities of around one fifth of an hour. The difference between the two coefficients may suggest that in the trade-off between paid and unpaid labour wives prefer to sacrifice homemaking activities more than their professional career. Interestingly, the husband does not compensate for this loss as for every hour of the wife in paid labour there is no significant increase in his contribution to housework which suggest that either the couple reduce the time spent in housework activities or outsource it to the market. The husband's equations also show some dependency between his paid and unpaid labour time but this is clearly weaker: a three percentage points fall in his contribution to paid work for every hour of housework and a nine percentage points fall in his contribution to housework for every hour of paid work. Clearly, overall the trade-off for men between housework and paid labour is much less acute than it is for women. Cross-partner effects are always positive and significant for the two spouses but only the direct ones, that is for the time the partner spends in the same activity as the respondent. The wife's influence on the husband's contribution to housework through her own time is smaller than his influence on her. However, cross-partner effects are of the same magnitude for paid labour time. Finally, the time spent in paid and unpaid labour are more closely related for wives than for husbands as shown by the higher correlation of the residuals between the two equations for them than it is the case for their male partners.

2.5. Conclusions

In this chapter I have studied the influence of education on the division of housework between partners. Using a representative sample of married and cohabiting couples in the UK drawn from the BHPS and the HoL and applying panel models, I have examined whether wives benefit from positive assortative mating on education or, on the contrary, a more balanced division of the chores in the couple depends on the spouses' individual educational credentials, specifically that of women. The rationale behind the two explanations differs. While there is a theoretical basis to argue that high educational homogamy may help couples achieve a more equal share of housework, a careful examination of the research devoted to the division of unpaid labour within couples over the last decades consistently show that inequality has remained independently of recent trends in women's educational attainment and the associated impact on patterns of assortative mating. The results of the empirical analyses discussed in the chapter yield support for the individual effect of education, particularly for the effect of the high education of the wife in reducing her contribution to housework. Such reduction, however, is not offset by a husband's bigger involvement which suggests that either high educated wives just give up housework due to the time constraints they face in the labour market or the couple outsource some housework.

The chapter also discusses the theoretical arguments for a direct effect of couple's gender values on the division of the chores between the spouses. Existing theories of the household division of labour find it difficult to explain why persistent inequalities remain in a context of increasing educational attainment and a social climate in favour of gender equality. Far from taking for granted the close relationship between high education and gender values the analysis presented has shown that there is a great deal of heterogeneity between them. This finding may be explained by the fact that while the gender values of the spouses reflect their education they are also affected by the actual

circumstances of the couple and how they change over marriage as I will discuss more in detail in the next chapter. Indeed, there are clear gender differences in the association between values and education with high educated wives holding more egalitarian values than their husbands. The importance of this finding is that it may help explain a great deal of the observed inequality, despite the current trends in educational attainment, in the division of housework between the spouses. In addition, the analysis has also shown that single women and men may have different predispositions regarding housework which translate into a considerable inequality at the onset of the relationship that unfold over time given the different response of wives and husbands to life-cycle and family events. Altogether these are strong forces that deepen the observed gender inequalities in the division of housework and hinder the role of the increasing educational attainment of the spouses as an equalizing factor.

A key example of such inequality that this chapter addresses is whether and how couples 'do gender' through the division of housework. 'Doing gender' theories and models in sociology and economics provide a parsimonious explanation of the empirical regularity that in couples where the wife is the *breadwinner* (as measured usually by the income resources of the spouses) they still assume a fairly unequal share of housework. The explanation stresses that the spouses try to react to the 'violation' of their ascribed gender roles by keeping or even strengthening the inequality in the division of housework. The empirical analysis of the chapter has shown that when wives are more educated than their husbands they even increase their contribution to housework compared to other couples with similar educational credentials. Interestingly, husbands' small contribution to housework deepens the observed inequality especially for these couples. Substantively, all these findings seem to suggest that couples face real obstacles to redefine their life-course trajectories in line with the definition of gender equality provided in the introductory chapter of this dissertation.

The chapter also considers how life-cycle events such as the bearing of new babies or changes in the labour market trajectories of the spouses and their associated incomes affect the division of housework within the couple. Interestingly, social change seems to be underway since parents of just born babies appear to share the domestic chores more evenly even if this vanishes with time and the couple returns to a more gendered division of housework as the family adapts to the new reality.

Finally, the chapter also contains a methodological contribution based on the comparison of two alternatives methods of data collection of time use patterns for the same sample of couples, thanks to the HoL study. This comparison highlights that husband's accuracy in reporting his time spent in housework activities is rather poor through direct questions (as those included in the BHPS) but it improves with education. Conversely, wives self-reported time is very similar in the diary and questionnaire methods. The implications of this methodological issue for the findings of the chapter is that the extent of inequality in the household division of labour as well as the role of education and of gender values may well be underestimated when the direct questions of the BHPS are used so that the findings discussed in this chapter are more a conservative measure of the actual inequality in the division of housework within couples.

Altogether these findings have clear implications at the societal level. They depict a troublesome panorama in order to achieve more gender equal relationships within the family. Either because of husbands' reluctance to undertake more housework or because wives' acquiescence in a traditional gender balance at home in spite of their increasing educational attainment and financial independence over the last decades, it seems rather difficult to foresee a society where equality in domestic labour will be the norm.

APPENDIX CHAPTER 2

Table A.2.1. RE models of wives' and husbands housework weekly time using the diary and the questionnaire information for the same sample of couples

Variables	Wives' weekly time (1) Diary	(2) Questionnaire	Husbands' weekly time (1) Diary	(2) Questionnaire
Couple's education[1] (wife first)				
Low-Low	3.54**	2.60	0.04	0.57
	(1.50)	(1.80)	(0.55)	(0.99)
Low-Medium	3.45**	2.32	0.20	0.26
	(1.46)	(1.74)	(0.53)	(0.96)
Low-High	1.23	2.66	-0.05	0.08
	(2.57)	(3.06)	(0.93)	(1.69)
Medium-Low	-0.27	-0.37	-0.10	0.57
	(1.53)	(1.83)	(0.55)	(1.01)
Medium-High	1.56	-1.00	1.15	-0.59
	(2.11)	(2.53)	(0.77)	(1.39)
High-Low	6.76**	4.66	-0.97	1.80
	(3.26)	(3.88)	(1.18)	(2.14)
High-Medium	-1.74	-0.17	0.25	0.92
	(1.80)	(2.14)	(0.65)	(1.18)
High-High	0.37	-0.59	0.10	0.25
	(1.73)	(2.06)	(0.63)	(1.14)
Number of children[2]				
1	0.33	-0.26	0.58	0.31
	(1.19)	(1.44)	(0.43)	(0.79)
2	1.66	3.22**	1.75***	0.70
	(1.32)	(1.57)	(0.47)	(0.87)
3 or more	2.76	3.84*	0.34	0.47
	(1.88)	(2.28)	(0.69)	(1.26)
Couple's age difference (wife's first)	-0.10	-0.07	-0.02	0.00
	(0.09)	(0.10)	(0.03)	(0.06)

Time-use variables				
Couple's working hours difference (wife's first)	-0.12*** (0.02)	-0.11*** (0.03)	0.04*** (0.01)	0.06*** (0.01)
Couple's indoor leisure difference (wife's first)	-0.05** (0.02)	-0.07*** (0.03)	0.01* (0.01)	0.03** (0.01)
Couple's outdoor lesiure difference (wife first)	-0.03 (0.04)	0.02 (0.05)	-0.02 (0.02)	-0.01 (0.03)
Couple's difference in traditional index of gender values	0.10 (0.39)	-0.41 (0.48)	0.22 (0.14)	0.41 (0.26)
Partner's housework weekly time (diary)	-0.16 (0.14)		-0.02 (0.02)	
Partner's housework weekly time (questionnaire)		0.10 (0.09)		0.03 (0.03)
Constant	14.19*** (1.24)	13.66*** (1.54)	2.45*** (0.51)	4.82*** (0.89)
Wald $\chi 2$	62.58***	41.32***	49.09***	24.10***
Number of couple-years	422	422	422	422
Number of couples	335	335	335	335
R2 overall	0.14	0.11	0.10	0.05

Robust standard errors between parentheses (clustering by pid).
*** p< .01 **< .05 *< .1.
Reference categories:
1. Medium-Medium.
2. No children.
Source: HoL, 1998-2001.

Table A.2.2. RE models of wives' surplus and share of housework weekly time using the diary and the questionnaire information for the same sample of couples

	Diary		Questionnaire	
	(1)	(2)	(1)	(2)
Variables	Wife's surplus	Wife's share	Wife's surplus	Wife's share
Couple's education[1] (wife first)				
Low-Low	3.54***	4.70***	2.60	1.96
	(1.50)	(1.90)	(1.80)	(2.46)
Low-Medium	3.45**	3.65**	2.32	1.79
	(1.46)	(1.84)	(1.74)	(2.39)
Low-High	1.23	1.08	2.66	-1.25
	(2.57)	(3.23)	(3.06)	(4.19)
Medium-Low	-0.27	1.32	-0.37	0.39
	(1.53)	(1.92)	(1.82)	(2.50)
Medium-High	1.55	2.21	-1.00	-1.07*
	(2.11)	(2.69)	(2.53)	(3.45)
High-Low	6.76**	4.49	4.66	8.98*
	(3.25)	(4.08)	(3.87)	(5.31)
High-Medium	-1.74	-3.83*	-0.17	-3.06
	(1.80)	(2.24)	(2.14)	(2.92)
High-High	0.37	0.73	-0.59	-4.71*
	(1.73)	(2.17)	(2.06)	(2.82)
Number of children[2]				
1	0.33	-1.19	-0.26	-2.11
	(1.19)	(1.54)	(1.44)	(1.98)
2	1.66	-0.63	3.22**	-0.67
	(1.32)	(1.70)	(1.57)	(2.16)
3 or more	2.76	1.84	3.84*	0.83
	(1.88)	(2.46)	(2.28)	(3.16)
Couple's age difference (wife's first)	-0.10	-0.17	-0.07	-0.19
	(0.09)	(0.11)	(0.10)	(0.14)
Time-use variables				
Couple's working hours difference (wife's first)	-0.12***	-0.13***	-0.11***	-0.16***
	(0.02)	(0.03)	(0.03)	(0.04)

Couple's indoor leisure difference (wife's first)	-0.05** (0.02)	-0.06* (0.03)	-0.07*** (0.03)	-0.08** (0.04)
Couple's outdoor lesiure difference (wife first)	-0.03 (0.04)	0.01 (0.06)	0.02 (0.05)	0.05 (0.07)
Couple's difference in traditional index of gender values	0.10 (0.39)	0.44 (0.54)	-0.41 (0.48)	0.13 (0.68)
Husband's housework time (diary)	-1.16*** (0.14)	-4.05*** (0.18)		
Husband's housework time (questionnaire)			-0.90*** (0.09)	-2.60*** (0.13)
Constant	14.15*** (1.24)	91.72*** (1.61)	13.66*** (1.53)	86.93*** (2.12)
Wald $\chi 2$	164.7***	701.1***	166.0***	537.4***
Number of couple-years	422	422	422	422
Number of couples	335	335	335	335
R2 overall	0.30	0.64	0.31	0.58

Robust standard errors between parentheses (clustering by pid).
*** p< .01 **< .05 *< .1.
Reference categories:
1. Medium-Medium.
2. No children.
Source: HoL, 1998-2001.

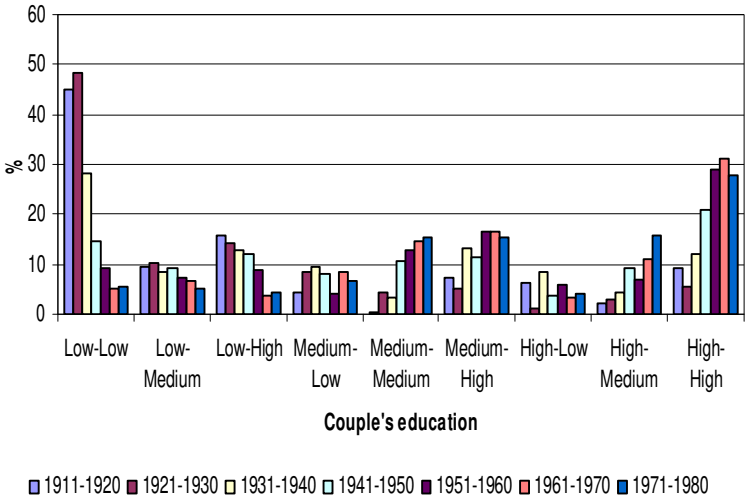
Table A.2.3. RE models of wives' and husband's time gap between the questionnaire and the diary methods

Variables	(1) Wife's gap	(2) Husband's gap
Respondent's education[1]		
Medium	0.35	-0.79
	(1.33)	(0.64)
High	1.32	-1.59*
	(1.72)	(0.87)
Partner's education[1]		
Medium	0.38	-0.50
	(1.33)	(0.65)
High	-0.97	0.61
	(1.83)	(0.83)
Number of children[2]		
1	-0.48	-0.03
	(1.57)	(0.74)
2	1.46	-0.72
	(1.73)	(0.81)
3 or more	1.71	0.09
	(2.53)	(1.19)
Couple's age difference (wife's first)	0.02	0.01
	(0.11)	(0.05)
Time-use variables		
Couple's working hours difference (wife's first)	0.01	0.01
	(0.03)	(0.01)
Couple's indoor leisure difference (wife's first)	-0.03	0.01
	(0.03)	(0.01)
Couple's outdoor lesiure difference (wife first)	0.05	0.00
	(0.06)	(0.03)
Couple's difference in traditional index of gender values	-0.61	0.17
	(0.58)	(0.26)
Partner's housework time	0.10	-0.04
	(0.18)	(0.03)
Constant	-0.57	4.75***
	(1.55)	(0.89)

Wald $\chi 2$	6.58***	10.36***
Number of couple-years	422	422
Number of couples	335	335
R2 overall	0.02	0.02

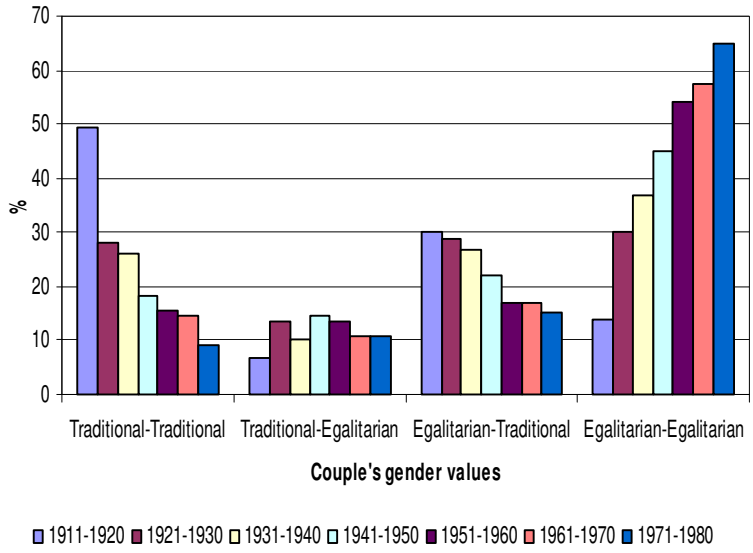
Robust standard errors between parentheses (clustering by pid).
*** p< .01 **< .05 *< .1
Reference categories:
1. Low education.
2. No children.
Source: HoL, 1998-2001.

Figure A.2.1. Distribution of couples by their level of education according to their born cohort (whole sample; N = 19,928)



Source: BHPS 1991-2005 (cross-sectional weights used).

Figure A.2.2. Distribution of couples by their gender values according to their born cohort (whole sample; N = 11,242)



Source: BHPS 1991-2005 (cross-sectional weights used).

Table A.2.4. Mean comparison tests of change in housework weekly time as marital status of women and men changes from single to consensual union from t-1 to t (with household size adjusted from 1 to 2 household members)

Women	Housework time (mean)	Difference (Single-Consensual)	Men	Housework time (mean)	Difference (Single-Consensual)
Remain single	9.03 (7.62)		Remain single	7.08 (6.47)	
N 3,382		-2.31***	*N 3,981*		2.50***
Change to consensual	11.35 (9.65)		Change to consensual	4.57 (5.44)	
N 775			*N 462*		
Difference (Women-Men)					
Remain single	1.95***				
Change to consensual	6.77***				

Source: BHPS: 1991-2005.

Table A.2.5. Mean comparison tests of change in housework weekly time as marital status of women and men changes from single to married union from t-1 to t (with household size adjusted from 1 to 2 household members)

Women	Housework time (mean)	Difference (Single-Married)	Men	Housework time (mean)	Difference (Single-Married)
Remain single	8.79 (7.50)		Remain single	6.97 (6.48)	
N 3,836		-2.64***	*N 4,558*		2.73***
Change to married	11.43 (8.26)		Change to married	4.24 (4.71)	
N 267			*N 192*		
Difference (Women-Men)					
Remain single	1.81***				
Change to married	7.19***				

Source: BHPS: 1991-2005.

Table A.2.6. Mean comparison tests of change in housework weekly time as marital status of women and men changes from consensual to married union from t-1 to t (with household size adjusted remaining 2 household members)

Women	Housework time (mean)	Difference (Consensual-Married)	Men	Housework time (mean)	Difference (Consensual-Married)
Remain consensual	9.82 (7.72)		Remain consensual	5.43 (5.87)	
N 2,859		-0.05	*N 3,022*		0.42**
Change to married	9.87 (8.04)		Change to married	5.01 (4.69)	
N 1,539			*N 1,452*		
		Difference (Women-Men)			
Remain consensual		4.39***			
Change to married		4.86***			

Source: BHPS: 1991-2005.

Table A.2.7. Wald test of differences within and between the coefficients of couple's education and of gender values (DV: wife's surplus)

Model 4				
Couple's education (wife first)[1]		*Couple's gender values* (wife first)[2]		
Low-Medium	-0.99 (0.74)	Egalitarian-Traditional	1.23*** (0.28)	
Low-High	-1.88*** (0.73)	Traditional-Egalitarian	1.31*** (0.31)	
Medium-Low	-1.96*** (0.69)	Traditional-Traditional	2.14*** (0.36)	
Medium-Medium	-3.30*** (0.62)			
Medium-High	-4.03*** (0.61)			
High-Low	-2.58*** (0.76)			
High-Medium	-4.84*** (0.62)			
High-High	-5.25*** (0.58)			

Test of difference between coefficients χ^2 *df* (1)					
Low-Medium/High-High	51.04***	Egalitarian-Traditional/Traditional-Traditional	5.28**	High-High/Traditional-Traditional	116.76***
Low-High/High-High	32.80***	Traditional-Egalitarian/Traditional-Traditional	4.03**		
Medium-Low/High-High	38.11***				
Medium-Medium/High-High	23.99***				
Medium-High/High-High	11.17***				
High-Low/High-High	18.00***				
High-Medium/High-High	1.16				

Robust standard errors between parentheses (clustering by pid).
*** p< .01 ** p< .05 * p< .1 (two tailed paired observations test).
Reference category:
1. Low-Low.
2. Egalitarian-Egalitarian.
BHPS: 1991-2005.

Table A.2.8. Wald test of differences within and between the coefficients of couple's education and of gender values (DV: wife's share of housework)

Model 4					
Couple's education (wife first)[1]		*Couple's gender values* (wife first)[2]			
Low-Medium	-1.26	Egalitarian-Traditional	1.68***		
	(0.77)		(0.31)		
Low-High	-1.49**	Traditional-Egalitarian	1.58***		
	(0.68)		(0.33)		
Medium-Low	-1.55**	Traditional-Traditional	2.18***		
	(0.69)		(0.35)		
Medium-Medium	-3.51***				
	(0.61)				
Medium-High	-4.19***				
	(0.61)				
High-Low	-2.47***				
	(0.79)				
High-Medium	-4.86***				
	(0.67)				
High-High	-5.62***				
	(0.59)				
Test of difference between coefficients χ^2 *df* (1)					
Low-Medium/High-High	39.28***	Egalitarian-Traditional/Traditional-Traditional	1.83	High-High/Traditional-Traditional	128.47***
Low-High/High-High	47.14***	Traditional-Egalitarian/Traditional-Traditional	2.37		
Medium-Low/High-High	43.58***				
Medium-Medium/High-High	17.45***				
Medium-High/High-High	9.07***				
High-Low/High-High	17.43***				
High-Medium/High-High	1.90				

Robust standard errors between parentheses.
*** p< .01 ** p< .05 * p< .1 (two tailed paired observations test).
Reference category:
1. Low-Low.
2. Egalitarian-Egalitarian.
BHPS: 1991-2005.

Table A.2.9. RE models of wives' surplus in housework time (HoL: Diary information)

Variables	(1) Model	(2) Model	(3) Model	(4) Model
Couple's education[1] (wife first)				
Low-Medium		3.00*		3.28*
		(1.82)		(1.81)
Low-High		3.10		3.69
		(3.63)		(3.96)
Medium-Low		-1.27		-1.49
		(2.08)		(2.07)
Medium-Medium		0.35		0.49
		(1.70)		(1.66)
Medium-High		0.03		0.34
		(2.08)		(2.13)
High-Low		-0.25		0.44
		(2.07)		(2.18)
High-Medium		-0.45		-0.27
		(2.19)		(2.15)
High-High		-1.77		-1.52
		(1.85)		(1.81)
Couple's gender values (wife's first)[2]				
Egalitarian-Traditional			-2.72	-2.89
			(3.41)	(3.22)
Traditional-Egalitarian			2.00*	2.25**
			(1.07)	(1.07)
Traditional-Traditional			3.26	3.84*
			(2.19)	(2.23)
Number of children[3]				
1	2.31	2.36	2.35	2.39*
	(1.50)	(1.49)	(1.47)	(1.45)
2	1.00	1.24	0.94	1.19
	(1.68)	(1.73)	(1.69)	(1.74)
3 or more	3.68**	3.66**	3.96**	3.95**
	(1.59)	(1.60)	(1.59)	(1.59)

Couple's age (wife's first)[4]				
Similar age	-0.92	-1.25	-1.03	-1.43
	(1.05)	(1.06)	(1.05)	(1.06)
She is older	-2.03	-2.51	-2.05	-2.57
	(1.67)	(1.65)	(1.67)	(1.65)
Couple's work status (wife's first)[5]				
She doesn't work/He works	-1.41	-0.98	-1.66	-1.26
	(1.74)	(1.81)	(1.75)	(1.81)
She Works/ He doesn't work	-5.24***	-5.02***	-5.09***	-4.84**
	(1.90)	(1.93)	(1.92)	(1.97)
Both work	-5.03***	-4.46***	-4.97***	-4.38***
	(1.29)	(1.42)	(1.28)	(1.41)
Married	8.93***	8.73***	8.45***	8.29***
	(1.85)	(1.99)	(1.74)	(1.84)
Husband's weekly hours of housework	-1.35***	-1.37***	-1.39***	-1.41***
	(0.16)	(0.16)	(0.16)	(0.17)
Constant	3.45	3.43	2.74	2.33
	(3.57)	(4.01)	(3.57)	(3.92)
Wald χ^2	165.0***	194.8***	176.5***	208.8***
Number of couple-years	290	290	290	290
Number of couples	244	244	244	244
R2 overall	0.33	0.36	0.35	0.38

Robust standard errors between parentheses (clustering by couples).
*** p< .01 ** p< .05 * p< .1 (two tailed paired observations test).
Reference category:
1. Low-Low.
2. Egalitarian-Egalitarian.
3. No children.
4. She is younger.
5. Both don't work.
HoL: 1998-2001.

Table A.2.10. RE models of wives' share in housework time (HoL: Diary information)

Variables	(1) Model	(2) Model	(3) Model	(4) Model
Couple's education[1] (wife first)				
Low-Medium		2.76		2.97
		(1.94)		(1.92)
Low-High		0.26		0.03
		(6.35)		(6.66)
Medium-Low		-0.75		-0.85
		(2.34)		(2.34)
Medium-Medium		-1.36		-1.20
		(2.10)		(2.07)
Medium-High		0.42		0.79
		(2.31)		(2.35)
High-Low		-1.07		-0.40
		(1.93)		(1.91)
High-Medium		-4.22*		-4.13
		(2.51)		(2.51)
High-High		-2.25		-2.03
		(2.25)		(2.21)
Couple's gender values (wife's first)[2]				
Egalitarian-Traditional			1.71	2.59
			(3.68)	(4.44)
Traditional-Egalitarian			2.09	2.28
			(1.78)	(1.79)
Traditional-Traditional			1.43	1.99
			(2.70)	(2.67)
Number of children[3]				
1	1.35	1.56	1.48	1.70
	(1.96)	(1.97)	(2.02)	(2.03)
2	-0.98	-0.37	-0.87	-0.24
	(2.35)	(2.45)	(2.38)	(2.46)
3 or more	5.11***	4.98***	5.22***	5.12***
	(1.76)	(1.77)	(1.78)	(1.78)

Couple's age (wife's first)[4]				
Similar age	-1.16	-1.49	-1.28	-1.62
	(1.29)	(1.28)	(1.30)	(1.29)
She is older	-6.13**	-6.75**	-6.23**	-6.87**
	(3.04)	(3.03)	(3.08)	(3.07)
Couple's work status (wife's first)[5]				
She doesn't work/He works	0.38	0.61	0.43	0.61
	(1.80)	(1.83)	(1.79)	(1.82)
She Works/ He doesn't work	-7.03*	-6.10*	-6.83*	-5.91
	(3.93)	(3.67)	(3.89)	(3.64)
Both work	-5.11***	-4.26***	-4.96***	-4.14**
	(1.60)	(1.65)	(1.61)	(1.65)
Married	10.10***	8.88***	9.96***	8.73**
	(3.33)	(3.32)	(3.43)	(3.40)
Husband's weekly hours of housework	-4.07***	-4.08***	-4.07***	-4.08***
	(0.32)	(0.33)	(0.32)	(0.33)
Constant	78.70***	81.32***	77.14***	79.49***
	(6.48)	(6.55)	(6.77)	(6.72)
Wald χ^2	238.1***	296.5***	264.5***	328.0***
Number of couple-years	290	290	290	290
Number of couples	244	244	244	244
R2 overall	0.63	0.64	0.63	0.64

Robust standard errors between parentheses (clustering by couples).
*** p< .01 ** p< .05 * p< .1 (two tailed paired observations test).
Reference category:
1. Low-Low.
2. Egalitarian-Egalitarian.
3. No children.
4. She is younger.
5. Both don't work.
HoL: 1998-2001.

Table A.2.11. RE models of wives' surplus and share in housework time with partner's education introduced separately (BHPS)

Variables	*(1) Model: Wife's surplus*	*(2) Model: Wife's share*
Wife's education[1]		
Medium	-2.10***	-2.12***
	(0.40)	(0.42)
High	-3.34***	-3.49***
	(0.40)	(0.43)
Husband's education[1]		
Medium	-1.45***	-1.77***
	(0.40)	(0.44)
High	-2.11***	-2.43***
	(0.38)	(0.42)
Couple's gender values (wife's first)[2]		
Egalitarian-Traditional	1.23***	1.69***
	(0.28)	(0.31)
Traditional-Egalitarian	1.32***	1.59***
	(0.31)	(0.33)
Traditional-Traditional	2.14***	2.19***
	(0.36)	(0.35)
Age youngest child[3]		
0-2 yrs. Old	2.23***	3.58***
	(0.44)	(0.57)
3-4 yrs. Old	3.66***	3.84***
	(0.46)	(0.51)
5-11 yrs. Old	4.25***	4.80***
	(0.28)	(0.35)
12-15 yrs. Old	3.42***	4.53***
	(0.25)	(0.31)
+ 15 yrs. Old	3.21***	5.00***
	(0.81)	(0.96)
Couple's work status (wife's first)[4]		
She doesn't work/He works ft	-0.47	-1.71
	(1.81)	(1.47)

She works pt/He doesn't work	-2.96	-2.14
	(1.89)	(1.78)
She works pt/ He works ft	-2.32	-2.02
	(1.80)	(1.49)
She works ft/He doesn't work	-7.56***	-9.64***
	(1.83)	(1.77)
Both work ft	-5.28***	-5.66***
	(1.80)	(1.52)
Couple's age (wife's first)[5]		
Similar age	0.25	0.73**
	(0.29)	(0.35)
She is older	1.27**	2.11***
	(0.52)	(0.61)
Married	1.64***	2.90***
	(0.36)	(0.51)
Later relationship	-1.33***	-1.54***
	(0.31)	(0.41)
Log of household income	-1.00***	-1.08***
	(0.23)	(0.26)
Wife's share of labour income	-0.11***	-0.12***
	(0.02)	(0.02)
Wife's share of labour income (squared)	0.00***	0.00***
	(0.00)	(0.00)
Duration of relationship	0.08***	0.14***
	(0.01)	(0.02)
Husband's weekly hours of housework	-0.99***	-2.35***
	(0.02)	(0.06)
Constant	28.42***	95.22***
	(2.61)	(2.60)
Wald χ^2	4888***	4508***
Number of couple-years	10410	10410
Number of couples	3786	3786
R2 overall	0.39	0.61

Robust standard errors between parentheses (clustered by pid).
*** p< .01 ** p< .05 * p< .1 (two tailed paired observations test).
Reference category:
1. Low education.
2. Egalitarian-Egalitarian.
3. No children.
4. Both don't work.
5. She is younger.
BHPS: 1991-2005.

Table A.2.12. RE models of wives' surplus and share in housework time with partner's education introduced separately (HoL: Diary information)

Variables	*(1) Model: Wife's surplus*	*(2) Model: Wife's share*
Wife's education[1]		
Medium	-2.23*	-2.40
	(1.22)	(1.60)
High	-3.25**	-4.81**
	(1.46)	(1.90)
Husband's education[1]		
Medium	2.41**	0.67
	(1.20)	(1.41)
High	1.69	1.62
	(1.53)	(2.04)
Couple's gender values (wife's first)[2]		
Egalitarian-Traditional	-2.76	1.60
	(3.27)	(4.10)
Traditional-Egalitarian	2.19**	2.01
	(1.07)	(1.75)
Traditional-Traditional	3.72*	1.65
	(2.21)	(2.65)
Number of children[3]		
1	2.39*	1.49
	(1.44)	(1.97)
2	1.13	-0.51
	(1.74)	(2.50)
3 or more	3.84**	5.17***
	(1.60)	(1.73)
Couple's age (wife's first)[4]		
Similar age	-1.38	-1.62
	(1.05)	(1.28)
She is older	-2.53	-6.57**
	(1.65)	(3.06)

Couple's work status (wife's first)[5]		
She doesn't work/He works	-1.34	0.90
	(1.76)	(1.80)
She Works/ He doesn't work	-4.93**	-6.03
	(1.93)	(3.67)
Both work	-4.42***	-3.95**
	(1.34)	(1.63)
Married	8.20***	9.37***
	(1.73)	(3.32)
Husband's weekly hours of housework	-1.41***	-4.09***
	(0.16)	(0.32)
Constant	3.11	79.38***
	(3.81)	(6.51)
Wald χ^2	205.6***	298.0***
Number of couple-years	290	290
Number of couples	244	244
R2 overall	0.37	0.64

Robust standard errors between parentheses (clustered by pid).
*** p< .01 ** p< .05 * p< .1 (two tailed paired observations test).
Reference category:
1. Low education.
2. Egalitarian-Egalitarian.
3. No children.
4. She is younger.
5. Both don't work.
HoL: 1998-2001.

Table A.2.13. Wald test of differences between the coefficients of partners' education (DV: wife's surplus and share of housework BHPS)

	Surplus	**Share**
Wife's education[1]		
Medium	-2.10***	-2.12***
	(0.40)	(0.42)
High	-3.34***	-3.49***
	(0.40)	(0.43)
Husband's education[1]		
Medium	-1.45***	-1.77***
	(0.40)	(0.44)
High	-2.11***	-2.43***
	(0.38)	(0.42)
Test of difference between coefficients χ^2 *df* (1)		
	Surplus	**Share**
Education (wife-husband)[1]		
Medium-Medium	1.19	0.29
High-High	4.05**	2.52*

Robust standard errors between parentheses (clustering by pid).
*** p< .01 ** p< .05 * p< .1 (two tailed paired observations test).
Reference category:
1. Low education.
BHPS: 1991-2005.

Table A.2.14. RE models of wives' and husbands' weekly time doing housework (BHPS)

Variables	*(1) Model: Wife's time*	*(2) Model: Husband's time*
Couple's education[1] (wife first)		
Low-Medium	-0.99	0.02
	(0.74)	(0.38)
Low-High	-1.88***	0.36
	(0.73)	(0.34)
Medium-Low	-1.96***	-0.22
	(0.69)	(0.34)
Medium-Medium	-3.30***	-0.40
	(0.62)	(0.30)
Medium-High	-4.03***	-0.31
	(0.61)	(0.30)
High-Low	-2.58***	-0.40
	(0.76)	(0.37)
High-Medium	-4.84***	-0.46
	(0.62)	(0.31)
High-High	-5.25***	-0.38
	(0.58)	(0.29)
Couple's gender values (wife's first)[2]		
Egalitarian-Traditional	1.23***	-0.44***
	(0.28)	(0.13)
Traditional-Egalitarian	1.31***	-0.25*
	(0.31)	(0.14)
Traditional-Traditional	2.14***	-0.70***
	(0.36)	(0.15)
Age youngest child[3]		
0-2 yrs. Old	2.23***	0.95***
	(0.44)	(0.22)
3-4 yrs. Old	3.66***	0.49***
	(0.46)	(0.19)

5-11 yrs. Old	4.24***	0.59***
	(0.29)	(0.14)
12-15 yrs. Old	3.42***	0.40***
	(0.25)	(0.13)
+ 15 yrs. Old	3.19***	-0.07
	(0.82)	(0.40)
Couple's work status (wife's first)[4]		
She doesn't work/He works ft	-0.47	-1.17
	(1.81)	(0.75)
She works pt/He doesn't work	-2.98	1.18
	(1.89)	(0.96)
She works pt/ He works ft	-2.34	-1.43*
	(1.80)	(0.77)
She works ft/He doesn't work	-7.56***	3.30***
	(1.83)	(0.93)
Both work ft	-5.28***	-1.04
	(1.80)	(0.78)
Couple's age (wife's first)[5]		
Similar age	0.26	-0.35**
	(0.29)	(0.14)
She is older	1.26**	-0.11
	(0.52)	(0.27)
Married	1.64***	-0.10
	(0.36)	(0.20)
Later relationship	-1.32***	0.36**
	(0.31)	(0.17)
Log of household income	-1.00***	0.09
	(0.23)	(0.12)
Wife's share of labour income	-0.11***	0.03***
	(0.02)	(0.01)
Wife's share of labour income (squared)	0.00***	-0.00
	(0.00)	(0.00)
Duration of relationship	0.08***	0.00
	(0.01)	(0.01)

Husband's/Wife weekly hours of housework	0.01	0.00
	(0.02)	(0.01)
Constant	28.18***	5.43***
	(2.62)	(1.19)
Wald χ^2	2086***	368.3***
Number of couple-years	10410	10410
Number of copules	3786	3786
R2 overall	0.24	0.09

Robust standard errors between parentheses (clustered by pid).
*** p< .01 ** p< .05 * p< .1 (two tailed paired observations test).
Reference category:
1. Low-Low.
2. Egalitarian-Egalitarian.
3. No children.
4. Both don't work.
5. She is younger.
BHPS: 1991-2005.

Table A.2.15. RE dynamic models of change in the wife's surplus of housework weekly time (t-2 to t)

	SAMPLE A				SAMPLE B			
Dynamic variables	(1) Model	(2) Model	(3) Model	(4) Model	(1) Model	(2) Model	(3) Model	(4) Model
Change in couple's education[1]								
Both remain low educated		0.62		0.59		0.67		0.69*
		(0.59)		(0.59)		(0.41)		(0.41)
Both remain medium educated		0.25		0.20		0.14		0.11
		(0.34)		(0.34)		(0.30)		(0.30)
Remain she more educated		0.13		0.12		0.12		0.12
		(0.31)		(0.31)		(0.26)		(0.26)
Remain he more educated		0.31		0.26		0.31		0.27
		(0.30)		(0.30)		(0.25)		(0.25)
Change she more educated to same education		0.90		0.78		1.07		0.98
		(0.99)		(1.00)		(1.01)		(1.02)
Change he more educated to same education		0.82		0.77		0.68		0.64
		(0.98)		(0.98)		(0.81)		(0.81)

Change she more educated to he more educated	-0.62 (2.90)		-0.65 (2.92)	-0.09 (2.62)		-0.10 (2.63)
Change he more educated to she more educated	-0.95 (1.81)		-0.98 (1.81)	-0.19 (1.76)		-0.22 (1.76)
Change in cople's gender values[2]						
Both remain different values		0.35 (0.34)	0.33 (0.34)		0.47* (0.27)	0.47* (0.27)
Both remain traditional		0.53 (0.53)	0.52 (0.53)		0.52 (0.41)	0.53 (0.41)
Change both different values to egalitarian		0.98* (0.56)	0.94* (0.56)		0.88* (0.48)	0.85* (0.48)
Change both different values to traditional		0.40 (0.77)	0.35 (0.78)		-0.04 (0.62)	-0.05 (0.62)
Change both egalitarian to traditional		-0.10 (1.26)	-0.15 (1.26)		0.02 (1.20)	0.00 (1.20)

Change both traditional to egalitarian			0.80 (1.15)	0.75 (1.15)			0.86 (1.08)	0.84 (1.08)
Change both egalitarian to different values			0.43 (0.32)	0.41 (0.32)			0.11 (0.28)	0.09 (0.28)
Change both traditional to different values			0.73 (0.58)	0.70 (0.58)			0.35 (0.48)	0.33 (0.48)
Change in the number of children in the household[3]								
Stays one child	0.07 (0.31)	0.07 (0.32)	0.09 (0.31)	0.09 (0.32)	0.21 (0.28)	0.23 (0.28)	0.25 (0.28)	0.27 (0.28)
Stays two children	0.51* (0.28)	0.52* (0.28)	0.51* (0.28)	0.51* (0.28)	0.60** (0.27)	0.62** (0.27)	0.59** (0.27)	0.60** (0.27)
Stays three or more children	0.80* (0.47)	0.80* (0.47)	0.79* (0.46)	0.79* (0.47)	0.76* (0.44)	0.77* (0.45)	0.75* (0.44)	0.76* (0.44)
Change to one child	-2.83*** (0.75)	-2.83*** (0.75)	-2.77*** (0.75)	-2.78*** (0.76)	-2.20*** (0.72)	-2.21*** (0.72)	-2.15*** (0.73)	-2.16*** (0.73)
Change to two children	-1.46** (0.69)	-1.48** (0.69)	-1.44** (0.69)	-1.45** (0.69)	-1.59** (0.67)	-1.60** (0.67)	-1.58** (0.67)	-1.58** (0.67)

Change to three children	-2.43**	-2.49**	-2.50**	-2.54**	-3.22***	-3.23***	-3.27***	-3.27***
	(1.04)	(1.04)	(1.04)	(1.05)	(0.99)	(0.99)	(0.99)	(1.00)
Change's in couple's working status[4]								
Both never work	5.49**	5.34**	5.29**	5.16**	0.15	0.11	0.07	0.03
	(2.56)	(2.50)	(2.52)	(2.47)	(0.81)	(0.81)	(0.81)	(0.81)
She stars working/He always work	-0.43	-0.43	-0.55	-0.55	-0.06	-0.10	-0.15	-0.18
	(1.03)	(1.03)	(1.04)	(1.04)	(0.91)	(0.91)	(0.91)	(0.92)
He stars working/She always work	-0.38	-0.38	-0.45	-0.45	0.32	0.26	0.27	0.22
	(1.19)	(1.20)	(1.19)	(1.20)	(1.29)	(1.30)	(1.29)	(1.31)
She always works/He never works	1.64	1.62	1.69	1.66	0.33	0.30	0.37	0.34
	(1.13)	(1.12)	(1.12)	(1.12)	(0.46)	(0.46)	(0.46)	(0.46)
He always works/She never works	-0.56	-0.59	-0.72	-0.75	-0.40	-0.45	-0.53	-0.58
	(0.44)	(0.44)	(0.47)	(0.47)	(0.35)	(0.35)	(0.37)	(0.37)
Change in marital status[5]								
Remain consensual union	-0.06	-0.08	-0.02	-0.04	0.06	0.04	0.08	0.07
	(0.44)	(0.44)	(0.44)	(0.44)	(0.37)	(0.37)	(0.37)	(0.37)

Change to married	-0.27	-0.29	-0.21	-0.22	-0.22	-0.22	-0.17	-0.17
	(0.46)	(0.46)	(0.46)	(0.46)	(0.42)	(0.42)	(0.42)	(0.42)
Change to consensual union	0.30	0.30	0.31	0.32	0.04	0.03	0.07	0.07
	(0.74)	(0.75)	(0.74)	(0.75)	(0.62)	(0.62)	(0.62)	(0.62)
Change of couple[6]								
Remain later relationship	-0.24	-0.23	-0.21	-0.20	-0.23	-0.23	-0.21	-0.21
	(0.28)	(0.28)	(0.28)	(0.28)	(0.26)	(0.26)	(0.26)	(0.26)
Change to later relationship	0.09	0.12	0.07	0.11	-0.17	-0.15	-0.18	-0.16
	(0.53)	(0.53)	(0.53)	(0.53)	(0.46)	(0.46)	(0.46)	(0.46)
Change in wife's contribution to the labour income of the couple[7]	-0.07***	-0.07***	-0.07***	-0.07***	-0.05***	-0.05***	-0.05***	-0.05***
	(0.01)	(0.01)	(0.01)	(0.01)	(0.00)	(0.00)	(0.00)	(0.00)
Change in household income	-1.24***	-1.24***	-1.23***	-1.23***	-0.98***	-0.98***	-0.98***	-0.97***
	(0.30)	(0.30)	(0.30)	(0.30)	(0.23)	(0.23)	(0.23)	(0.23)
Change in husband's contribution to housework	-0.96***	-0.96***	-0.96***	-0.96***	-0.95***	-0.95***	-0.95***	-0.95***
	(0.03)	(0.03)	(0.03)	(0.03)	(0.02)	(0.02)	(0.02)	(0.02)
Wife's age	0.02	0.02	0.02	0.02	0.04*	0.03	0.04*	0.03
	(0.03)	(0.03)	(0.03)	(0.03)	(0.02)	(0.02)	(0.02)	(0.02)

Husband's age	0.00	0.00	0.00	0.00	-0.01	-0.01	-0.01	-0.01
	(0.03)	(0.03)	(0.03)	(0.03)	(0.02)	(0.02)	(0.02)	(0.02)
Duration of relationship	0.03*	0.03*	0.03*	0.03*	0.02**	0.02**	0.02**	0.02**
	(0.02)	(0.02)	(0.02)	(0.02)	(0.01)	(0.01)	(0.01)	(0.01)
Constant	-1.38*	-1.50*	-1.53*	-1.62*	-1.25**	-1.35**	-1.34**	-1.42**
	(0.82)	(0.83)	(0.82)	(0.84)	(0.56)	(0.57)	(0.56)	(0.57)
Wald χ^2	1451	1458	1456	1464	1932	1942	1952	1962
Number of couple-years	7766	7766	7766	7766	3705	3705	3705	3705
Number of couples	2881	2881	2881	2881	10596	10596	10596	10596
R2 overall	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22

Robust standard errors between parentheses (clustered by pid).
*** p< .01 ** p< .05 * p< .1 (two tailed paired observations test).
Reference category:
1. Remain both high educated.
2. Both remain egalitarian.
3. Stays no children.
4.Both always work.
5. Remain married.
6. Remain in a first relationship.
BHPS: 1991-2005.

