The gendered division of housework time: Analysis of time use by type and daily frequency of household tasks

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Abstract
Over the past 40 years, there has been a slow trend toward gender equality regarding time use in paid and unpaid work. However, the gendered division of housework remains. This article examines the gender segregation in domestic work in order to contrast the influence of welfare regimes and employment status on the organization of everyday life. The analysis is based on time use variables according to the type and daily frequency of household tasks. First, a descriptive cross-national study of European countries is presented to contextualise how institutional factors are involved in patterns of time use. Second, a specific case in Spain is studied to assess how employment status influences the distribution of housework. The results show that daily maintenance tasks represent a limit for the equal distribution of housework by gender. It is concluded that women’s employment is a necessary but not sufficient condition for gender equality.

Keywords
Time use, housework, gender, welfare regime, employment status, working time

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Introduction

Statistical data on social use of time are a good tool for studying gender inequality, especially in the distribution of paid and unpaid work between men and women (Aliaga, 2006; Durán, 1998–2000; Gershuny and Sullivan, 1998; Hufton, 1999; Ráldua-Martin, 2001). Several studies show that the centrality of the working day conditions the organization of daily life and wellbeing (Torns and Moreno, 2008; Sayer, 2010; Torns and Miguélez, 2000; Torns et al., 2008). Gender emerges as a key factor to explain how time is distributed and used. The gendered division of labour persists with different career paths for men and women. The responsibility traditionally attributed to women for taking care of the home and family has decreased their availability for paid work and leisure time. Conversely, men’s responsibility for paid work has been used to justify their low dedication to housework while they conserve their free personal time.

Longitudinal analyses show that over the past 40 years there has been a slow trend towards gender convergence in the time use of paid and unpaid work (Gershuny, 2000; Hook, 2006; Kan et al., 2011). Other longitudinal analyses demonstrate the continuing gendered division of housework between men and women (Kan and Gershuny, 2010; Treas 2008, 2010). This gender segregation means that the more routine and essential daily tasks are still done by women, while men have increased their contribution disproportionately with less routine tasks (Kan et al., 2011). Comparative analyses highlight differences between countries that are related to the type of welfare regime and the employment status of women. One of the factors that best explain the decline in gender differences in time use is the increase in women’s participation in the labour market: time that women spend on daily household tasks is inversely proportional to their involvement in paid work (Bianchi et al., 2000; Shelton and John, 1996). For this reason, the increase in the female employment rate helps to reduce the time that women spend on housework. In addition, the unavailability of employed women to assume full responsibility for household tasks may lead to a greater male involvement in them. Daly (2011) states that couples who have more egalitarian behaviours regarding housework are those formed by two adults working full-time. Indeed, countries with more equal time use are those that have a higher participation of women in the labour market (Gálvez et al., 2010; Kan et al., 2011; Sayer, 2010). However, in all these cases, the engine of change is influenced by female employment rather than by a change in men’s mentality regarding their role in the home (Kan et al., 2011). To what extent is the transformation in time use significant in terms of gender equality?
To help answer this question, this article explores the distribution of domestic work between men and women by analysing time use according to the type and daily frequency of the tasks. The main objective is to show that the segregation of tasks represents a limit to the equal distribution of work between men and women. It is argued that the tendency towards convergence of time use occurs mainly in relation to less routine tasks of housework and care, whereas the divide persists in routine and daily household tasks.

**Time use and domestic work: A theoretical exercise**

Cross-national time use research in Europe (Aliaga, 2006; Eurostat, 2004; Gershuny, 2000; Niemi, 2006) shows similarities between the countries in gender behaviours in relation to paid and unpaid work. These studies reveal a greater dedication of men to paid work, a greater dedication of women to unpaid work and less leisure time for women. However, cross-national longitudinal analyses demonstrate that gender differences in time uses have shown a downward trend in the last 40 years (Gershuny, 2000; Hook, 2006). Some of the explanatory factors are the social changes resulting from the second demographic transition: widespread access of women to education, an increase in the presence of women in the labour market, and the consolidation of social rights linked to the goal of equal opportunities. All these changes lead men to spend more time on housework and care, and women to spend less time (Sayer, 2010). It is a slow trend driven mainly by the increase in female employment.

These studies and others also show that, despite the reduction in differences, gender segregation in relation to housework persists. Women continue to perform the most routine activities while men concentrate on doing the most flexible and least rigid ones (Moreno, 2009; Kan et al., 2011; Treas, 2008). In fact, the gendered division of housework is an established object of study in the literature (Coltrane, 2000; Fuwa, 2004). Treas is one of the scholars who have most worked on this subject. Her contributions include the following: a criticism of the theory of rational action and the hypothesis of the specialization of tasks within the couple (Treas, 2008); cross-national studies about who does what in the home (Treas and Drobnic, 2010); the study of how couples divide household management work (Treas and Tai, 2012); and the explanation of the circumstances that lead men to perform feminized tasks (Treas and Tai, 2012). All these studies highlight the persistence of gender differences in the distribution of housework and justify the analytical importance of knowing “who does the housework” and “what that person does”.