Table A.2.16. RE dynamic models of change in the wife's share of housework weekly time (t-2 to t)

	SAMPLE A				SAMPLE B			
	(1)	(2)	(3)	(4)	(1)	(2)	(3)	(4)
Dynamic variables	Model	Model	Model	Model	Model	Model	Model	Model
Change in couple's education[1]								
Both remain low educated		0.12 (0.60)		0.08 (0.60)		0.66 (0.47)		0.67 (0.47)
Both remain medium educated		0.42 (0.45)		0.36 (0.46)		0.02 (0.43)		0.01 (0.43)
Remain she more educated		0.26 (0.43)		0.25 (0.43)		0.21 (0.38)		0.21 (0.38)
Remain he more educated		0.04 (0.38)		-0.02 (0.38)		0.22 (0.33)		0.20 (0.34)
Change she more educated to same education		0.88 (1.71)		0.71 (1.72)		-0.16 (1.64)		-0.23 (1.65)
Change he more educated to same education		0.27 (1.07)		0.21 (1.07)		0.36 (1.08)		0.35 (1.08)

Change she more educated to he more educated	-2.07 (5.50)		-2.07 (5.52)	-1.39 (5.17)		-1.36 (5.18)
Change he more educated to she more educated	-1.77 (2.55)		-1.79 (2.56)	1.20 (3.14)		1.18 (3.14)
Change in cople's gender values[2]						
Both remain different values		0.49 (0.40)	0.50 (0.41)		0.38 (0.37)	0.38 (0.37)
Both remain traditional		0.56 (0.47)	0.57 (0.47)		0.25 (0.40)	0.27 (0.40)
Change both different values to egalitarian		1.03 (0.62)	1.00 (0.62)		0.53 (0.57)	0.54 (0.57)
Change both different values to traditional		0.52 (0.94)	0.50 (0.94)		-0.42 (0.74)	-0.41 (0.74)
Change both egalitarian to traditional		0.62 (1.43)	0.57 (1.43)		0.24 (1.19)	0.24 (1.19)
Change both traditional to egalitarian		1.41 (1.12)	1.34 (1.13)		1.13 (1.02)	1.13 (1.02)

Change both egalitarian to different values			0.32 (0.47)	0.33 (0.47)			0.01 (0.40)	-0.00 (0.40)
Change both traditional to different values			0.65 (0.50)	0.65 (0.50)			0.16 (0.45)	0.16 (0.45)
Change in the number of children in the household[3]								
Stays one child	-0.10 (0.46)	-0.13 (0.46)	-0.08 (0.46)	-0.11 (0.46)	0.14 (0.41)	0.16 (0.41)	0.16 (0.41)	0.18 (0.41)
Stays two children	0.16 (0.38)	0.14 (0.38)	0.15 (0.38)	0.13 (0.38)	0.33 (0.35)	0.34 (0.35)	0.31 (0.35)	0.33 (0.35)
Stays three or more children	0.65 (0.49)	0.64 (0.49)	0.63 (0.49)	0.63 (0.49)	0.71 (0.47)	0.71 (0.47)	0.71 (0.47)	0.70 (0.47)
Change to one child	-3.73*** (1.15)	-3.77*** (1.15)	-3.67*** (1.15)	-3.71*** (1.15)	-3.51*** (1.11)	-3.51*** (1.11)	-3.48*** (1.11)	-3.48*** (1.11)
Change to two children	-1.40* (0.84)	-1.42* (0.84)	-1.40* (0.84)	-1.41* (0.84)	-1.46 (0.92)	-1.44 (0.93)	-1.47 (0.93)	-1.43 (0.93)
Change to three children	-0.69 (1.17)	-0.77 (1.19)	-0.82 (1.17)	-0.87 (1.19)	-1.46 (1.07)	-1.39 (1.08)	-1.53 (1.07)	-1.46 (1.08)

Change's in couple's working status[4]								
Both never work	1.13 (2.94)	1.05 (2.98)	0.83 (2.91)	0.77 (2.95)	1.12 (0.92)	1.08 (0.92)	1.08 (0.92)	1.04 (0.92)
She stars working/He always work	0.78 (0.96)	0.86 (0.97)	0.67 (0.97)	0.75 (0.98)	0.45 (0.92)	0.37 (0.93)	0.41 (0.93)	0.33 (0.93)
He stars working/She always work	-1.70 (2.96)	-1.73 (2.96)	-1.72 (2.97)	-1.76 (2.97)	0.19 (2.80)	0.19 (2.82)	0.17 (2.81)	0.17 (2.83)
She always works/He never works	3.89* (2.32)	3.94* (2.30)	3.99* (2.32)	4.04* (2.30)	1.31 (0.89)	1.27 (0.88)	1.35 (0.89)	1.31 (0.89)
He always works/She never works	-0.10 (0.36)	-0.07 (0.37)	-0.29 (0.39)	-0.26 (0.40)	-0.22 (0.31)	-0.25 (0.31)	-0.28 (0.33)	-0.32 (0.33)
Change in marital status[5]								
Remain consensual union	0.22 (0.63)	0.20 (0.63)	0.25 (0.63)	0.23 (0.63)	-0.27 (0.55)	-0.25 (0.55)	-0.27 (0.55)	-0.25 (0.55)
Change to married	-0.55 (0.66)	-0.55 (0.66)	-0.49 (0.67)	-0.49 (0.67)	-0.54 (0.59)	-0.54 (0.59)	-0.52 (0.59)	-0.52 (0.59)

Change to consensual union	0.55 (0.89)	0.58 (0.90)	0.58 (0.89)	0.61 (0.90)	0.25 (0.75)	0.23 (0.75)	0.26 (0.76)	0.25 (0.76)
Change of couple[6]								
Remain later relationship	-0.12 (0.34)	-0.12 (0.34)	-0.09 (0.34)	-0.09 (0.34)	0.00 (0.33)	-0.00 (0.33)	0.01 (0.33)	-0.00 (0.33)
Change to later relationship	-0.36 (0.75)	-0.37 (0.75)	-0.38 (0.75)	-0.39 (0.75)	-0.50 (0.65)	-0.49 (0.65)	-0.51 (0.65)	-0.49 (0.65)
Change in wife's contribution to the labour income of the couple[7]	-0.09*** (0.01)	-0.09*** (0.01)	-0.09*** (0.01)	-0.09*** (0.01)	-0.08*** (0.01)	-0.08*** (0.01)	-0.08*** (0.01)	-0.08*** (0.01)
Change in household income	-1.09*** (0.38)	-1.10*** (0.38)	-1.08*** (0.38)	-1.09*** (0.38)	-1.17*** (0.31)	-1.17*** (0.31)	-1.17*** (0.31)	-1.17*** (0.31)
Change in husband's contribution to housework	-2.30*** (0.05)	-2.30*** (0.05)	-2.30*** (0.05)	-2.30*** (0.05)	-2.26*** (0.05)	-2.26*** (0.05)	-2.26*** (0.05)	-2.26*** (0.05)
Wife's age	0.04 (0.04)	0.04 (0.04)	0.04 (0.04)	0.04 (0.04)	0.03 (0.03)	0.03 (0.03)	0.03 (0.03)	0.03 (0.03)
Husband's age	0.01 (0.04)	0.01 (0.04)	0.00 (0.04)	0.00 (0.04)	-0.01 (0.03)	-0.01 (0.03)	-0.01 (0.03)	-0.01 (0.03)
Duration of relationship	0.03 (0.02)	0.03 (0.02)	0.03 (0.02)	0.03 (0.02)	0.02 (0.01)	0.02 (0.01)	0.02 (0.01)	0.02 (0.01)

Constant	-2.16*	-2.33**	-2.30**	-2.44**	-1.27	-1.32	-1.30	-1.34
	(1.11)	(1.13)	(1.11)	(1.13)	(0.86)	(0.89)	(0.87)	(0.90)
Wald χ^2	2380	2402	2429	2453	2411	2422	2431	2442
Number of couple-years	7766	7766	7766	7766	10596	10596	10596	10596
Number of couples	2881	2881	2881	2881	3705	3705	3705	3705
R2 overall	0.47	0.47	0.47	0.47	0.46	0.46	0.46	0.46

Robust standard errors between parentheses (clustered by pid).
*** p< .01 ** p< .05 * p< .1 (two tailed paired observations test).
Reference category:
1. Remain both high educated.
2. Both remain egalitarian.
3. Stays no children.
4.Both always work.
5. Remain married.
6. Remain in a first relationship.
BHPS: 1991-2005.

Table A.2.17. RE models for the wife's surplus and share of housework using the Mundlak approach on the full specification of Model 4 in Tables 2.13 and 2.14 (BHPS)

Variables	*(1)* *Model: Wife's surplus*	*(2)* *Model: Wife's share*
Couple's education[1] (wife first)		
Low-Medium	-0.95	-1.21
	(0.74)	(0.77)
Low-High	-1.73**	-1.23*
	(0.73)	(0.68)
Medium-Low	-1.71**	-1.33*
	(0.69)	(0.69)
Medium-Medium	-2.95***	-3.28***
	(0.62)	(0.62)
Medium-High	-3.56***	-3.80***
	(0.61)	(0.63)
High-Low	-1.86**	-1.88**
	(0.76)	(0.79)
High-Medium	-4.05***	-4.28***
	(0.63)	(0.68)
High-High	-4.34***	-4.80***
	(0.59)	(0.61)
Couple's gender values (wife's first)[2]		
Egalitarian-Traditional	0.50	0.92**
	(0.33)	(0.36)
Traditional-Egalitarian	0.86**	0.86**
	(0.36)	(0.40)
Traditional-Traditional	0.90**	0.76
	(0.45)	(0.46)
Age youngest child[3]		
0-2 yrs. Old	2.34***	3.40***
	(0.48)	(0.67)

3-4 yrs. Old	3.82***	3.69***
	(0.53)	(0.62)
5-11 yrs. Old	3.88***	4.17***
	(0.38)	(0.47)
12-15 yrs. Old	2.38***	3.38***
	(0.33)	(0.39)
+ 15 yrs. Old	3.75***	5.34***
	(0.87)	(1.07)
Couple's work status (wife's first)[4]		
She doesn't work/He works ft	-0.05	-1.01
	(1.88)	(1.53)
She works pt/He doesn't work	-2.80	-2.48
	(1.96)	(1.95)
She works pt/ He works ft	-2.51	-2.57*
	(1.83)	(1.51)
She works ft/He doesn't work	-6.92***	-9.00***
	(1.86)	(1.79)
Both work ft	-5.47***	-6.05***
	(1.81)	(1.52)
Couple's age (wife's first)[5]		
Similar age	0.18	0.65*
	(0.28)	(0.34)
She is older	1.28**	2.05***
	(0.51)	(0.61)
Married	1.08***	2.33***
	(0.37)	(0.52)
Later relationship	-1.25***	-1.47***
	(0.31)	(0.40)
Log of household income	-0.29	-0.37
	(0.31)	(0.34)
Wife's share of labour income	-0.03***	-0.04***
	(0.01)	(0.01)
Wife's share of labour income (squared)	-0.10***	0.03
	(0.03)	(0.04)

Duration of relationship	-0.95***	-2.20***
	(0.03)	(0.07)
Husband's weekly hours of housework	1.08***	2.33***
	(0.37)	(0.52)
Constant	30.12***	102.65***
	(3.34)	(3.67)
Wald χ^2	5138***	5075***
Number of couple-years	10410	10410
Number of copules	3786	3786
R2 overall	0.40	0.62

Robust standard errors between parentheses (clustered by pid).
*** p< .01 ** p< .05 * p< .1 (two tailed paired observations test).
Reference category:
1. Low-Low.
2. Egalitarian-Egalitarian.
3. No children.
4. Both don't work.
5. She is younger.
BHPS: 1991-2005.

Table A.2.18. RE models for the wife's surplus and share of housework with a sixteen categories variable for couples education using the full specification of Model 4 in Tables 2.13 and 2.14 (BHPS)

Variables	*(1)* *Model: Wife's surplus*	*(2)* *Model: Wife's share*
Couple's education[1] (wife first)		
No qualification-Low	1.57	0.21
	(0.99)	(0.95)
No qualification-Medium	-1.01	-0.88
	(0.88)	(0.87)
No qualification-High	-2.43	-0.71
	(1.69)	(2.02)
Low-No qualification	-0.15	-0.77
	(0.91)	(0.91)
Low-Low	-2.25***	-2.53***
	(0.76)	(0.73)

Low-Medium	-2.85***	-3.17***
	(0.72)	(0.73)
Low-High	-2.36*	-2.98***
	(1.22)	(1.09)
Medium-No qualification	-1.59*	-1.85**
	(0.90)	(0.93)
Medium-Low	-3.40***	-3.74***
	(0.74)	(0.80)
Medium-Medium	-3.98***	-4.54***
	(0.69)	(0.70)
Medium-High	-5.13***	-6.46***
	(0.82)	(0.95)
High-No qualification	-4.50**	-5.56**
	(1.77)	(2.67)
High-Low	-4.07***	-5.72***
	(1.09)	(1.41)
High-Medium	-5.89***	-7.23***
	(0.76)	(1.00)
High-High	-5.92***	-7.67***
	(0.75)	(0.87)
Couple's gender values (wife's first)[2]		
Egalitarian-Traditional	1.25***	1.68***
	(0.28)	(0.31)
Traditional-Egalitarian	1.32***	1.58***
	(0.31)	(0.33)
Traditional-Traditional	2.13***	2.16***
	(0.36)	(0.35)
Age youngest child[3]		
0-2 yrs. Old	2.30***	3.68***
	(0.44)	(0.57)
3-4 yrs. Old	3.69***	3.91***
	(0.46)	(0.51)
5-11 yrs. Old	4.26***	4.82***
	(0.28)	(0.35)

12-15 yrs. Old	3.44***	4.54***
	(0.25)	(0.31)
+ 15 yrs. Old	3.23***	5.02***
	(0.80)	(0.96)
Couple's work status (wife's first)[4]		
She doesn't work/He works ft	-0.60	-1.83
	(1.82)	(1.47)
She works pt/He doesn't work	-3.19*	-2.40
	(1.90)	(1.79)
She works pt/ He works ft	-2.50	-2.25
	(1.81)	(1.49)
She works ft/He doesn't work	-7.76***	-9.90***
	(1.84)	(1.78)
Both work ft	-5.49***	-5.93***
	(1.81)	(1.52)
Couple's age (wife's first)[5]		
Similar age	0.32	0.84**
	(0.29)	(0.35)
She is older	1.31**	2.12***
	(0.52)	(0.61)
Married	1.63***	2.87***
	(0.36)	(0.51)
Later relationship	-1.37***	-1.60***
	(0.31)	(0.40)
Log of household income	-0.89***	-0.83***
	(0.23)	(0.26)
Wife's share of labour income	-0.10***	-0.11***
	(0.02)	(0.02)
Wife's share of labour income (squared)	0.00***	0.00***
	(0.00)	(0.00)
Duration of relationship	0.07***	0.13***
	(0.01)	(0.02)
Husband's weekly hours of housework	-0.99***	-2.34***
	(0.02)	(0.07)

Constant	27.13*** (2.63)	93.28*** (2.63)
Wald χ^2	4995***	4643***
Number of couple-years	10410	10410
Number of copules	3786	3786
R2 overall	0.39	0.61

Robust standard errors between parentheses (clustered by pid).
*** p< .01 ** p< .05 * p< .1 (two tailed paired observations test).
Reference category:
1. No qualification-No qualification.
2. Egalitarian-Egalitarian.
3. No children.
4. Both don't work.
5. She is younger.
BHPS: 1991-2005.

Table A.2.19. Erikson and Goldthorpe's social class schema (1992): Original and collapsed versions

Collapsed social class schema	*Original social class schema*
Service class	I Service class: higher grade II Service class: lower grade
Intermediate class	IIIa Routine non-manual employees IIIb Personal service workers IVa Small entrepreneurs with employees IVb Small entrepreneurs without employees, Farmers small holders V Foreman, technicians
Working class	VI Skilled manual workers VIIa Semi/unskilled manual workers VIIb Agricultural workers

Source: Erikson, Robert and John Goldthorpe. 1992. *The constant flux: A study of class mobility in industrial societies,* Oxford, Claredon Press.

Table A.2.20. RE models for the wife's surplus and share of housework including couple's occupation (Goldthorpe schema) using the full specification of Model 4 in Tables 2.13 and 2.14 (BHPS)

Variables	*(1)* *Model: Wife's surplus*	*(2)* *Model: Wife's share*
Couple's education[1] (wife first)		
Low-Medium	-0.96	-1.11
	(0.75)	(0.77)
Low-High	-1.87**	-1.38**
	(0.73)	(0.67)
Medium-Low	-1.89***	-1.31*
	(0.69)	(0.69)
Medium-Medium	-3.18***	-3.23***
	(0.63)	(0.62)
Medium-High	-3.83***	-3.81***
	(0.62)	(0.62)
High-Low	-2.49***	-2.23***
	(0.76)	(0.79)
High-Medium	-4.71***	-4.48***
	(0.63)	(0.68)
High-High	-4.96***	-5.01***
Couple's gender values (wife's first)[2]		
Egalitarian-Traditional	1.26***	1.67***
	(0.28)	(0.31)
Traditional-Egalitarian	1.30***	1.56***
	(0.31)	(0.33)
Traditional-Traditional	2.11***	2.12***
	(0.36)	(0.35)
Age youngest child[3]		
0-2 yrs. Old	2.28***	3.64***
	(0.44)	(0.57)
3-4 yrs. Old	3.67***	3.83***
	(0.46)	(0.51)
5-11 yrs. Old	4.22***	4.75***
	(0.28)	(0.35)
12-15 yrs. Old	3.40***	4.49***
	(0.25)	(0.31)

+ 15 yrs. Old	3.12***	4.92***
	(0.81)	(0.97)
Couple's work status (wife's first)[4]		
She doesn't work/He works ft	0.24	-0.83
	(1.83)	(1.52)
She works pt/He doesn't work	-1.83	-1.56
	(1.95)	(1.93)
She works pt/ He works ft	-2.37	-2.04
	(1.83)	(1.56)
She works ft/He doesn't work	-6.21***	-8.13***
	(1.90)	(1.90)
Both work ft	-5.25***	-5.56***
	(1.83)	(1.58)
Couple's occupation (wife first)[5]		
No work-Service class	-2.00**	-2.34***
	(0.85)	(0.81)
No work-Intermidiate class	-2.21**	-3.41***
	(0.92)	(0.86)
No work-Working class	-1.92*	-2.53***
	(0.99)	(0.87)
Service class-No work	-3.52***	-5.54***
	(0.82)	(1.47)
Service class-Service class	-1.48***	-2.58***
	(0.52)	(0.64)
Service class-Intermidiate class	-1.31**	-1.64**
	(0.54)	(0.71)
Service class-Working class	-0.83	-2.14**
	(0.62)	(0.84)
Intermediate class-No work	-2.44***	-2.98**
	(0.87)	(1.36)
Intermediate class-Service class	-1.33**	-1.69***
	(0.55)	(0.63)
Intermediate class-Intermediate class	-0.91	-1.55**
	(0.58)	(0.66)
Intermediate class-Working class	-1.49**	-1.96***
	(0.60)	(0.67)

Working class-No work	-3.46***	-0.15
	(1.08)	(2.04)
Working class-Service class	0.55	-0.02
	(0.80)	(0.85)
Working class-Intermediate class	0.10	-0.16
	(0.74)	(0.78)
Working class-Working class	-0.66	-0.77
	(0.68)	(0.74)
Couple's age (wife's first)[6]		
Similar age	0.23	0.69**
	(0.29)	(0.35)
She is older	1.29**	2.10***
	(0.52)	(0.61)
Married	1.49***	2.68***
	(0.37)	(0.51)
Later relationship	-1.17***	-1.32***
	(0.32)	(0.41)
Log of household income	-0.99***	-1.04***
	(0.24)	(0.27)
Wife's share of labour income	-0.11***	-0.12***
	(0.02)	(0.02)
Wife's share of labour income (squared)	0.00***	0.00***
	(0.00)	(0.00)
Duration of relationship	0.09***	0.16***
	(0.01)	(0.02)
Husband's weekly hours of housework	-0.99***	-2.34***
	(0.02)	(0.07)
Constant	29.22***	95.92***
	(2.75)	(2.72)
Wald χ^2	5025***	4810***
Number of couple-years	10410	10410
Number of copules	3786	3786
R2 overall	0.40	0.61

Robust standard errors between parentheses (clustered by pid).
*** p< .01 ** p< .05 * p< .1 (two tailed paired observations test).
Reference category:
1. Low-Low. 2. Egalitarian-Egalitarian.
3. No children. 4. Both don't work.
5. Both don't work. 6. She is younger.
BHPS: 1991-2005.

Table A.2.21. SUR Models for the dependency of housework time and paid work time (wife and husband)

Variables	*Wife*		*Husband*	
	Weekly housework	*Weekly paid work*	*Weekly housework*	*Weekly paid work*
Husband's weekly housework	0.08***	0.03		-0.09***
	(0.02)	(0.02)		(0.02)
Wife's weekly housework		-0.18***	0.02***	-0.00
Wife's weekly paid work	-0.26***		0.01	0.09***
	(0.01)		(0.01)	(0.01)
Husband's weekly paid work	0.01	0.07***	-0.03***	
	(0.01)	(0.01)	(0.01)	
Couple's education[1] (wife first)				
Low-Medium	-0.91	0.27	0.24	-1.00*
	(0.61)	(0.51)	(0.32)	(0.56)
Low-High	-2.18***	0.63	0.48	-1.64***
	(0.63)	(0.53)	(0.33)	(0.59)
Medium-Low	-0.90	-0.54	-0.11	-0.40
	(0.61)	(0.50)	(0.32)	(0.56)
Medium-Medium	-2.55***	0.18	-0.11	-1.18**
	(0.53)	(0.44)	(0.28)	(0.49)
Medium-High	-3.55***	-0.50	-0.25	-1.42***
	(0.52)	(0.44)	(0.28)	(0.48)
High-Low	-1.55**	-0.82	-0.06	1.21*
	(0.72)	(0.60)	(0.38)	(0.67)
High-Medium	-3.41***	-1.06**	-0.64**	-1.20**
	(0.56)	(0.47)	(0.30)	(0.52)
High-High	-4.27***	-2.12***	0.00	-2.80***
	(0.51)	(0.43)	(0.27)	(0.48)
Couple's gender values (wife's first)[2]				
Egalitarian-Traditional	1.68***	0.19	-0.37**	-0.14
	(0.31)	(0.26)	(0.16)	(0.29)

Traditional-Egalitarian	1.44***	-0.67**	-0.25	-1.00***
	(0.34)	(0.28)	(0.18)	(0.31)
Traditional-Traditional	1.26***	-1.56***	-1.00***	-0.23
	(0.38)	(0.32)	(0.20)	(0.35)
Age youngest child[3]				
0-2 yrs. Old	1.03**	-2.63***	1.14***	0.42
	(0.52)	(0.43)	(0.27)	(0.48)
3-4 yrs. Old	1.19**	-4.41***	0.61**	0.96**
	(0.52)	(0.43)	(0.27)	(0.48)
5-11 yrs. Old	2.88***	-3.41***	1.05***	0.63**
	(0.30)	(0.25)	(0.16)	(0.28)
12-15 yrs. Old	3.05***	-1.75***	0.84***	0.02
	(0.29)	(0.24)	(0.15)	(0.27)
+ 15 yrs. Old	1.28	-3.33***	-0.51	-0.70
	(1.14)	(0.95)	(0.60)	(1.05)
Couple's age (wife's first)[4]				
Similar age	-0.20	-0.41**	-0.34***	0.26
	(0.23)	(0.19)	(0.12)	(0.21)
She is older	0.90**	-0.56*	-0.33	0.86**
	(0.40)	(0.33)	(0.21)	(0.37)
Married	1.21***	-0.23	-0.23	-0.33
	(0.33)	(0.27)	(0.17)	(0.30)
Later relationship	-0.96***	-0.12	0.27**	-0.04
	(0.25)	(0.21)	(0.13)	(0.23)
Log of household income	-0.71**	4.88***	-0.43***	1.30***
	(0.30)	(0.24)	(0.16)	(0.27)
Wife's share of labour income	0.01	0.96***	0.07***	0.01
	(0.03)	(0.02)	(0.02)	(0.03)
Wife's share of labour income (squared)	-0.00	-0.01***	-0.00	-0.00***
	(0.00)	(0.00)	(0.00)	(0.00)
Duration of relationship	0.08***	-0.03***	0.00	-0.02*
	(0.01)	(0.01)	(0.01)	(0.01)
Constant	26.94***	-29.12***	8.09***	30.73***
	(2.46)	(2.04)	(1.31)	(2.28)
Observations	6547	6547	6547	6547

R-squared	0.20	0.56	0.05	0.06
Correlation matrix of the residuals housework and paid work equations		0.11		0.02
Breusch-Pagan Test of independence: chi2(1)		81.47 (0.00)		4.19 (0.05)

Robust standard errors between parentheses (clustered by pid).
*** p< .01 ** p< .05 * p< .1 (two tailed paired observations test).
Reference category:
1. Low-Low.
2. Egalitarian-Egalitarian.
3. No children.
4. She is younger.
BHPS: 1991-2005.

CHAPTER 3. COUPLED GENDER VALUES: AN ANALYSIS OF THE ROLE OF EDUCATION AND RECIPROCAL INFLUENCES OVER MARRIAGE

3.1. Introduction

Social scientists have long been interested in the influence of values and attitudes on behaviour.[1] Since the beginning researchers have been especially concerned with clarifying the causal relationship between the two, even though it still remains as an open issue in contemporary social sciences (Liska *et al.* 1984). Electoral behaviour research is perhaps one of the areas in which attitudes have most proved their saliency in explaining how individuals cast their ballots. Since the 1960's when the School of Michigan first focused on party identification and ideology as the main dimensions in people's electoral choices (Campbell *et al.* 1960), these two elements have occupied a central place in the

[1] Although in this chapter the concepts of values and attitudes are used as synonymous, in the sociological research devoted to the study of values they are not regarded exactly as the same phenomenon. Thus, according to a classical definition "while values are generalized conceptions that uphold standards for social action; attitudes are an organization of several beliefs around a specific object or situation that reflect multiple, often changing, opinions". Rokeach, Milton. 1973. *The nature of human values*: New York: Free Press; London: Collier-Macmillan., p. 18.

research agenda of political science. Within sociology, values and attitudes have also been considered to be key aspects for understanding and explaining a wide array of behavioural choices from microsociological approaches centred on the effect of the values of individuals in different decisions concerning family formation and living arrangements (Baizan, Aassve and Billari 2003) to more macrosociological ones devoted to cross-country comparisons of the value differences between societies (Inglehart 1997; Kalmijn and Kraaykamp 2007).

Consensus among researchers underscores that attitudes are to a large extent influenced by the primary relationships in which individuals are engaged. Among these, the intergenerational link of influence between parents and children has been the main focus of attention (Cunningham 2001; Jennings and Niemi 1981). The influences exerted by and between other family members have been less frequently considered and when this has been the case, it was mostly restricted to political attitudes (Brynin 2000; Zuckerman 2005). These studies show that between spouses there is a high level of accordance in their political values and voting decisions (Stoker and Jennings 2005; Zuckerman, Fitzgerald and Dasovic 2005). This phenomenon has been labelled 'political homogamy' (Lampard 1997). Interestingly, such similarity within the couple seems to be reinforced over the duration of the relationship, which suggests that there is a process of adaptation between partners' political attitudes over the time they live together (Kan and Heath 2006; Zuckerman, Dasovic and Fitzgerald 2007). Furthermore, closeness between partners in their attitudes is associated with higher marital quality since it brings more stability to the relationship and prevents psychological stress in the couple (Brynin, Longhi and Martínez 2009).

Studying gender and family values is important since they are fundamental to the family and the nature of the relationships established between its members: Indeed, as feminist theorists argue gender is a role that deploys its effects in everyday interactions, especially within the family (West and Zimmerman 1987). Most of the domestic and care activities in the household

are not gender neutral. How they are shared between the spouses help explain the different life chances of men and women in society. This is not to say that all social interactions that take place in the family are gendered, and, most important, not all of them underwrite inequality, as recent feminists contributions have stressed (Deutsch 2007). Thus, the study of how partners influence each other gender and family values and how these evolve over marriage can improve our understanding of the changing nature of inequality and power relationships within the family.

In family sociology some previous studies have shown that family and life course transitions affect attitudes (Amato and Booth 1995; Myers and Booth 2002; Tallichet and Willits 1986; Waite, Goldscheider and Witsberger 1986) while the latter in turn influence different family outcomes and decisions (see, for instance, chapter two of this dissertation). However, most of these authors do not consider the role of the partner's attitudes in influencing those of the spouse nor do they analyze whether this influence is mediated by specific family or couple characteristics. Kalmijn (2005) specifically focuses on the individual level to analyze the role of partners' reciprocal influence in order to explain why couples share similar gender and family values. In contrast, Iversen and Rosenbluth (2005) argue from a political economy perspective that individuals hold certain gender and family values as a reflection of different modes of production, which influence the distribution of power between men and women.

This chapter will draw on Kalmijn's explanation of attitude alignment within the couple. The aim is to consider how gender inequalities in the roles deployed by the spouses over marriage in paid and unpaid labour affect their capacity to influence each other gender and family values. It also extends Kalmmijn's contribution by studying the role of education, particularly of educational homogamy, in explaining the resemblance between the values of the spouses at the onset of the relationship as well as its evolution over time.

Specifically, regarding reciprocal influences between the spouses the chapter seeks to answer whether couples share more similar gender and family values as a result of direct influences between the spouses and whether the different roles they perform at home explain an unequal capacity to exert such influence. One hypothesis might therefore be that couples have similar gender and family values as a result of reciprocal influences between the spouses. In this case, the influence stems directly from each partner's attitudes to those of her or his spouse (*Reciprocity: Direct Influence Hypothesis*). There may, however, be a conditional influence on each other spouse's values of those particular family circumstances which are regarded as important by the spouses for the functioning and wellbeing of the relationship such as the presence of children, the share between paid and unpaid responsibilities or others more related with the nature of the relationship such as the type of union or the duration of the relationship (*Reciprocity: Role Saliency Hypothesis*). The idea behind this is that the capacity that each partner has to influence the gender values of the other varies according to extent that their family and couple arrangements are related with the different roles each partner plays within the family.

The chapter also has two hypotheses concerning the extent and impact of homogamy. It considers whether couple's similarity in their gender attitudes stems from the well known positive assortative mating process by which partners select each other with similar characteristics, especially educational credentials. Homogamy research has become one of the most relevant topics in family sociology. It helps understand how couples' life chances and social inequalities are influenced by the dynamics of family formation (Bernasco 1994; Blossfeld and Drobnic 2001). Nevertheless, much less is known about the effects of this positive assortative mating on the internal functioning of the relationship. This chapter seeks to asses whether homogamy helps explain a higher resemblance between the gender and family values of the spouses at the onset of the relationship and whether it makes it more likely that they will come to share more similar values over

time. Thus, the two hypotheses associated with educational homogamy are that couples marrying homogamously share, on average, more similar views than those with different levels of education at the time of coupledom (*Homogamy: Direct Influence Hypothesis*). On the other hand, educational homogamy can facilitate further adjustments between partners' gender values over marriage. This may be result of a more similar evolution of their gender values during the relationship as compared to heterogamous couples or of a better capacity to solve their discrepancies in family matters over time (*Homogamy: Adjusting Capacity Hypothesis*).

Substantively, it is worth mentioning that the role of reciprocal influences and of education in the process of attitude alignment relates to two different types of inequalities that are relevant to this dissertation: on the one hand, gender differences in the family roles that affect the capacity of partners to influence each other in their gender attitudes (differences *within* households), and on the other, differences between couples by education which may translate into different opportunities for the couples to adjust while they live together (differences *between* households).

To test the hypotheses that stem from the reciprocal influences between partners I use a modified version of Kalmijn's methodological approach known as cross-lagged model (Finkel 1995). This specification allows me to evaluate the true effect of each partner's attitudes while controlling for the respondent's prior attitudes. Further, for the study of the conditional effects of the family and couple characteristics the use of longitudinal data will help control for the problem of contemporaneous endogeneity between the main covariates of interest and the outcome variable (Schuman and Johnson 1976).[2] This point is important since I deal

[2] A long-standing issue in the research on values is whether there exists a true causal relationship between them and the observed behaviour or whether such relationship may well also go in the other direction from behaviour to values. Results are inconclusive as highlighted by Spates (1983) and Schuman and Johnson (1976). The problem is partially explained due to the limitations of the data available

with attitudes which are closely related with key aspects of family life and the couple relationship. Finally, in the study of the effect of assortative mating the only important methodological issue is to ensure that education is a good indicator of homogamy. For this I have selected a sample of couples who should have almost certainly completed their education (25 to 55 years old).[3]

For the empirical section this chapter uses a couple dataset drawn from the British Household Panel Survey. The reconstruction of the marital histories of the couples interviewed enriches the data with a fundamental variable for testing the hypotheses which is the duration of the relationship.

The chapter is organized as follows: section two discusses the main theoretical contributions to the relevant topics and presents the research questions and hypotheses. Section three explains the data and the methodological approaches used in the empirical analysis. The results are presented and discussed in section four. The chapter ends with the conclusions.

3.2. Theoretical framework, research questions and hypotheses

Unraveling the individual and social forces by which spouses share similar family and gender values is of paramount importance for a comprehensive account of the observed inequalities between partners that are related with the interplay between the work and the family spheres. It also allows for a better understanding of the

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and the empirical techniques used to control for the potential sources of endogeneity. Recognizing that this is an important issue to be considered, the longitudinal data used in this chapter allows, at least, avoiding contemporaneous relationships between the main covariates and the outcome variable by measuring the behavioural variables (here the covariates) before the attitudinal variable (here the outcome variable).

[3] For a more detailed discussion on sample selection and its effects on couple's education see the data section on the introductory chapter of the dissertation.

social dynamics that underline the unequal accumulation of resources across households, particularly in terms of the education attainment of the couple. The theoretical perspective of this chapter integrates previous contributions to the sociological research on values, with a special focus on those related with gender and family matters, with a life course perspective in which partners' similarity in family and gender values stem from the reciprocal influences between partners and the role of assortative mating over marriage.

3.2.1. The state of the art in the sociological research on values: The case of gender values

Although some references to the role of values in society already appear in the seminal works of the founding fathers of modern sociology back in the 19th century (Marx, Durkheim and Weber), it is not until the publication of Parson's contributions, especially his *The Structure of Social Action* (1968[1937]), that values were recognised as a major field of study in contemporary sociology.[4] In this work the author defined values as those moral beliefs to which people appealed for the ultimate rationales of action. In Parsons' view values are cultural elements that influence human choice. With Parsons, values became the instigators of the behaviour of individuals. However, being cultural elements means that they are not directly observable. The assumption, thus, is that they can only be inferred once the particular behaviour has been realized. In empirical terms here lies the reason why the causal relationship between values and behaviour is so contentious.

The key contribution of Parsons and those who followed his functionalistic approach was to place values inside the social structure. However what was once one of the strengths of this

[4] For a detailed historical account of the evolution of the concept of values in modern sociology see: Spates, James L. 1983. "The Sociology of Values." *Annual Review of Sociology* 9: 27-49.

theoretical approach became soon one of its main weaknesses: with the institutionalization of values in society regarded as too stable and hardly able to change and adapt in response to the evolution of the society. In this sense, Parsons later realized that this rigid definition that stems from a certain 'cultural determinism' of his theory could not easily explain social evolution. His solution then was to distinguish between values and norms. While the former were abstract concepts that simply provided a referent for thought and action, the latter were the means to achieve those social goals defined by the value system.

The functionalist idea that sees values as embedded in the social structure is a key element for the case of family and gender values where the extent to which each partner is able to influence the other's attitudes may well reflect their unequal positions and roles in the interplay between the family and work spheres. Indeed, inside the family most of the relations that individuals establish are to some extent related with the notion of gender. Gender remains one of the main foundations of the observed inequalities in society (Blau 2006; Grusky 2008). The interest that social scientists have shown in the study of family and couple relationships has to do with the observed mismatch between the changing role of women in work and education and the difficulties of translating this into a parallel switch in gender roles within the family.

As early as in the 60s and 70s some analysts discussed how family forms were reflecting the new role of women in the public domain. For instance, Olsen (1960) refers to the change from a 'traditional family type' characterized by little sharing of home responsibilities to the 'companionship form' where the relationship between the spouses both in home sharing and decision making is much more egalitarian. For this author, the key element is the change in the distribution of responsibility within the family as a consequence of broader social changes (p. 65). Interestingly, for Olsen, it is not the functioning of the family that explains the switch towards a more egalitarian family type but

women's changing position in the labour market that explains their new role in the family.

Most scholars, however, continued seeing the change in family relationships as a lagged response to the speed of changes in other domains. Thus, Goode's *World Revolution and Family Patterns* (1963) and *The Family* (1964), explicitly recognized the family as an agent of social stratification which extends its influences to the ideological and normative dimensions, that is, those related to the different gender roles deployed by wives and husbands, and sons and daughters. These are the main social positions through which personal interactions among family members are realized. They are also the ones that place the family as a key institution inside the social stratification system of the society.