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The academic debate confronts two explanations about the segregation of domestic work within the home: the economic perspective and the gender perspective. The economic perspective is based on the rationality of decisions according to the structural conditions (employment, working time, children, etc.) and individual preferences for distributing responsibilities. It is argued that gender specialization of housework reflects a rational decision in the couple caused by circumstantial factors such as employment status or having children. It is further argued that the division of housework between the two members depends on whether they do paid work, the wages they earn and the circumstances that accompany childcare. The main hypothesis is that as social circumstances change, the distribution of time between men and women must also change. This is mainly because the increase in female employment modifies the availability of time according to gender (Becker, 1981).

On the other hand, the gender perspective argues that rational decisions and individual preferences are a social product constructed in a context marked by gender. It criticizes the over-simplification of the economic perspective, which underestimates the importance of cultural factors. Some authors argue that gender ideology persists (Kan et al., 2011; Treas and Drobnic, 2010). Only thus can one explain why women continue to spend more time on housework despite the increase in female employment and the decline in fertility. They spend more time in paid work and have fewer children but continue to spend more time on housework and care than their partners (Treas and Drobnic, 2010). In fact, some women have higher salaries than their partners but are still the main person in charge of housework. This situation invalidates the hypothesis of rational decision-making put forward by the economic perspective. Conversely, the gender perspective uses concepts such as “gender construction” and “doing gender” to stress that the house is a factory for producing gender ideology in which women do not stop doing housework and men, whenever they can, avoid thinking about what household’s needs doing (Torns and Moreno, 2008; Treas and Tai, 2012). Although some authors argue that gender ideology has become less important in the distribution of domestic work, there is a consensus about its analytical importance.

At this point, the theoretical debate focuses on the sociocultural barriers to the convergence between time that men and women spend on paid and unpaid work. Kan et al. (2011) considers that there are barriers on two levels: the institutional level and the interactional level. The first level involves the political context of the welfare regime and the second level involves structural factors such as the individual’s employment status and life cycle. The same authors conclude that in all political contexts the trend towards gender equality occurs because men spend more time but women
spend much less time. They also analyse the evolution of time use during the last 40 years based on four political clusters built according to the type of welfare regime: the Nordic, Liberal, Continental, and Mediterranean models (Daly and Lewis, 2000; Esping-Andersen, 1990, 1999; Ferrera, 1996; Lewis, 1992; Saraceno, 1995). In all countries analysed, women spend more time on central routine domestic and care tasks, while men spend the largest portion of their time on non-core and occasional household tasks. This trend indicates the limited influence of the institutional level and the persistence of gender ideology: inside the home gender roles are reproduced according to the responsibilities acquired during the gender socialization process (Moreno, 2009). Given the importance of traditional gender values, Kan et al. (2011) state that the change in time use is not normative but rather an adaptation to external factors: men do because employed women stop doing and not because they take on shared responsibility for housework.

In view of the importance of external factors, it is necessary to analyse the differences between countries in order to capture the influence of political, economic and demographic factors on gender inequality over and above the general trend. Several studies stress that housework depends in part on public policies that affect the structure of employment and the provision of public social care services (Bosch et al., 2009; Bouffartigue, 2010; Gálvez et al., 2010; Gershuny and Sullivan, 2003; Kan et al., 2011; Lewis, 1992). It is argued that the existence of labour policies on equal opportunities and social policies in support of care explains why the convergence in time use of men and women is higher in Nordic countries. Conversely, in countries with the Continental or Mediterranean welfare regime, the persistence of the male breadwinner model at the background of public policy explains why gender inequalities in time use are greater. On the other hand, though countries following the Liberal model do not have a Nordic welfare regime, their patterns of time use are closer to the Nordic model than to the Continental and Mediterranean regimes.

In line with the theoretical proposal of Kan et al. (2011), Treas (2010) proposes to connect the micro- and the macro-levels in order to analyse how people’s everyday life is shaped by the institutional and cultural context. She argues that the division of housework between men and women varies from country to country according to the welfare regimes, social policies, employment structure and cultural expectations. At the operational level, Treas (2010) notes that living with a partner, having children and being employed affect the amount and type of housework done in a particular political context.