More explicitly, Haller defines social stratification within the family as the outcome of the interaction processes that takes places in the intimate relationships within the family, namely parent-child and husband-wife relationships. It is in this context that the author sees the marital relationship as productive of inequalities. Interestingly, Haller stresses that within the family there are two forces which operate in different directions regarding more equal gender relationships: on the one hand, positive assortative mating should weaken the differences between partners (increasing those between households) because it implies that individuals select spouses with the same level of education, but also with similar values and attitudes (p. 776); on the other hand, the pervasive gender divide which remains as a key dimension behind the distribution of resources in the couple as well as the position of the spouses in the household.[5] In the case of gender

[5] There are two important issues here that will be considered in the empirical section for the case of gender values. On one hand, the suggestion that homogamy reduce inequalities between spouses may not operate at all levels of the educational gradient. Thus, while it may be true that homogamous couple with high levels of education form more egalitarian relationships the same does not necessarily apply for homogamous couples with lower levels of education. On the other hand, as suggested by Haller, for the case of these highly educated couples, the

and family values, as I argued in the introduction, it is precisely the distinctive roles of partners in the household which may explain their different capacity to influence each other's values. *Role saliency* is thus a key element in understanding whether differences can be observed in the process of reciprocal influences and attitude similarity between partners.

In the classical contribution by West and Zimmerman (1987), gender is regarded as an achieved status which is constructed through psychological, cultural, and social means. This characterization makes of gender "rather than a property of individuals, an emergent feature of social situations: both as an outcome of and a rationale for various social arrangements and as a means of legitimating one of the most fundamental divisions of society" (p.126). For the authors gender is deployed through the interactions in which individuals are involved in everyday activities in a way that "doing gender means creating differences between girls and boys and women and men, differences that are not natural, essential, or biological" (p. 137).

In terms of the salience of gender for the explanation of inequalities, Anthias (2001) argues that its symbolic content helps explain those material inequalities related with the distribution of resources that affect the living conditions and chances of individuals. The social leverage of the concept is also amplified because identity on the basis of gender is subject to change and adaptation over time. The new role of women has had a parallel effect in their expectations and self-definition as women. Hence, although some differences between women and men are still systematically found, these appear to be less determinant now in shaping their future opportunities than in the past (Adler, Kless and Adler 1992; Beutel and Marini 1995). Hakim's work (Hakim 1996; Hakim 2000), for instance, distinguishes three female preference types related to their roles in the labour market and home spheres: home-centred woman and labour market-centred

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extent to which the enactment of gender inside the relationship offsets the positive effects of education requires empirical assessment.

woman, as the two polar types and the dual-role woman that comprises those women who insist on combining family and career. Very importantly, change in gender identity, although to a lesser extent and still in an incomplete fashion, has also occurred among men. Nowadays, we observe a 'feminization' of their preferences and life profiles, which has translated into a greater involvement in family and childcare activities (Esping-Andersen 2002). This dual change has indeed slightly altered one of the classical dimensions of stratification on the basis of gender, the one related with the role of women in the caring and rearing activities of the children (Scharf 1977). It should not surprise, then, that with the convergence in women's and men's life trajectories there will be a weakening of gender inequalities and an increased similarity in their values and attitudes towards gender and family matters. Women's and men's more similar societal roles may well have a parallel effect in more similar roles and values within the family.

For instance, in a series of collaborative works on the topic, the demographer D. F. Alwin, comparing the process of gender attitude change in a cross-country approach that covers both Western as well as Eastern countries (Alwin, Braun and Scott 1992; Braun, Scott and Alwin 1994; Scott, Alwin and Braun 1996), adresses the specific conditions under which women and men approve of non-familial roles for women. The author argues that change in gender values is in part due to, and in part a stimulus of, the rise in the labour force participation of women. Specifically, gender, labour-force experience, schooling, and birth cohort are associated with positive attitudes towards female employment. However, some methodological issues limit the scope of these findings since the data used do not allow the separation of the effect of family from broader social factors associated with change in gender values.

In another article Alwin and others provide a family-based explanation to account for change in gender and family attitudes

(Arland, Alwin and Camburn 1983).[6] Using an 18-year household panel they identify a trend towards more egalitarian conceptions in women's roles through the mid 1970s and the 1980. The determinants, as in the aforementioned research are age, labour force experience and educational attainment, while church attendance and religiosity preserve more traditional views.[7] The results confirm that young people are approaching adulthood with very different values towards family and gender from their parents, being on average more egalitarian.

This chapter seeks to contribute to the debate on the influence of the family in the attitudes of its members by investigating the role of the couple relationship. While intergenerational transmission processes, from occupation and educational attainment to political attitudes, have attracted considerable research, the couple has been much less studied, especially regarding the transmission of gender and family values between the spouses. At the methodological level, the chapter assumes that one of the open issues in the study of values is their complex causal relationship with behaviour. In the case of gender and family values, research has highlighted the potential risks of endogeneity and reverse causality that might arise from 'cognitive dissonance' (Cooper 2007) by which people adapt their values to

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[6] The authors find reciprocal causality between female labour force participation and egalitarian attitudes while there is no confirmation of a similar recursive effect with other indicators of social change such as fertility, religiosity, education, or marital stability.

[7] Interestingly, the authors also find that mothers' gender attitudes are more important than fathers' in shaping those of the children. In the same vein, intergenerational transmission of gender attitudes from mothers to daughters is also the topic of Moen's *et al*. article. In this case, gender role ideology (as they call it) of daughters in 1988 is positively related with their mothers' gender role ideology of 1950. However, daughters' own status matters most in predicting their work role identity (see: Moen, Phyllis, Mary Ann Erickson, and Donna Dempster-McClain. 1997. "Their Mother's Daughters? The Intergenerational Transmission of Gender Attitudes in a World of Changing Roles." *Journal of Marriage and the Family* 59: 281-293.)

their particular family and demographic characteristics.[8] In this sense, the research strategy of the chapter seeks to control for these problems, especially the one of contemporaneous endogeneity between the outcome variable and those family and demographic characteristics which may facilitate the influence of each spouse on the partner's values.

In short, this section has addressed the relevance of the study of values in sociological research. It has placed them inside the social structure, reflecting the social stratification processes and the main lines of social division and inequalities in society. Particularly, this theoretical section has concentrated on the gender divide and the values that are inherent to the family and the couple relationship. This theoretical framework will be used in the section below in which I discuss the mechanisms that may explain why couples share similar values towards gender and family and how they evolve over the course of marriage.

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[8] Reverse causality in the case of gender values was already suggested in an early article by Schaninger and Buss in 1986 where certain demographic and family characteristics of the spouses appear to be related with what they define as "modern sex role norms", particularly education, occupational status, income and whether or not is childless couple. See: Schaninger, Charles M., and Christian Buss. 1986. "The Relationship of Sex-Role Norms to Couple and Parental Demographics." *Sex Roles* 15: 77-94. More recently, Cassidy and Warren, comparing women and men in different employment statuses, found that full-time employed women are the most supportive of non-traditional gender roles, followed by part-time employed women. Interestingly, the attitudes of homemakers are more similar to those of men. Finally, on the side of men, few significant differences exist when comparing the men with full-time employed wives, those with part-time employed wives, and men married to homemakers. See: Cassidy, Margaret L., and Bruce O. Warren. 1996. "Family Employment Status and Gender Role Attitudes: A Comparison of Women and Men College Graduates." *Gender and Society* 10: 312-329.

3.2.2. Coupled gender values between the spouses: The role of homogamy and reciprocal influences over marriage

Based on the above discussion this chapter aims to answer the following research questions:

> Do partners become more similar in their gender and family values as a result of the direct influence of each other's values over time?
>
> Are the different roles played by each partner in the household a relevant factor to explain gender differences in the capacity to exert such influence?
>
> Is educational homogamy associated with more similar gender values at the onset of the relationship?
>
> Does educational homogamy facilitate further adjustments between partners' values over marriage?

Despite the interest in studying the determinants of gender and family values and their change over time, the role of reciprocal influences within the couple has not yet been the focus of systematic research. This is surprising given that education is a strong predictor of values and that educational matching of couples may result, in turn, in partners sharing a wide array of values and attitudes (Kalmijn and Kraaykamp 2007). As one exception, Kalmijn's (2005) argues in favour of studying the alignment of partners in gender attitudes because they have a direct bearing on the internal functioning of the relationship, rather than on studying attitudes that are unrelated to the relationship. As he says: "disagreements on sex-role attitudes may lead to day-to-day conflicts about the division of labour in the household and the couple's participation in the labour market. Sex-role attitudes are therefore important for the stability of the marriage and this is especially true for recently married couples" (p. 522). Kalmijn

focuses on the egalitarian alignment of the spouses in their gender and family values arguing that social change is in favour of more egalitarian relationships within the family. Specifically, the goal is to study change in sex-role attitudes in couples and whether such change goes in the direction of an increasing similarity between partners over time (in a short period of four years). Results partially confirm that couples become more alike in their gender attitudes over the time span of the panel and that this alignment is stronger in respect of attitudes that have consequences for the internal functioning of the relationship (relational relevance). This resemblance depends on contextual factors. Kalmijn finds that the process of alignment between the gender values of the spouses towards an egalitarian direction is more intense in dual-earner couples where a traditional division of housework is problematic. Interestingly, contrary to the case of political values where symmetry between partners or male dominance is suggested, Kalmijn finds that husbands change more often in the direction of the wife than vice versa. This result seems to suggest that the different roles performed by each partner in their private lives is reflected in their capacity to shape the values of the other.

My contribution takes a different strategy more focused on the internal dynamics of the couple relationship and on its evolution over time in order to explain the partners' alignment in gender values. The descriptive evidence shown in the next section demonstrates that partners tend to become more traditional in their gender and family values over marriage. Building upon this evidence the chapter analyzes the different mechanisms that explain why partners may share similar gender and family values: reciprocal influences between the spouses and the role of the family and couple context which create pressure towards increasing convergence over time. Finally, it adds to previous research the role of educational homogamy both at the time of partnering and over the course of the relationship as driving forces behind couple's alignment in their gender and family values.

Research within sociology and other social sciences that has regarded the couple as the unit of analysis suggests that the family

can be a means of accumulating social advantage if like attracts like on the basis of, say, wealth, education, or earnings (Bernardi 1999b; Bernasco 1994; Blossfeld and Drobnic 2001; Ultee, Dessens and Jansen 1988). These theoretical insights stress that the observed tendency for couples to have similar labour market trajectories implies an accumulation of inequalities across households and families which, in turn, should translate into greater social divisions, especially given the increasing number of dual earner couples (Verbakel and de Graaf 2008).

In general, this research highlights three possible causal mechanisms as to why spouses may have similar labour market careers: a shared restriction mechanism, one related with the process of partner selection, and, finally, direct influence between partners (Henkens, Kraaykamp and Siegers 1993). These can be applied to explain the resemblance between the gender values of the spouses. Contrary to economic theories based on the New Home Economics of the specialization model (Becker 1991[1981]), which argue in favour of a negative relationship between the labour market outcomes of the spouses (with one spouse specializing in the labour market and the other in home production), the sociological account characterizes the linkage between the labour market trajectories of the spouses as a positive (or convergent) one (Bernardi 1999a; Bernasco 1994; Bernasco, Graaf and Ultee 1998). This means that the labour market outcomes of the spouses follow the same path: a successful job career of one partner makes the career of the other more successful too, and *vice versa*.[9] This positive effect is based on the effect of

[9] This positive association has also been shown between each partner's education and the other's success at work (see: Brynin, Malcolm, and Jürgen Schupp. 2000. "Education, Employment, and Gender Inequality amongst Couples. A comparative Analysis of Britain and Germany." *European Sociological Review* 16: 349-365; Brynin, Malcolm, and Marco Francesconi. 2004. "The Material Returns to Partnership: The Effects of Educational Matching on Labour Market Outcomes and Gender Inequality." *European Sociological Review* 20: 363-377.)

cultural and social capital accumulation within the couple (Bourdieu 1986; Coleman 1988; Coleman 1990) but also in shared personal networks (Granovetter 1983; Granovetter 1995[1974]).

Closeness in the gender values of the spouses may then be the result of *reciprocal influences* between partners. The explanation of spillover effects within the couple is related to insights gathered from research on social networks. This research has shown that the characteristics of an individual are not only relevant for oneself but also to those in the social network through the regular contacts (Coleman 1988; 1990). Couples are in this sense simply small networks. Since couple relationships are characterized by high frequency of contacts it is expected that these daily interactions help shaping each other values. I argue that reciprocal influences should make partners share similar gender and family values. Therefore the hypothesis concerning the direct effect of reciprocal influences between the spouses reads as follows:

DIRECT INFLUENCE HYPOTHESIS: Partners become more similar in their gender and family values through their reciprocal influence on each other values.

This spillover effect within the couple may also be conditional upon the specific effect on each partner of the particular family characteristics and arrangements and how they react to them through the different roles assumed. This is traditionally defined in research on couples as *shared restrictions*. In the context of gender values these would be those family circumstances that could affect partners' attitudes over the life cycle of the family such as the birth of a child, the share of the domestic chores, but also the labour market statuses of the partners which could influence values both for their negative effect on time but also for their positive effect on the self-realization of the partners and on their income.

On the basis of these shared restrictions I explore whether a conditional effect exists on the reciprocal influence of the spouses on each others values when family constraints are not evenly

distributed and the spouses deploy different roles within the family. Concretely, I argue that the capacity that each partner has to influence the gender and family values of the other varies according to the role saliency of the spouses in the family. Therefore, the *role saliency hypothesis* regarding the existence of gender differences in the reciprocal influences between partners reads as follows.

ROLE SALIENCY HYPOTHESIS: The capacity of each spouse to influence the other's values varies according to their different roles at home.

Although reciprocal influences have been also explored in the study of the labour market careers of the spouses, their relevance have been especially highlighted in research that addresses spousal similarity in voting. The reciprocal influence of the spouses through their daily contacts and discussions fosters the adaptation and similarity in partners' political attitudes (Brynin 2000). Some authors have argued that this political homogamy could have positive consequences for the relationship itself since it hinders the likelihood of marital conflict around politics (Lampard 1997).

As in the research devoted to the labour market performance of couples, here the interest has been also in establishing whether such influence is mutual, with each partner contributing to the other's political inclinations, or one-sided, with one partner having most of the influence. The reason given for the latter is similar to the *role saliency* argument: since men have greater interest in politics than women, they are the ones who may exert much of the influence in the couple. For instance, Stoker and Jennings using a long panel for the USA conclude that husbands influence their wives more than the other way around, a process that is strengthened during the relationship (2005). The same conclusion of the positive effect of duration on partners' political alignment is confirmed for the UK and Germany (Zuckerman, Fitzgerald and Dasovic 2005), but these authors do not find support for a stronger effect of husbands on their wives: "[c]ontrary to what some would

suppose, the male partner - usually the more interested in politics- does not dominate his partner's partisan preferences and choices. Rather, spouses who are bounded partisans maintain each other" (Zuckerman, Dasovic and Fitzgerald 2007: p. 72-73). Similar findings of a symmetrical influence between partners' political attitudes is shown further for the UK (Kan and Heath 2006).

Finally, the *selection mechanism* in the research on couple's influences refers to the well known positive assortative mating phenomenon by which partners select each other on the basis of a number of characteristics (Kalmijn 1994; and 1998). Nowadays, the most important criteria when choosing a partner seems to be education (Blossfeld and Timm 2003; Schwartz and Mare 2005), whose relevance has intensified in recent years with the increasing educational attainment of women which, in turn, has converted educational institutions into unintended settings for mating and partnering (Kalmijn and Flap 2001; Schofer and Meyer 2005). Educational homogamy can affect spousal similarity in gender values in two ways. It might bring together those who already share similar values and attitudes at the time of partnering as a by-product of having the same educational background and sharing a similar social context. Undoubtedly, this initial similarity is an important pre-requisite for dating and coupledom. Yet, it might facilitate further adjustments in partners' values as time elapses because it is easier for homogamous couples, as compared to heterogamous ones, to agree and solve conflicts around family and couple matters. In addition, their values might also become closer over time than those partners with different levels of education. Therefore, the two hypotheses concerning the influence of homogamy on couple's resemblance in gender values read as follows:

DIRECT INFLUENCE HYPOTHESIS: Homogamous couples share more similar gender values than those with different levels of education at the time of partnering.

ADJUSTING CAPACITY HYPOTHESIS Educational homogamy facilities further adjustments in partners' gender and family values as compared with those heterogamous couples.

In short, in this section I have discussed the main arguments in favour of the alignment between the gender values of the spouses based on reciprocal (direct or conditional) influences between partners and on the role of educational homogamy either at the time or partnership or over marriage. The hypotheses drawn will be tested in the empirical analyses below.

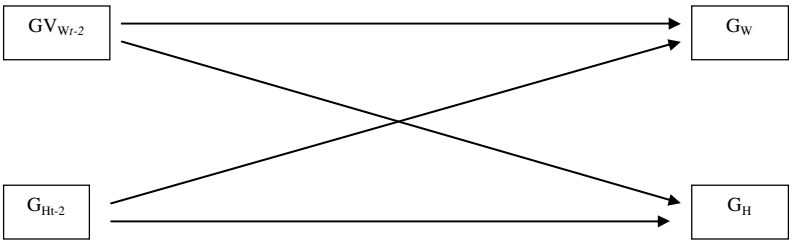
3.3. Data, methods, and variables

The data used in the analyses presented in the next section is a couple dataset drawn from the waves 1991-2005 of the BHPS. The main characteristics of this derived dataset as well as the criteria followed in the sample selection have been explained in detail in the introductory chapter of the dissertation. In what follows I discuss the features of the methods used. Finally, this section ends with the presentation of the variables introduced in the analysis.

3.3.1. Regression methods: Cross-lagged model in a system of simultaneous equations and a linear regression model

The first two hypotheses concern reciprocal influences between partners. To test for these a cross-lagged model of the type discussed by Finkel (1995) is used. This model has wide applicability in panel analysis to study possible spillover effects between two dependent variables of interests. Since the battery of questions used to construct each partner's gender and family values is asked every two years the lags are measured at *t-2*. The nature of the cross-lagged model is shown in diagram form in Figure 3.1:

Figure 3.1. Couple's reciprocal effects using a cross-lagged specification



The key element of a cross-lagged specification is that partners' gender values at time *t* (GV_W and GV_H, for wives and husbands respectively) are modeled as a function of their own previous values and the previous values of each partner as well as other variables that can be measured either contemporaneously to the dependent variable or with time lags in order to control for the risk of contemporaneous endogeneity. As Finkel says there may be substantive reasons to believe that in the analysis of spillover effects in political, social or psychological attitudes, own prior orientations exert causal effect on either current outlooks. Therefore, whenever possible it is necessary to control for the stability element of these orientations by introducing the lag of the dependent variable. Models of this sort have been previously applied to study reciprocal effects between partners in stress and strain (Larson and Almeida 1999), life satisfaction (Powdthavee 2007), or attitudes alignment (Kalmijn 2005).

Both equations for wives and husbands are estimated using a system of simultaneous equations known as Seemingly Unrelated Regressions (SUR) (Zellner 1962). A SUR is the suitable technique for analyzing spillover effects between partners since it allows for the errors of the two equations to be correlated. In this case the correlation arises out of the inclusion of partners' cross-lagged variables. Formally:

$$G_{wt} = b_0 + b_1 G_{ht-2} + b_2 G_{wt-2} + b_3 X_{wht-1} + e_w \quad (1)$$

$$G_{ht} = b_0 + b_1 G_{wt-2} + b_2 G_{ht-2} + b_3 X_{wht-1} + e_h \quad (2)$$

where:

$$Cov(e_w, e_h) \neq 0 \quad (3)$$

where *G* are the gender values indexes and the subscripts refer to the moment in which they are measured (*t* and *t-2*), and to whether these apply to the wife (*w*) or the husband (*h*). Thus, this model regresses each partner's attitudes at time *t* on *t-2* attitudes of the partner while controlling for one's own attitude at *t-2*. If the effect of partner's attitude (b_1) is positive, the spouse is changing his or her attitudes in the direction of the partner, which can be considered as evidence of attitude similarity as a consequence of couple's mutual effects. Finally, b_3 is a vector of covariates to study the conditional effect of each spouse's attitudes on those of the partner upon specific individual or family and couple characteristics (for instance, partners' education, work status or children). This is done in separate models in which each spouse's attitudes are regressed on the interaction between the partner's own values and this vector of covariates.[10]

$$G_{wt} = b_0 + b_1 G_{ht-2} + b_2 G_{wt-2} + b_3 G_{ht-2} * X_{wht-1} + e_w \quad (4)$$

$$G_{ht} = b_0 + b_1 G_{wt-2} + b_2 G_{ht-2} + b_3 G_{wt-2} * X_{wht-1} + e_h \quad (5)$$

As I have just mentioned here and in the theoretical section research on values' transmission and influences between family members highlights the risk of endogeneity. This issue is basically due to a classical problem of reverse causation between the

[10] These variables are measured with first order lags in order to reduce the risk of endogeneity with the outcome variables. The only exception is with education which, for the reasons mentioned in the introductory chapter of the dissertation is assumed not to change after marriage as well as respondent's and partner's age.

outcome variable under study and some of the covariates of interest. In order to limit this risk the standard approach is to introduce first order lags of the relevant variables. Cross-lagged models like the ones used in the chapter are therefore useful for testing the relative weight of each partner's reciprocal influences. Specifically, as the equation for each spouse's values has the same information (but reversed) it is possible to compare the coefficients across them with precision and measure whether gender differences exist in the capacity of the spouses to influence each other values.

To address the issue of potential endogeneity between some of the covariates and the gender values of the spouses the standard strategy would have been an IV approach (Wooldridge 2002). However, there are several variables whose relationships with the outcome variables may be potentially endogenous, and this makes it very difficult to find suitable instruments for each of the endogenous variables. The key characteristic of the instruments is that they must be correlated with the endogenous variables but not with the error term of the equation, that is, they should not affect directly the gender values of the spouses. For this reason, I have instead included time lags of the potential endogenous variables. As this does not solve the problem but just tries to control for it, any relationships found should be interpreted as associations rather than causal. This is the case, at least, for the working status of the couple, the division of housework or children.

The second pair of hypotheses concerns homogamy rather than reciprocal influence on how partners align their gender values over time. To test for this, the analysis includes a variable to denote similarity of education as well as a measure of the duration of the relationship, which are combined in an interaction term. Couple's education includes three different levels of educational homogamy at low, medium and high education. The reference category chosen for comparison are those couples in which the wife has got low education while the husbands is highly educated, that is, one of the combinations denoting more dissimilar levels of education of the spouses. Duration includes all couples from the

second year of relationship onwards.[11] First a model without the interactions is used to show the effect of each variable separately. It is expected that educational homogamy and marital duration should both increase couple's similarity in gender values. Then the interaction between these two variables is regressed on the absolute difference between the wife's and the husband's traditional gender values. A negative coefficient for the homogamous couples of the interaction term would imply that there is a tendency for them to become more similar in their gender values over time as compared to heterogamous couples. Given the interval-level nature of the dependent variable a standard OLS method with the clustering option for the repeated observations for each couple is used in the estimation. Specifically:

$$GI_{|w-h|} = b_0 + b_1 EDUC_{w,h} + b_2 DURAT + b_k x_k + u \quad (6)$$

$$GI_{|w-h|} = b_0 + b_1 EDUC_{w,h} + b_2 DURAT + b_3 EDUC_{w,h} * DURAT + b_k x_k + u \quad (7)$$

Table 3.1 shows the summary statistics of the dependent variables used in the multivariate analyses below.

[11] Newlyweds are analyzed separately to distinguish between the direct effect of positive assortative mating at the time of partnership from its effect over marriage, as it was discussed in the theoretical section of the chapter.

Table 3.1. Description of the dependent variables used in the multivariate analysis

Dependent variable	N	Mean	Min	Max
Wife's index of traditional gender values	16,964	2.78 (0.62)	1	5
Husband's index of traditional gender values	16,964	2.87 (0.60)	1	5
Dissimilarity index of the traditional gender values of the spouses	16,964	0.52 (0.42)	0	3.2

Standard deviation between parentheses.
Source: BHPS: 1991-2005.

3.3.2. Variables

In this chapter the three dependent variables used are *wives' and husbands' gender values* and the *absolute difference* between these two variables. The values variables for each spouse are summary indices of the six statements below gathering opinions about the appropriate role of men and women in the family and the labour market in a 5-points Likert scale format. These statements are included in the BHPS every two waves. Where appropriate the statements were reversed so that higher scores in the indices imply more traditional attitudes towards family and gender relationships. The Cronbach's alpha measuring the reliability of the indices is 0.71 for wives and 0.69 for husbands. These are comparable to earlier studies and 0.70 is considered the standard level for an aggregate index of this sort to be a good indicator of the underlying dimension (Amato and Booth 1995; Kalmijn 2005).[12]

[12] In the original statements the level of agreement ranges from strongly agree, agree, neither agree nor disagree, and strongly disagree. The item-test correlation between the individual items and the summary indices varies between 0.54 and 0.78 for wives and between 0.50 and 0.77 for husbands.

Do you personally agree or disagree…

All in all, family life suffers when the woman has a full time job.

A woman and her family would all be happier if she goes out work.

Both the husband and the wife should contribute to the household income.

Having a full-time job is the best way for a woman to be an independent person.

A husband's job is to earn money; a wife's is to look after the home and family.

Children need a father to be as closely involved in their upbringing as the mother.

For the analysis of reciprocal influences between partners the explanatory variables included in the multivariate analysis are:

Partners' gender values measured at *t-2*.

Partners' education: the original variables measuring education where recoded in two categorical variables with three different categories. *Low education* comprises Commercial qualifications, CSE grades below the top grade, Apprenticeship, Other qualifications, and No qualifications; *Medium education* groups Nursing qualifications, A level, and GCSE or O-levels; *High education* includes Higher degree, First degree, Teaching qualification, and other higher qualifications.

Couple's work status measured at *t-1:* This is a categorical variable grouping the wives and husbands into six groups. For wives it considers three different alternatives: no work, part-time work (30 hours a week or below) and full-time work (above 30 hours a week). For husbands only no work and full-time work is considered as the proportion of part-time workers in the sample used is below 2 percentage points. For the reasons explained in chapter two the few cases of husbands working part-time are not included in the analysis. Thus the variable has six categories: workless couples, those in which the wife does not work and the husband works full-time, those in which the wife works part-time and the husband does not work, those in which she works part-

time and he works full-time, those in which she works full-time and he does not work, and those in which both work-full-time.

Wife's contribution to the spouses' labour earnings (0-100)*:* This is a continuous variable denoting the wife's contribution to the labour income of the couple. Also a quadratic specification of this variable is used to allow for non-linear relationships as labour income is a key aspect in the relationship between the spouses which may affect also their gender and family values.

Total household income (natural log): This is an indicator of family wealth but also of income pooling of the spouses. Only couples reporting positive household income were kept in the analysis.

Wife's share of housework measured at *t-1:* This is an interval-level variable that shows the share of the wife's share of housework in a usual week.

Age of youngest child in the household measured at *t-1:* A categorical variable with the following categories: No children 0-2 years old, 3-4 years old, 5-11 years old, 12-15 years old and 15+ years old.

Marital status: A dummy variable with value 1 if the couple is married and 0 if the relationship is a consensual union.

Later relationship: A dummy variable with value 1 for second or later relationship and 0 for the case in which it is the first relationship for women.

Duration of relationship: The length of the relationship measured in years.

Age of the spouses.

Time trend: this is the year of each wave of the panel.

Couple's education: In order to study the effect of homogamy on couple's resemblance in gender and family values I have created a categorical variable grouping the couples according to the level of education of the spouses using the recoded three-levels variables for each spouse. The different categories, where the wife always goes first, are: Low-Low, Low-Medium, Low-High, Medium-Low, Medium-Medium, Medium-High, High-Low, High-Medium, and High-High.

Table 3.2 shows the summary statistics of these variables.

Table 3.2. Description of the explanatory variables used in the analysis

Variable	Mean		Standard deviation*	
	Wife	*Husband*	*Wife*	*Husband*
Gender values	2.78	2.87	0.63	0.60
Education	High (37 %)	High (47 %)		
Couple's work status	Both work full time (40 %)			
Total household income (natural log)	7.81		0.61	
Wife's share of labour income (0-100)	32		27	
Wife's share of labour income (squared)	1766		2,490	
Wife's share of housework	75 %		21	
Age of youngest child	No children (39 %)			
Marital status	Married (88 %)			
Later	First union (71 %)			
Duration	11		10	
Age	39	40	8.01	8.09
Couple's education	Both high education (23 %)			

Source: BHPS: 1991-2005.

3.4. Results and discussion

In this section I present the results of both the descriptive and multivariate analyses and discuss them in the light of the research questions and hypotheses outlined in the theoretical section above. First the descriptive analysis will be presented and discussed and then the results of the multivariate analysis.

3.4.1. Descriptive analysis

Table 3.3 presents average scores for the separate items and for the resulting indices measuring partners' gender and family values. Mean comparison tests are carried out for the change in the scores across waves in the panel. The aggregate indices are coded into a traditional direction but the individual statements are left in the direction in which they were originally phrased. The latter allows me to check whether the change in gender values analyzed is to some extent sensitive to the wording and nature of the statement or, conversely, the trend towards more traditional views over time is generally confirmed for all the items that compose the indices. Hence, while an increase in the mean for the indices means that respondents become more traditional, to interpret an increase in the mean for each statement, its specific wording should be considered. Scores and mean comparison tests are presented for a selection of the possible time periods covered in the panel in which the gender and family values questions were included. Obviously, the longer the time span is the smaller the sample size due to attrition. This may affect both the actual values and the significant levels of the *t* test carried out.

The wording of the first three items in the table implies that positive changes in the score mean that the spouses become more egalitarian over time while the opposite is true for the fourth, fifth and sixth items. In general, most of the change in partners' values is in a traditional direction. For instance, the negative sign in the item second and third indicates that even in those cases in which

the wording could facilitate more egalitarian responses, the opposite happens. Besides, most of these changes are statistically significant. Changes in item one, instead, show a tendency for spouses to become more egalitarian over time on the issue of working mothers with dependant children. This is a good example that family events over the life cycle may push partners to adopt opinions that fit with their needs. For items fourth, fifth and sixth the wording implies that positive changes mean spouses hold more traditional views in family and gender matters over time. Interestingly this is confirmed by the results shown in the table more for wives than for husbands. Indeed, the average scores at each time point for the individual statements in Table 3.3 depict husbands consistently with more traditional gender values while wives are likely to change in the same direction.

As for the aggregate indices for wives and husbands they both suggest that wives and husbands become more traditional in their family and couple attitudes over time with wives changing more than husbands, although the difference is slight. From these results it is not possible to draw conclusions about the causal mechanisms related with this overall trend. However, they depict a panorama in which partners become more traditional over time in their gender and family values most likely as a response to the specific needs of the family. In addition, the difference between the spouses slightly weakens with time.[13]

[13] This shared trend between the spouses may also arise out of the fact that for most partners I have more than one observation so that the increasing closeness can, in fact be across partnerships (The overall cross-sectional correlation between the two indices is $r = 0.41$ ($p < .00$).

Table 3.3. Mean test scores of changes in gender values over time[a]

Statements		*t*	*t+2*	*Change*	*t*	*t+6*	*Change*	*t*	*t+10*	*change*	t	*t+14*	*change*
Pre-school child suffers if mother works	Wives	3.13 (1.09)	3.16 (1.07)	0.03***	3.14 (1.11)	3.19 (1.05)	0.05**	3.17 (1.13)	3.21 (1.02)	0.04*	3.17 (1.13)	3.16 (0.97)	-0.01
	N	12,079			5,393			2,149			479		
	Husbands	2.83 (1.06)	2.85 (1.05)	0.02**	2.82 (1.08)	2.85 (1.04)	0.03**	2.82 (1.11)	2.86 (1.01)	0.04	2.75 (1.11)	2.80 (0.97)	0.05
	N	11,512			5,143			2,051			453		
Family suffers if woman works full-time	Wives	3.09 (1.11)	3.09 (1.10)	=	3.11 (1.13)	3.08 (1.08)	-0.03**	3.15 (1.13)	3.10 (1.05)	-0.05**	3.12 (1.11)	3.09 (1.00)	-0.03
	N	12,087			5,399			2,150			479		
	Husbands	3.04 (1.05)	3.03 (1.04)	-0.01	3.04 (1.07)	3.01 (1.03)	-0.03**	3.04 (1.08)	3.00 (1.02)	-0.04	3.01 (1.08)	2.97 (0.99)	-0.04
	N	11,528			5,149			2,053			453		
Husband should earn, wife stay at home	Wives	3.79 (0.97)	3.78 (0.95)	-0.01	3.84 (0.98)	3.79 (0.92)	-0.05***	3.85 (1.00)	3.81 (0.91)	-0.04*	3.78 (1.05)	3.75 (0.94)	-0.03
	N	12,105			5,407			2,153			481		
	Husbands	3.61 (0.97)	3.59 (0.95)	-0.02***	3.64 (0.99)	3.59 (0.93)	-0.05***	3.65 (1.00)	3.59 (0.91)	-0.06***	3.62 (1.06)	3.58 (0.87)	-0.04
	N	11,519			5,144			2,046			453		
Woman and family happier if she works	Wives	3.14 (0.76)	3.15 (0.75)	-0.01	3.15 (0.76)	3.18 (0.72)	0.03**	3.15 (0.78)	3.18 (0.70)	0.03*	3.15 (0.80)	3.16 (0.67)	0.01
	N	12,897			5,395			2,150			479		
	Husbands	3.18 (0.78)	3.19 (0.76)	0.01	3.18 (0.79)	3.22 (0.75)	0.04***	3.18 (0.82)	3.23 (0.74)	0.05**	3.15 (0.83)	3.23 (0.71)	0.08**
	N	11,516			5,149			2,050			453		

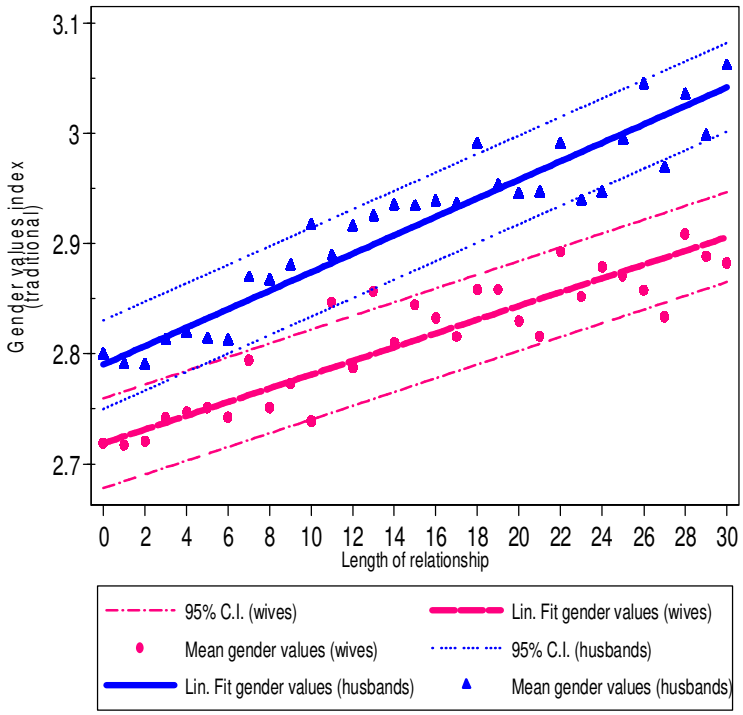
Husband and wife should both contribute to household income	Wives	2.61 (0.91)	2.64 (0.90)	0.03***	2.65 (0.92)	2.73 (0.88)	0.08***	2.69 (0.94)	2.77 (0.85)	0.08***	2.72 (0.91)	2.83 (0.85)	0.11**
	N	12,100			5,402			2,153			480		
	Husbands	2.65 (0.91)	2.66 (0.89)	0.01	2.69 (0.93)	2.74 (0.88)	0.05***	2.69 (0.95)	2.76 (0.89)	0.07***	2.70 (0.96)	2.68 (0.83)	-0.02
	N	11,526			5,149			2,052			452		
Full-time job makes women independent	Wives	2.98 (1.00)	3.02 (0.98)	0.04***	3.01 (1.00)	3.09 (0.95)	0.08***	3.01 (1.01)	3.10 (0.94)	0.09***	2.98 (1.03)	3.11 (0.93)	0.13***
	N	12,093			5,404			2,155			480		
	Husbands	2.88 (0.91)	2.90 (0.90)	0.02***	2.91 (0.93)	2.94 (0.90)	0.03**	2.92 (0.95)	2.97 (0.90)	0.05***	2.84 (1.01)	2.94 (0.87)	0.10*
	N	11,523			5,149			2,051			453		
Aggregate scores[b]	Wives	2.78 (0.63)	2.79 (0.62)	0.01**	2.78 (0.63)	2.82 (0.60)	0.04***	2.78 (0.65)	2.82 (0.59)	0.04***	2.80 (0.68)	2.85 (0.56)	0.05*
	N	11,403			5,104			2,031			449		
	Husbands	2.87 (0.60)	2.88 (0.59)	0.01***	2.88 (0.62)	2.91 (0.59)	0.03***	2.88 (0.64)	2.92 (0.59)	0.04***	2.88 (0.67)	2.92 (0.55)	0.04
	N	11,403			5,104			2,031			449		
Diff (Wives-Husband)	*change*	***	***		***	***		***	***		***	**	

a. Statements measured in a 5-points Likert scale from strongly agreement to strongly disagreement: presented in the direction they were phrased.
b. The aggregate scores are recoded towards more traditional positions.
*** p< .01 ** p< .05 * p< .1 (two tailed paired observations test).
Source: BHPS: 1991-2005.

It is worth noting that while Table 3.3 shows the change in gender values of the spouses using the time dimension of the panel, the main interest of the chapter lies in the duration of the marriage through which the internal dynamics of the couple and the family life may affect the evolution of the gender and family attitudes of the spouses. Figure 3.2 plots the evolution of wives' and husbands' gender values over the length of the relationship. This graph provides an overall picture that confirms the trend towards more traditional gender and family attitudes over marriage for both spouses. The linear fit for husbands and wives has an upward slope. The differences between the two plotted lines suggest, as it was also shown in the previous table, that husbands are, on average, more traditional than wives, a tendency that might accelerate as the relationship ages.[14]

[14] The confirmation that couples become more traditional over time may introduce a source of bias in the analysis difficult to solve: the overrepresentation of couples with very similar gender and family views at later stages of the relationship. The rationale for this stems from the fact that those couples where partners have very different values might not survive long since disagreement in attitudes could lead to higher rates of marital dissolution. I have carried out some analysis to rule out this possibility comparing the marital duration of relationships by level of disagreement in gender values (measured as the absolute difference between wives' and husbands' gender values). The results allow me to reject this hypothesis since a significant proportion of highly heterogamous couples are present among those with longer durations (see Table A.3.1 for more details).

Figure 3.2. Evolution of gender and family values of the spouses over the duration of the relationship



Source: BHPS: 1991-2005.

In the appendix the same figure is presented but for those couples who are present in all waves of the panel (balanced panel) (Figure A.3.1). The sample was also modified by eliminating those couples who change partner. These two operations restrict considerably the final sample size. All in all, the overall trend approximates closely the results discussed in Table 3.3 with both partners becoming more traditional over time. There remains a gap between partners but in this case wives and husbands are closer in

their gender views as shown by linear fit of their respected plotted lines.

The analysis presented so far shows that partners become more traditional over time. Although the aim of this chapter is not to study the reasons behind this trend but whether they share more similar views during the marriage and what factors explain this tendency towards increasing similarity it is obviously an interesting issue that deserves some attention.[15] There are at least three reasons for this traditional bias. The first has to do with a change in gender and family values upon entering in a relationship. The rationale for this is that individuals may well anticipate the new circumstances associated with the change in the marital status by becoming more traditional upon forming a stable union. Figures A.3.2 and A.3.3 plot the mean gender values for single and married women and men aged 25 to 55. While for women marriage is associated with more traditional values, this is not the case for men who whether single or married seem to have very similar values at a given age. Interestingly, these are more traditional than those of women.[16] A further exercise was made to compare the change in gender values for women and men upon forming a union. To do this, as in chapter two, I have compared the means scores of gender values for individuals who change from being single to being in a relationship across two consecutive observations. The results presented in Table A.3.2 confirm that both women and men become more traditional upon partnership

[15] Since this discussion is not directly related with the goal of the chapter the analysis associated with this discussion is shown in the Appendix of the chapter.

[16] This judgement is based on the examination of the confident intervals for each graph. They confirm that the difference by marital status is significant for women at least till the age of 40. Unfortunately, the number of singles decreases with age which affects the confidence intervals because of the larger standard deviations. Confidence intervals are not shown in the graphs for the sake of simplifying them but are available upon request.

(men slightly more than women). Singles hold very similar gender and values with no significant difference between them. After marriage husbands are more conservative than wives but this difference is smaller than the change in women's values between singlehood and partnership. Interestingly, this shared trend towards more traditional values of women and men upon partnership correlates with the behavioural change of the spouses found in chapter two towards a gendered division of the housework after coupledom, with husbands decreasing their amount of housework while wives increase theirs. Furthermore, this trend also fits with a plausible selection into partnership of women and men more traditional towards family matters. As advanced in chapter two this issue will be considered in the next chapter linking selection into partnership with the stability of the union.

The other two reasons that may explain why partners become more traditional are precisely two factors associated with time. For this reason, they are much more difficult to disentangle. The discussion here seeks to provide insights more than give conclusive answers. The first one is the pure effect of aging while the second is the effect of marital duration. Although they might be seen as closely related, I argue, that while the former relates more with an individual tendency of individuals to become more risk averse as they age in order to keep what they have got in their lives, the latter is more linked with life cycle events and dynamics that are inherent to the family and the couple relationship. The strategy deployed in order to discriminate between age and duration effects has been to look at the contribution of each of them separately to gender values of the spouses while keeping the other constant at a given value. Concretely, Figure A.3.4 plots the average scores of gender values for each partner over the duration of the relationship for individuals at the age of 40, the median age in the sample. The same procedure was applied in Figure A.3.5 for the case of the effect of age where the variable duration was fixed at the median value of 15 years. Not surprisingly, both figures are less conclusive than in the previous analysis for marital status.

Nevertheless they seem to suggest that duration is much more a determining factor (at least, for husbands) of the traditional bias than is the case for age (where no significant differences arise between wives and husbands). This result will be examined further in the multivariate analysis below.

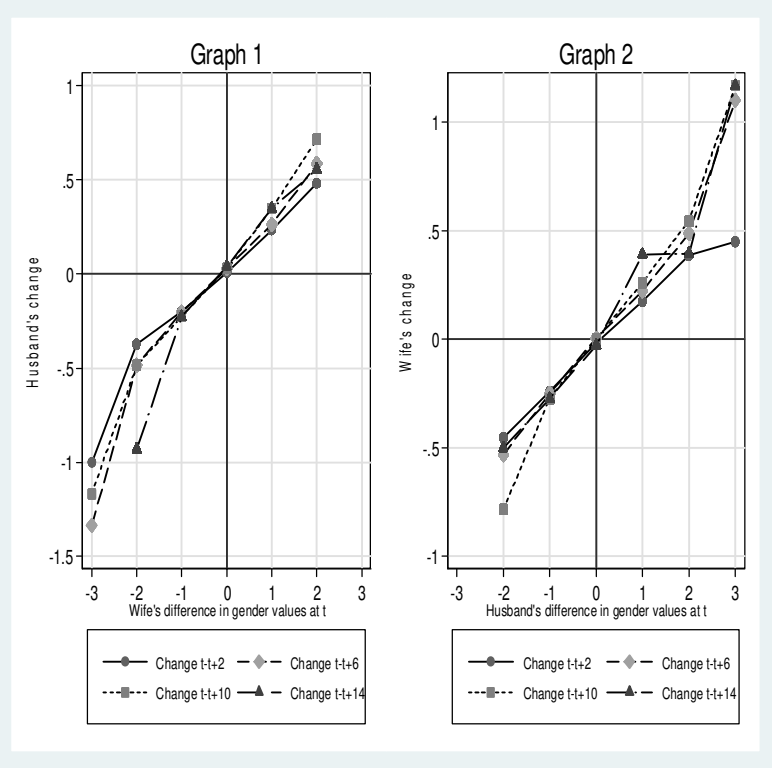
As discussed above, individuals are likely to learn their initial values and beliefs in the formative years during childhood and early adolescence from their parents. Indeed, this is the traditional approach on the research devoted to the study of the transmission of values (Cunningham 2001; Jennings and Niemi 1981). In the case of the couples analyzed the intergenerational link of transmission of family and gender values has certainly play a key role before coupledom. However, the chapter takes a different stand to focus on the reciprocal influences between adult spouses once they have formed their own families as well as on how life cycle events that unfold over marriage may affect the extent of these influences. In this regard, the age range of the sample selected (25 to 55 years old), and age span in which they are most likely to have left parental home, and the fact that the two spouses are living in the same household are two criteria that allows me to focus on the reciprocal influence between the spouses and the role of education in the degree of similarity between their gender values. Thus, the reciprocal influences, as defined here, can be seen as a second social process during adulthood through which the values of individuals may be shaped after the influence exerted by the family of origin in childhood and early adolescence.

It was argued that the two mechanisms explaining partners' similarity in gender values are reciprocal influences and the effect of positive assortative mating. The analyses presented below address these two factors before analyzing them more in depth through the multivariate analysis in the next section in order to test the research hypotheses. Figure 3.3 shows what happens when there is an initial difference between the spouses in their gender values. Interestingly, the two graphs for husbands' change (Graph 1) and wives' change (Graph 2) suggest that an initial discrepancy in gender values is associated with a reduction in that discrepancy

over time.[17] This phenomenon may be interpreted as indicative of reciprocal influences since both partners seem to adjust to the other when there is a disagreement in their gender and family values. In addition, one element of the graph deserves especial attention: when partners hold similar values at time *t* there are no further adjustments over time.

[17] The X's axis reflects the initial discrepancy in partners' attitudes: negative values mean that one partner (the wife in Graph 1; the husband in Graph 2) is more egalitarian than the other while positive values mean that she or he is more traditional than the spouse. The Y's axis shows in what direction the other partner moves. Again, negative values mean that the partner moves in an egalitarian direction while positive values mean that the move goes towards a traditional direction. The figures are based on a procedure used by Kalmijn (2005).

Figure 3.3. Reciprocal influences between partners in change in gender and family values over time



Source: BHPS: 1991-2005.

As for the effect of homogamy mating on partners' similarity in gender values I have argued before that educational homogamy may have two main effects. The first one, which I have labeled as *direct effect*, helps bind together partners who share, on average, more similar attitudes than heterogamous couples. But positive assortative mating can also extends its influence over marriage allowing for additional adjustments in partners' gender values. This last one is what I have called the *adjusting effect of*

homogamy. It is more likely that partners select each other on the basis of their education than on their values and beliefs. However, education may be indicative of the values individuals hold at the onset of the relationship. Table 3.4 below addresses the direct effect of positive assortative mating on the initial similarity in partners' gender attitudes upon partnership. It shows the correlation between wives' and husbands' indices of gender attitudes for different combinations of education at the beginning of their relationship using the recoded variable of couple's education as explained in the methodological section above. If the argument for the direct effect of positive assortative mating holds we should expect higher correlations between educationally homogamous couples than for heterogamous ones.

The table does not confirm that homogamy on education itself helps couples sharing more similar gender and family values at the onset of the relationship. Instead, it suggests that it is more generally closeness at high levels of education (either in the form of homogamy or not) what relates with a stronger similarity in the gender values of the spouses. Clearly, highly educated spouses hold more similar views on gender and family issues upon partnership than others homogamous at lower levels of education. However, such similarity is also found between couples where, at least, one of the spouses has got high education.

Table 3.4. Average correlation between partners' gender values by level of education at the beginning of the relationship (sample of newlyweds N = 2,214)

	Homogamy	**Heterogamy**			
Level of education	*Both have*	*She has/he has more*	*She has/he has less*	*He has/she has more*	*He has/she has less*
High	0.40*** (650)		0.38*** (469)		0.41*** (630)
Medium	0.36*** (575)	0.42*** (414)	0.38*** (330)	0.41*** (359)	0.30*** (287)
Low	0.33*** (737)	0.34*** (503)		0.37*** (440)	

Number of observations between parentheses.
*** p< .01 ** p< .05 * p< .1.
Source: BHPS: 1991-2005.

Finally, Table 3.5 seeks to provide a closer view of the relationship between the education of the spouses and their gender values using the full sample of couples. As I showed in chapter 2 there is a great deal of heterogeneity (more for husbands than for wives) on the extent that education relates and values are related. Thus, the table shows the correlation between the level of education of the spouses (separately and jointly for the homogamous combinations) and their traditional gender values.

Interestingly, while low and medium levels of education are positively correlated with traditional gender values for both partners, high levels of education are negatively related with such traditional views. Besides, wife's education seems to exert more influence over husband's values than vice versa. Finally, educational homogamy also seems to affect the husband's values more than the wife's even though the correlation is lower than for the individual effect of education.

Table 3.5. Average correlation between partners' education and their traditional gender values (whole sample)

Wife's education	Wife's traditional gender values	Husband's traditional gender values
Low	0.09*** (16,863)	0.13*** (16,863)
Medium	0.04*** (16,863)	0.02*** (16,863)
High	-0.12*** (16,863)	-0.14*** (16,863)
Husband's education		
Low	0.01** (16,825)	0.04*** (16,825)
Medium	0.01 (16,825)	0.03*** (16,825)
High	-0.02*** (16,825)	-0.05*** (16,825)
Couple's education (homogamy)		
Low	0.03*** (16,733)	0.07*** (16,733)
Medium	0.01 (16,733)	0.01 (16,733)
High	-0.08*** (16,733)	-0.11*** (16,733)

Number of observations between parentheses.
*** p< .01 ** p< .05 * p< .1.
Source: BHPS: 1991-2005.

In short, this section has shown descriptive evidence on the evolution of the gender values of the spouses upon partnership and over marriage. It has also discussed the role of reciprocal influences and of education on how close the gender values of partners are. Overall, the results highlight some gender differences with husbands being slightly more traditional than their wives.

They also suggest that reciprocal influences between the spouses may help the couple to share more similar gender values. Finally, there is no confirmation that educational homogamy has a direct effect on the level of alignment between the gender values of the spouses upon partnership. It seems that newlywed couples where at least one of the spouses has got high education hold more similar values than others. The multivariate analysis in the next section addresses the existence of gender imbalances in the capacity of each spouse to influence each other values based on their different roles at home as well as to study further the role of education in the resemblance of partners' gender values over marriage.

3.4.2. Multivariate analysis

The analysis begins with a set of regressions presented in the next two tables designed to test the *reciprocal influence* and the *role saliency* hypotheses. To do this I use the cross-lagged models explained in the methodological section estimated simultaneously through two SUR equations. These models are well suited to compare the relative influence of each partner values on the other. It does so by controlling for respondent's prior values. Model 1 in Table 3.6 shows that after controlling for own values, there is a positive and statistically significant effect of partner's prior values on respondent current values. This result confirms that there is a direct influence between the gender and family values of the spouses that makes them more similar as stated in the *direct influence hypothesis*. The effect is not very strong, however (β= 0.12 for the influence of the husband's values on those of the wife and β=0.13 for the wife's influence on the husband's values). The magnitude of these coefficients is around 20 percent of the effect of respondent's own attitudes (18 percent for husbands' influence and 20 percent of wives' influence). As the range of the spouses' traditional values indexes goes in a continuous scale from 1 to 5 a coefficient of 0.12 represents a 2.4 percentage points increase in

the traditional values of the wife and a 2.6 percentage points increase in the traditional values of the husband. The difference between respondent and partner effects is statistically significant (*chi2* = 1673 and 1439, $p < .00$, respectively). Therefore, these results show that there is a clear though modest tendency for partners to share more similar gender values as consequence of direct influences within the couple. They are in line with those found by Kalmijn (2005). Model 1 further shows that partner effects are of the same magnitude for men and women. So, partners appear to influence each other gender values in a symmetrical direct exchange (the difference between these two effects is not statistically significant).[18] Similar symmetrical influences within the couple have also been found for political attitudes using the BHPS (Brynin, Martínez and Longhi 2009).

With Model 2 in Table 3.6 I begin to study the conditional influences between partners' gender values as stated by the *role saliency hypothesis* on the basis of the different roles the spouses perform at home. It adds to Model 1 a set of family and couple characteristics that may affect the gender and family values of the spouses. Besides, partner's education is introduced to test whether each partner's human capital influences the other's values after controlling for the level of education of the respondent. Finally, the inclusion of the age of the spouses in its linear form together with the duration of the relationship and the time trend of the panel allow me to study better the effect of time in explaining why respondents become more traditional in their gender values.[19] Methodologically, in order to control for problems of contemporaneous endogeneity as discussed in the theoretical

[18] SUR models allow cross-equations tests of the coefficients thanks to the simultaneous estimation of the equations. These tests use the Chi2 distribution.

[19] Here I refer to my previous discussion about age or duration effects. To these, the time trend of the panel should be interpreted as measuring the climate of the society around gender and family relationships.

section, those family characteristics that might be related with the outcome variable are measured using first order lags.

To begin with, the symmetrical direct effect between the gender values of the spouses remains after the control variables are added to the model. Although it is reduced somewhat compared to Model 1 it is stronger than any of the direct effects of any of the couple and family characteristics considered. Concretely of around 2 percentage points for each spouse (β= 0.09 and β= 0.10, for the husband's and the wife's influence on the partner's values). Although the wife's direct influence is slightly stronger than the husband's, the difference between the two coefficients is not statistically significant. This finding is important given the differences observed in the descriptive section where women were consistently less traditional than their male partners.

The results of the full model indicate that effects tend to be different for wives and husbands even though in most cases they are not statistically different. The differences can be of intensity of the effects or of different effects. For instance, the respondent's level of education has a clear gendered effect on each partner's gender values: the wife's education is associated with the husband having less traditional values while the opposite does not happen for the husband's influence on his wife's values through his education. On the contrary, the husband's education appears slightly associated with the woman being more traditional in gender and family matters. These results suggest that there is a gendered response of partners, manifested on their gender values, to their spouses' education. Alternatively, it may indicate a selection issue, which is difficult to disentangle: highly educated husbands may select more traditional wives while highly educated wives may choose more egalitarian husbands. Whatever the actual interpretation, the effect of education on the gender values of the spouses is gendered. In order to address the issue of selection a study of the role of education in partnership could be appropriate. However, this goes beyond the scope of the chapter.

An increasing wife's share of housework is associated with the spouses being more traditional in their gender values. Although this is one of the covariates where the issue of endogeneity discussed above is clearer as it is likely that gender attitudes are the cause and housework share the effect; on the other hand, attitudes might align with behaviour over time making the spouses more traditional the more they keep a gendered division of housework. Interestingly, even though the difference between the coefficients of the wife's and husband's equation is not significant, the effect is slightly stronger for husbands' gender and family values. It is worth mentioning that this result goes in line with the negative effect found between wife's share of housework and the odds of divorce in chapter four of the dissertation: traditional couples are less likely to divorce.

The couple's working status is another case where the risk of endogeneity hinders the interpretation of the relationship with the gender values of the spouses as a true causal one. It appears that the association is again gender-specific and similar to that found for education. It is stronger for the husband's values than for the wife's. Specifically, whenever the husbands works more than the wife this is associated with the husband being more traditional. Interestingly, the same effect, but somewhat weaker is found for dual full-time working couples. For the wife's values, instead, no significant association is found although most of the coefficients are negative indicating that her labour market activity is associated with less traditional gender and family values. Hence, the results for each partner values are complementary but stronger for the husband's values.

Model 2 also includes three different measures of the income of the spouses: the natural log of the household income, the wife's share of the total labour income of the couple and a quadratic specification of this latter variable. Interestingly, higher household income and a greater contribution of the wife to labour income is associated with less traditional gender and family views for the two spouses but it is slightly stronger for her than for him. The quadratic term shows, however, the opposite association. It

appears that, in line with the gender identity theories reviewed in this thesis, when the wife's contribution to the income of the family is much higher than that of her husband both partners may report more traditional gender and family values. This result goes also in line with the effect found in chapter two for the division of housework. However, the egalitarian association of the linear specification of this variable predominates for the two spouses' equations (*chi2* = 109 and 53, $p < .00$ for the wife's and the husband's gender values, respectively).

Children is another potentially endogenous variable. Thus, the effect of the age of the youngest child in the household indicates that having older children is associated with both parents being less traditional. Moreover having dependant children is associated with the mother being more traditional but the relationship is not significant. Interestingly, the association between children and the gender values of the parents is very much alike with no significant differences found.

Among the set of variables that specifically characterized the nature of the relationship only marital duration affects significantly husbands' gender values. They are more traditional as time elapses. This result arises after controlling for the effect of partners' age and the time trend of the panel. Hence, the results of the multivariate analysis are in line with those discussed in the descriptive section.

Finally, it is worth noting that, as expected for a couple analysis of this kind, the correlation between the spouses' residuals of the two equations is positive and statistically significant.

Table 3.6. SUR models of partners' reciprocal influences in traditional gender and family values

DV: Own traditional values (t)	Model 1			Model 2		
	Wife	*Husband*	Diff.	*Wife*	*Husband*	Diff.
Partner's variables						
Traditional values (t-2)	0.12***	0.13***	=	0.09***	0.10***	=
	(0.01)	(0.01)		(0.01)	(0.01)	
Age				0.00	-0.00	=
				(0.00)	(0.00)	
Education[1]						
Medium				0.03**	-0.02	***
				(0.01)	(0.01)	
High				0.02	-0.02*	**
				(0.01)	(0.01)	
Family & couple variables						
Wife's share of housework (t-1)						
0-100 %				0.06***	0.09***	=
				(0.00)	(0.00)	
Couple's work status(t-1)[2]						
She doesn't work/He works ft				-0.01	0.09**	**
				(0.04)	(0.04)	
She works pt/He doesn't work				0.01	0.06	=
				(0.05)	(0.05)	
She works pt/ He works ft				-0.01	0.09**	**
				(0.04)	(0.04)	
She works ft/He doesn't work				-0.07	0.07	**
				(0.05)	(0.05)	
Both work ft				-0.03	0.07*	**
				(0.04)	(0.04)	
Age of youngest child (t-1)[3]						
0-2 yrs. Old				0.02	0.00	=
				(0.02)	(0.02)	
3-4 yrs. Old				-0.00	-0.03	=
				(0.02)	(0.02)	
5-11 yrs. Old				-0.04***	-0.03***	=
				(0.01)	(0.01)	
12-15 yrs. Old				-0.04***	-0.04***	=
				(0.01)	(0.01)	

>15 yrs. Old				0.04	0.03	=
				(0.04)	(0.04)	
Wife's share of labour income				-0.006***	-0.004***	**
				(0.06)	(0.06)	
Wife share of labour income (squared)				0.000***	0.000***	**
				(0.06)	(0.06)	
Log of household income				-0.01	-0.01	=
				(0.01)	(0.01)	
Married				0.00	0.01	=
				(0.01)	(0.01)	
Later relationship				0.00	-0.01	=
				(0.01)	(0.01)	
Duration of relationship				0.00	0.001*	*
				(0.00)	(0.00)	
Own variables						
Traditional values (t-2)	0.65***	0.61***	***	0.62***	0.59***	***
	(0.01)	(0.01)		(0.01)	(0.01)	
Age				0.00	0.00	=
				(0.00)	(0.00)	
Education[1]						
Medium				0.03**	0.03**	=
				(0.01)	(0.01)	
High				0.03**	0.01	=
				(0.01)	(0.01)	
Time trend				0.00**	0.00	=
				(0.00)	(0.00)	
Constant	0.63***	0.77***		0.86***	0.88***	
	(0.02)	(0.02)		(0.09)	(0.09)	
Observations		10,091			10,091	
R-squared	0.52	0.48		0.54	0.49	
Correlation matrix of the partners' residuals		0.15			0.13	
Breusch-Pagan Test of independence: chi2(1)		230.7 (0.00)			173.6 (0.00)	

Standard errors between parentheses.
*** p< .01 **< .05 *< .1 (*)< .1 (one-tailed difference).
Reference categories: 1. Low. 2. Both don't work. 3. No children.
Source: BHPS: 1991-2005.

So far, I have shown that there is a direct symmetrical influence between the gender values of the spouses. This direct effect is modest but consistent across models. In addition, the results suggest that there are gender-specific effects in the reciprocal influences between partners based on the actual family arrangements of the couple.

Table 3.7 presents the interaction models whose aim is to study the *role saliency hypothesis* in the capacity of partners to influence each other's values. I focus on those variables measuring family arrangements and couple characteristics with a substantive interest for the discussion of the chapter. For the sake of simplicity the table only shows the coefficients for the constituent elements of the interaction terms between the partner's gender values and these family and couple characteristics: the partner's education, the couple's working status, the wife's share of housework, the age of the youngest child in the household, and the duration of the relationship in order to explore the effect on the respondent's gender values.[20]

Only one out of the five interaction models presented report significant conditional effects as shown by the significant difference between the coefficients for wives' and husbands' equations. Specifically, such a conditional effect is found for the interaction between the wife's share of housework and her values on the husband being more traditional in gender and family matters. This result suggests that gender differences in the *role saliency* of the spouses at home may be associated with a different capacity to influence each other values. A traditional gender division of labour at home has an impact on partners' values. Concretely, such an impact is stronger for husbands than for wives. To put it simply, it suggest that, as far as gender and family values are concerned, women's traditional roles in the family are associated with their husbands being more traditional. As for the

[20] Two additional interaction models were estimated for the two specifications of the wife's share to the labour income of the spouses. Neither of the models reported significant differences in the cross-partner's equation tests.

other interaction models the couple's work status and the duration of the marriage provide significant coefficients for wives' and husbands' values respectively but these are not significantly different in the cross-equations test of the coefficients which suggest that they are of similar magnitude for both partners.

Table 3.7. SUR models of partners' conditional effects in reciprocal influences in traditional gender and family values (only interacted variables shown)

	Model 1: education		**Model 2: couple's working status**		**Model 3: wife's share of housework**		**Model 4: age of the youngest child**		**Model 5: duration of the relationship**	
DV: Own traditional values (t)	*Wife*	*Husband*	*Wife*	*Husband*	*Wife*	*Husband*	*Wife*	*Husband*	*Wife*	*Husband*
Model 1 (Education)										
Partner variables										
Medium	0.02	-0.10*								
	(0.06)	(0.05)								
High	0.01	-0.05								
	(0.05)	(0.05)								
Traditional values (t-2)	0.09***	0.09***								
	(0.01)	(0.01)								
Tradit. values*Medium educ.	0.002	0.03								
	(0.02)	(0.01)								

Tradit. values*High educ.	0.001 (0.02)	0.01 (0.02)		
Model 2 (Couple's work status t-1)				
She doesn't work/He works ft			-0.02 (0.18)	-0.09 (0.19)
She works pt/He doesn't work			-0.002 (0.25)	-0.12 (0.24)
She works pt/ He works ft			-0.004 (0.18)	-0.05 (0.19)
She works ft/He doesn't work			-0.07 (0.22)	-0.11 (0.22)
Both work ft			-0.02 (0.18)	-0.004 (0.19)
Traditional values (t-2)			0.09 (0.06)	0.06 (0.06)

Tradit values*She doesn't work/He works ft	0.006 (0.06)	0.06 (0.06)		
Tradit values*She works pt/He doesn't work	0.004 (0.08)	0.06 (0.08)		
Tradit values*She works pt/ He works ft	0.01 (0.06)	0.05 (0.06)		
Tradit values*She works ft/He doesn't work	-0.0006 (0.07)	0.06 (0.07)		
Tradit values*Both work ft	-0.003 (0.06)	0.02 (0.06)		
Model 3 (Wife's share of housework t-1)				
Share of housework (t-1)			0.10 (0.10)	-0.07 (0.00)

Traditional values (t-2)	0.10*** (0.02)	0.05* (0.03)		
Tradit. values*Wife's share of housework	-0.01[(a)] (0.03)	0.06*[(a)] (0.03)		
Model 4 (Age youngest child t-1)				
0-2 yrs. Old			-0.12 (0.08)	-0.21*** (0.08)
3-4 yrs. Old			-0.02 (0.08)	-0.10 (0.08)
5-11 yrs. Old			-0.10* (0.05)	-0.05 (0.05)
12-15 yrs. Old			-0.11** (0.05)	-0.08* (0.05)
>15 yrs. Old			0.21 (0.20)	0.19 (0.18)
Traditional values (t-2)			0.08*** (0.01)	0.08*** (0.01)

Tradit. values*0-2 yrs. Old	0.05* (0.03)	0.08*** (0.03)		
Tradit. values*3-4 yrs. Old	0.006 (0.03)	0.03 (0.03)		
Tradit. values*5-11 yrs. Old	0.02 (0.02)	0.008 (0.02)		
Tradit. values*12-15 yrs. Old	0.02 (0.02)	0.01 (0.02)		
Tradit. values*>15 yrs. Old	-0.07 (0.07)	-0.06 (0.07)		
Model 5 (Duration)				
Duration			-0.001 (0.00)	-0.002 (0.00)
Traditional values (t-2)			0.09*** (0.01)	0.08*** (0.01)
Tradit. values*Duration			0.0004 (0.00)	0.001* (0.00)

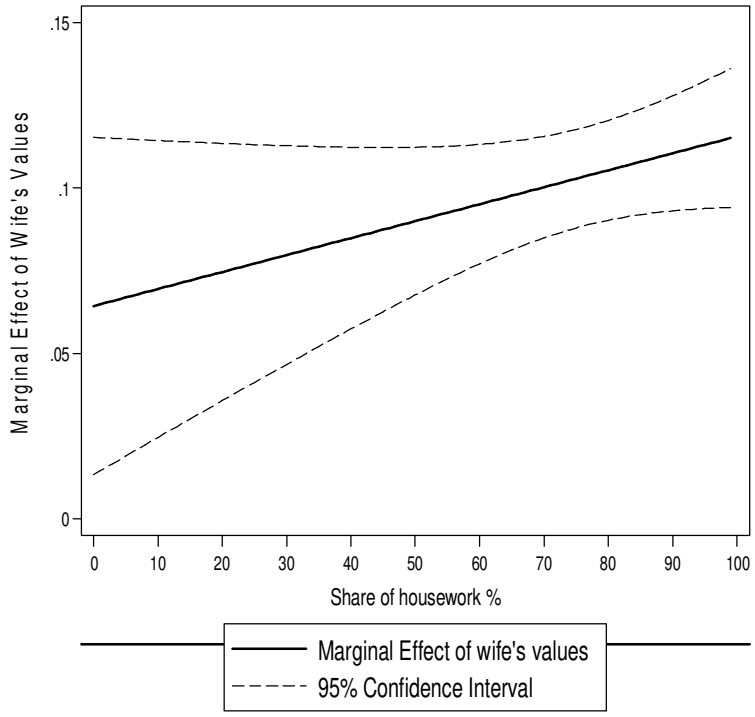
Observations	10,091		10,091		10,091		10,091		10,091	
R-squared	0.54	0.49	0.54	0.49	0.54	0.49	0.54	0.49	0.52	0.49
Correlation matrix of the partners' residuals	0.13		0.13		0.13		0.13		0.13	
Breusch-Pagan Test of independence: chi2(1)	171.8 (0.00)		173.3 (0.00)		174.7 (0.00)		175.9 (0.00)		169.8 (0.00)	

Standard errors between parentheses.
*** p< .01 **< .05 *< .1.
Reference categories:
1. Low.
2. Both don't work.
3. No children.
(a) Difference between coefficients statistically significant at 10 % (two tailed test).
Source: BHPS: 1991-2005.

In order to provide a clear picture of the conditional influence of the wife's values on the husband's values through the share of housework she undertakes I have calculated the marginal effects of the interaction term while accounting for the main effects of its constitutive elements, as suggested by (Brambor, Clark and Golder 2006). To do this, I have applied a modified version of the STATA code used in the article made available by the authors.[21] Figure 3.4 shows the conditional effect of wives' values on their husbands' as their share of housework increases. The vertical axis represents the marginal effect on the husband's gender values index. Thus, the capacity of the wife to influence his husband's values is stronger the more unequal the division of housework is. Substantively, this finding may be interpreted as how living in traditional household arrangements affects unequally wives and husbands with one becoming more traditional than the other through a gendered division of housework. The mean marginal effect is 0.08 which represents an increase in the husbands' traditional gender values index of around 1.5 percentage points. The effect is little but both the upper and lower 95 percent confident intervals are above zero which indicates a significant effect using a two tailed test.

[21] The STATA code for producing figures and calculating marginal effects and standard errors in interaction models is available at the following web page: http://homepages.nyu.edu/;mrg217/interaction.html

Figure 3.4. Conditional effect of wife's values on husband's values as wife's share of housework changes



Source: BHPS: 1991-2005.

Overall, the multivariate analysis so far has suggested that as far as direct influences between partners are concerned there is a positive effect: that is, partners become more traditional over time influencing each other values. Further, these direct influences are symmetrical between partners. However once family arrangements and couple characteristics are taken into account some relevant gender-specific differences within the couple arise. These results suggest that the capacity of wives to influence their husbands

significantly increases when family arrangements that indicate a *role saliency* of women in the household are considered. Particularly, this is the case for the share of unpaid labour between partners at home.

The last section of the multivariate analysis addresses whether there exists an *adjusting effect of educational homogamy* on partners' similarity in their gender and family values over the duration of the marriage. Here the dependent variable is the absolute difference in the gender and family values of the spouses. Thus, negative coefficients of the covariates would imply that the couple becomes more similar in their attitudes.[22] The empirical strategy followed is to focus on the conditional effect of couple's education for a sample of couples who were living together for at least one year. This allows me to eliminate from the analysis the slight direct effect of closeness in education upon partnership already discussed in the previous section. To measure educational homogamy I have created a variable grouping couples according to their level of education as explained in the methodological section. The variable comprehensively accounts for all possible combinations of the education of the spouses. In addition, the models also include the prior gender values of the spouses as well as the other explanatory variables discussed above in the analysis of the reciprocal influences between partners.

[22] Alternatively, part of the similarity between partners' values may be due to an interviewing issue. Concretely, previous survey research has shown that in longitudinal household surveys different aspects such as interviewer effects, respondents' characteristics or the presence of other family members during the interview (for instance, the partner) can affect the accuracy of the responses given (Watson and Wooden 2009). Of particular interest for the chapter is the possibility that part of the similarity between the gender values of the spouses may arise out of the presence of the partner while the other is interviewed about the battery of questions on family and gender issues that make up the indexes used in the chapter. This issue is addressed in the robustness checks section below (Table A.3.8).

Table 3.8 presents the results of the empirical analysis. Since the *adjusting effect of homogamy* states that homogamous couples are more likely to share more similar gender values over time as compared to hetereogamous ones, the analysis presented below uses as a reference category the case in which the wife has got low education while the husband is highly educated. Model 1 shows the effect of the full model without the interaction term between couple's education and marital duration. The results of the full specification suggest that both education and marital duration increase the similarity between the gender values of the spouses. However, they do not show a stronger effect of educational homogamy but just a tendency of couples to share more similar values as the education of the spouses increases. Indeed, the test of difference between the coefficients of couple's education presented in the first column of Table A.3.3 in the Appendix confirm that there is not an additional premium of educational homogamy but a positive effect of increasing education on the similarity between the gender values of the spouses. This test is complemented in the other three columns of the table for different reference categories of the variable couple's education. In addition, the results of model 2 where the changing effect of time is considered through the interaction between couple's education and marital duration, do not show an adjusting process between the gender values of the spouses over time for homgamous couples. Overall, these results suggest that both increasing educational attainment and the duration of the marriage help couples share more similar gender values but there is neither an additional effect of educational homogamy nor an adjusting process between the gender values of homogamous couples over time. Finally, it is worth mentioning the reversed sign for the coefficients of the wife's and the husband's prior gender values. They confirm that husbands are, on average, more traditional than wives so that while wives' increase traditionalism is associated with the couple sharing more similar gender values while the opposite applies for husbands' increase in their traditional gender values.

Table 3.8. OLS models for the conditional effect of educational homogamy on the similarity between partners' traditional gender values over marriage

DV: Dissimilarity in couple's traditional gender values (absolute difference)	Model (1) *Full model*	Model (2) *Interaction*
Couple's education (wife first)[1]		
Low-Low	-0.04	0.03
	(0.03)	(0.05)
Low-Medium	-0.07**	-0.04
	(0.03)	(0.05)
Medium-Low	-0.08**	-0.08*
	(0.03)	(0.05)
Medium-Medium	-0.10***	-0.06
	(0.03)	(0.04)
Medium-High	-0.09***	-0.02
	(0.03)	(0.04)
High-Low	-0.04	0.04
	(0.03)	(0.05)
High-Medium	-0.08***	0.00
	(0.03)	(0.04)
High-High	-0.07***	0.02
	(0.03)	(0.04)
*Interaction couple's education*duration*		
Low-Low*Duration		-0.01*
		(0.00)
Low-Medium*Duration		-0.00
		(0.00)
Medium-Low*Duration		0.00
		(0.00)
Medium-Medium*Duration		-0.00
		(0.00)
Medium-High*Duration		-0.00*
		(0.00)
High-Low*Duration		-0.00
		(0.00)

High-Medium*Duration		-0.01**
		(0.00)
High-High*Duration		-0.01***
		(0.00)
Wife's traditional gender values (t-2)	-0.07***	-0.07***
	(0.01)	(0.01)
Husband's traditional gender values (t-2)	0.09***	0.09***
	(0.01)	(0.01)
Wife's share of housework(t-1) 0-100 %	-0.00**	-0.00*
	(0.00)	(0.00)
Couple's job status(t-1)[2]		
She doesn't work/He works ft	-0.00	(0.08)
	(0.04)	-0.07
She works pt/He doesn't work	-0.07	(0.08)
	(0.05)	-0.08
She works pt/ He works ft	-0.01	(0.08)
	(0.04)	-0.03
She works ft/He doesn't work	-0.04	(0.08)
	(0.05)	-0.06
Both work ft	0.00	(0.08)
	(0.04)	(0.08)
Wife's share of labour income	0.00	0.00
	(0.00)	(0.00)
Wife share of labour income (squared)	-0.00	-0.00
	(0.00)	(0.00)
Log of household income	0.01	0.01
	(0.01)	0.00
Age of youngest child (t-1)[3]		
0-2 yrs. Old	-0.04**	-0.04**
	(0.02)	(0.02)
3-4 yrs. Old	-0.01	-0.01
	(0.02)	(0.02)

5-11 yrs. Old	-0.02	-0.02
	(0.02)	(0.02)
12-15 yrs. Old	-0.00	-0.00
	(0.01)	(0.01)
>15 yrs. Old	0.03	0.04
	(0.05)	(0.05)
Married	-0.02	-0.02
	(0.02)	(0.02)
Later relationship	-0.00	-0.00
	(0.01)	(0.01)
Duration of relationship	-0.001*	0.003
	(0.00)	(0.00)
Wife's age	-0.00	-0.00
	(0.00)	(0.00)
Husband's age	0.00*	0.00*
	(0.00)	(0.00)
Time trend	-0.00	-0.00
	(0.00)	(0.00)
Constant	0.52***	0.53***
	(0.10)	(0.12)
Observations	9,940	9,940
F	3.26	2.95
Prob.> F	0.00	0.00
Adj. R-squared	0.02	0.03

Robust standard errors between parentheses (clustered by pid).
*** p< .01 **< .05 *< .1.
Reference categories:
1. Low-High.
2. Both don't work.
3. No children.
Source: BHPS: 1991-2005.

Similarly to the equalizing effect of wives' high education on the share of housework between the spouses found in chapter two, the no effect found here for educational homogamy but the tendency of couples to share more similar gender values with their

educational attainment may suggests that the effect of education on value alignment are not evenly distributed between the spouses. That is, the education of one partner is more a driving factor on the resemblance between their gender and family values. Indeed, in Table 3.6 above the results suggest that there are gender-specific effects of each partner's level of education on the gender values of the spouse. To explore this, I have repeated the analysis presented in Table 3.8 with each partner's level of education introduced separately. The results shown in Table A.3.4 and A.3.5 confirm that the wife's education is more fundamental for the internal functioning of the relationship, in this case, for the similarity between partners' values, while husband's education plays a much weaker role.

In short, drawing on the theoretical discussion presented in the chapter and the hypotheses outlined, the analytical strategy in this section has sought to address the effect of reciprocal influences between partners and of homogamy over marriage on how similar the spouses are in their gender and family values. The results suggest that the couple's increasing level of education helps partners share more similar values. Also spouses adjust to each others values over time more as a result of their daily interactions than to their educational credentials, including whether they form an educationally homogamous couple given the absence of conditional effects between education and marital duration. Interestingly, in these daily interactions the actual circumstances of the couple and their family arrangements play a significant role in the capacity of wives to influence their husbands' values, especially when partners follow a gender traditional division of labour at home.

3.4.3. Robustness checks

In this chapter I have concentrated on explaining why partners come to share more similar traditional gender and family values over time. This choice is substantively interesting since, as I have

shown empirically, wives and husbands tend to become more conservative in their views after the start of the relationship. Moreover, this tendency unfolds and intensifies over the time they live together. However, it is worth asking whether the main findings regarding the reciprocal influences between the spouses and the role of education in the resemblance between the gender values of the spouses are robust to an alternative specification of the dependent variable, particularly to the case of analyzing the egalitarian values of the spouses.

In order to do this, I have replicated the analysis presented in Tables 3.5 and 3.7 for the indices of wives' and husbands' gender values recoded into an egalitarian direction and the dissimilarity index calculated as the absolute differences between the egalitarian values of the spouses, respectively. Table A.3.6 in the Appendix shows the results for the study of the reciprocal influences between the spouses. Interestingly, they are symmetrical to those already commented. That is, the effect of the spouses' prior egalitarian values is equal to the traditional specification used in the chapter. In addition, the effect of the explanatory variables is also of the same intensity but, as expected, with the reversed sign, since here we are analyzing how they are associated with partners being more egalitarian in their gender and family matters. The results for the effect of education on the level of dissimilarity between the gender values of the spouses reported in Table A.3.7 are the same as for the case of absolute difference between the traditional values of the spouses. However, the two models are not fully symmetrical. Some mild differences in the intensity but not in the direction of the relationship are found for couple's work status, the age of the youngest child in the household, and the marital status of the couple. The most interesting difference though is for the wives' and husbands' prior egalitarian values where the sign of the effect is reversed but the intensity remains. Clearly, since these variables indicate the direction of the dissimilarity measured by the dependent variable and I have shown that wives are, on average, more egalitarian than their husbands, an increase in wives'

egalitarian attitudes increases also the distance between the gender values of the couple while the opposite applies when husbands become more egalitarian.

Finally, the last robustness checks addresses the question on whether, at least, part of the similarity between the gender values of the spouses studied with the analysis presented in Table A.3.8 may be the results of the interview conditions. Particularly, as mentioned in footnote 22, the presence of the partner while being interviewed may affect responses to questions about gender and family values. To test this I have run a new version of the model that includes a dummy variable indicating whether the partner was present while the respondent was being interviewed during the values section of the panel which includes the set of questions that address gender and family matters. As shown in Table A.3.8 in the Appendix even though the reported coefficient is negative in line with our expectations it is far from being significant. It is worth mentioning that despite the drop in the sample size, as this question was only asked in 7 out of the 15 waves of the BHPS used in this dissertation; the main results discussed in the chapter are robust to this specification. Such influence through the presence of the partner during the interview could stem from the wife given more traditional answers or the husbands more egalitarian ones, or perhaps through a combination of the two. In order to study this possibility, the full specification of the model in Table 3.6 for the reciprocal influences was re-estimated introducing two dummies for the presence of the partner in the wife's and the husband's gender values equations. As before, these dummies did not report any significant association. The results are shown in the second column of Table A.3.8.

3.5. Conclusions

In this chapter I have studied the couple relationship in one dimension not frequently considered: the relative values of wives and husbands towards gender and family matters. I have argued

that research on values is of special importance in sociological inquiry because of their impact on the lives of individuals. Although the family has deserved increasing attention as one of the settings for learning and transmitting values the interest has mainly focused on the transmission of attitudes between parents and their children and not between the spouses themselves. However, the marital union plays a key role in shaping the life chances of the spouses which allows for the inclusion of new dimensions, such as this of values, in the study of inequalities within the couple.