From this perspective, Sayer (2010) analyses the effect of marriage, motherhood/fatherhood and employment on housework in different
welfare regimes. The results clearly indicate the importance of employment: in all countries analysed, as the time spent on paid work increases, the time spent on unpaid work decreases. This trend occurs especially in the case of women, for whom more employment means less time available for housework and more income allowing them to outsource part of it. Following this line of research, other analyses explore the importance of employment according to political context. In countries with Liberal regimes, female employment helps to balance the amount of time that men and women spend on housework (Fuwa, 2004). On the other hand, in countries with Continental regimes female employment helps to balance the gender segregation of housework between the two partners (Geist, 2005). Fuwa and Cohen (2007) argue that full-time work favours greater equality regarding the content of the domestic tasks, while part-time work helps to reproduce its segregation between men and women.

Van der Lippe (2010) examines how women’s employment affects the participation of their partners in housework according to the political context. She therefore stresses the need to compare the total time devoted to paid and unpaid work, whereas Geist (2005) only focuses on the employment rate. Van der Lippe (2010) concludes that in all countries the time spent on paid work by women has a negative influence on the time they spend on housework. However, she stresses that working full-time has a greater effect in countries with Mediterranean regimes than in countries with Nordic and Liberal regimes. That is, the difference between the time that employed and unemployed women spend on housework is greater in Mediterranean regimes than in Nordic ones. Given this empirical evidence, Van der Lippe et al. (2011) suggests the influence of social policies to support housework and care work regardless of the employment status of women. She observes that, in addition to the cultural factors defended by Sayer (2010), the analysis must include the influence of public policy. Regarding this issue, Kan et al. (2011) show that the differences between countries are greater in the time spent on routine household tasks than in the time spent on care tasks. She argues that this situation reflects the influence of employment and gender equal opportunities policies (whether direct or indirect) to support care. Since all countries analysed legislate according to a specific care regimen, countries that have achieved a higher, more stable and complete female labour market participation rate show lower differences in routine housework. Paradoxically, many social policy scholars focus on care systems, but labour policies aimed at full-time female employment seem more effective for attaining equal gender distribution of housework.

Hook (2010) discusses how working conditions influence the gender segregation of housework in order to determine how the legal context of labour
relations affects decision-making within the couple. The results show the influence of parental leave and flexible working time. In countries with a rigid working time regime and without equal, individual, non-transferable parental leave, women spend considerably more time on housework than men. However, in countries with flexible working time and parental leave for men, women spend less time on housework (Hook, 2010). In the same line, Sayer (2010) argues that employed women have more capacity than unemployed and inactive women to influence the time that their partners spend on housework. However, Van der Lippe (2010) suggests that individual factors (class, age and ethnicity) involve differences within countries, so the situation of all employed women is not the same.

All these scholars highlight the difference between reducing the gender gap in time spent on housework and reducing the gender segregation of domestic and care work. According to Sayer (2010), the amount of time spent on housework is related to cultural standards on cleanliness and food habits, while the gender gap is more related to the labour policies of equal opportunities in each context. She considers gender ideology to be more important than the influence of the welfare regime in determining who does what in the home. Time use is related more to gender roles than to institutional factors, although differences are smaller when public policies favour equal opportunities, as in the Nordic countries.

The aim of this paper is to further study gender segregation between the different categories of housework along the lines proposed by the theoretical debate outlined above. This is considered an important subject of study because it is currently an invisible obstacle to equal opportunities between men and women. Time use is a good indicator for studying gender inequality. The paper argues that the heuristic potential of time use increases when the type and daily frequency of household tasks are taken into account. In order to develop this analysis, it is considered essential to adopt an approach that combines the macro and micro levels in order to relate contextual factors with individual structural factors.

The article presents a twofold analysis. First, a descriptive cross-national time use analysis on trends in housework in Europe is performed by taking into account the type and daily frequency of household tasks. This statistical approach helps to show the sociocultural barriers to gender convergence in time use and domestic work. Second, the influence of paid working time on the gender distribution of housework is analysed. On the basis of the proposal by Van der Lippe (2010), the relationship between female employment and time spent on domestic work is analysed according to the type and daily frequency of the household tasks. The aim is to examine the differences between women in the same political context: that of Catalonia, Spain. It is a context typical of the Mediterranean
regime in which, as seen above, the literature has found greater internal
differences between different groups of women, less convergence in the
time use of men and women, and greater differences in the distribution of
housework.

Methodology

Current research on time use includes two main lines of research: national
studies of social inequality and cross-national research aimed at establishing
links between time use and types of welfare regime. Methodological stand-
ardization in data collection has facilitated studies that combine both lines
of research with a focus on specific topics. One of the best-established lines
of research uses data on time use to analyse gender inequalities through
time spent on paid and unpaid work.

Two databases can be used for comparative analysis at an international
and European level. Since 1970, Gershuny has coordinated the
Multinational Time Use Study (MTUS). Currently, the MTUS database
gathers comparable information on 25 countries by combining the
American Heritage Time Use Study (ATUS) and the Harmonized
European Time Use Survey (HETUS). Since 1990 Eurostat has been pro-
moting the HETUS project to harmonize time budget surveys in order to
gather comparable data at a European level (Eurostat, 2008; Niemi, 2006).