The results of the chapter suggest that both wives and husbands become more traditional in their gender and family values over marriage. Interestingly, this does not seem to be simply an ageing effect as the comparison between singles and couples has highlighted. Therefore, there is something inherent in the couple relationship itself that makes partners more traditional. This attitudinal change unfolds through the duration of the relationship. Husbands appear as slightly more conservatives than their wives and translate this into very different roles of the spouses within the family. Indeed, the different roles of the spouses is evident in the gendered division of housework discussed in chapter two and consequently in this chapter in the stronger capacity of wives to influence their husbands' values when the couple agrees in a gender-traditional division of the chores. Interestingly, this gender difference based on the actual circumstances of the couple and their family arrangements appears to modify the symmetrical direct influence between the gender values of the spouses even if wives themselves are, on average, more egalitarian than their spouses. Therefore, the results discussed in the chapter suggest that the role saliency of wives at home plays an important role in the gender and family views of the spouses. There remains an issue of endogeneity between these family arrangements and couple events and the gender values of the spouses. This makes it necessary to take the relationships found more as associations that indicate a plausible channel for the reciprocal influences in the couple than as pure causal ones.

The chapter has also discussed the role of education, and, particularly of educational homogamy, in the attitudinal similarity of the spouses. Classical theories of mate selection have argued, but barely tested, that the match on education should facilitate a greater resemblance in values. However, the analysis of this chapter, but also of chapter two, have shown that there is indeed a considerable heterogeneity between the level of education of the spouses and their gender values suggesting that these key attitudes so closely linked to patterns of inequality between women and men are not as permeable as other values and attitudes to the educational credentials. Thus, educational homogamy as such does not seem to play a significant role in the similarity of the gender values of the spouses either upon partnership nor over time. Indeed, the findings suggest that it is again wives' education, more than the husbands' that may facilitate an increasing resemblance between their gender values over marriage.

Substantively, these results appear to confirm that the gender values of the spouses are a reflection of the persistent gender inequalities at home even in a context in which education has certainly weakened some of the burdens that have traditionally hindered the women's involvement in the labour market. As in chapter two, these results question the extent to which we are witnessing a re-definition of the traditional gender roles of the spouses that may fit with the definition of gender equality outline in the introductory chapter of the dissertation. In the next chapter I complete this picture of the couple relationship through the study of the interplay between the different gender roles of the spouses at home and their education on the stability and quality of the relationship.

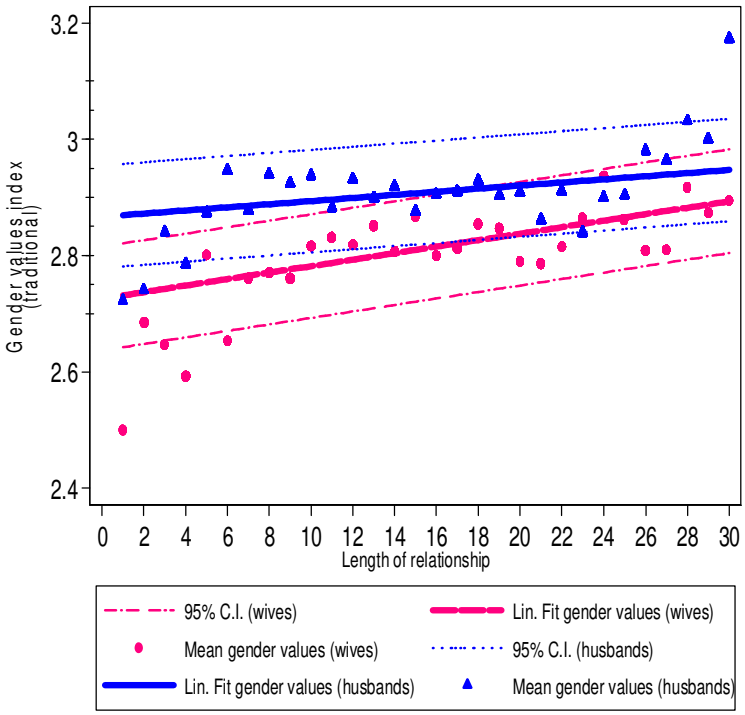
APPENDIX CHAPTER 3

Table A.3.1. Average marital relationship by level of disagreement in gender and family values

Level of disagreement	Mean of duration	N
0	10.01 (9.65)	1,918
0-0.5	10.10 (9.73)	8,891
0.5-1	9.75 (9.75)	4,270
1-1.5	9.72 (9.96)	1,459
1.5-2	9.87 (9.89)	359
2-2.5	12.61 (9.82)	61

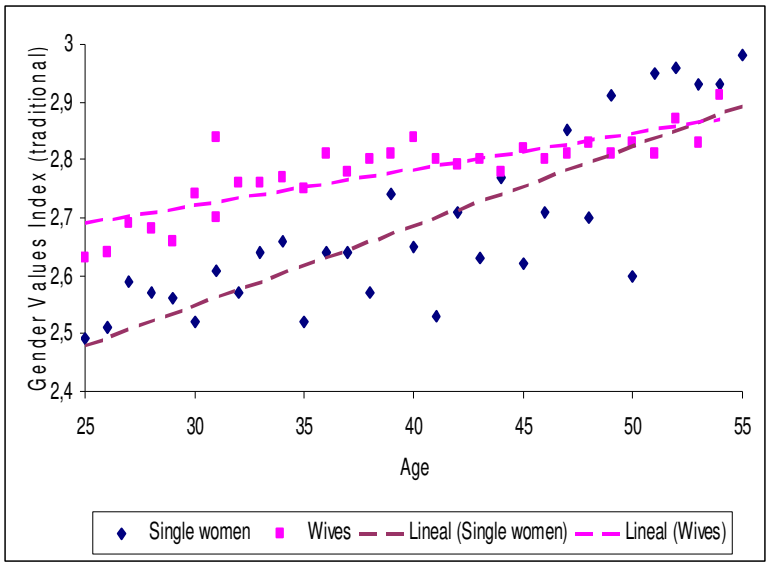
Standard deviations between parentheses.
Source: BHPS: 1991-2005.

Figure A.3.1. Evolution of gender and family values of the spouses over the duration of the relationship (balanced panel without repartnership)



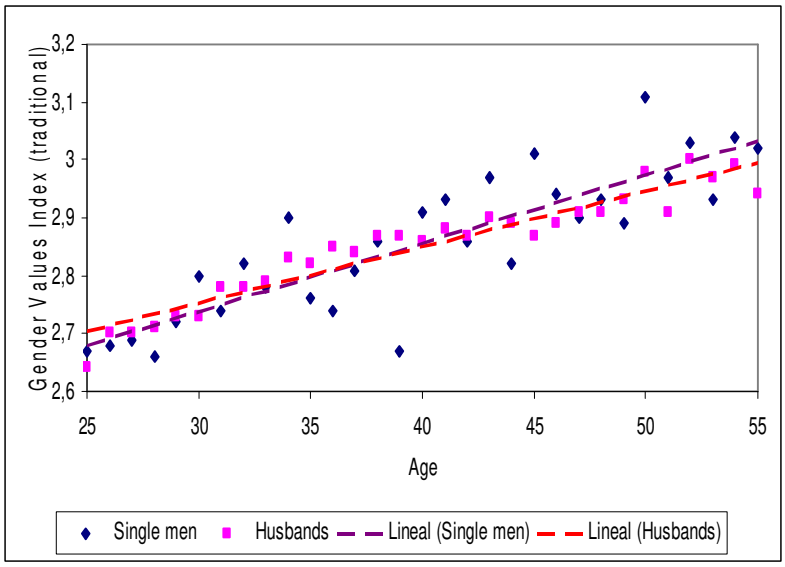
Source: BHPS: 1991-2005.

Figure A.3.2. Evolution of gender and family values among single and married women aged 25-55 years old



Source: BHPS: 1991-2005.

Figure A.3.3. Evolution of gender and family values among single and married men aged 25-55 years old



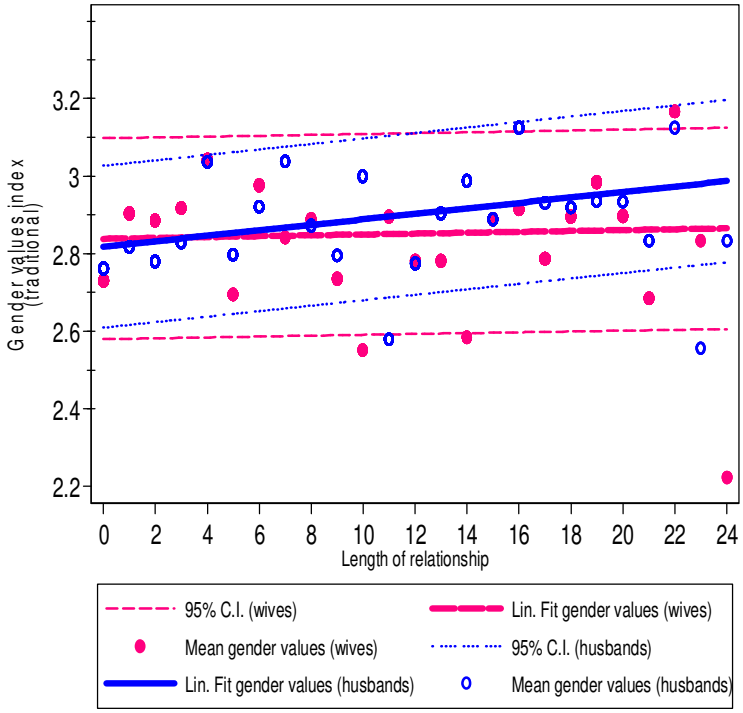
Source: BHPS: 1991-2005.

Table A.3.2. Mean comparison tests of change in traditional gender values as marital status of women and men changes from single to partnered from t-1 to t[1]

Women	Traditional gender values (mean)	Diff. (Single-Partnered)	Men	Traditional gender values (mean)	Diff. (Single-Partnered)
Remain single	1.87 (2.71)	-0.26***	Remain single	1.82 (3.06)	-0.47***
N 6,470			*N 7,453*		
Change to partnered	2.13 (1.86)		Change to partnered	2.29 (2.00.)	
N 2,624			*N 2,543*		
		Difference (Women-Men)			
Remain single		0.05			
Change to partnered		-0.16***			

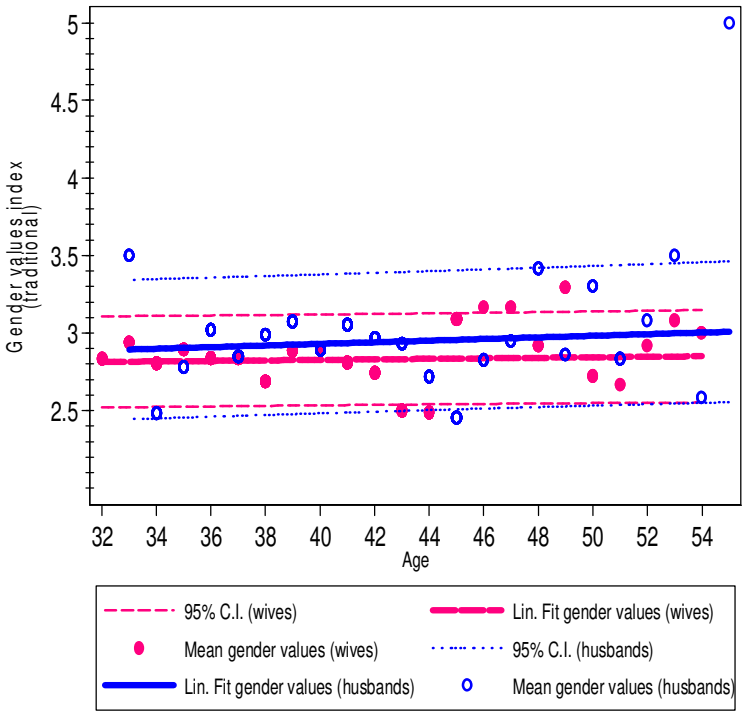
*** p< .01 ** p< .05 * p< .1 (two tailed paired observations test).
1. Household size could not be adjusted as in chapter two due to sample size limitations since the battery of questions regarding.
Source: BHPS: 1991-2005.

Figure A.3.4. Evolution of the gender and family values of the spouses over the duration of the relationship (constant age: 40 years old)



Source: BHPS: 1991-2005, own calculations.

Figure A.3.5. Evolution of the gender and family values of the spouses over the age of the spouses (constant duration: 15 years of union)



Source: BHPS: 1991-2005.

Table A.3.3. F test of differences between the coefficients of the couple's education for couples in relationships >1 year changing the reference category

Reference category: Low-High		Reference category: Low-Low		Reference category: Medium-Medium		Reference category: High-Low	
Low-Low	-0.04	Low-Medium	-0.03	Low-Low	0.06***	Low-Low	-0.001
	(0.03)		(0.03)		(0.03)		(0.03)
Low-Medium	-0.07**	Low-High	0.04	Low-Medium	0.03	Low-Medium	-0.03
	(0.03)		(0.03)		(0.02)		(0.03)
Medium-Low	-0.08**	Medium-Low	-0.04	Low-High	0.10***	Low-High	0.03
	(0.03)		(0.03)		(0.03)		(0.03)
Medium-Medium	-0.10***	Medium-Medium	-0.06***	Medium-Low	0.02	Medium-Low	-0.04
	(0.03)		(0.03)		(0.02)		(0.03)
Medium-High	-0.09***	Medium-High	-0.05***	Medium-High	0.01	Medium-Medium	-0.07**
	(0.03)		(0.03)		(0.02)		(0.03)
High-Low	-0.04	High-Low	0.001	High-Low	0.07**	Medium-High	-0.05**
	(0.03)		(0.03)		(0.03)		(0.03)
High-Medium	-0.08***	High-Medium	-0.04	High-Medium	0.03	High-Medium	-0.04
	(0.03)		(0.03)		(0.02)		(0.03)
High-High	-0.07***	High-High	-0.03	High-High	0.04**	High-High	-0.03
	(0.03)		(0.02)		(0.02)		(0.03)
Test of difference *F* distribution (1 *df, 3433*)							
Low-Low/ High-High	1.15	Low-Medium/ High-High	0.01	Low-Low/ High-High	1.15	Low-Low/ High-High	1.15
Low-Medium/ High-High	0.01	Low-High/ High-High	6.69***	Low-Medium/ High-High	0.01	Low-Medium/ High-High	0.01
Medium-Low/ High-High	0.29	Medium-Low/ High-High	0.29	Low-High/ High-High	6.69***	Low-High/ High-High	6.69***

Medium-Medium/ High-High	4.76**	Medium-Medium/ High-High	4.76**	Medium-Low/ High-High	0.29	Medium-Low/ High-High	0.29
Medium-High/ High-High	2.13	Medium-High/ High-High	2.13	Medium-High/ High-High	2.13	Medium-Medium/ High-High	4.76**
High-Low/High-High	1.21	High-Low/High-High	1.21	High-Low/High-High	1.21	Medium-High/High-High	2.13
High-Medium/ High-High	0.26	High-Medium/ High-High	0.26	High-Medium/ High-High	0.26	High-Medium/ High-High	0.26

Robust standard errors between parentheses.
*** p< .01 ** p< .05 * p< .1 (two tailed paired observations test).
Source: BHPS: 1991-2005.

Table A.3.4. OLS models for the conditional effect of partners' education on the similarity between partners' traditional gender values over marriage

DV: Dissimilarity in couple's traditional gender values (absolute difference)	Model (1) *Full model*	Model (2) *Interaction*
Wife's education[1]		
Medium	-0.06*** (0.02)	-0.05* (0.02)
High	-0.03* (0.02)	0.01 (0.02)
Husband's education[1]		
Medium	-0.03 (0.02)	-0.03 (0.03)
High	-0.01 (0.02)	0.00 (0.03)
*Interaction wife's education*duration*		
Medium-*Duration		-0.00 (0.00)
High*Duration		-0.0003** (0.00)
*Interaction husband's education*duration*		
Medium-*Duration		0.00 (0.00)
High*Duration		0.00 (0.00)
Wife's traditional gender values (t-2)	-0.07*** (0.01)	-0.07*** (0.01)
Husband's traditional gender values (t-2)	0.09*** (0.01)	0.09*** (0.01)

Wife's share of housework(t-1)	-0.00***	-0.00***
0-100 %	(0.00)	(0.00)
Couple's job status(t-1)[2]		
She doesn't work/He works ft	0.00	-0.07
	(0.04)	(0.08)
She works pt/He doesn't work	-0.07	-0.07
	(0.05)	(0.08)
She works pt/ He works ft	-0.01	-0.08
	(0.04)	(0.08)
She works ft/He doesn't work	-0.04	-0.04
	(0.05)	(0.08)
Both work ft	0.01	-0.06
	(0.04)	(0.08)
Wife's share of labour income	0.00	0.00
	(0.00)	(0.00)
Wife share of labour income (squared)	-0.00	-0.00
	(0.00)	(0.00)
Log of household income	0.01	0.01
	(0.01)	(0.01)
Age of youngest child (t-1)[3]		
0-2 yrs. Old	-0.04**	-0.04**
	(0.02)	(0.02)
3-4 yrs. Old	-0.01	-0.01
	(0.02)	(0.02)
5-11 yrs. Old	-0.02	-0.02
	(0.01)	(0.01)
12-15 yrs. Old	-0.01	-0.01
	(0.01)	(0.01)
>15 yrs. Old	0.03	0.03
	(0.05)	(0.05)
Married	-0.01	-0.01
	(0.02)	(0.02)
Later relationship	-0.00	-0.00
	(0.01)	(0.01)

Duration of relationship	-0.001**	-0.001
	(0.00)	(0.00)
Wife's age	-0.00	-0.00
	(0.00)	(0.00)
Husband's age	0.00*	0.00
	(0.00)	(0.00)
Time trend	-0.00	-0.00
	(0.00)	(0.00)
Constant	0.50***	0.54***
	(0.10)	(0.12)
Observations	9,940	9,940
F	3.63	3.41
Prob.> F	0.00	0.00
Adj. R-squared	0.02	0.02

Robust standard errors between parentheses (clustered by pid).
*** p< .01 **< .05 *< .1.
Reference categories:
1. Low.
2. Both don't work.
3. No children.
Source: BHPS: 1991-2005.

Table A.3.5. F test of differences between the coefficients of partners' education on the similarity between partners' traditional gender values over marriage

Wife's education[1]	
Medium	-0.06*** (0.02)
High	-0.03* (0.02)
Husband's education[1]	
Medium	-0.03 (0.02)
High	-0.01 (0.02)
Test of difference between coefficients *F df* (1)	
Education (wife-husband)[1]	
Medium-Medium	1.54
Medium-High	4.33**
High-Medium	0.03
Medium-High	0.92

Robust standard errors between parentheses (clustering by pid).
*** p< .01 ** p< .05 * p< .1 (two tailed paired observations test).
Reference category:
1. Low education.
Source: BHPS: 1991-2005.

Table A.3.6. SUR models of partners' reciprocal influences in egalitarian gender and family values

DV: Own egalitarian values (t)	**Model 2.1** *Wife*	*Husband*	Difference
Partner's variables			
Egalitarian values (t-2)	0.09***	0.10***	=
	(0.01)	(0.01)	
Age	-0.00	0.00	=
	(0.00)	(0.00)	
Education[1]			
Medium	-0.03**	0.02	***
	(0.01)	(0.01)	
High	-0.02	0.02*	**
	(0.01)	(0.01)	
Family & couple variables			
Wife's share of housework(t-1)			
0-100 %	-0.06***	-0.09***	=
	(0.00)	(0.00)	
Couple's work status(t-1)[2]			
She doesn't work/He works ft	0.01	-0.09**	**
	(0.04)	(0.04)	
She works pt/He doesn't work	-0.01	-0.06	=
	(0.05)	(0.05)	
She works pt/ He works ft	0.01	-0.09**	**
	(0.04)	(0.04)	
She works ft/He doesn't work	0.07	-0.07	**
	(0.05)	(0.05)	
Both work ft	0.03	-0.07*	**
	(0.04)	(0.04)	
Age of youngest child (t-1)[3]			
0-2 yrs. Old	-0.02	-0.00	=
	(0.02)	(0.02)	

3-4 yrs. Old	0.00 (0.02)	0.03 (0.02)	=
5-11 yrs. Old	0.04*** (0.01)	0.03*** (0.01)	=
12-15 yrs. Old	0.04*** (0.01)	0.04*** (0.01)	=
>15 yrs. Old	-0.04 (0.04)	-0.03 (0.04)	=
Wife's share of labour income	0.006*** (0.06)	0.004*** (0.06)	**
Wife share of labour income (squared)	-0.000*** (0.06)	-0.000*** (0.06)	**
Log of household income	0.01 (0.01)	0.01 (0.01)	=
Married	-0.00 (0.01)	-0.01 (0.01)	=
Later relationship	-0.00 (0.01)	0.01 (0.01)	=
Duration of relationship	-0.00 (0.00)	-0.001* (0.00)	*
Own variables			
Egalitarian values (t-2)	0.62*** (0.01)	0.59*** (0.01)	***
Age	-0.00 (0.00)	-0.00 (0.00)	=
Education[1]			
Medium	-0.03** (0.01)	-0.03** (0.01)	=
High	-0.03** (0.01)	-0.01 (0.01)	=
Time trend	-0.00** (0.00)	-0.00 (0.00)	=
Constant	0.89*** (0.09)	1.02*** (0.09)	

Observations	10,091	
R-squared	0.54	0.49
Correlation matrix of the residuals	0.13	
Breusch-Pagan Test of independence:	173.6	
chi2(1)	(0.00)	

Standard errors between parentheses.
*** p< .01 **< .05 *< .1 (*)< .1 (one-tailed difference).
Reference categories:
1. Low.
2. Both don't work.
3. No children.
Source: BHPS: 1991-2005.

Table A.3.7. OLS models for the effect of educational homogamy on the similarity between partners' egalitarian gender values over marriage

DV: Absolute difference in couple's egalitarian gender values	**Model (1.1)** *Full model*
Couple's education (wife first)[1]	
Low-Low	-0.04 (0.03)
Low-Medium	-0.07** (0.03)
Medium-Low	-0.08** (0.03)
Medium-Medium	-0.10*** (0.03)
Medium-High	-0.09*** (0.03)
High-Low	-0.04 (0.03)
High-Medium	-0.08*** (0.03)
High-High	-0.07*** (0.03)
Wife's egalitarian gender values (t-2)	-0.07*** (0.01)
Husband's egalitarian gender values (t-2)	0.09*** (0.01)
Wife's share of housework(t-1)	
0-100 %	-0.00** (0.00)
Couple's job status(t-1)[2]	
She doesn't work/He works ft	-0.00 (0.04)
She works pt/He doesn't work	-0.07 (0.05)

She works pt/ He works ft	-0.01 (0.04)
She works ft/He doesn't work	-0.04 (0.05)
Both work ft	0.00 (0.04)
Wife's share of labour income	0.00 (0.00)
Wife share of labour income (squared)	-0.00 (0.00)
Log of household income	0.01 (0.01)
Age of youngest child (t-1)[3]	
0-2 yrs. Old	-0.04** (0.02)
3-4 yrs. Old	-0.01 (0.02)
5-11 yrs. Old	-0.02 (0.02)
12-15 yrs. Old	-0.00 (0.01)
>15 yrs. Old	0.03 (0.05)
Married	-0.02 (0.02)
Later relationship	-0.00 (0.01)
Duration of relationship	-0.001* (0.00)
Wife's age	-0.00 (0.00)
Husband's age	0.00* (0.00)
Time trend	-0.00 (0.00)

Constant	0.62*** (0.11)
Observations	9,940
F	3.63
Prob.> F	0.00
Adj. R-squared	0.02

Robust standard errors between parentheses (observations clustered within individuals).
*** p< .01 **< .05 *< .1.
Reference categories:
1. Low-High.
2. Both don't work.
3. No children.
Source: BHPS: 1991-2005.

Table A.3.8. Effect of partner's influence during interview on the respondent's traditional gender values and on the similarity between the spouses' values

	Wife's traditional gender values	Husband's traditional gender values	Similarity between the spouses' values
Husband present	-0.01 (0.01)		
Wife present		-0.02 (0.01)	
Respondent interviewed while partner present			-0.006 (0.01)
N	3,862		4,075

Robust standard errors between parentheses (observations clustered within individuals).
*** p< .01 **< .05 *< .1.
Source: BHPS: 1991-2005.

CHAPTER 4. UNION DISRUPTION: THE EFFECTS OF HOMOGAMY AND THE DIVISION OF HOUSEWORK

4.1. Introduction

Divorce as a way of ending a union implies a difficult decision and considerable negotiations between the spouses.[1] It is for this reason that social scientists, mostly sociologists and economists, but also demographers, have long been interested in studying the determinants of the union break-up as well as its consequences for the living conditions of individuals from disrupted families, especially women and children. Thus, there is a wealth of research in sociology and economics of the family that explains the particular arrangements between the spouses and the functioning of the relationship as the outcome of decisions made by individuals and couples. In the specialization model in economics (Becker 1991[1981]) and trading model in sociology (Oppenheimer 1997) the emphasis is put on the idea of solidarity and mutual dependence between partners which stem from the distinctive specialization of partners in work and home activities.

[1] This chapter treats union dissolution without establishing any difference as to whether it takes the form of a separation or a divorce, in the case of legally married couples, or as splitting, in the case of consensual unions. This is done in order to maximize the number of events. The analysis will, however, distinguish between married and cohabiting couples.

For this perspective both partners, by specializing in different roles, contribute jointly to the wellbeing of the family and scholars make the couple the unit of analysis. The second contribution groups the bargaining models in economics (Chiappori 1988; Lundberg and Pollak 1993) and the social exchange theory in sociology (England and Farkas 1986). In these perspectives partners are no longer dependent on each other but able to negotiate the most convenient division of paid and unpaid work when seeking to increase their personal welfare. Partners are taken as individual actors and the interest lies more on their interactions than in mutual dependence and solidarity.

Although very different in their understanding of the principles that regulate the life of the family and the couple relationship, both perspectives share the common interest of studying the conditions and determinants of the quality and stability of the marriage. Thus, the dissolution of the union would be the outcome when such quality and stability are seriously damaged. Among the variety of factors that might lead to divorce, research has highlighted that the risk of divorce increases over the life course when equity between the spouses is damaged. For instance, in relationship with the economic position of partners, changes that alter the bargaining power of wives and husbands may introduce new pressures in the relationship that increase the likelihood of divorce (Böheim and Ermisch 2001; Weiss and Willis 1997).

The issue of balance and equality between partners is clearly manifested in the role of educational homogamy and the division of housework as determinants of divorce. As I have argued in the two previous chapters both elements are closely related with the internal power relationships between the spouses and, in turn, with the extent of gender inequalities within the couple and how they evolve over time. Clearly, educational equality between women and men, female involvement in paid labour, and the change in values towards a more egalitarian marriage have all altered the meaning of coupledom and how partners remain together. The consequence is that equality is now a key principle of partnership.

Thus, the chapter focuses on how this closeness in background, as measured by the educational attainment of the spouses, and the extent of equality in the internal arrangements of the couple, as measured by how partners share the domestic chores, jointly influence the stability of the union. To my knowledge, only Blossfeld and Müller (2002) explicitly address both issues - in a cross-country comparison which considers the mediating effect of the institutional framework on these individual determinants of divorce (Blossfeld and Müller 2002).[2]

The chapter builds upon this line of research and seeks to offer two main contributions on how education and the share of housework may affect the likelihood of marital break-up. On the one hand, concerning education it seeks to disentangle, through a comprehensive consideration of the educational attainment of the spouses, whether there is a stability *premium* associated with homogamy, particularly among highly educated couples. Previous research has shown that the rapid educational expansion over the past decades has mostly benefited women equalizing, at least, their level of education with that of men (Buchmann and DiPrete 2006). Thus, my research strategy will empirically distinguish, on the one hand, homogamous couples from those with different levels of education. In addition, I shall carry out a detailed empirical test to

[2] The role of institutional regulations such as divorce laws, family policies and welfare regimes is especially important in the case of marital disruption. Sociological research has extensively documented how they may affect the individual decision of divorce. See, for instance, the special issue of the European Sociological Review edited by Dronkers, Jaap, Matthijs Kalmijn, and Michael Wagner. 2006. "Causes and Consequences of Divorce: Cross-National and Cohort Differences, and Introduction to this Special Issue." *European Sociological Review* 22: 479-481. Other scholars working from a political economy have also shown that cross-national variation in labour market attributes, social policies affecting female employment, and divorce laws affect both female labour force participation and divorce. See, for instance, Iversen, Torben, Frances Rosenbluth, and David Soskice. 2005. "Divorce and the Gender Division of Labor in Comparative Perspective." *Social Politics* 12: 216-242.

examine whether the effect of couple's education is distinctively different from the individual effect of each partner's education.

It is a well established fact that homogamy is a binding force which brings stability to the relationship (Becker, Landes and Michael 1977) and produces positive spillovers over time reducing, for instance, partners' psychological stress (Brynin, Longhi and Martínez 2009) and increasing the sense of coupledom in their life styles (Kalmijn and Bernasco 2001). However, most of this research is limited since it is mostly focused on couples where both partners have got high educational credentials. This bias in the current research on homogamy arise out of the result of the increasing educational attainment of the younger cohorts, and, especially, of women (Mare 1991; Schofer and Meyer 2005).

The second contribution of the chapter is related with the study of the effect of housework on the risk of divorce. Domestic chores are one of the main activities to provide care and support to the family and so most of the negotiations in the daily life of the couple, and a potential source of conflict, are around how to share these duties. In addition, housework is closely related with the life opportunities of women and men in contemporary society. In this regard, scholars interested in the study of social stratification dynamics and gender inequalities have emphasized that in order to promote equal opportunities between women and men a new social contract is required which combines public intervention with the redefinition of the prescribed gender roles of women and men in the public and private spheres (Esping-Andersen 2002).

The chapter proposes a new look at the study of the effect of housework on divorce in connection with the role of education for the stability of the union. The two classical theories in sociology and economics regarding the effect of housework on the risk of divorce, as Cooke (2006) explains, yield different explanations within this context of increasing value of fairness and equality between partners. For the specialization and trading theories wives' smaller domestic participation that stems from a more gender equal relationship threatens the mutual dependence created by specialization and should increase, in turn, the risk of divorce.

On the contrary, for the social exchange and bargaining models women's independence through education and employment increases their power to negotiate a more equitable share of housework which should decrease the risk of marital break-up as husbands' contribution to housework increases. Thus, for these two approaches closeness in education triggers opposite effects on the risk of union disruption.

An alternative explanation of divorce, especially relevant for this chapter, stems from the 'doing gender' theory. As explained in chapter two, this approach concentrates on decision making in dual earner couples and on the consequences of this for the functioning of the relationship. This theory is based on a subjective and gender-specific idea of fairness in the couple. Thus, it argues that breadwinner wives may deploy compensatory strategies through the division of the domestic chores in order to avoid marital conflict as their earnings rise relative to their husbands'. For instance, it has been found that wives do not reduce their share of housework when they are the main breadwinners at home (Bittman *et al.* 2003). This behavioural response to the income differentials between the spouses allows wives to mantain their *ascribed* gender roles as homemakers. (Bielby and Bielby 1989; Brines 1994; Greenstein 2000; West and Don 1987).[3] Interestingly, some studies have found evidence that these compensatory strategies of wives reduce the risk of divorce (Cooke 2006; Greenstein 1996).

In this chapter I propose an extension to the classical formulation of the gender identity theory to the case of educational inequalities. As I have shown in chapter two the same gender-specific response through the deployment of compensatory strategies around housework is observed when wives are more educated than their husbands. The purpose of the chapter is to study the effect of this 'doing gender' behaviour on divorce. There

[3] This is also the prediction of the model of the "economics of identity" developed by the family economists Akerlof and Kranton. See: Akerlof, G, and R Kranton. 2000. "Economics and Identitiy." *Quarterly Journal of Economics* 115: 715-753.

are two alternative scenarios. On the one hand, following the classical formulation of the gender identity theory, and assuming that there is a close relationship between education and income, when better educated wives keep doing much of the housework this should reduce the risk of divorce. On the other hand, an alternative scenario is also possible if education, as a form of cultural capital (Bourdieu 1986), is inherently different to income. In this case its obvious normative dimension related with preferences, life styles, and ideals of equity and fairness within the couple may increase the risk of divorce if a more equitable share of housework is not agreed between the spouses when the wife is more educated than the husband.

For testing the hypotheses drawn from the effects of education and the share of housework on the likelihood of union disruption the British Household Panel is used. The BHPS allows for the kind of analysis that the study of divorce requires. It contains a rich set of information of all the variables of interest. Further, its longitudinal structure and the possibility of reconstructing the family and fertility histories of the couples interviewed enables the use of Event History Analysis (EHA). EHA is a suitable tool when studying phenomena involving the effect of time as in the case for the risk of divorce which may occur at any time after partnership. At the same time, it allows for the dynamic consideration of the effect of housework as well as other important variables which may change over the duration of the relationship. Methodologically, discrete- time EHA will be used given the structure of the data (Allison 1982; Blossfeld, Golsch and Rohwer 2007).

The chapter is organized as follows: section two discusses the main theoretical contributions on the relevant topics and presents the research questions. Section three explains the data and the methodological approaches used in the empirical analysis. The results are presented and discussed in section four. The chapter ends with the conclusions.

4.2. Theoretical framework, research questions and hypotheses

Divorce is one of the forces that have redefined gender relations in western societies. The other, also associated with the changing role of women, is increasing female labour force participation. Together they have altered the position of women in society and fuelled acute transformations within the family, particularly in the relationships between its members. It is for this reason that a comprehensive account of the changing meaning of coupledom for the spouses should consider whether there are gender differences in the process of divorce. The theoretical framework of this chapter integrates previous contributions to the analysis of marital disruption focused on the effect of the division of housework and the influence of homogamy over the course of marriage to study whether there are observable inequalities between partners in the likelihood of union dissolution.

4.2.1. The effect of homogamy in the process of union disruption. Disentangling its effects on marital quality and the stability of the relationship

Based on the above discussion regarding the effect of education on divorce this chapter aims to answer the following research questions:

Does homogamy always lead to more stable and better quality relationships reducing, in turn, the risks of divorce?

Are there differences in the effect of education on divorce along the educational gradient of the spouses?

The question of who marries whom is a fundamental building block in our societies. It is linked to patterns of social stratification and to the behaviour and preferences of individuals (Blossfeld and Timm 2003). Through the study of the homogamy patterns that

bring together individuals with similar social origin and characteristics such as education (Kalmijn 1991; Schwartz and Mare 2005), religion (Johnson 1980), ethnicity (Kalmijn 1998), or occupation (Bernasco 1994; Ultee, Dessens and Jansen 1988) we obtain a better understanding of the mechanisms that underline the reproduction of social inequalities.

Over the last decades research on homogamy has concentrated on education as the main force that brings individuals together. In the past, instead, they were other ascriptive dimension such as wealth or ethnicity rather than achievement ones like education the main focus of homogamy research. The reason lies in the increasing participation in higher education of the younger cohorts (Kalmijn and Flap 2001; Schofer and Meyer 2005; Shavit and Blossfeld 1993; Mare 1991), a process driven by women as their educational participation equals and in some cases even exceeds that of men (Buchmann and DiPrete 2006). Educational expansion means that it has become easier to meet people of the opposite sex with the same level of education at an age in which individuals begin to partner. Indeed, educational institutions themselves have become settings where opportunities for dating actually take place which further increases the chances of forming couples where both partners are graduates (Blossfeld and Timm 2003).

The classical argument linking homogamy with marital stability is that homogamous couples form more stable and better quality relationships. This has been stressed both in contributions from family economics (Becker, Landes and Michael 1977; Weiss and Willis 1997) and from the sociology of the family (Blossfeld and Müller 2002). It follows that a better quality match implies higher odds that the couple will last longer compared to heterogamous partnerships. Indeed, this is the standpoint in the research that has directly related marital homogamy with union dissolution (Weiss 1997). Overall, empirical findings support the argument that homogamy protects against divorce. This result has been found over the last decades for a number of homogamous dimensions and applying different empirical strategies (Atkinson

and Glass 1985; Blossfeld and Müller 2002; Heaton 1984; Heaton, Albrecht and Martin 1985; Kerckhoff 1976).

The sociological explanation provided for the stabilizing effect of homogamy on marriage emphasizes that when partners share a similar background it is more likely that they also share lifestyles and preferences which should increase the satisfaction with the union and the wellbeing of the spouses reducing, in turn, the chances of divorce (Blossfeld and Müller 2002).[4] Family economists often refer to the utility gained through positive assortative marriages (Becker, Landes and Michael 1977; Weiss and Willis 1997). Interestingly, whether using the term satisfaction or utility (which often masks that both material and emotional factors are important) sociologists and economists acknowledge the importance of homogamy in bringing stability to the relationship.

The purpose of this chapter is to deepen our understanding of the stabilizing effect of homogamy. It will do so by studying the influence of education on divorce. This strategy will make it possible to consider the effect of homogamy at different levels of education but also compare them with those couples in which partners have different educational credentials. The aim is to clarify what the real effect of homogamy is, on the one hand, and where this effect is concentrated. In addition, the analysis will be complemented with the comparison between the joint and individual effect of partners' education, as in the previous two chapters, so as to establish whether the effect for the stability of the union stems from both partners' education or whether it is the consequence of the individual educational attainment of the spouses, which would therefore highlight the role of gender differences. Drawing on existing research the first hypothesis of

[4] In the descriptive analysis below I shall present data on the evolution of marital satisfaction of wives and husbands over marriage. As it will be discussed there this measure of subjective wellbeing is likely to reflect the spouses' own appraisal on the quality of the relationship and as such being a good approximation to the actual decision of divorce.

this chapter refers to the broad contrast between those couples with similar levels of education and those with different qualifications. Specifically, the hypothesis for the homogamy effect reads as follows:

HOMOGAMY HYPOTHESIS: All homogamous couples have lower risks of divorce than heterogamous couples.

Regarding the comparison of homogamous couples, given the increasing numbers of individuals with higher qualifications, I argue that the homogamy effect will be concentrated among those couples with higher qualifications as compared to those who share lower levels of education. The rationale for this hypothesis is based on two arguments. On the one hand, after controlling for family income and the occupational status of the spouses, higher qualified couples are more satisfied with their relationship than others with lower educational credentials (Wilkie, Ferree and Ratcliff 1998). On the other hand, the lower risks of divorce among high educated spouses may arise out of the capacity to solve their disputes more successfully than those with less education. Highly educated spouses would find it easier to negotiate and feel empathy for each other's views and opinions (Dronkers and Harkonen 2006; Kurdek 1995; Zvonkovic, Schmiege and Hall 1994). Therefore, the hypothesis concerning the stability premium of high educational homogamy is:

HIGH HOMOGAMY HYPOTHESIS: Couples who share higher qualifications have lower risks of union dissolution than those with similar lower levels of education.

In short, this section has addressed the role of educational homogamy in the process of union disruption. It has done so by discussing those aspects that appear to be associated with the quality and stability of homogamous marriages. The discussion has led me to draw specific hypothesis for the effect of educational homogamy on divorce. Furthermore, the section also contains a

specific discussion of the changing effect of homogamy along the educational gradient arguing that highly educated couples benefit from more stable and better quality unions. This specific hypothesis for the effect of high education will permit to analyze whether there is an unequal distribution of the risks of divorce along the educational gradient as well as to discuss its consequences for society.

4.2.2. The effect of housework in the process of union disruption. A review of three theoretical approaches

As advanced in the introduction of this chapter, it aims to answer the following research questions regarding the effect of the share of housework on divorce:

Does the inequality in the division of housework between the spouses affect their risk of divorce?

What happens to the risk of divorce when high educated wives 'do gender' through the division of housework?

Housework, understood as the collection of unpaid activities to provide care and support for family members and maintain the home, occupies a central place in the relationship between the spouses (Shelton and John 1996). Wives and husbands, explicitly or implicitly, deal with the share of the domestic chores in their daily lives. Some authors regard an agreeable division of household labour as a key determinant for marital satisfaction and the stability of the relationship (Stevens, Kiger and Riley 2001). More importantly, the conception of what constitutes a fair share of housework has been found to bear different meanings for wives and husbands in dual-earner couples (Wilkie, Ferree and Ratcliff 1998). This finding yields support for a gendered model of marital satisfaction in the case of partners who face similar time constraints and are, to some extent, economically independent.

Building upon this line of research, this section will discuss the theoretical foundations for the study of the relationship between the domestic division of labour in the couple and the risk of divorce.

To address the role of housework in the process of union disruption and draw the hypotheses that will be tested in the empirical section below I shall make use of the main theories and models that both within sociology and economics have addressed the factors associated with the unequal share of housework between partners. Interestingly, although the main focus in the research on the division of housework has been on its interplay with the unequal position of partners on paid labour (Hochschild and Machung 1989), it is clear that if the division of unpaid labour reflects the outcome of an agreement between the spouses it should have a direct influence on the stability of the relationship. This is the main argument, for instance, in a recent contribution by Cooke (2006). The author compares how the household division of paid and unpaid labour affects marital stability in the former West Germany and the United States. Her main argument is that because gender relations remain embedded in their socio-political context such influence should vary in the two countries. Specifically, since in West Germany the configuration of the welfare regime relies on the traditional male breadwinner model any move towards more equitable gender relations, either by increasing women's participation in the labour market or by reducing their contribution to housework should increase the risk of divorce. Conversely, for the case of the United States where the welfare regime does not regulate the private sphere to the same extent, a more balanced relationship between the spouses should not negatively affect their likelihood of marital dissolution. Applying Event History Analyisis to a sample of couples for the two countries her results largely confirm her arguments.

The idea that gender relations are context-dependent is relevant for a better understanding of how the spouses respond differently to those factors associated with greater instability in the marriage. In this vein, scholars who have theorized about the

socio-political foundations of the systems of welfare provision have been criticized by feminist contributions for not sufficiently considering the gender dimension in their typologies of welfare regimes. As Orloff explicitly puts it "scholars may disagree about the causes of gender inequality and women's subordination, but few would deny that the character of public social provision affects women's material situations, shapes gender relationships, structures political conflict and participation, and contributes to the formation and mobilization of specific identities and interests" (1993: pp. 304-305). In particular, the author argues that while the power resources school, best represented by authors such as Esping-Andersen and Korpi (Esping-Andersen 1990; Korpi 1989), have demonstrated the fundamental role of politics in designing the system of social policy, they have not paid that much attention to how these systems also vary in their gender content, how social provision and other state and non-state institutions affect gender relations, and how their impact in gender relations is related to its effects on other social relations. It is worth mentioning that these criticisms have had a significant impact since they were formulated by Orloff and other feminist researchers.[5] Recently, Esping-Andersen has acknowledged that a comprehensive account of the welfare regime systems should add to their social stratification dynamics and the extent of decommodification, how gender relations are shaped and embedded between the state, the market and the family in the whole system of welfare provision (Esping-Andersen 1999; Esping-Andersen 2002; Esping-Andersen 2009).[6]

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[5] Many scholars working from different perspectives have proposed alternative models and classifications of welfare regimes to those discussed by Esping-Andersen. For a complete and recent summary of these contributions as well as of the principles they are based on see: Arts, Wil, and John Gelissen. 2002. "Three Worlds of Welfare Capitalism or More? A State-of-the-Art Report." *Journal of European Social Policy* 12: 137-158.

[6] The concept of *decommodification* as elaborated by Esping-Andersen denotes provision of services outside the market, either by the

The mediating effect of the socio-political context explains for Cooke (2006), as stated above, why the unequal share of housework increases the risks of divorce among German couples while it does not have such an influence in the case of US couples. The strategy in this chapter, based on a single country study, does not allow me to consider the effect of the institutional framework. Nevertheless, results of the empirical analyses will be discussed in line with the main characteristics of the United Kingdom as representative of the liberal welfare regime type, especially with reference to how gender relationships within the family may be shaped by the state and market domains.

There are three main theories that have implicitly addressed the effect of the division of housework on marital stability. They yield contradictory hypotheses because they are based on different assumptions on the functioning of the family and the intimate negotiations between the spouses. The first one stems from the specialization model of the New Home Economics (Becker 1991[1981]) and the trading contribution in family sociology (Oppenheimer 1997). For these approaches gender specialization between paid and unpaid labour in the labour market and the home, respectively increases partners' mutual dependence and deepens family solidarity. A direct implication follows: women's employment weakens the benefits of specialization because it increases wives' economic independence and reduces their contribution to housework which, in turn, should increase the risk of divorce.[7] Therefore, the hypothesis concerning the effect of the

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state or the family. Conversely, *defamilization* refers to the provision of services which in some welfare regime fall within the responsibility of the family by the state or the market. Thus, the triad state, market and family constitute the whole system of welfare provision in the most recent reformulation by Esping-Andersen. The specific combination of these three spheres gives rise to very different system of social provision. See: Esping-Andersen, Gosta. 1999. *Social Foundations of Postindustrial Economies*. New York: Oxford University Press.

[7] The hypotheses presented concentrate on wives' behaviour. This is done because despite the lack of direct information on the BHPS as to

division of domestic labour between the spouses on the risk of divorce that can be drawn from the specialization and trading models is as follows:

SPECIALIZATION HYPOTHESIS: A reduction in wives' share of housework that stems from their labour market involvement increases their risk of divorce.

The second contribution groups the bargaining models in family economics (Lundberg and Pollak 1993) and the social exchange models from sociology (England and Farkas 1986). For these theoretical approaches couples negotiate the division of paid and unpaid labour based on their relative resources and preferences. In these negotiations the alternatives to the marriage are important factors that influence the relative bargaining power of the spouses over paid and unpaid labour. Thus, women's employment and economic independence increase their bargaining power to negotiate a more balanced division of housework. If husbands increase their contribution to housework, this should reduce the likelihood of marital disruption, especially for wives. Therefore, the hypothesis that stems from the social exchange and bargaining models concerning the effect of the share of housework on the risk of divorce is as follows:

BARGAINING HYPOTHESIS: A more equitable share of housework reduces her risk of divorce.

Finally, as advanced in the introduction, an extension to the gender identity theories allows me to jointly consider the effect of education and the share of housework on the risk of divorce. The

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whom initiated the divorce in order to reconstruct the marital histories of the couples analyzed I have used the information as provided by the wives. After different robustness checks, it turned out that they were more accurate in reporting the dates of their marital histories as compared to their male partners. For a more detailed discussion on the construction of the couple dataset used in the thesis see the introductory chapter.

classical formulation of these approaches argues that wives may deploy compensatory strategies when their relative bargaining position in the household threatens the traditional male breadwinner model. In particular, it has been found that when women's earning exceed those of their husbands they may react by assuming a more traditional role at home (for instance, maintaining a very unequal division of housework or even increasing their share) to compensate for this 'gender deviance' (Bittman *et al.* 2003). Thus, according to the identity model in economics (Akerlof and Kranton 2000) and the 'doing gender approach' in sociology (Greenstein 1995; Greenstein 2000) we should expect that if such adaptation actually takes place this should reduce the risk of divorce for both wives and husbands. In this chapter I concentrate on the case of couples where wives are more educated than their husbands. In this vein, the findings of chapter two have already shown that the inequality in the division of housework is bigger in couples where the wife has got more education than the husband compared to others with more similar educational credentials mostly because she increases her contribution in line with a typical 'doing gender' behaviour. Therefore, the classical formulation of the hypothesis that stems from the gender identity theory when applied to educational differences between the spouses reads as follows:

GENDER IDENTITY HYPOTHESIS: In couples where the wife is more educated than the husband a gender traditional share of housework should reduce the risk of divorce.

In short, this section has addressed the question of whether the division of housework between the spouses affects the stability of the relationship and, if so, in what ways it does. Three theoretical approaches have been discussed and specific hypotheses drawn. Of particular interest for the purpose of this chapter and the dissertation is whether housework inequalities protect the couple against divorce when the wife is more educated than the husband

as the classical formulation of the 'doing gender' theory applied to the study of union disruption would argue.

4.3. Data, methods, and variables

The data used in the analyses presented in the next section is a couple dataset drawn from the waves 1991-2005 of the BHPS. The main characteristics of this derived dataset as well as the criteria followed in the sample selection have been explained in detail in the introductory chapter of the dissertation. In what follows I discuss the features of the EHA used. Finally, this section ends with the presentation of the variables introduced in the analysis.

4.3.1. Event history analysis

The empirical analysis carried out in chapter five is based on a discrete-time Event History Analysis (EHA). EHA is a multivariate regression technique suitable when the phenomenon under study and the specific definition of the dependent variable are dynamic (Blossfeld, Golsch and Rohwer 2007; Yamaguchi 1991). A discrete-time EHA takes the effect of time into account through the inclusion of a duration variable among the covariates and by allowing the independent variables also to vary over time. In this case the duration dependence of the base line hazard of divorce is assessed by using a variable which measures the length of the relationship in years, that is, from the time in which the couple is formed to its dissolution due to divorce.

I will apply techniques of EHA to study the effect of homogamy and the division of housework on the likelihood of union disruption over the course of the relationship. Specifically, the *dependent variable* is a binary variable indicating whether a couple divorces or separates (in the case of marriages) or splits (in the case of cohabiters) in a given year. Once a marital break-up occurs, the couple is removed from the analysis as they are no

longer at risk of divorce. During the time period considered, 908 couples reported divorcing, 653 reported separation, and 471 reported splitting. Out of these 1,021 correspond to first unions and 1,011 to second or later unions. Finally, 5,237 couples stay together. [8]

There is a potential source of bias when using a discrete-time model as an approximation to a continuous time model when the underlying phenomenon is of continuous nature which is the existence of ties in the data. Events are tied when two or more subjects experience the event within the same time interval. Even though this might not be possible in theory, in practice it happens due to the fact that events are measured in discrete-time units. In this case, logit models like the ones used below, has been frequently employed when these ties arise from grouping continuous-time data into intervals (Allison 1982).

The key statistical concept of EHA is the hazard (or transition) rate. For the case of a discrete-time model is defined as follows:

$$r(t,c) = r_0(t)e^{\beta_c}$$

[8] Besides excluding couples who report more than one divorce during the panel, the final sample does not include couples who remarried or repartnered in their observation window. There is also a potential issue regarding non-random attrition in the panel. For instance, it might be the case that those individuals who are more likely to divorce are also more likely not to be interviewed either because they do not wish to participate in the survey or because they move out of the household. If this is the case, it could bias the analysis as the number of divorces observed in the data could be below the actual number of couples who get divorce. I have calculated the attrition rates of couples who divorce across two consecutive waves and compared it with those who remain partnered. The results show that even though the attrition rate of divorcees is higher than that of partnered individuals, the difference is small (23% compared with 19%), suggesting that non-random attrition may have a limited effect in the analysis carried out.

where *r(t, c)*is the transition rate for an individual with a risk of exposure *t* and a vector of variables *c*. R_0 is the baseline hazard function corresponding to the reference period and β_c is the vector of coefficients from the regression, quantifying the effect of each independent variable. $e^{\beta c}$ expresses the effect of each explanatory variable as related to the reference cateogory. Formally, the transition rate cannot be interpreted as a probability since its values can be greater than one. However, if the time interval is small, then *r(t, c)* can be interpreted as the conditional probability that the event occurs within the time interval (Bernardi, 2006: 25).

EHA comprises a set of related statistical methods specially designed to handle censored duration data. These methods offer an elegant way to deal with right censoring, especially when the reason explaining censoring is independent of the event of interest. Left censoring is much less manageable than right censoring. In this case right censored refers to those couples who remain in a relationship the last time they are observed in the panel and whose likelihood of divorce later on is unknown. Left censoring is not an important issue here since it refers to episodes of divorce before the individuals were selected to enter in the panel for which we do not have information. It might be the case that some individuals for some unobserved characteristics are more likely to break-up. This possibility will be controlled for thanks to the inclusion of a dummy variable indicating whether the observed relationship is the first or a later one in the marital history of the individual.

A discrete-time EHA is estimated using a logit regression model which is usually written as:

$$\log(P_{it} / 1 - P_{it}) = r(t) + B_1 x_{it1} + \ldots + B_k x_{itk}$$

where P_{it} is the conditional probability that individual *i* has an event at time *t*, given that the event has not already occurred. The model says that P_{it} is related to the covariates by a logistic regression form. In this model, it is possible to divide the time scale into intervals and assume that the hazard is constant within each interval but can vary across intervals. The choice of intervals

is arbitrary but has the advantage that the researcher does not need to assume any specific form for r*(t)*. Formally, *r(t)* depends on a series of dummy variables for the time intervals but in long durations, like in the length of the marriage, this method becomes very difficult to handle given the numbers of dummies needed, the associated loss in the degrees of freedom, and the numbers of coefficients to interpret. The alternative proposed in the specialized literature is to use a transformation of the duration variable that can lead to a finer characterization of the underlying process. In most cases this is done through the inclusion of a quadratic transformation of the duration variable (Box-Steffensmeier and Jones 2004). In the analysis presented below the quadratic form of the length of the marriage allows the possibility of controlling for changes in the likelihood of marital disruption over marriage (Kalmijn, De Graaf and Poortman 2004).

Logistic regression coefficients are estimated by maximum likelihood method, which is the natural log of the probability of occurrence of the outcome divided by the probability of not occurrence. This implies that the parameters estimated are not readily interpretable apart from the sign and significance level. To provide an easy interpretation of the results I will use two methods. Firstly, the regression coefficients will be presented as odds ratio. Second, some predicted probabilities for a representative selection of couples will be also estimated to show the effect of the main variables of interest on the likelihood of divorce.

Odds ratio give an idea of the intensity of the relationship between the covariates in the model and the dependent variable. Specifically, they are defined as the ratio of the odds that a particular outcome occurs in one group to the odds of it occurring in another group. Formally:

$$\frac{p_1 / 1 - p_1}{p_2 / 1 - p_2}$$

They are obtained by exponentiating the coefficients of the logistic regression: a value greater than one indicates an increase in the odds that the event will happen, if less than one it indicates a reduction. If it is equal to 1, there is no relationship.

In addition, the main results of the EHA will be estimated controlling for unobserved heterogeneity using a RE estimator. The main conclusions regarding the role of education and the share of housework on divorce are robust to this specification. Unobservables appears to mainly influence the effect of religiosity and the labour market characteristics of the couple on divorce. The results are available in Table A.4.1 and a more detailed discussion of them in the robustness check section

4.3.2. Variables

The descriptive statistics presented in Table 4.1 are the values of the variables averaged over the observed years, not a snapshot of couples in any given year of marriage. The *dependent variable* was discussed above. The *independent variables* are divided into control variables and the main covariates of interest for my study. The control variables are the following: [9]

Couple's work status: This is a categorical variable grouping the wives and husbands into six groups. For wives it considers three different alternatives: no work, part-time work (30 hours a week or below) and full-time work (above 30 hours a week). For husbands only no work and full-time work is considered as the proportion of part-time workers in the sample used is below 2 percentage points. For the reasons explained in chapter two the few cases of part-time husbands are not included in the analysis. Thus the variable has six categories: workless couples, those in

[9] All the covariates are time-variant with the only exception of the dummy variable marking whether the observed relationship is the first or a later one for the wife. Changes of couple in the panel have been excluded to avoid the possibility of a couple divorcing more than once as explained above.

which the wife does not work and the husband works full-time, those in which the wife works part-time and the husband does not work, those in which she works part-time and he works full-time, those in which she works full-time and he does not work, and those in which both work-full-time.

Member of a religious group: The inclusion of variable controlling for the religious beliefs/involvement of the couple is important in any study of divorce since religiosity is reported as playing an important stabilizing role against divorce. Unfortunately, the BHPS does not include a good measure of the religious beliefs of the spouses or church attendance. The only question with a religious content that is present in the survey over most of the years is one asking respondents whether they belong to a religious organization. With the information available I have created a four-group categorical variable as follows: neither of the spouses belongs to a religious group, only the wife does, only the husband does or both do.

Number of children in the household: This is a household level variable recording the number of children in the household. It has four categories: childless couples, one child, two children, and three or more children. Traditionally, the presence of children has been associated with a lower risk of divorce.

Age of the youngest child in the household: This is a household level variable recoding the age of the youngest child present in the household. Research on divorce has consistently found that younger children limit the probability of divorce of the parents. The variable has five categories: no children, children aged 0-2 years old, 3-4 years old, 5-11 years old, and 12-15 years old.

Total household income (natural log): This is an indicator of the wealth of the family. The standard finding is that the higher the income of the family, the less likely is divorce.

Wife's contribution to the spouses labour earnings (0-100)*:* In this case according to the bargaining models and the resources allocation theories, the higher the share of income of the woman the higher is her bargaining power and the ability to divorce in

case of couple and family conflict. Also a quadratic specification of this variable is used to allow for non-linear relationships as labour income is a key aspect in the bargaining between the spouses.

Age at partnership (of the observed relationship): This is a linear variable for the age of the wife when the observed relationship was formed. Research on divorce argues that those relationships formed when the wife was younger are, on average, less stable. 25 years old is marked as the standard turning point.

Couple's age: This variable has three categories groping those couples in which the spouses have a similar age (up to three years of difference), those in which the wife is older, and those in which the wife is younger (the reference category). Age similarity between the spouses has been regarded as a stabilizing factor of the union.

Marital status: This dummy variable distinguishes between married couples and consensual unions. The common view is that partnerships are more unstable and less committed than marriages.

Later union: This is a dummy variable with value 1 if the observed relationship at risk of divorce is a second or later union in the marital history of the wife and 0 if, otherwise, it is a first union.

The main independent variables of the analysis are as follows:

Couple's education: Two variables have been created marking, for each spouse, whether they have low, secondary or high education. From these two variables a single variable for the education of the couple was developed for the different heterogamous and homogamous combinations of education. The different categories, where the wife always goes first, are: Low-Low, Low-Medium, Low-High, Medium-Low, Medium-Medium, Medium-High, High-Low, High-Medium, and High-High. As discussed in the theoretical section I expect highly educated couples to be the most stable ones (the least likely to divorce), while for educational heterogamous unions a higher odds of divorce.

Wife's share of housework (0-100, and squared). A ratio of wife's weekly hours in housework activities over the total time of the couple in these activities has been created from the original information available in the BHPS. A quadratic specification of the same variable is introduced to test for nonlinear effect as suggested by Cooke (2006). Thus if we find that the linear specification is negative this means that the wife's contribution to housework protects the couple from divorce but if the quadratic variable is positive and significant this suggest that the stabilizing effect of housework on divorce decreases as wife's share of housework increases. Overall, these two results go in line with the theories reviewed above which argue that even though the specialization model sees a traditional division between paid and unpaid labour as protective against divorce, this effect might be eroding specially for dual-earner couples. In this case, disagreements about housework become one of the main threats for the stability of the relationship.

The final variable designed to test the hypotheses outlined above is a dummy variable to examine whether the type of *compensatory behaviour* predicted by the gender ideology model is observed in the sample of couples analyzed. The variable has value one for those couples in which the wife has higher education and the husband secondary or less but she still does more than 50 percent of the housework (10 percent of the couples included in the analysis). The variable is 0 otherwise. If the gender identity theory is correct we should observed a reduction of the likelihood of divorce for these couples. If, instead, the variable is positive and significant, this would be a further confirmation of the prevalence of the bargaining models and the resource allocation theories but also an indicator that education may actually bear normative expectations of fairness in the couple such that when they are not fulfilled marital instability increases.

The two *duration variables* are years of marriage/partnership and a quadratic specification of the same variable again to control for a nonlinear effect of the time elapsed since the union was formed.

Table 4.1. Descriptive statistics of the variables used in the Event History Analysis

Variable	Mean/Mode	Standard deviation
Couple's work status	Both work full time (38 %)	
Member of a religious group	Both no members (83 %)	
Number of children	No children in the household (39 %)	
Age youngest child in the household	No children in household (39 %)	
Total household income (natural log)	7.81	0.61
Wife's share of labour income (0-100)	32	27
Wife's share of labour income (squared)	1766	2,490
Age at partnership	28	9.05
Couple's age	Similar age (50 %)	
Marital status	Married (88 %)	
Later union	First union (71 %)	
Couple's education	Both high education (23 %)	
Share of housework (0-100)	76	21
Division of housework (squared)	62	28
Compensatory behaviour	No (90 %)	
Duration	11	10
Duration of relationship (squared)	215	295

Source: BHPS 1991-2005.

4.4. Results and discussion

In this section I present the results of both the descriptive and multivariate analyses and discuss them in the light of the hypotheses and research questions drawn in the theoretical section above. First the descriptive analysis will be presented, then I shall concentrate in the discussion of the results of the multivariate analysis.

4.4.1. Descriptive analysis

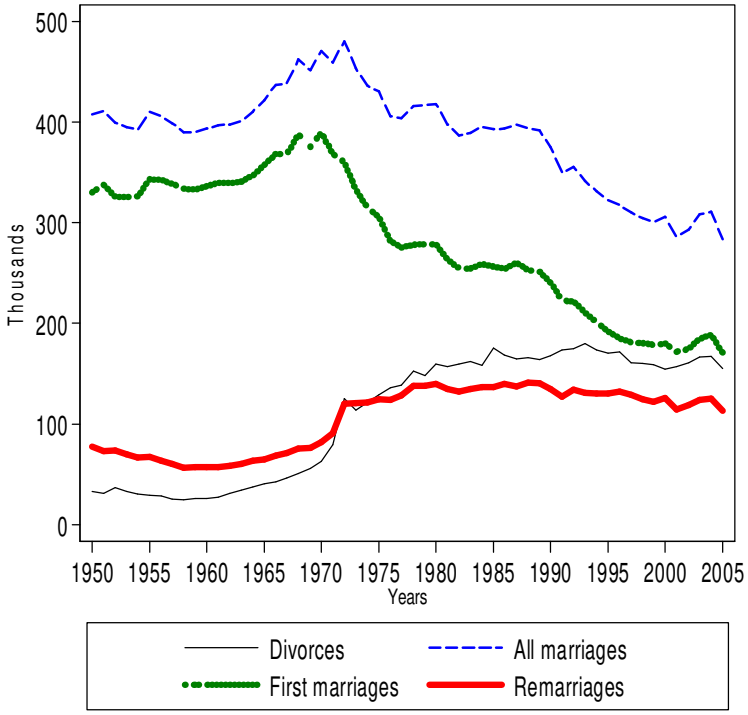
The last decades have witnessed an increasing interest among scholars in the study of the rapid changes in the living arrangements of people across the developed world. These changes are characterized by a rise in the age at marriage, the drop in the rates of marriages and remarriage, the spread of consensual unions, and the increase in the number of divorcees. Together with the fall in the fertility rate all these demographic and population trends have been labeled as the Second Demographic Transition (SDT, henceforth) (Lesthaeghe 1983; Lesthaeghe and Axinn 2002).[10] As a result of these changes individuals are more aware of the risk of divorce even though marriage is still regarded as a stable commitment which facilitates partners' decision to have children. Figure 4.1 shows the evolution of the main forms of partnership formation in the United Kingdom over the last five decades. Clearly, the UK represents well the main characteristics

[10] The SDT was preceded by the First Demographic Transition (FDT) which started back in the 18th century in several European countries at the early stages of the Industrial Revolution and the changes that this brought about. It is usually depicted by a declined in mortality and fertility rates up to reaching and older stationary and stable population corresponding with replacement fertility, low population growth, and life expectancy above 70 years old. For a more detailed discussion See: Livi-Bacci, Massimo. 2001. *A concise history of world population.* Malden, Mass. Oxford: Blackwell Publishers.

of the SDT: the pattern of partnership formation has changed since the early 1970s with a decline in the annual number of marriages that reached a low of 286,100 in 2001 (a period already covered by the data used in this thesis). This fall is more important in the case of the number of first marriages while remarriages have stabilized in recent decades. At the same time, the trend shows that divorces are becoming more a common solution to end a relationship since the 1970s.[11]

[11] The data discussed here and used in Figure 4.1 was obtained from the Social Trends Report of 2006. Besides providing a good snapshot of the temporal evolution of the patterns of partnership formation in the UK, it also covers the years of the panel used in the next empirical section. For a more detailed discussion, see: Babb, Penny, Hayley Butcher, Jenny Church, and Linda Zealey. 2006. "Social Trends." Pp. 265. London: Office for National Statistics.

Figure 4.1. Marriages and divorces in the United Kingdom 1950-2005



Source: Social Trends No. 35, 2006 Edition, Office of National Statistics.
Notes:
First marriages are for both partners.
Divorces includes annulments. Data for 1950 to 1970 for Great Britain only.
Remarriages are for one or both partners.

The fall in the number of marriages and the upward trend in divorces could give a biased picture of the current living arrangements of Britons if this is not complemented with current data showing the extent of consensual unions in the country. Indeed, Table 4.2 shows the percentages of women and men in consensual unions by their legal marital status for the year 2005

(the last one covered for the data used in the thesis). Interestingly, it is not only that single men and women are increasingly choosing cohabitation (23 percent single men and 28 percent of women, respectively); divorced and separated women and men are also repartnering without necessarily marrying again but choosing to live in consensual unions (36 percent of divorced men and 26 percent of divorced women, respectively).

Table 4.2. Cohabitation: By marital status and sex, 2005 (percentages)

Great Britain

	Men	Women
Single	23	28
Widowed	14	6
Divorced	36	29
Separated	22	11

Notes: Aged 16 to 59. Includes those who described themselves as separated but were, in a legal sense, still married.
Source: Social Trends No. 35, 2006 Edition, Office of National Statistics.

To provide the necessary background for the EHA below Table 4.3 shows, using data from the BHPS, the evolution of divorces for different cohorts.[12] Divorce increased for both men and women across cohorts reaching a maximum in the cohort born in the decade 1951-1960 of 7.3 percent of adult men and 15.0 of adult women. Thereafter, the observed decline may be explained by a simple age effect, with younger cohorts being at risk of divorce for a shorter time. Interestingly, marked gender differences are also observed in the data. These may be due to a simple statistical effect of the smaller sample of men for most of

[12] The table shows absolute numbers and percentages for all partnerships terminations for both women and men, that is, it does not distinguish whether divorces and separations result from marriages or consensual unions.

the cohorts studied since percentages are sensitive to the sample sizes of the marginals. More substantively, it is also possible that men are more likely to repartner after splitting from a previous relationship and/or to not report their current marital status with the same level of accuracy than women do in the case they are actually divorced or separated. Nevertheless, whatever the reason for this gender difference, the fact is that divorce is becoming more common for the younger cohorts.

Table 4.3. Evolution of all types of union dissolutions across cohorts in the United Kingdom

Cohort	Divorcees	
	Men	Women
1911-1920	2.7	4.7
	(68)	(218)
1921-1930	4.1	4.4
	(238)	(333)
1931-1940	6.5	9.6
	(434)	(737)
1941-1950	7.0	11.7
	(640)	(1,261)
1951-1960	7.3	15.0
	(708)	(1,573)
1961-1970	5.4	9.8
	(552)	(1,183)
1971-1980	1.0	1.8
	(87)	(153)

Percentages; absolute numbers between parentheses.
Source: BHPS 1991-2005.

The data discussed so far show that divorce has increased over time in the UK, but divorce itself does not say much about the quality of the relationship or about differences in the level of satisfaction of the spouses with their union. As was stated in the theoretical section the decision to break-up very often comes after a significant loss in marital satisfaction. In this vein, the

sociological approaches discussed above explicitly refer to the relationship between marital satisfaction and divorce. For instance, homogamous relationships are regarded as better quality matches because by bringing together individuals with similar characteristics, in personal traits, socioeconomic status or values, they are overall more satisfied with each other than those couples with dissimilar characteristics. Also a more balanced share of housework between the spouses may also increase marital satisfaction, and, in turn, the stability of the relationship.

The descriptive analysis below seeks to provide evidence about whether there are significant gender differences in marital satisfaction for both wives and husbands as well as in how this evolves during the marriage. By doing this, I seek to obtain a better understanding of the dynamics that may lead to divorce as well as of how the duration of the marriage may affect the process of union disruption, a topic that I shall directly investigate in the next section. Marital satisfaction is not considered in the EHA because the focus of the chapter is on the direct effect of couple's education and the share of housework on divorce and not on how they impact on marital satisfaction as the main leading factor to marital disruption.[13] Also because it is likely that the relationship between marital satisfaction and the decision to divorce is endogenous as it has been found that significant losses in marital satisfaction happen just before breaking up.

A significant loss in the level of satisfaction is found not only among couples soon before divorcing but also among newlyweds. In this latter case, most likely because partners' high expectations at the beginning of the relationship are not met in the daily life of

[13] Besides this substantive reason there are also empirical motivations for not considering marital satisfaction in the multivariate analysis. Concretely, opinions about marital and partner satisfaction were asked only in some of the waves used which would reduce considerable the sample size and affect the reliability of the estimates. This question has been included from wave 6 to wave 10 and from wave 12 to wave 15 (the last one used in the thesis). They correspond to the years 1996 to 2000, and from 2002 to 2005.

the union and partners need to adapt to reality. Both findings highlight the linkage between marital satisfaction and divorce (Gottman and Levenson 2000; Schober 2009).

Using the sample of couples drawn from the BHPS, I find that there are significant differences in the levels of satisfaction of wives and husbands.[14] In line with other studies wives always appear less satisfied with their partners: the means are 6.19 and 6.31 for wives and husbands respectively (t -13.47, $p < .00$). Further, this difference unfolds over the duration of the relationship. Figure 4.2 plots the average satisfaction for both partners over the length of the union. As can be seen wives' satisfaction is consistently below that of their husbands. In addition, this difference is significant for all the observed durations with the only exception of those relationships lasting up to 15, 27 or 30 years. This gender difference is very likely related with the different roles wives and husbands assume in the family. In this regard, this result, together with the fact that wives are more egalitarian in their gender values than their husbands, as I have discussed in chapter three, suggest the possibility that wives' traditional roles at home are not the result of a free choice they take upon partnership but a need to conform with certain expectations still resilient to change.

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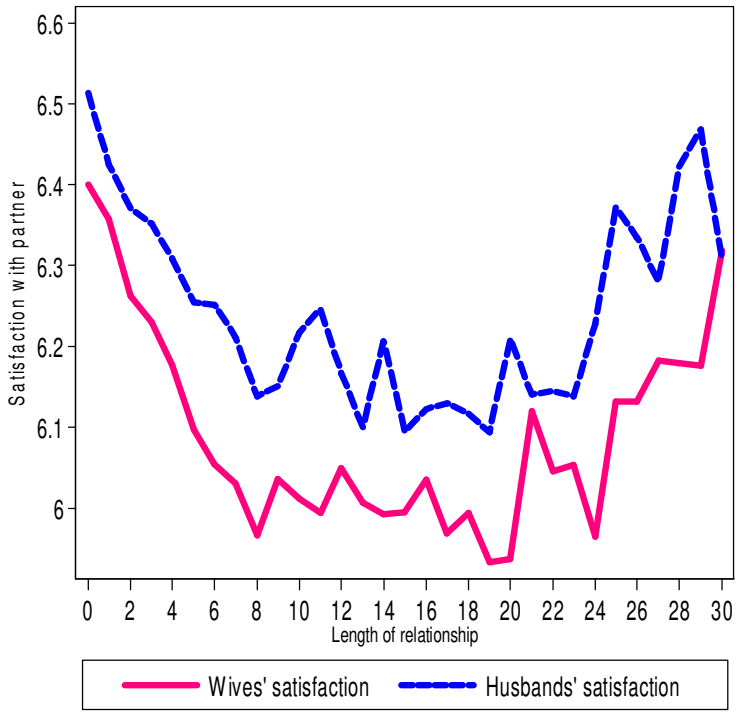
[14] The marital satisfaction variable is a 7-points Likert scale that ranges from 1 not satisfied at all to 7 completely satisfied with the spouse/partner. The wording of the question is: *How dissatisfied or satisfied are you with your husband/wife/partner?* Marital satisfaction is closely related with the overall life satisfaction of the two spouses (r 0.47 $p < 0.00$ for wives and r 0.37 $p <. 0.00$ for husbands): as the satisfaction with their partners increases so does their life satisfaction. In the same vein, positive feelings towards the partner are negatively associated with the level of psychological stress of the spouses as measured by the General Health Questionnaire score in the 'caseness' version (r -0.22 $p <$ 0.00 for wives and r -0.16 $p <. 0.00$ for husbands). Both relationships suggest that marital satisfaction is directly associated with the quality of life of the spouses.

The U shape of the figure suggests that wives and husbands begin their relationship with high levels of satisfaction. This declines with time (around 20 percent) and stabilizes or even increases thereafter. The former may indicate the mismatch between expectations and reality that I mentioned before, while the latter clearly stems from the selection effect by which partners that are on average satisfied with the relationship last longer as couples. The U-shaped slope may indicate that the duration dependency in the risk of divorce could well take the quadratic specification I discussed in the methodological section. That is, the risk of divorce may first increase with time up to a point in which it begins to decrease, simply because at longer durations only a selected group of surviving couples is observed.

Figure 4.2. Evolution of marital satisfaction over the duration of the relationship



Source: BHPS: 1991-2005.

Tables 4.4 and 4.5 are an attempt to indirectly investigate the issue of selection highlighted above. I have split the sample of couples into those in shorter and longer relationships defined as those who were in partnerships of a maximum of ten years in the last wave of the panel (wave 15), and those in longer durations. Then, I have calculated the variations in the average scores of satisfaction comparing the scores in the previous years in which this question was asked with that of the last wave of the panel

used. Results suggest that selection is indeed an important part of the U shape slope found in Figure 4.2. The average scores of wives and husbands in short relationships drop further than those of couples in longer marriages. Even though, the comparison between short and long relationships is hindered given that for the former the sample size falls steadily along the consecutive periods of time analyzed, for the case of couples above ten years of relationship the size remains constant over time increasing the reliability of the results. All in all, results suggest that in the evolution of marital satisfaction along the duration of the relationship there may well be a self-selection process which can translate into relevant differences in terms of the quality and stability of the coupledom related with different risks of divorce.

Table 4.4. Mean test scores of changes in marital satisfaction for spouses in relationships < = 10 years at wave 15 (t)[a]

	t-1	*t*	*change*	*t-2*	*t*	*change*	*t-3*	*t*	*change*	*t-5*	*t*	*change*	*t-6*	*t*	*change*
Wives	6.29 (1.05)	6.22 (1.13)	-0.07***	6.33 (1.02)	6.23 (1.13)	-0.10***	6.30 (1.08)	6.22 (1.15)	-0.08***	6.32 (1.09	6.14 (1.20)	-0.18***	6.43 (1.00)	6.12 (1.21)	-0.31***
N	1,450			1,308			1,178			755			654		
Husbands	6.34 (1.00)	6.30 (1.06)	-0.04	6.37 (1.02)	6.29 (1.09)	-0.08***	6.36 (0.98)	6.29 (1.08)	-0.07***	6.37 (0.97)	6.26 (1.08)	-0.11***	6.41 (0.90)	6.23 (1.09)	-0.18***
N	1,450			1,308			1,178			755			654		

	t-7	*t*	*change*	*t-8*	*t*	*change*	*t-9*	*t*	*change*
Wives	6.39 (1.07)	6.04 (1.25)	-0.35***	6.20 (1.17)	6.12 (1.19)	-0.08	6.25 (1.28)	6.06 (1.26)	-0.19
N	273			210			178		
Husbands	6.46 (0.84)	6.14 (1.16)	-0.32***	6.34 (1.02)	6.17 (1.12)	-0.17*	6.28 (1.16)	6.04 (1.21)	-0.24*
N	273			210			178		

a. Marital satisfaction measured in a 7-points Likert scale from very dissatisfied to very satisfied.
*** p< .01 ** p< .05 * p< .1 (two tailed paired observations test).
Source: BHPS: 1991-2005.

Table 4.5. Mean test scores of changes in marital satisfaction for spouses in relationships > 10 years at wave 15 (t)[a]

	t-1	*t*	*change*	*t-2*	*t*	*change*	*t-3*	*t*	*change*	*t-5*	*t*	*change*	*t-6*	*t*	*change*
Wives	6.00 (1.24)	6.08 (1.20)	0.08**	6.14 (1.18)	6.09 (1.18)	-0.05	6.15 (1.14)	6.11 (1.17)	-0.04	6.16 (1.11)	6.10 (1.16)	-0.06	6.18 (1.10)	6.09 (1.18)	-0.09**
N	597			589			593			594			586		
Husbands	6.17 (1.13)	6.19 (1.08)	0.02	6.22 (1.11)	6.20 (1.06)	-0.02	6.28 (1.00)	6.21 (1.05)	-0.07*	6.21 (1.06)	6.21 (1.07)	0.00	6.32 (0.93)	6.19 (1.09)	-0.13***
N	597			589			594			586					

	t-7	*t*	*change*	*t-8*	*t*	*change*	*t-9*	*t*	*change*
Wives	6.28 (1.05)	6.09 (1.18)	-0.19***	6.24 (1.13)	6.08 (1.19)	-0.16***	6.33 (1.00)	6.09 (1.19)	-0.24***
N	554			552			542		
Husbands	6.31 (0.92)	6.20 (1.06)	-0.11***	6.35 (0.93)	6.20 (1.06)	-0.15***	6.39 (0.90)	6.09 (1.19)	-0.30***
N	554			552			542		

a. Marital satisfaction measured in a 7-points Likert scale from very dissatisfied to very satisfied.
*** p< .01 ** p< .05 * p< .1 (two tailed paired observations test).
Source: BHPS: 1991-2005.

In short, the analysis in this section has provided interesting evidence on the evolution of marital satisfaction over marriage as well as highlighted significant gender differences among wives and husbands. In the next section I present and discuss the results of the EHA carried out with the sample of British couples drawn from the BHPS. The two individual factors at the core of the analysis (couple's education and the division of housework between the spouses) are key elements behind the changing role of women in contemporary society as well as for the new meaning of coupledom. In this sense, a careful examination of how education and the division of domestic labour influence the stability of the relationship as measured by divorce will unravel how women's new roles are redefining nowadays the patterns of equality and fairness between the spouses.

4.4.2. Event history analysis

Table 4.6 displays the results of the Discrete-Time Event History analysis applied to the couples-years dataset.[15] The models are estimated for the same sample of couples so as to allow comparability across models. Model 1 includes the control variables only. Model 2 adds the variable measuring the education of the couple. Model 3 includes the two specifications of the share of housework in the couple. Model 4 contains both couple's education and the housework variables. Finally, model 5 includes

[15] As advanced in the methods section, the main results discussed here are also estimated controlling for unobserved heterogeneity using a RE estimator (Table A.4.1 in the Appendix). The key findings of the analysis regarding the effect of education and the share of housework, especially its stabilizing effect of marriage, are robust to allowing for unobservables. Other variables such as our measure of religiosity and the labour market characteristics of the couple (couple's working status and the wife's contribution to the labour income of the couple) are more affected by unobserved heterogeneity. A more detailed discussion of the results is available in the robustness check section of the chapter.

the indicator term for when the wife performs more than half of the total housework activities and she is more educated than the husbands. With this variable I directly test the gender identity hypothesis drawn in the theoretical section which states that wives adopt a compensatory strategy with the goal of avoiding marital conflict when they have got more education than their husbands by assuming the bulk of the domestic chores.

Although my main interest lies in models 4 and 5, the three first models allow for a discussion of the effect of relevant family and couple characteristics on the odds of divorce as well as highlighting the effect of the two variables of interest: couple's education and the share of housework between the spouses. Thus, starting from the effect of the control variables introduced in model 1, couple's working status protects against divorce in a traditional division of paid and unpaid labour, that is, when the husband works full time and the wife is homemaker and in the so-called one and half earner couples where the husband works full time and the wife is a part-timer. Altogether, these results suggest that a gendered specialization between paid and unpaid labour reduces the risk of divorce.

Another consistent result found first in model 1 is the higher likelihood of divorce of women in a second or later union as compared to those in a first union. This result suggests a typical path dependency phenomenon: not only is repartnering difficult itself but individuals who have already experienced a breakup from a previous relationship are more likely to do so again. It might be that this is a highly selected group of women. In any case, answering this question goes far beyond the scope of this chapter. Another characteristic inherent to the couple relationship is the marital status of the spouses. As expected, married women are far less likely to split up compared to those forming consensual unions. This result is also consistent across models and has been consistently found in the existing research on divorce (Kalmijn, Loeve and Manting 2007). Again, an issue of selection might well be the reason behind the different odds of divorce of married and cohabiting women related with the preference of cohabiters for

less rigid relationships so that the exit option is less problematic than for their married counterparts (Domínguez Folgueras 2007).

When both partners are members of a religious group the odds of divorce decrease compared to those couples who do not belong to any religious association. However, it is not religious homogamy that counts, as also when only the wife is affiliated to a religious group this also reduces the risk of divorce. Religiosity again turns out to be an important stabilizing element of the relationship. Moreover, this effect remains significant across models.

Children appear as a key aspect in the decision-making process leading to divorce. The two children variables introduced report complementary results. On one hand, contrary to the common view that the presence of children protects against divorce (Kalmijn, De Graaf and Poortman 2004), in our analysis we find that the likelihood of divorce increases with the number of children. However, once the age of the children is considered, it turns out that having dependent children (less than 3 years old) lower the risk of divorce. Altogether the two results suggest that if the changing role of women may have weakened the protective effect of the presence of children against divorce that was common in the past, at least, when the children are little divorce seems less likely. Indeed, some authors have already suggested that the changing role of women and their increasing independence may explain why the presence of children in the family is not as protective against divorce as it used to be (De Graaf and Kalmijn 2006; Wagner and Weiss 2006).

The three economic variables, total household income and the wife's contribution to the labour income of the couple, reveal very interesting and complementary effects although the effect of household income clearly prevails over the two specifications of the labour income of the spouses used (the correlation between household income and the wife's share of labour income is -0.004, $p < .00$). Thus, while the higher the total income of the household the lower are the odds of union disruption, for the wife's contribution only the stabilizing effect of the quadratic

specification of the variable is significant indication a lower risk of divorce of *wife breadwinner couples*. However, the difference between the quadratic and linear specification is not significant (χ^2 1.95, $p < .0.16$). The result for household income goes in line with previous sociological and economic studies of divorce and highlights that income pooling (most likely transfers between partners) is a key factor for the stability of the relationship. The results for the labour income of the spouses are not so clear-cut. It seems that while this is a leading factor for women's independence, in the extreme when one spouse depends on the other's resources this may prevent divorce.

In line with previous research, age dissimilarity between the spouses is associated with a higher risk of divorce. Particularly, when the wife is older than the husband the couple is more likely to divorce. Couples when the spouses have similar age are less likely to divorce but this effect is not significant as compared to couples where the wife is younger which suggest that the behaviour regarding divorce is very much alike in these two groups.

As expected the older the wife is at partnership the lower is the likelihood of divorce. However, how older the wife is at partnership is likely to be related with her educational attainment as it is well-known that education is delaying partnership. In this regard, if education also affects the woman's expectations towards the union it may turn out that for highly educated women an older age at partnership may not protect them against divorce. In order to explore if this is the case, I have run a model with an interaction between couple's education and wife's age at partnership. The results suggest that highly educated wives may have a different behaviour towards partnership as compared to lower educated women. Concretely, the odds of divorce of highly educated wives (with lower educated husbands) increases the older they were when partnering.

Finally, the two variables that measure duration dependence marking the time elapsed since the couple was formed up to its dissolution suggest that there is a changing effect of time in the

likelihood of divorce. As discussed above, time first increases the probability of divorce but reduces it afterwards. The interpretation is simple, new or short relationships are more at risk of divorce than old or longer ones. One might argue that new relationships are easier to dissolve due to the lower commitments that partners face, especially when they are in an unhappy marriage. Similar results for the changing effect of duration dependence have been found in previous research on divorce (Kalmijn, De Graaf and Poortman 2004). In addition, this result complements that of the U-shaped form found in the evolution of marital satisfaction over marriage which highlights that those couples who last longer are a selected group of the pool of individuals analyzed.

Model 2 shows the results for the variable that measures couple's education. In line with the *homogamy hypothesis* it shows that wives in homogamous couples have lower risks of divorce. The effect is especially concentrated among highly educated partners. This latter result yields support for *the highly homogamy hypothesis* outlined in the theoretical section. Interestingly, while in the two previous chapters the effect of education on the share of housework between the spouses and on the resemblance of their gender values was observed at all levels of education, in this case the stability effect of education is especially concentrated among highly educated couples. This suggests that this may be a true effect of homogamy and not simply the consequence of the increasing educational attainment of the spouses. Two additional robustness analyses explained below confirm that highly educated couples are indeed less likely to divorce.

Model 3 displays the result for the two housework variables. Interestingly, as was the case with the length of the relationship and in line with the previous discussion, the effect of the division of unpaid labour on the odds of divorce changes as wives increases their participation in the domestic chores. The combined interpretation suggests that even though an initial participation of women in unpaid activities at home protects against divorce, when their share increases substantially and becomes a burden for them, the likelihood of marital conflict and breakup also increases.

Similar results have also been found previously for the USA but not for Germany by Cooke (2006) using the same specification. Overall, these results suggest that both the *specialization hypothesis* and the *bargaining hypothesis* may operate in the internal dynamics of the family. Substantively, it appears that specialization is an efficient way for the couple to share the domestic chores but at the risk that a very unfair share of housework may increase wife's likelihood of divorce if a more balanced share of housework does not exist. In order to test whether this combined effect of the division of housework on divorce actually takes places or, on the contrary, one dominates the other, Figure 4.3 below shows the net effect of the two specifications of the variable calculated in terms of the probability of divorce as the division of the chores at home becomes more unequal. The plotted line suggest that the stabilizing effect of a gendered specialization in housework activities predominates over the higher risks of divorce of a very unequal share of housework as the linear specification of the variable dominates the quadratic one. The reduction in the odds of divorce is clear, at least, up to a share where the wife assumes 60 percent of the total housework time of the couple. From that point the risk of divorce stabilises suggesting that wives who face a very unequal division of housework may indeed be more inclined to leave the marriage. Nevertheless, this result does not confirm as such the increasing risk of divorce associated with an unequal division of housework as the bargaining theory would suggest. In other words, the wife's specialization in housework activities seems to reduce, overall, the risk of divorce despite that it could rise with a very unequal share of housework.

This result is in line with that found in chapter 3 regarding the effect that the wife's share of housework has on the traditional gender values of the spouses, especially on the husband's. That is, the stabilising effect of wife's share of housework that I find here may well be explained through the traditional values of these couples. As the role of gender values on the couple relationship is a key aspect of this dissertation in the robustness section below I

shall present evidence that will allow me to discuss the direct and indirect effect of values, mainly through the share of housework, on divorce. Interestingly, it is possible to observe some changes in the other covariates induced by the introduction of the two housework variables. Specifically, this is the case for the wife's contribution to labour income. The coefficient goes down and even loses its statistical significance. This result further confirms the role of traditional family arrangements in preventing divorce: couples that keep a very traditional division of housework are those in which women's contribution to income is low. Basically, these are male breadwinner families.[16]

Model 4 presents the results for the full model where both couple's education and the share of housework are introduced together. The results regarding the effects found for the two explanatory variables of interest: couple's education and the wife's share of housework remain once the two variables are introduced together.

Finally, model 5 shows the result of the full model to which an indicator variable to test the *gender identity hypothesis* is included. This variable allows analysis of whether there is a compensatory strategy of wives when they are more educated than their husbands in order to avoid marital conflict by assuming a fairly unequal share of housework. The *gender identity hypothesis* states that if such a strategy exists it should reduce the odds of breaking up. This variable is significant but positive, instead of negative as the classical formulation of the gender identity theory would predict both in sociology and in economics. To put it simply,

[16] Specifically, the correlation between the two variables is -0.35 $p < 0.00$. I have run a model with an interaction between the two variables. The interaction term is negative but not significant. As for the main effects of the two variables, the coefficient for the share of housework remains negative and significant while the share of wife's labour income is positive and not significant. Overall, these results suggest that the share of housework, given its stronger and opposite effect on the risk of divorce, mask the positive effect of wife's share of labour income on divorce.

when the wife is more educated than the husband (she has got high education and her husband secondary or less) and remains in charge of the largest share of unpaid labour at home, this increases substantially the risk of divorce (the estimated increase in the odds of divorce for these couples is around 3 per cent).[17] This result contradicts that found by Cooke (2006) for the case of Germany and suggests that the compensatory strategy may not work in the case of educational inequalities. Substantively, the fact that a gendered specialization on housework does not protect against divorce when the wife has got more education than the husband suggests that Bourdieu's (1986) argument on the specificity of education as a form of human capital needs to be considered. The increasing educational attainment of women has encouraged more equal and fair gender relationships. The results of this chapter and of chapter two highlight a very interesting pattern of behaviour of highly educated women who have lower educated husbands. In the short run, they seem to adapt to their ascribed gender roles by assuming a very unequal share of housework. However, over time this arrangement may have negative spillover effects on their satisfaction with the relationship so that if a more balanced division of the domestic duties is not agreed they may decide to end their relationship.

Altogether, the different results found by Cooke for income inequalities (2006) and the work presented in this dissertation for the case of educational differentials, jointly require careful consideration of the gender identity argument in the case of

[17] As explained in the methods section regarding the educational inequalities measured by this variable it focuses on the case where the wife has higher education and her husband secondary or lower. However, the same result is found for a more comprehensive variable accounting for all the possible combinations of education where the wife has got higher education than the husband and she still does more than 50 percent of the housework. The odds ratio of divorce in this case are very similar as those in the specification used in Model 5: 1.78 $p < 0.005$. Of course the number of couples included is larger than in the specification used in Table 4.6 (15 versus 10 percent).

partners with unequal levels of education. Indeed, such compensatory behaviour may exists for education, as chapter two shows, but it clearly has very different implications for the quality and stability of the relationship over time since those wives who are more educated than their husbands but assume an unequal share of housework are, in the long run, more likely to break up. This difference may be due to the association between high education and ideals of fairness and gender equality within the family, an association that is more intense for wives than for husbands as chapter three has shown. The consequence is that highly educated wives with more traditional partners and living also in traditional family arrangements may decide to leave the union.

Table 4.6. Discrete-Time Event History Analysis of Union Disruption (odds ratio)

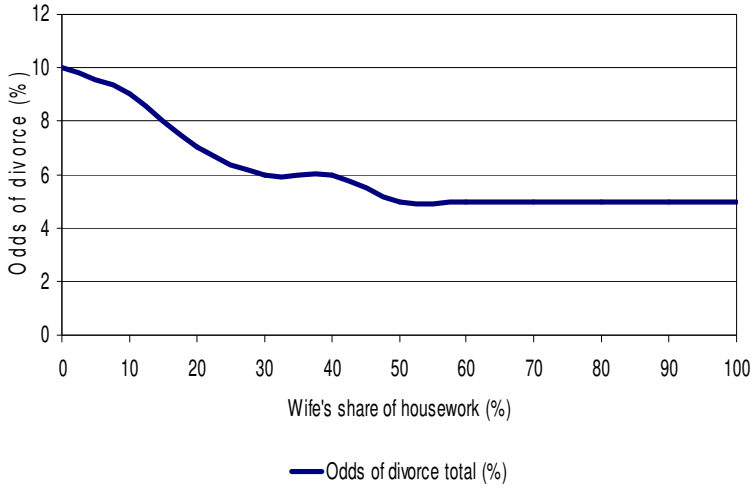
Variables	(1) Model *OR*	(2) Model *OR*	(3) Model *OR*	(4) Model *OR*	(5) Model *OR*
Wife more education and does more housework					1.66**
					(0.40)
Couple's education[1] (wife first)					
Low-Medium		0.98		0.98	0.99
		(0.15)		(0.15)	(0.15)
Low-High		0.85		0.85	0.85
		(0.15)		(0.15)	(0.15)
Medium-Low		0.93		0.93	0.93
		(0.14)		(0.14)	(0.14)
Medium-Medium		0.95		0.94	0.94
		(0.13)		(0.13)	(0.13)
Medium-High		0.86		0.86	0.86
		(0.12)		(0.12)	(0.12)
High-Low		1.03		1.03	0.68
		(0.20)		(0.20)	(0.19)

High-Medium		0.83		0.81	0.55**
		(0.13)		(0.13)	(0.14)
High-High		0.70***		0.69***	0.68***
		(0.10)		(0.10)	(0.10)
Wife's share of housework (0-100)			0.98***	0.98***	0.98***
			(0.01)	(0.01)	(0.01)
Wife's share of housework (squared)			1.0001**	1.0001*	1.0001***
			(0.001)	(0.00)	(0.00)
Couple's work status (wife's first)[2]					
She doesn't work/He works ft	0.51**	0.51**	0.50**	0.50**	0.50**
	(0.15)	(0.15)	(0.14)	(0.15)	(0.15)
She works pt/He doesn't work	1.12	1.09	1.09	1.06	1.05
	(0.38)	(0.37)	(0.38)	(0.37)	(0.37)
She works pt/ He works ft	0.45***	0.44***	0.45***	0.44***	0.44***
	(0.13)	(0.13)	(0.13)	(0.13)	(0.13)
She works ft/He doesn't work	1.41	1.36	1.27	1.22	1.22
	(0.47)	(0.45)	(0.42)	(0.41)	(0.43)
Both work ft	0.63	0.62	0.62	0.61	0.61
	(0.19)	(0.19)	(0.19)	(0.19)	(0.19)
Later relationship	2.34***	2.34***	2.32***	2.32***	2.32***
	(0.17)	(0.17)	(0.17)	(0.17)	(0.17)
Married	0.47***	0.47***	0.48***	0.47***	0.47***
	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)
Member religious group[3]					
She is/He is not	0.86	0.89	0.85	0.89	0.89
	(0.12)	(0.12)	(0.12)	(0.12)	(0.13)
She is not/He is	0.56**	0.58*	0.56**	0.58*	0.58*
	(0.16)	(0.17)	(0.17)	(0.17)	(0.17)
Both are members	0.64**	0.70*	0.64**	0.70*	0.70*
	(0.12)	(0.13)	(0.12)	(0.13)	(0.14)
Number of children[4]					
1	2.28***	2.25***	2.30***	2.27***	2.30***
	(0.62)	(0.62)	(0.63)	(0.63)	(0.64)
2	2.60***	2.57***	2.64***	2.61***	2.64***
	(0.76)	(0.76)	(0.77)	(0.77)	(0.79)
3 or more	2.01**	1.95**	2.02**	1.97**	1.99**
	(0.62)	(0.60)	(0.62)	(0.61)	(0.62)

Age youngest child[4]					
0-2 yrs.	0.58*	0.60*	0.59*	0.60*	0.60*
	(0.17)	(0.18)	(0.17)	(0.18)	(0.18)
3-4 yrs.	0.77	0.78	0.78	0.79	0.78
	(0.22)	(0.23)	(0.22)	(0.23)	(0.23)
5-11 yrs.	0.86	0.86	0.86	0.86	0.86
	(0.24)	(0.24)	(0.24)	(0.24)	(0.24)
12-15 yrs.	0.77	0.76	0.77	0.76	0.76
	(0.22)	(0.22)	(0.22)	(0.22)	(0.22)
Log of household	0.63***	0.68***	0.62***	0.67***	0.67***
income	(0.04)	(0.05)	(0.04)	(0.05)	(0.05)
Wife's share of labour	1.01	1.01	1.01	1.01	1.01
income	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Wife's share of labour	0.99*	0.99*	0.99*	0.99*	0.99*
income (squared)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Couple's age (wife's first)[5]					
Similar age	0.95	0.96	0.95	0.96	0.96
	(0.07)	(0.07)	(0.07)	(0.07)	(0.07)
She is older	1.50***	1.50***	1.51***	1.50***	1.50***
	(0.17)	(0.17)	(0.17)	(0.17)	(0.17)
Age at partnership	0.95***	0.95***	0.95***	0.95***	0.95***
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Duration of relationship	1.04***	1.05***	1.05***	1.05***	1.05***
	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)
Duration (squared)	0.98***	0.98***	0.98***	0.98***	0.98***
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Log likelihood	-3346	-3340	-3342	-3335	-3333
Wald χ^2	635.9***	655.6***	651.5***	674.7***	752.2***
Number of couple-years	14,334	14,334	14,334	14,334	14,334
Number of couples	4,165	4,165	4,165	4,165	4,165
Pseudo R2	0.10	0.10	0.10	0.10	0.10

Robust standard errors between parentheses.
*** p< .01 ** p< .05 * p< .1 (two tailed paired observations test).
Reference category:
1. Low-Low.
2. Both don't work.
3. Both not members.
4. No children.
5. She is younger.
Source: BHPS: 1991-2005.

Figure 4.3. Net effect of the share of housework in the risk of divorce



Source: BHPS: 1991-2005, own calculations using results from model 5 (the other variables in the model are fixed in their mean values).

The empirical analysis carried out in this section has provided support for some of the hypotheses outlined in the theoretical discussion as well as highlighted important differences with previous research on the individual determinats of divorce that call for further examination. In what follows I present the main results of the robustness checks carried out in order to test the consistency of the findings. Finally, I conclude with a discussion of the implications of the results of the chapter both for the research agenda on divorce and for society as a whole, with a special focus on what these results seem to suggest for the future of the gender relationships within the family.

4.4.3. Robustness checks

In this section I discuss the robustness of the results presented above. The first analysis in Table A.4.1 presents the results of the EHA controlling for unoberserved heterogeneity. The main conclusions regarding the role of education and the share of housework are robust to allowing for unoberservables. Indeed, the effect of the high education of the spouses is stronger. Only the linear term capturing the division of housework remains significant. This result is consistent with the stabilizing effect on marriage of a gendered specialization in housework predominates over the increasing risk of divorce if the division of the chores between the spouses is very unequal. Finally, the higher risk of divorce among highly educated wives with lower educated husbands that remain in charge of the bulk of the chores is also confirmed After controlling for unobserved heterogeneity the main differences are found for the effect of couple's religiosity and the labour market characteristics of the spouses (their labour market status and income) which lose their statistical significance although their sign remains the same. The impact of other couple characteristics such as the presence of children and household income remain unchanged, while those of the marital status of the couple or whether or not it is a first relationship in the marital history of the wife become larger. Marital duration always a negative effect on the risk of divorce, but is not significant.

The two analyses presented in Tables A.4.2 and A.4.3 focus on married couples and women in first relationships in order to eliminate the issue of selectivity related with the higher likelihood of breaking up of individuals who have been in previous partnerships or live in a consensual union. As can be seen the results largely confirm those already discussed despite the smaller sample sizes.

More important is the analyses presented in Tables A.4.4 to A.4.6. These check the consistency of the stabilizing effect of high educational homogamy as found above. As I have already discussed, contrary to the two previous chapters, here the effect of

education is especially concentrated among highly educated couples which may be taken as a first indicator of a *stability premium* for these couples. I have carried out two types of robustness checks. The first one shown in Table A.4.3 in the Appendix using the full specification of model 4 reports the coefficients for the effect of couple's education on the risk of divorce using different reference categories as well as the corresponding test of whether the differences found between the coefficient for highly educated couples and the others are significant in paired comparisons. The Wald test follows a χ^2 distribution. The results of these tests suggest that there is an additional *stability premium* for highly educated couples. There are however two exceptions where other educational combinations reduce the risk of divorce as much as for highly educated couples:

- Highly educated couples versus those where the wife has got low education and the husband has a degree.
- Highly educated couples versus couples where the wife is a graduate and the husband has got secondary education.

These two cases are of quite different nature. In the first case, the lower risk of divorce could to be the consequence of a dependency of the wife on her husbands' resources while for highly educated couples their lower risk of divorce may stem more from the joint material and non-material gains associated with living together. In the second case, instead, it is closeness in education that matters. That is, the reasons for the higher stability of these unions should be the same as for highly educated couples. For all the others comparisons, instead, results confirm that there is an additional *stability premium* associated with high educational homogamy.

The last robustness test regarding the effect of education deals with the individual effect of the education of the spouses, shown in Table A.4.5. The results of the first two models confirm that it is the high education of each partner that reduces the risk of

divorce. There is an interesting if slight gender difference: the husband's education matters more for the stability of the relationship than wife's own education when they are considered together. However, the difference between the two coefficients is not statistically significant as shown in Table A.4.6. Since the marital history of the wife is used to construct the couple dataset for the EHA, this result may be interpreted as a confirmation of the *stability premium* for highly educated wives when they marry homogamously.

As anticipated above, the analysis presented in Tables A.4.7 and A.4.8 allows me to discuss the role of gender values on the likelihood of divorce. Although religiosity is the variable traditionally used in order to measure the impact of conservative attitudes on the risk of divorce, gender and family values are of key importance for the argument of this thesis. However, there are two reasons why they were not introduced in the main analysis of the chapter. Substantively, as I have already discussed here, and also showed in chapter three, there is a close relationship between the gender values of the spouses and how they share the domestic chores which may hinder the study of the role of housework on the risk of divorce. Indeed, as the bivariate correlations of Table A.4.7 show the correlation between the gender values of the spouses and wife's share of housework is quite strong and significant. Moreover, there is a further methodological reason that prevents me from using gender and family values directly for the core analysis of the chapter: these set of questions are only asked every two waves which reduces considerably the number of divorces observed for the EHA.

The strategy followed has been to introduce the couple's gender values sequentially in a series of additive models where their direct isolated effect and any indirect effects through education and the share of housework can be controlled for. The results reported in Table A.4.8 indicate that there is no direct effect of gender values on the risk of divorce while the effect of housework found remains significant. This may suggest that the role of gender values on the risk of divorce may be more an

indirect effect working through the role of gender values on the division of housework than a direct one. The main results for education discussed in the core analysis of the chapter remain robust to the introduction of gender values despite the smaller sample size.

An alternative explanation for the lack of direct influence of the gender values of the spouses on the decision to divorce is the issue of selection into partnership advanced in the two previous chapters. Selection occurs if only men and women with certain predispositions towards partnership actually form a union, and this can certainly affect the decision to break up afterwards. Of particular interest for this thesis is whether gender and family could be a leading factor towards partnership as well as, as shown in the previous chapters, having an effect in the daily lives of the spouses regarding family matters.

There is recent evidence that gender and family values play a direct role in the process of union formation. Sevilla-Sanz (2009) using cross-country European data has found that more egalitarian women are less likely to form a household, while more egalitarian men are more likely to do so. However, even though the author discusses that this selection into partnership may have an impact in other domains of the family life once the union is formed such as fertility, she does not actually examine them. Bernardi and Martinez-Pastor (2010), using data for Spain have analyzed whether the negative relationship found between women's increasing educational attainment and divorce may stem from a selection effect into partnership. In order to address this issue they study the odds of divorce of women by their level of education through a duration model which controls for selection into partnership. The results show that the negative effect of education on marriage dissolution is persistent and is not caused by the self-selection into marriage among highly educated women.

Taking into account these two recent contributions, the analysis presented in Tables A.4.9 to A.4.11 aims at exploring whether a selection into partnership of more traditional individuals exists in our data which may explain the lower risk of divorce of

highly educated couples. To address this issue I have developed an extension of the couple data set used to include also the marital histories of those women who from being single enter a relationship during the panel and for whom information of their partners is available. The number of women entering a union is 1,623, of which 1320 correspond to a transition from singlehood to marriage and 303 to a transition from singlehood to a consensual union. I have re-estimated the discrete-time EHA using the full-specification through a Heckman probit selection model where the selection is the woman's decision to partner. Variables in the selection equation are a subset of those in the duration model as all the variables that are inherent to the couple relationship such as marital status, duration, children or whether it is a first or a later union, are excluded. The key variable for identification of the two equations, which should be associated with the probability of forming a relationship but not the duration of the relationship conditional on entry, is the index of traditional gender values. As discussed above, they do not play a direct role in the decision to break-up. Furthermore, I am especially interested in studying whether selection into partnership may stem from certain traditional values of attitudes towards the family. As we also exclude the division of housework variables and the measure of religiosity from the selection equation (they might distort the effect of gender values), the selection equation includes the gender values indexes, education, working status, and age.

Table A.4.9 presents the results of the EHA for the odds of divorce where the selection equation is the transition to partnership. The variables of the selection equation are introduced sequentially in three different models for the woman, the man and both of them simultaneously. The lack of significance of the ρ coefficient in the three models suggest that, in line with Bernardi and Martinez Pastor (2010), there is no selection into partnership of more traditional individuals. However there is some evidence that more traditional women are less likely to partner with traditional men (β -0.09 $p < .00$) while they themselves are more

likely to partner if they are more traditional (β 0.03) but this effect is not significant.

For the case of the selection into marriage (Table A.4.10), there is evidence of a weak selection for the model in which only the man's covariates are included (ρ -0.76, $p < 0.10$). However, models 1 and 3 for the woman's covariates only and the model with the covariates of the two partners, respectively do not show evidence of selection. However, the same results for the gender values indexes are found here: women are more likely to marry when they are more traditional but are more likely to choose less traditional men.

Finally, Table A.4.11 presents the results for the case of selection into a consensual union. The number of observation is smaller which affects the estimation of the EHA equation; however the results for the selection equation are interesting. Again, selection is only weakly confirmed for Model 2 where only the covariates of the male partner are included (ρ 0.69, $p < 0.10$). In addition, contrary to the case of the overall transition to partnership or that of marriage where a clear gendered pattern was observed, here for the two partners having traditional values reduces the likelihood of forming a consensual union. This effect remains significant when the covariates of the woman and the man are included together. Moreover, the effect is alike for the two partners (β -0.10, $p < .0.05$ in the two cases).

In estimates that correct for selection into partnership and into marriage, the stabilizing effects found for highly educated couples remain significant (Tables A.4.9 and A.4.10). It is not significant for the model that controls for selection into consensual unions but this is most likely due to the drop in the sample size. Housework does not have any significant effect on the risk of divorce in any of the different sample selection specifications considered. In this case, the result is likely to be of a more substantive nature and related to the previous discussion of the lack of a direct effect of gender values on divorce. As these EHA models control for selection into partnership where gender values are thought to play an important role, the lack of significance of the housework

variables are likely to be reflecting the role of values in the process of partnership formation.

To sum up, although the results of Tables A.4.9 to A.4.11 show weak direct evidence of selection into partnership according to the gender and family values of the spouses, there is also indirect evidence that the *stability premium* of highly educated couples and a gendered division of housework between the spouses may stem, at least partially, from a selection into partnership of more traditional spouses.

4.5. Conclusions

In this chapter I have studied the influence of two individual determinants of the risk of divorce: education and the division of housework. Using a representative sample of married and cohabiting couples in the UK drawn from the BHPS and applying discrete-time EHA techniques, I have examined whether current trends of educational homogamy, especially concentrated at the top of the educational gradient, have had an impact as stabilising factors of the marriage. Concerning the share of housework between partners I have investigated the influence of the pervasive unequal contribution of each partner to the domestic chores on the risk of union disruption. To this aim I have reviewed the theoretical approaches and models that both from the sociology of the family and from family economics have addressed the role of education and housework for the internal functioning of the couple relationship and applied them to the case of divorce

In respect of education, the results have largely confirmed that couples with high education enjoy a *stability premium* compare to couples married at lower levels of education. There are two exceptions. The odds of divorce of highly educated couples are very similar to that of couples where the wife has low education and the husband has a degree. The same risk of divorce is found also for couples where the wife has high education and the husband a secondary level. These results suggest that there remain

diverse life course trajectories of couples associated with the level of education attained by the spouses that may lead to similar behavioural choices. Nevertheless, they mask the fact that the reasons behind their similar risk of divorce are of a very different nature. Especially for those couples where the wife has only low levels of education and the husband has a degree, the lower odds of divorce may well indicate a pattern of marital dependency of the wife on the resources of the husband, while for highly educated couples and those with similar levels of education at the top end of the educational gradient, their lower risk of divorce are more due to the free choice of the spouses because of the material and non-material gains of marriage. Interestingly, the results of the robustness analysis suggest that in highly educated couples the stabilizing effect of the husband's education is slightly stronger than the wife's own education. Since the divorce analyzed come from the self-reported marital histories of women this result may indicate that highly educated wives value especially the education of their partners.

Regarding the influence of housework on divorce, the main results show that women's specialization in home activities, as the classical theories would predict, stabilizes the marriage. Despite the fact that the separate results of the two specifications of the housework variable show that a very unequal division of the chores may have a positive impact on divorce.

As for the combined effect of the educational attainment of the couple and the division of the chores at home, the chapter has proposed an alternative formulation of the gender identity models in economics and the gender ideology theories in sociology for the case of educational differentials between the spouses that seek to explain the risk of divorce of highly educated wives with lower educated husbands who still remain in charge of the bulk of housework activities. Traditionally, these approaches focus on how income differentials, for the case in which wives are the breadwinners of the family, affect the division of housework within the couple. The evidence found suggests that breadwinner wives still remain as the main homemakers of the family despite

their higher incomes. In addition, when the gender identity theory has been applied to the case of divorce, it has been found that this compensatory behaviour may protect against marital instability.

Moreover, the chapter also presents some preliminary evidence that there could be a certain selection into partnership of women and men with more traditional attitudes towards gender and family matters which could explain, to some extent, the stability premium associated with high education and with a gendered division of housework between the spouses.

In respect to the effect of the 'doing gender' behaviour on divorce, contrary to the classical formulation, I have not found evidence of a lower risk of divorce when wives are more educated than their husbands and the inequality in the division of housework remains. On the contrary, if in chapter two I have found that indeed the inequality in the division of housework of these couples increases, basically because the wife assumes more housework in line with the compensatory strategy highlighted by the 'doing gender' theories, such unfair share have, however, in the long rung, negative consequences for the stability of the union. Thus, better educated wives are more likely to break-up when a traditional division of housework remains. This finding suggests that education, as a form of human capital, has different consequences for the internal functioning of the relationship than income. Education also says something about women's expectations regarding fairness and equity within the family. The results found suggest that these ideals seem to favour of a redefinition of the traditionally ascribed gender roles between the spouses.

Substantively, the results discussed in this chapter confirm the well-established positive effect of educational homogamy on marital stability. Thus, it appears that especially high educational homogamy, in a context of increasing educational attainment, is an important factor of marital well-being. As far as housework is concerned, the results imply that it remains as a key factor in the negotiations between the spouses and family decision making. As such it has a direct impact on the quality of the marriage and

influences the risk of divorce. When couples follow a traditional gender division of housework their risk of marital disruption reduces. This finding is complemented with that showing that compensatory gender strategies may not exist when it comes to divorce for those couples where wives are better educated than their husbands. For these couples, a traditional division of housework undermines the relationship and increases the risk of divorce. This has a clear implication at the societal level: given the increasing educational attainment of women in recent decades, this finding suggests that divorce would continue to be more a common phenomenon if more gender balanced relationships are not agreed between the spouses in their daily lives. But since divorce is obviously a very costly decision for the spouses we should expect that the greater educational attainment of women will induce substantial changes in the internal decision making of the family that would favour equality between the spouses in line with the definition of gender equality provided in the introductory chapter of the dissertation. The future will tell us whether men adapt positively to this reality or not and how women respond to it.

APPENDIX CHAPTER 4

Table A.4.1. Discrete-Time Event History Analysis of Union Disruption controlling for unobserved heterogeneity (odds ratio)

Variables	(5) Model *OR*
Wife more education and does more housework	2.16** (0.62)
Couple's education[1] (wife first)	
Low-Medium	0.76 (0.43)
Low-High	0.69 (0.43)
Medium-Low	0.66 (0.38)
Medium-Medium	0.88 (0.44)
Medium-High	0.62 (0.31)
High-Low	0.46 (0.42)
High-Medium	0.32 (0.26)
High-High	0.36** (0.18)
Wife's share of housework (0-100)	0.97** (0.02)
Wife's share of housework (squared)	1.0001 (0.00)
Couple's work status (wife's first)[2]	
She doesn't work/He works ft	0.51 (0.44)
She works pt/He doesn't work	0.82 (0.88)

She works pt/ He works ft	0.49
	(0.43)
She works ft/He doesn't work	1.32
	(1.40)
Both work ft	0.74
	(0.69)
Later relationship	6.10***
	(1.69)
Married	0.19***
	(0.06)
Member religious group[3]	
She is/He is not	1.02
	(0.56)
She is not/He is	0.59
	(0.54)
Both are members	0.66
	(0.43)
Number of children[4]	
1	3.25
	(2.94)
2	4.83*
	(4.61)
3 or more	4.07
	(4.09)
Age youngest child[4]	
0-2 yrs.	0.54
	(0.51)
3-4 yrs.	0.75
	(0.68)
5-11 yrs.	0.87
	(0.77)
12-15 yrs.	0.71
	(0.65)
Log of household income	0.62**
	(0.15)
Wife's share of labour income	1.00
	(0.02)
Wife's share of labour income (squared)	1.00
	(0.00)

Couple's age (wife's first)[5]	
Similar age	0.79
	(0.22)
She is older	2.36*
	(1.11)
Age at partnership	0.92***
	(0.02)
Duration of relationship	0.98
	(0.05)
Duration (squared)	0.99
	(0.00)
Log likelihood	-1225
Wald χ^2	135.1***
Number of couple-years	14,334
Number of couples	4,165

Robust standard errors between parentheses.
*** p< .01 ** p< .05 * p< .1 (two tailed paired observations test).
Reference category:
1. Low-Low.
2. Both don't work.
3. Both not members.
4. No children.
5. She is younger.
Source: BHPS: 1991-2005.

Table A.4.2. Discrete-Time Event History Analysis of Union Disruption for married couples (odds ratio)

Variables	(5.1) Model *OR*
Wife more education and does more housework	1.80*
	(0.55)
Couple's education[1] (wife first)	
Low-Medium	1.12
	(0.19)
Low-High	0.94
	(0.18)
Medium-Low	1.11
	(0.18)
Medium-Medium	1.01
	(0.15)
Medium-High	0.82
	(0.13)
High-Low	0.60
	(0.21)
High-Medium	0.50**
	(0.16)
High-High	0.65***
	(0.10)
Wife's share of housework (0-100)	0.98*
	(0.01)
Wife's share of housework (squared)	1.0001
	(0.00)
Couple's work status[2]	
She doesn't work/He works ft	0.59
	(0.20)
She works pt/He doesn't work	0.98
	(0.41)
She works pt/ He works ft	0.49**
	(0.17)
She works ft/He doesn't work	1.19
	(0.50)

Both work ft	0.68
	(0.25)
Later relationship	1.90***
	(0.15)
Member religious group[3]	
She is/He is not	0.74*
	(0.12)
She is not/He is	0.62
	(0.18)
Both are members	0.71*
	(0.14)
Number of children[4]	
1	1.82*
	(0.64)
2	2.06*
	(0.77)
3 or more	1.59
	(0.61)
Age youngest child[4]	
0-2 yrs. Old	0.80
	(0.30)
3-4 yrs. Old	0.90
	(0.33)
5-11 yrs. Old	0.99
	(0.35)
12-15 yrs. Old	0.92
	(0.33)
Log of household income	0.67***
	(0.05)
Wife's share of work income	1.00
	(0.01)
Wife's share of work income (squared)	1.00
	(0.00)
Couple's age (wife's first)[5]	
Similar age	0.94
	(0.08)
She is older	1.66***
	(0.22)
Age at partnership	0.94***
	(0.01)

Duration of relationship	1.02
	(0.02)
Duration (squared)	0.99***
	(0.00)
Log likelihood	-2731
Wald χ^2 (df)	565.2***
Number of couple-years	12,707
Number of couples	3,452
Pseudo R2	0.08

Robust standard errors between parentheses.
*** p< .01 ** p< .05 * p< .1 (two tailed paired observations test).
Reference category:
1. Low-Low.
2. Both don't work.
3. Both not members.
4. No children.
5. She is younger.
Source: BHPS: 1991-2005.

Table A.4.3. Discrete-Time Event History Analysis of Union Disruption for first relationships (odds ratio)

Variables	(5.2) Model *OR*
Wife more education and does more housework	1.86*
	(0.63)
Couple's education[1] (wife first)	
Low-Medium	0.94
	(0.19)
Low-High	0.78
	(0.19)
Medium-Low	0.67*
	(0.15)
Medium-Medium	0.79
	(0.15)
Medium-High	0.72*
	(0.14)
High-Low	0.80
	(0.30)
High-Medium	0.53*
	(0.19)
High-High	0.59***
	(0.12)
Wife's share of housework (0-100)	0.98**
	(0.01)
Wife's share of housework (squared)	1.0001
	(0.00)
Couple's work status[2]	
She doesn't work/He works ft	1.19
	(0.74)
She works pt/He doesn't work	2.16
	(1.49)
She works pt/ He works ft	0.84
	(0.53)
She works ft/He doesn't work	1.15
	(0.81)

Both work ft	1.30
	(0.83)
Married	0.80
	(0.11)
Member religious group[3]	
She is/He is not	0.51***
	(0.12)
She is not/He is	0.48*
	(0.20)
Both are members	0.64*
	(0.15)
Number of children[4]	
1	2.33**
	(0.84)
2	2.18**
	(0.85)
3 or more	2.15*
Age youngest child[4]	
0-2 yrs. Old	0.67
	(0.26)
3-4 yrs. Old	0.62
	(0.24)
5-11 yrs. Old	0.83
	(0.30)
12-15 yrs. Old	0.78
	(0.29)
Log of household income	0.62***
	(0.06)
Wife's share of work income	1.01
	(0.01)
Wife's share of work income (squared)	1.00*
	(0.00)
Couple's age (wife's first)[5]	
Similar age	1.15
	(0.11)
She is older	2.00***
	(0.37)
Age at partnership	0.94***
	(0.01)

Duration of relationship	1.01
	(0.02)
Duration (squared)	0.99***
	(0.00)
Log likelihood	-1847.19
Wald χ^2	301.4***
Number of couple-years	10,192
Number of couples	3,124
Pseudo R2	0.08

Robust standard errors between parentheses.
*** p< .01 ** p< .05 * p< .1 (two tailed paired observations test).
Reference category:
1. Low-Low.
2. Both don't work.
3. Both not members.
4. No children.
5. She is younger.
Source: BHPS: 1991-2005.

Table A.4.4. Wald test of differences between the coefficients of couple's education changing the reference categories (odds ratio)

Model 4		Model 4.1		Model 4.2		Model 4.3	
Couple's education (wife first)							
Low-Medium	0.98	Low-Low	1.06	Low-Low	1.17	Low-Low	0.97
	(0.15)		(0.14)		(0.21)		(0.18)
Low-High	0.85	Low-Medium	1.04	Low-Medium	1.15	Low-Medium	0.95
	(0.15)		(0.14)		(0.20)		(0.18)
Medium-Low	0.93	Low-High	0.90	Medium-Low	1.09	Low-High	0.83
	(0.14)		(0.15)		(0.19)		(0.17)
Medium-Medium	0.94	Medium-Low	0.99	Medium-Medium	1.10	Medium-Low	0.90
	(0.13)		(0.14)		(0.18)		(0.17)
Medium-High	0.86	Medium-High	0.91	Medium-High	1.01	Medium-Medium	0.91
	(0.12)		(0.11)		(0.16)		(0.16)
High-Low	1.03	High-Low	1.09	High-Low	1.21	Medium-High	0.83
	(0.20)		(0.19)		(0.25)		(0.15)
High-Medium	0.81	High-Medium	0.86	High-Medium	0.95	High-Medium	0.79
	(0.13)		(0.12)		(0.17)		(0.15)
High-High	0.69***	High-High	0.73***	High-High	0.80	High-High	0.67**
	(0.10)		(0.08)		(0.13)		(0.12)

Test of difference between coefficients χ^2 *df* (1)							
Low-Medium/High-High	6.17***	Low-Low/High-High	7.02***	Low-Low/High-High	7.02***	Low-Low/High-High	7.02***
Low-High/High-High	1.76	Low-Medium/High-High	6.17***	Low-Medium/High-High	6.17***	Low-Medium/High-High	6.17***
Medium-Low/High-High	4.50**	Low-High/High-High	1.76	Medium-Low/High-High	4.50**	Low-High/High-High	1.76
Medium-Medium/High-High	7.20***	Medium-Low/High-High	4.50**	Medium-Medium/High-High	7.20***	Medium-Low/High-High	4.50**
Medium-High/High-High	3.76**	Medium-High/High-High	3.76**	Medium-High/High-High	3.76**	Medium-Medium/High-High	7.20***
High-Low/High-High	5.30**	High-Low/High-High	5.30**	High-Low/High-High	5.30**	Medium-High/High-High	3.76**
High-Medium/High-High	1.60	High-Medium/High-High	1.60	High-Medium/High-High	1.60	High-Medium/High-High	1.60

Robust standard errors between parentheses.
*** p< .01 ** p< .05 * p< .1 (two tailed paired observations test).
Reference category:
Model 4: Low-Low. Model 4.1: Medium-Medium.
Model 4.2: Low-High. Model 4.3: High-Low.
Source: BHPS: 1991-2005.

Table A.4.5. Discrete-Time Event History Analysis of Union Disruption with partners' education separately (odds ratio)

Variables	(1) Model *OR*	(2) Model *OR*	(3) Model *OR*
Wife's education[1]			
Medium	0.95		0.98
	(0.08)		(0.09)
High	0.81**		0.85*
	(0.08)		(0.08)
Husband's education[1]			
Medium		0.94	0.95
		(0.08)	(0.09)
High		0.80**	0.83*
		(0.07)	(0.08)
Wife's share of housework (0-100)	0.98***	0.98***	0.98***
	(0.01)	(0.01)	(0.01)
Wife's share of housework (squared)	1.00*	1.00*	1.00*
	(0.00)	(0.00)	(0.00)
Couple's work status[2]			
She doesn't work/He works ft	0.51**	0.50**	0.51**
	(0.15)	(0.15)	(0.15)
She works pt/He doesn't work	1.07	1.08	1.07
	(0.37)	(0.37)	(0.37)
She works pt/ He works ft	0.45***	0.45***	0.45***
	(0.13)	(0.13)	(0.13)
She works ft/He doesn't work	1.24	1.25	1.23
	(0.41)	(0.42)	(0.41)
Both work ft	0.62	0.61	0.61
	(0.19)	(0.19)	(0.19)
Later relationship	2.33***	2.31***	2.32***
	(0.17)	(0.16)	(0.17)
Married	0.47***	0.47***	0.47***
	(0.04)	(0.04)	(0.04)

Member religious group[3]			
She is/He is not	0.88	0.87	0.89
	(0.12)	(0.12)	(0.12)
She is not/He is	0.57*	0.58*	0.58*
	(0.17)	(0.17)	(0.17)
Both are members	0.67**	0.67**	0.69*
	(0.13)	(0.13)	(0.13)
Number of children[4]			
1	2.28***	2.30***	2.28***
	(0.63)	(0.64)	(0.63)
2	2.61***	2.64***	2.62***
	(0.77)	(0.78)	(0.77)
3	1.98**	2.00**	1.97**
	(0.61)	(0.62)	(0.61)
Age youngest child[4]			
0-2 yrs.	0.60*	0.60*	0.60*
	(0.18)	(0.18)	(0.18)
3-4 yrs.	0.79	0.78	0.79
	(0.23)	(0.23)	(0.23)
5-11 yrs.	0.87	0.86	0.86
	(0.24)	(0.24)	(0.24)
12-15 yrs.	0.77	0.76	0.76
	(0.22)	(0.22)	(0.22)
Log of household income	0.65***	0.65***	0.67***
	(0.05)	(0.05)	(0.05)
Wife's share of work income	1.01	1.01	1.01
	(0.01)	(0.01)	(0.01)
Wife's share of work income (squared)	0.99*	0.99*	0.99*
	(0.00)	(0.00)	(0.00)
Couple's age (wife's first)[5]			
Similar age	0.95	0.96	0.96
	(0.07)	(0.07)	(0.07)
She is older	1.49***	1.51***	1.50***
	(0.17)	(0.17)	(0.17)

Age at partnership	0.95***	0.95***	0.95***
	(0.01)	(0.01)	(0.01)
Duration of relationship	1.01	1.01	1.01
	(0.02)	(0.02)	(0.02)
Duration (squared)	0.99***	0.99***	0.99***
	(0.00)	(0.00)	(0.00)
Log likelihood	-3339	-3339	-3337
Wald χ^2	663.6	664.0	671.7
Number of couple-years	14,334	14,334	14,334
Number of couples	4,165	4,165	4,165
Pseudo R2	0.10	0.10	0.10

Robust standard errors between parentheses.
*** p< .01 ** p< .05 * p< .1 (two tailed paired observations test).
Reference category:
1. Low.
2. Both don't work.
3. Both not members.
4. No children.
5. She is younger.
Source: BHPS: 1991-2005.

Table A.4.6. Wald test of differences between the coefficients of partners' education on the risk of divorce

Wife's education[1]	
Medium	0.97
	(0.08)
High	0.84*
	(0.08)
Husband's education[1]	
Medium	0.95
	(0.09)
High	0.83**
	(0.08)
Test of difference between coefficients χ^2 *df* (1)	
Education (wife-husband)[1]	
High-High	0.01

Robust standard errors between parentheses.
*** p< .01 ** p< .05 * p< .1 (two tailed paired observations test).
Reference category:
1. Low education.
Source: BHPS: 1991-2005.

Table A.4.7. Bivariate correlations between partner's gender values, wife's share of housework and partners' education

	Wife's traditional values	Husband's traditional values	Couple's gender values	Wife's share of housework	Wife's education	Husband's education
Wife's traditional values						
Husband's traditional values	0.42*** (14,234)					
Couple's gender values	0.74*** (14,234)	0.58*** (14,234)				
Wife's share of housework	0.23*** (12,893)	0.23*** (12,866)	0.21*** (12,813)			
Wife's education	-0.12*** (14,968)	-0.15*** (14,197)	-0.10*** (14,138)	-0.15*** (24,959)		
Husband's education	-0.01 (14,220)	-0.03 (14,308)	0.01 (14,134)	-0.07*** (24,953)	0.34*** (26,454)	
Couple's education	-0.10*** (14,130)	-0.14*** (14,104)	-0,08*** (14,045)	-0.15*** (24,796)	0.96*** (26,454)	0.58*** (26,454)

*** p< .01 ** p< .05 * p< .1.
Number of observations between parentheses.
Source: BHPS: 1991-2005

Table A.4.8. Discrete-Time Event History Analysis of Union Disruption with couple's gender values (odds ratio)

Variables	(1) Model *OR*	(2) Model *OR*	(3) Model *OR*	(4) Model *OR*
Wife more education and does more housework				1.78**
				(0.46)
Couple's education[1] (wife first)				
Low-Medium	1.01		1.01	1.62
	(0.22)		(0.22)	(0.49)
Low-High	1.06		1.06	1.70*
	(0.23)		(0.23)	(0.51)
Medium-Low	0.72		0.72	1.17
	(0.18)		(0.17)	(0.37)
Medium-Medium	0.82		0.82	1.31
	(0.18)		(0.18)	(0.39)
Medium-High	0.95		0.94	1.50
	(0.19)		(0.18)	(0.42)
High-Low	0.79		0.79	1.26
	(0.16)		(0.15)	(0.36)
High-Medium	0.80		0.78	0.80
	(0.17)		(0.16)	(0.17)
High-High	0.61**		0.59***	0.72**
	(0.12)		(0.12)	(0.27)
Wife's share of housework (0-100)		0.98*	0.99	0.98**
		(0.01)	(0.01)	(0.01)
Wife's share of housework (squared)		1.0001	1.0001	1.0001
		(0.00)	(0.00)	(0.00)
Couple's gender values (wife's first)[2]				
Egalitarian-Traditional			0.98	0.99
			(0.11)	(0.11)
Traditional-Egalitarian			0.96	0.96
			(0.12)	(0.12)
Traditional-Traditional			0.97	0.98
			(0.12)	(0.12)
Couple's work status[3]				
She doesn't work/He works ft	0.50**	0.48**	0.49**	0.49**
	(0.17)	(0.16)	(0.17)	(0.17)

She works pt/He doesn't work	0.95	0.95	0.92	0.90
	(0.38)	(0.37)	(0.37)	(0.36)
She works pt/ He works ft	0.43**	0.43**	0.42**	0.42**
	(0.15)	(0.15)	(0.15)	(0.15)
She works ft/He doesn't work	1.46	1.34	1.29	1.29
	(0.56)	(0.51)	(0.50)	(0.50)
Both work ft	0.54*	0.53*	0.52*	0.52*
	(0.20)	(0.19)	(0.20)	(0.20)
Later relationship	2.39***	2.39***	2.36***	2.37***
	(0.20)	(0.20)	(0.20)	(0.20)
Married	0.44***	0.44***	0.44***	0.44***
	(0.04)	(0.04)	(0.04)	(0.04)
Number of children[4]				
1	2.69***	2.79***	2.73***	2.76***
	(0.84)	(0.86)	(0.86)	(0.87)
2	2.83***	2.96***	2.89***	2.93***
	(0.94)	(0.98)	(0.97)	(0.98)
3	2.32**	2.46***	2.36**	2.39**
	(0.81)	(0.85)	(0.83)	(0.84)
Age youngest child[4]				
0-2 yrs. Old	0.54*	0.51**	0.54*	0.53*
	(0.18)	(0.17)	(0.18)	(0.18)
3-4 yrs. Old	0.66	0.64	0.67	0.66
	(0.22)	(0.21)	(0.22)	(0.22)
5-11 yrs. Old	0.83	0.83	0.83	0.83
	(0.26)	(0.26)	(0.26)	(0.26)
12-15 yrs. Old	0.72	0.72	0.71	0.71
	(0.23)	(0.23)	(0.23)	(0.23)
Log of household income	0.73***	0.66***	0.71***	0.71***
	(0.05)	(0.04)	(0.05)	(0.05)
Wife's share of work income	1.02**	1.02**	1.02**	1.02**
	(0.01)	(0.01)	(0.01)	(0.01)
Wife's share of work income (squared)	1.00**	1.00***	1.00**	1.00**
	(0.00)	(0.00)	(0.00)	(0.00)
Couple's age (wife's first)[5]				
Similar age	0.94	0.93	0.94	0.94
	(0.08)	(0.08)	(0.08)	(0.08)
She is older	1.57***	1.59***	1.57***	1.58***
	(0.21)	(0.21)	(0.21)	(0.21)

Age at partnership	0.95***	0.95***	0.95***	0.95***
	(0.01)	(0.01)	(0.01)	(0.01)
Duration of relationship	0.99	0.98	0.99	0.99
	(0.02)	(0.02)	(0.02)	(0.02)
Duration (squared)	1.001	1.001	1.001	1.001
	(0.00)	(0.00)	(0.00)	(0.00)
Log likelihood	-2508	-2514	-2504	-2501
Wald χ^2	441.9	442.0	469.4	477.4
Number of couple-years	11,575	11,575	11,575	11,575
Number of couples	3,963	3,963	3,963	3,963
Pseudo R2	0.09	0.09	0.09	0.10

Robust standard errors between parentheses.
*** p< .01 ** p< .05 * p< .1 (two tailed paired observations test).
Reference category:
1. Low-Low.
2. Egalitarian-Egalitarian.
3. Both don't work.
4. No children.
5. She is younger.
Source: BHPS: 1991-2005.

Table A.4.9. Discrete-Time Event History Analysis of Union Disruption with selection into partnership (Heckman probit)

Variables	(1)	(2)	(3)
EHA for the odds of divorce			
Wife more education and does more housework	0.12 (0.10)	0.11 (0.09)	0.12 (0.10)
Couple's education[1] (wife first)			
Low-Medium	0.03 (0.08)	-0.01 (0.08)	0.02 (0.08)
Low-High	-0.04 (0.08)	-0.10 (0.09)	-0.05 (0.09)
Medium-Low	-0.01 (0.08)	-0.03 (0.07)	-0.03 (0.08)
Medium-Medium	0.04 (0.07)	-0.01 (0.07)	0.02 (0.08)
Medium-High	0.00 (0.07)	-0.07 (0.08)	-0.02 (0.08)
High-Low	-0.04 (0.13)	-0.05 (0.12)	-0.06 (0.13)
High-Medium	-0.12 (0.11)	-0.16 (0.10)	-0.14 (0.12)
High-High	-0.16** (0.08)	-0.22*** (0.07)	-0.18* (0.09)
Wife's share of housework (0-100)	-0.00 (0.00)	-0.00 (0.00)	-0.00 (0.00)
Wife's share of housework (squared)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)
Selection into partnership	*Her variables*	*His variables*	*Both variables*
Her level of education[2]			
Medium	0.28*** (0.04)		0.20*** (0.04)

High	0.59***		0.49***
	(0.04)		(0.04)
Her traditional gender values	0.03		-0.01
	(0.03)		(0.03)
Her working status[3]			
Part-time	0.42***		0.40***
	(0.04)		(0.04)
Full time	0.52***		0.51***
	(0.04)		(0.04)
Age	-0.01***		0.00
	(0.00)		(0.00)
His level of education[2]			
Medium		0.21***	0.13***
		(0.04)	(0.04)
High		0.34***	0.19***
		(0.04)	(0.04)
His traditional gender values		-0.09***	0.01
		(0.02)	(0.03)
His full-time work		0.75***	0.73***
		(0.04)	(0.04)
Age		-0.01***	-0.00
		(0.00)	(0.00)
Constant	2.62***	1.29***	0.44***
	(0.31)	(0.10)	(0.13)
N	18630	18550	18430
χ^2	1046***	766.9***	1036***
ρ	0.10	-0.50	-0.02
LR test χ^2 of independence (ρ=0)	0.08	1.25	0.00

Robust standard errors between parentheses.
*** p< .01 ** p< .05 * p< .1 (two tailed paired observations test).
Reference category:
1. Low-Low.
2. Low.
3. No work.
Source: BHPS: 1991-2005.

Table A.4.10. Discrete-Time Event History Analysis of Union Disruption with selection into marriage (Heckman probit)

Variables	(1)	(2)	(3)
EHA for the odds of divorce			
Wife more education and does more housework	0.12 (0.12)	0.08 (0.11)	0.11 (0.12)
Couple's education[1] (wife first)			
Low-Medium	0.00 (0.08)	-0.07 (0.08)	0.01 (0.09)
Low-High	-0.01 (0.09)	-0.12 (0.09)	0.02 (0.09)
Medium-Low	0.09 (0.08)	0.04 (0.07)	0.07 (0.08)
Medium-Medium	0.09 (0.07)	-0.03 (0.07)	0.08 (0.08)
Medium-High	-0.01 (0.08)	-0.15** (0.08)	-0.01 (0.08)
High-Low	-0.05 (0.14)	-0.08 (0.12)	-0.05 (0.14)
High-Medium	-0.16 (0.13)	-0.24** (0.11)	-0.15 (0.13)
High-High	-0.14* (0.08)	-0.28*** (0.07)	-0.14* (0.08)
Wife's share of housework (0-100)	-0.00 (0.00)	-0.00 (0.00)	-0.00 (0.00)
Wife's share of housework (squared)	-0.00 (0.00)	-0.00 (0.00)	-0.00 (0.00)
Selection into marriage	*Her variables*	*His variables*	*Both variables*
Her level of education[2]			
Medium	0.31*** (0.04)		0.21*** (0.04)

High	0.64***		0.50***
	(0.04)		(0.05)
Her traditional gender values	0.02		0.02
	(0.02)		(0.03)
Her working status[3]			
Part-time	0.47***		0.42***
	(0.04)		(0.04)
Full time	0.56***		0.56***
	(0.04)		(0.04)
Her age	-0.01***		0.00
	(0.00)		(0.00)
His level of education[2]			
Medium		0.21***	0.13***
		(0.04)	(0.04)
High		0.36***	0.21***
		(0.04)	(0.04)
His traditional gender values		-0.08***	0.03
		(0.02)	(0.03)
His full-time work		0.83***	0.82***
		(0.04)	(0.04)
His age		-0.00	-0.00
		(0.00)	(0.00)
Constant	1.21***	0.91***	-0.09
	(0.10)	(0.11)	(0.14)
N	16255	16169	16061
χ^2	696***	514***	631***
P	0.98	-0.76	0.68
LR test χ^2 of independence (ρ=0)	0.56	3.27*	0.93

Robust standard errors between parentheses.
*** p< .01 ** p< .05 * p< .1 (two tailed paired observations test).
Reference category:
1. Low-Low.
2. Low.
3. No work.
Source: BHPS: 1991-2005.

Table A.4.11. Discrete-Time Event History Analysis of Union Disruption with selection into consensual union (Heckman probit)

Variables	(1)	(2)	(3)
EHA for the odds of divorce			
Wife more education and does more housework	0.23 (0.17)	0.24 (0.16)	0.23 (0.17)
Couple's education[1] (wife first)			
Low-Medium	0.06 (0.18)	0.15 (0.17)	0.09 (0.19)
Low-High	-0.19 (0.21)	-0.10 (0.20)	-0.17 (0.22)
Medium-Low	-0.37* (0.20)	-0.34* (0.17)	-0.31 (0.21)
Medium-Medium	-0.10 (0.17)	0.03 (0.15)	0.01 (0.21)
Medium-High	0.04 (0.18)	0.16 (0.15)	0.15 (0.20)
High-Low	-0.10 (0.28)	-0.05 (0.22)	0.07 (0.29)
High-Medium	-0.12 (0.25)	0.03 (0.19)	0.06 (0.29)
High-High	-0.19 (0.22)	0.01 (0.15)	-0.01 (0.27)
Wife's share of housework (0-100)	-0.00 (0.01)	-0.01 (0.01)	-0.01 (0.01)
Wife's share of housework (squared)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)
Selection into consensual union	*Her variables*	*His variables*	*Both variables*
Her level of education[2]			
Medium	0.33*** (0.06)		0.26*** (0.06)

High	0.75***		0.69***
	(0.06)		(0.07)
Traditional gender values	-0.12***		-0.10**
	(0.04)		(0.04)
Working status[3]			
Part-time	0.45***		0.35***
	(0.06)		(0.06)
Full time	0.21***		0.12*
	(0.07)		(0.07)
Age	-0.04***		-0.01***
	(0.00)		(0.00)
Level of education[2]			
Medium		0.29***	0.19***
		(0.06)	(0.07)
High		0.37***	0.15**
		(0.06)	(0.07)
Traditional gender values		-0.21***	-0.10**
		(0.04)	(0.05)
Full-time work		0.45***	0.35***
		(0.07)	(0.07)
Age		-0.04***	-0.02***
		(0.00)	(0.00)
Constant	1.58***	1.97***	1.54***
	(0.15)	(0.16)	(0.20)
N	3674	3618	3549
χ^2	186***	262***	241***
ρ	-0.25	0.69	0.29
LR test χ^2 of independence (ρ=0)	0.32	2.71*	0.26

Robust standard errors between parentheses.
*** p< .01 ** p< .05 * p< .1 (two tailed paired observations test).
Reference category:
1. Low-Low.
2. Low.
3. No work.
Source: BHPS: 1991-2005.

CHAPTER 5. CONCLUSIONS

5.1. Introduction

The aim of this dissertation was to improve our understanding of the role of education in the patterns and extent of gender inequality within the couple. This has been achieved through the study of three interrelated domains that are inherent to the couple relationship: the division of housework between the spouses, their gender and family values, and divorce. The thesis assumes a life course perspective which explicitly acknowledges that the internal dynamics of the couple, its decision making and family arrangements change and adapt over time in order to respond to needs and expectations of the family members. An important implication follows: the role of education in the extent of gender inequality in the couple depends also on the interplay between the spouses and how this evolves over time, especially in response to life cycle events. Methodologically, this dissertation has made used of longitudinal data and the appropriate techniques to address the specific hypotheses drawn in each of the substantive chapters.

At the theoretical level, this thesis has conducted a critical review of the existing contributions regarding the effect of education on the existing inequalities between women and men and how they are translated into the family. The common standpoint among scholars is that current trends of high educational homogamy are a driving force towards more balanced and fair relationships between the spouses. At the same time, this

argument implies that there is an increasing polarization of the life chances of individuals related with the education they have attained by the time of partnering so that education deepens inequality between households while it fosters more equality in the couple. These diverse life course trajectories on the basis of the education attained by the spouses are key sociological insights for the discussion presented in this dissertation. In addition, the theoretical discussion as well as some of the main results of the thesis have also challenged the idea that the increasing educational attainment of partners is a sufficient condition *per se* to reshape the traditional gender roles of women and men within the family and guarantee a switch towards more equality and fairness between the spouses.

In this vein, building upon recent contributions that both from sociology and economics seek to provide a parsimonious explanation to the persistent gender inequalities among dual-earner couples, the dissertation has put the focus on how increasing educational attainment may be provoking a *'doing gender'* behavioural response of the spouses. Such response would imply an intensification of traditional family arrangements which hinders the translation of the progress made by women in their educational attainment into more equal relationships within the family.

These reactions make it necessary to carefully consider when and how homogamy in education may actually have a positive impact in the intimate lives of the spouses and their family arrangements. The context is one of increasing educational attainment of the younger cohorts and greater social value of education. The strategy followed in the dissertation is the systematic comparison of the individual *vs* the joint effects of education in the three domains analyzed with a special focus on the comparison between high educational homogamy and the high education of each partner. In this regard the dissertation depicts a complex relationship between education and the extent of gender equality between the spouses. To put it simply, neither high

education nor highly educational homogamy necessarily lead to more equality in the couple.

As advanced in chapter one, the main findings of the thesis support the co-existence of a multiple equilibria society as depicted by Esping-Andersen (2009) where the traditional family arrangements of the declining *Becker equilibrium* based on a gendered division of domestic and work activities between the spouses co-exist with a growing *liberation equilibrium* characterized by gender-symmetric arrangements both at home and in the labour market. Nevertheless, these two equilibria, albeit for different reasons, do not represent the living arrangements of a significant number of couples. Most of them are to be included within an *unstable equilibrium.* Although this is not, properly speaking, an equilibrium it represents well the challenges that hinder more equality in their couple relationships. The obstacles are both material and normative: among the former, the pervasive inequalities in the labour market careers of women in terms of pay gaps, glass ceilings, and the overrepresentation of women among part-time workers. All these material obstacles weaken the bargaining position of women within the family, even those in dual earner couples. But normative ones are also important, precisely because their fundamentals are more difficult to tackle. Even if the social climate and women's personal aspirations favour the redefinition of the couple relationship along the lines of greater equality and fairness there remain forces of the past both within the family and the society at large through ascribed traditional gender roles to wives and husbands, to mothers and fathers. Some of the main results discussed in the three substantive chapters of this dissertation suggest that, indeed, a significant number of the couples analyzed might be in this unstable equilibrium while the proportion of those who are fairly traditional or who based their relationship on the premises of fairness and gender equality are a minority. Interestingly, the analyses presented have also shown that together with more measurable constraints, normative definitions of gender relations play a significant role in the extent of inequalities within the couple.

In the following sections I first present a detailed summary of the main findings of the thesis. Then, I discuss their substantive implications regarding the role of education as a driving force in the switch towards more equality within the family. Finally, I shall conclude advancing some ideas for extensions and future work based on this thesis.

5.2. A summary of the main results of the thesis

Although they address three different aspects of the couple relationships in their intimate lives, the three substantive chapter of this dissertation share the common goal of providing an answer to the following questions:

- Does education foster equality and fairness between the spouses both in their family arrangements and in their relationship?
- Is this the result of educational homogamy or to the increasing educational attainment of the spouses?
- Does gender inequality between the partners increase over marriage in response to life cycle and family events?

Table 5.1 below suggests that the matching on education of the spouses does not necessarily lead to a more balanced division of housework in the couple. This is the main finding of chapter two. A careful examination of the role of education in how partners share the chores has highlighted the complexity of this relationship. Thus, it appears that the increasing educational attainment of women and men has a very different impact on their behaviour once partnered regarding the division of housework. While husbands' behaviour does not seem to be driven by his own education, keeping a marginal contribution to the domestic chores, wives' high education helps reduce their own contribution. The absence of clear direct cross-partner effects of their educational credential on each other's amount of housework suggests, on the

one hand, that educational homogamy does not foster greater gender equality regarding the division of unpaid labour between the spouses, and, on the other hand, that women do less housework when they are highly educated either because they just give up some as a consequence of the time constraints they face given their greater involvement in the labour market or that they buy out substitutes in the market thanks to their larger income. Indeed, a careful examination of the effect of the labour income of the spouses while controlling for the total household income where non-labour market transfers such as state aid or subsidies are included, has highlighted the stronger effect of the wives' labour income over the husbands' on the extent of their reduction of the weekly time spent doing the housework.

As discussed above, the chapter has also provided evidence of the importance of normative expectations as key factors that hinder the switch towards greater gender equality in the division of housework. On the one hand, the empirical strategy has allowed me to identify a behavioural pattern that can be interpreted as 'doing gender' in couples where the wife is highly educated and the husband is low educated. Interestingly, in these couples a more unequal share of housework is observed. This seems to stem from a combination of the wife's behaviour who reacts by increasing her contribution to housework while the husband remains doing a marginal amount. On the other hand, the role of normative expectations seems also evident in the direct effects of gender and family values in the division of housework between the spouses, effects that are independent of that of education. It is, of course, less important than the direct effect of education but nevertheless gender values contribute to gender inequality in the division of housework in the couple. In addition, the chapter also presents descriptive evidence of pre-existing gender differences among single women and men in how much housework they do as well as on their gendered behaviour upon partnership regarding the division of housework among newlyweds. These results together with the increasing gender inequality in the division of housework over marriage in response to life cycle and family events are

consistent evidence of the role of normative expectations in explaining the extent of gender inequality in the division of housework in the couple.

The only finding of the chapter that suggests that there may be forces reshaping the daily lives of young couples which could foster more balanced gender relationships in the near future is that the gender gap in housework drops upon the birth of a baby despite that this change seems not to last for long and partners return to a more traditional division of housework over time.

Table 5.1. Summary of the main results of chapter two

Hypotheses and main arguments	**Effect on the division of housework**	**Description**
Highly educational homogamy	No effect/Individual effect of education (gender differences)	- The husband's contribution to housework remains small regardless of his education. - The wife's contribution to housework is more elastic to her educational attainment. - No clear cross-partner effects: the effect of wife's high education seems to stem more from her own time constraints or benefit more from her higher income than from that of her husband's or the joint higher income of the couple.

Direct effect of gender values	Yes	- Traditional gender values deepen gender inequality in the division of housework regardless of the spouses' level of education. - The effect of education appears stronger than that of values.
'Doing gender' behaviour based on educational differentials	Yes	- Couples where the wife is highly educated and the husband has lower education follow a more traditional division of housework. - The wife increase her contribution/The husband 's contribution remains marginal contribution.
	Other important results for gender inequality in the division of housework	- Pre-existing difference in women's and men's time spent in housework before partnership. - A gendered response upon partnership: the wife increases her amount of housework/ the husband reduces his. - Life cycle and family events deepen the

	observed inequality in the division of housework between the spouses.

Chapter three takes a different stand to study patterns of gender inequality within the couple and how they may evolve over time. Table 5.2 summarizes the main results of the chapter. The interest is in analyzing the gender and family values of the spouses. Concretely, it seeks to investigate whether there is a tendency of partners to share similar gender and family values and what factors may be behind this. Thus, although the analysis identifies a clear gender difference with husbands being more traditional than their wives, it also shows that wives change more towards traditional views upon partnership. Altogether, the results suggest that there is a trend towards an increasing similarity between the gender values of the spouses. The chapter focuses on two main factors that may account for this resemblance. On the one hand, the influence of the spouses on each other's values; on the other hand, the role of educational homogany as a leading factor in the similarity of the gender values of wives and husbands. In respect to the influences between the spouses, the chapter shows that while the direct influence is clearly symmetrical with both partners influencing the gender values of the other to the same extent, the different role saliency of wives and husbands at home, particularly the pervasive gender inequality in the division of housework, have a clear gendered impact with husbands becoming more traditional than their wives. A plausible interpretation of this result in line with the focus of this dissertation on the dynamics of gender inequality within couples would argue that the role saliency of wives in the family is manifested in how husbands' gender values are shaped by the traditional family arrangements of the couple so that when the couple follows a traditional division of the domestic chores husbands react by becoming more traditional.

With respect to the role of educational homogamy in the resemblance between the gender values of the spouses, the results of chapter three do not confirm that the matching on education may lead to a higher resemblance between the gender values of the spouses neither at the time of partnership nor over time. On the contrary, it seems that it is the increasing educational attainment of the spouses, particularly of wives, which is associated with a higher degree of closeness between the gender values of the partners. Since highly educated wives are more likely to live the traditional gender roles of the couple with more tension than their husbands, it should not seem strange that they are also the ones making most of the effort in adapting their values to this reality becoming, in turn, closer to the gender values of their husbands.

Table 5.2. Summary of the main results of chapter three

Hypotheses and main arguments	**Effects on partners' similarity in their gender values**	**Description**
Direct influence	Yes	- Symmetrical effect of the direct influence between the gender values of the spouses.
Role saliency	Yes	- A traditional division of housework in the couple facilitates the influence of the wife on her husband's gender values.
Educational homogamy at the time of coupledom	No effect/Increasing educational attainment	- No evidence of a direct effect of the matching on education on partners sharing more similar gender and family views upon

		partnership. -Slightly higher resemblance among couples with close high levels of education.
Educational homogamy over marriage	No effect/Increasing educational attainment (gender differences)	- No evidence of a direct effect of the matching on education on partners sharing more similar gender and family views over marriage. - Higher resemblance among couples with close high levels of education. Wife's high education is associated with more similar gender values between the spouses.

Finally, chapter four puts the focus on the effect of these traditional family arrangements, as measured by the unequal division of housework between the spouses, and of educational homogamy for the stability and quality of the relationship. Table 5.3 presents the main findings. The results of the chapter confirm that highly educated couples enjoy a *stability premium* with a lower risk of divorce than other couples with less education. Interestingly, it seems that the positive effect of husband's high education is slightly stronger than wives' own high education which highlights an interesting partner effect most likely related with women's expectations of equality and fairness in their marriage regarding the high education of their husbands.

In respect to the effect of the unequal share of housework on the risk of divorce, the results confirm that a traditional gender specialization in housework activities reduces the odds of divorce despite that this stabilizing effect is somewhat weaken when the division of the domestic chores between the spouses is very unequal.

Finally, building upon the findings of chapter two regarding the 'doing gender' behaviour of highly educated wives with lower educated husbands who appear to reinforce the unequal division of housework, this chapter investigates whether this behaviour leads to a more stable union as the classical contributions of the 'doing gender theory would suggest. The results of the chapter do not yield support to a lower risk of divorce of these couples. On the contrary, the results indicate that in the long run when highly educated wives 'do gender' through the division of housework this increase their likelihood of divorce over time. A plausible interpretation of this finding is that while highly educated wives seem to be open to adjust to more traditional gender roles this seems to be, in any case, a transitory option in the expectation that these arrangements will change with time. When it does not, wives may opt to leave an unsatisfactory union.

In addition. the chapter also presents evidence of a certain selection into partnership of individual holding more traditional gender values. Although the results are not conclusive this finding strengthens some of the findings of the dissertation regarding the key role of gender values, for instance, in the division of housework between he spouses or in the gendered behaviour of women and men already observed upon partnership.

Table 5.3. Summary of the main results of chapter four

Hypotheses and main arguments	**Effects on the risk of divorce**	**Description**
Homogamy: *stability premium*	Yes, for highly educated couples	- Among homogamous couples only those with high education are more stable. - The stabilizing effect of the husband's high education is slightly stronger than the wife's own education.
The effect of the division of housework	A gendered division of housework stabilizes the union	- A traditional division of housework reduces the risk of divorce but this effect seems to weaken as the share of housework becomes strongly unequal.
'Doing gender' behaviour based on educational differentials	Increases the risk of divorce	- Contrary to the classical argument of the 'doing gender' theory, the risks of divorce increases over time.
Some evidence of selection into partnership according to the gender values of women and men		- This finding strengthens key findings of the thesis regarding the role of gender value sin the daily lives of the spouses as well as in the gendered behaviour of women and men observed upon partnership.

5.3. Bringing the results together: What future for gender equality and fairness in the couple?

The interest of this dissertation in unraveling the factors that underline the extent of gender inequality in couple relationships has been achieved through the study of three interrelated aspects that are central to the intimate life of the spouses: the division of housework, the gender and family values and the decision to divorce. Although these have been presented in each of the three substantive chapters as outcomes of the complex interplay of family and life cycle events, the negotiations between the spouses, and, particularly, the individual attributes that both partners bring into the relationship, namely, their educational credentials, the three are more properly inputs that give important insights into the extent of gender imbalances within the couple. In this regard, the main focus of the thesis has been on whether the increasing educational attainment of the spouses and the matching on education have brought about a significant switch towards greater gender equality and fairness between the spouses. The word 'greater' is important here. The discussion presented in the dissertation does not assume that equality within the couple means that wives and husbands must necessarily perform equally in all spheres of life, for instance, in paid and unpaid labour activities. Whether or not the switch towards more balanced gender relationships within the couple is taking place refers to the intensity with which the current trend towards increasing gender equality in the educational attainment and labour market involvement of women and men translate into more equal gender relationships within the family. There are two alternative scenarios with conflicting implications for the present and the future of gender inequality in the couple. The first one would assume that even if some lagged adaptation is predictable, the family is an active agent in the social transformation of the role of women in contemporary society. In this regard, the change towards greater gender equality also between the spouses would seem unstoppable. The second one takes a different stand and would

argue that the family remains a highly gendered setting itself because it is part of its own essence that wives and husbands perform different roles within the family. Without this separation of roles the family would no longer be effective in providing care and support to its members.

The dissertation has sought to shed light on the strength of these alternative scenarios in current society as well as to provide insights into its likely evolution in the near future. It has done so basically through the study of the role of education in the patterns of gender inequality in the three family domains analyzed. Thus, the thesis has provided a number of arguments that see the increasing educational attainment of women as a driving factor in the redefinition of their traditional gender roles within the family. Indeed, the proportion of women in higher education in recent decades does not only reflect the societal demand for a more skilled workforce but also their desire of autonomy and self-realization. The same can be said about their growing incorporation in the labour market. Altogether, what these changes highlight for the organization of the family is that a traditional gendered model of specialization with the wife as homemaker and the husband as main provider has ceased to be efficient. Thus, the bargaining models in family economics or the resource allocation theories in family sociology seem more promising as explanatory frameworks of the way partners organize their family arrangements and of what this couple decision-making tells us about the extent of gender inequality between the spouses.

Some of the key works revised in the three substantive chapters of the thesis also point out that the growing number of highly educated women has also fostered a fundamental change in the process of coupledom. Although the emphasis remains on homogamy, because both women and men prefer to partner within certain social boundaries which give them some predictability about the expected behaviour of their potential partner, higher education has now become the shaping factor of partnership. Thus, the spread of higher education among women, their tendency to marry homogamously, the growing number of dual earner couples

where both the husband and the wife seek to pursue a professional career without necessarily renouncing to motherhood, are all social phenomena that predictably should have increased the bargaining power of women within the family and, in turn, helped redefine the basis of the couple relationship towards greater gender equality and fairness between the spouses.

However, some of the findings of this thesis depict a much more complex panorama for the increasing bargaining power of wives to deploy their full potential in reshaping gender relations within the family. Even though it seems obvious to state that a couple is made up of two individuals, it is convenient to emphasize it here. Indeed, if, for instance, intense inequalities remain in how partners share the domestic chores, as this thesis has documented, despite all the progress made by women in their educational attainment and in their incorporation in the labour market, this is basically because husbands, even if they are as educated as their wives, still contribute much less than their wives to the domestic chores.

One important question this dissertation has tried to answer is whether husbands' behaviour is the only one that explains the persistent gender inequalities in the division of housework between the spouses. It is obvious that education, although sometimes not sufficiently acknowledged, bears a strong normative underpinning to equality. This should mean that highly educated husbands should show a stronger commitment to domestic chores than the one identified in the analyses presented in this thesis. In addition, I should also have found a significant reduction in women's housework activities as their education rises. However, none of these actually happens. The consequence is the pervasive imbalance in the share of housework in the couple. Some of the findings of the dissertation suggest that the couple relationship itself bears a normative gender dimension that often may offset the positive effect of the high education of the spouses. Thus, the thesis has paid special attention to the 'doing gender' theories that within family sociology or the economics of the family highlight the importance of these normative

expectations in explaining the persistence of traditional family arrangements between spouses with an increasing bargaining power. Indeed, a number of findings of this thesis support the key role of these normative expectations in couple relationships. For instance, this seems to be the case for highly educated wives who despite their possibly stronger bargaining position keep a fairly unequal share of housework, especially when their husbands have lower education. In the same vein, the gender differences found in the time devoted to housework among single women and men and how they adjust to an even more gendered behaviour just upon partnership also suggest that often education may not offset the weight on the partners' behaviour of the ascribed gender roles. Of course, husbands are as responsible as wives for this *state of affairs* regarding gender inequality in the couple. First of all, as discussed above, how much they contribute to housework does not show any elasticity to their education. Secondly, as shown also in this dissertation, a gendered division of housework between the spouses appears to have a significant effect in how the role saliency of the wife at home affects the gender traditional values of the husband.

However, some of the results of this thesis seem to indicate that, after all, something may be changing in the intimate arrangements between the spouses. Despite the resistances identified, even if indirectly, through the importance of the normative expectations regarding the gender roles of wives and husbands, education seems to be transforming slowly some of the fundamentals of the couple relationship. Thus, in line with previous research, the analysis presented in the dissertation has confirmed that highly educated couples have a lower risk of divorce, that is, the matching on highly education appears to favour better quality unions. Also the unfulfilled expectations about the relationship associated with high education, but in this case of the wife, seem to be behind the higher risk of divorce of highly educated wives with lower educated husbands when the unequal division of housework remains over time. This result suggests the ambivalence of the 'doing gender' behaviour for the

case of educational inequalities, most likely as a consequence of the normative and cultural role of education in favour of greater equality and fairness in the relationship. 'Doing gender' appears, thus, to be only a temporary arrangement that creates strain and unhappiness to the wife.

Altogether, the research presented in this dissertation suggests that the change in the traditional family arrangements that have been common almost as normative principles of the couple relationship until recently follows a lagged pace to the increasing gender equality witnessed in the spheres of education and professional careers. Although difficult to accomplish, this research has also highlighted that in order to achieve more balanced gender relationships within the family both women and men need to take an active role in the equalization of their gender roles. Almost certainly, it is only through this two–sided endogenous switch that more equitable couple relationships can be attained.

5.4. Extensions and further research

Although this dissertation has tried to provide consistent evidence in support of the 'doing gender' behaviour of the spouses as a driving force behind gender inequality to some extent it remains as a *black box* that needs to be unpacked. In order to do this, there are two main strategies that I seek to pursue in the near future. Firstly, I intend to carry out a careful empirical examination to the outsourcing behaviour of these couples. The aim is to study whether there are differences in the probability of buying out substitutes in the market to housework activities according to the level of education of the couple while controlling for the material resources of the spouses and other transfers received by the family. This analysis will seek to rule out the possibility that, at least, part of the 'doing gender' behaviour of couples with educational differences in favour of the wife stems more from the lower income of highly educated wives given the

well known gender pay gap. For this analysis I shall make use of the outsourcing information available in the BHPS and complement this with the much richer data of the United Kingdom Family Expenditure Survey (FES) for the same years. The FES is a continuous, nationally representative, cross-sectional stud running from 1957 onwards and collecting detailed information on individual and household income and expenditure.

The second strategy is to rely on qualitative evidence, basically through in depth interviews with representative couples indentified through the empirical analysis of this thesis to get direct evidence on the couple decision making regarding the internal arrangements of the couple. I believe this study will provide invaluable evidence for the better understanding on what it means to 'do gender' in the couple and how this relates with the patterns of gender inequality identified in this dissertation.

In addition to the further examination of the 'doing gender' behaviour, future comparative research should allow me to provide evidence of the consistency of the main results discussed in this dissertation. Given that the analyses presented here relies exclusively on UK data I cannot rule the possibility that some of the findings regarding the extent of gender inequalities within the couple and the factors associated with it stem more from some specificities of the UK context. Indeed, it seems important to approach the effect of the welfare regime configuration through a comparative analysis, especially when it is well know that the different systems of welfare provisions in western societies are based on competing principles regarding the provision of alternatives to the family needs which are at the core of the gender inequalities between the spouses. This comparative analysis requires household data of similar quality and longitudinal structure to the one used in this dissertation. They should also correspond to countries with different welfare regimes configurations to the liberal one that characterizes the UK. The possible case would be the German Socio-Economic Panel (GSOEP) for Germany which fits within the conservative welfare regime. It would also be necessary to cover, at least, the social-

democrat model of welfare regime since it is precisely the one where gender inequalities have been better tackled but, unfortunately, there are no available comparable household panel surveys.

Alternatively, this comparative study could be carried out through time-use surveys with data for all the household members in order to construct sample of couples for different countries at a given year. In this case, even though it would not be possible to study the dynamics of gender inequality over time, that is, it would not be feasible to replicate the analyses presented in chapters three and four of the dissertation, most of the analyses of chapter two could be repeated with these high quality time-use data as well addressing, at least indirectly, the role of that the welfare regime configuration may play in the patterns of gender inequality in the division of housework found across societies.

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