The gradual national and international expansion of time use research
has not been homogeneous regarding the perspectives and methodological
strategies. Despite the success of the results obtained and the agreement
among the scientific community on the importance of having public
national data on time use, the methodological limits of time budgets must
be taken into account. There are some critics of the quantitative and eco-
nomic approach to time use statistics (Torns and Moreno, 2008; Borràs et
al., 2009; Belloni, 1996; Bimbi, 1999). First, as stated by Bimbi (1999) and
Moreno (2009), it is difficult to capture the subjective dimension of time, i.e.
the meaning given to activities, and knowing the social meaning of an
activity is just as important as knowing how much time is devoted to it.
Second, the quantitative approach of time use budgets makes it difficult to
consider the rigidity and social value of the tasks that are performed during a
given time interval (Torns and Moreno, 2008; Moreno, 2009). For example,
taking responsibility for making dinner every day is not the same as taking
responsibility for repairing leaking taps. In addition to the temporal dimen-
sion of the tasks, the social value of their content must be considered.
Shopping in the market has more visibility and social recognition than iron-
ing at home, one of the most socially stigmatized activities because no one
wants to do it (Torns and Moreno, 2008).
To overcome these limitations of the quantitative approach to time use research, some studies based on the MTUS distinguish routine tasks (cooking, cleaning and laundry) from non-routine tasks (general maintenance of the house and garden, repairs, pet care, management and care of adults) and childcare (Kan et al., 2011; Sayer, 2010). Following these studies, this article also proposes a recoding by type and daily frequency of the three-digit tasks included under “home and family” activities in the HETUS database. Following the theoretical contributions of Elias (1995) and Heller (1977) on everyday life, it is considered more appropriate to use the term everyday than routine. In this case, the data are aggregated according to whether they involve everyday maintenance, occasional maintenance or childcare tasks.

Based on this recoding, first, a descriptive cross-national analysis of all European countries that form part of HETUS is made in order to contextualise whether the patterns of time use match the types of welfare regimes referred to in the literature: Nordic, Liberal, Continental and Mediterranean (Daly and Lewis, 2000; Esping-Andersen, 1990, 1999; Ferrera, 1996; Lewis, 1992; Saraceno, 1995). Second, the specific case of Catalonia in Spain is analysed using data from the 2010–2011 Time Use Survey of the Catalan Statistics Institute (Idescat, 2012; Prieto and Pérez, 2013). The aim is to study how the employment status of women influences the time that they spend on housework by type and daily frequency of tasks. Within Spain, Catalonia has a strong industrial tradition that has historically led to a greater incorporation of women in the labour market (Borderias, 2004). It is therefore interesting to analyse how the historical conditions of industrialization, which bring Catalonia closer to the Nordic, Liberal and Continental welfare regimes, interact with cultural factors proper to the Mediterranean regime.

Results

The gender segregation of housework in Europe

Over and above the homogeneous patterns of time allocation by gender in Europe (men spend less time on housework than women), recoding tasks by type and daily frequency reveals other differences and similarities. Following the approach taken in other analyses (Moreno, 2009; Carrasquer et al., 1998; Kan et al., 2011; Treas, 2010), the statistics data show that there are sociocultural limits to the division of housework between men and women according to the content and required frequency of the tasks performed. The existence of these limits is related to the role played by gender in the allocation of time despite the
influence of other factors such as the welfare regime and the employment status of each person (Brines, 1994; Fraser, 1994; Gálvez et al., 2010; Kan et al., 2011).

Details on European Union countries that contribute to HETUS are presented below in order to contextualize, as proposed by Kan et al. (2011), the importance of institutional factors on the allocation of housework time. The countries are not grouped in political clusters because it was intended to show the limits of the traditional classification when the type and daily frequency of household tasks are considered. This analytical approach is based on the arguments of Sayer (2010), who states that the total differences in the amount of time spent on housework are more due to cultural factors related to standards of cleanliness than to institutional factors related to social policies. However, the differences in the distribution of housework between men and women are related to contextual factors such as whether gender equality is a political priority or the different types of commodified care (Bettio et al., 2006; Lyon and Gluksmann, 2008).

Figure 1 provides a good overview of the main trends identified. First, total data on housework confirm the existence of different patterns of time allocation according to welfare regimes. These patterns are drawn from the size of the gender gap, i.e. the difference between the time that men and women spend on housework. The countries are sorted from smallest to largest gender gaps. As expected, the gap is smaller in the Nordic countries, led by Sweden, where men spend more time on housework than women. Next are the countries belonging to the Continental and Liberal models, together with Slovenia. Within this group, the increase in the gap in comparison with the Nordic countries is mainly due to the greater time that women spend on housework. This finding suggests the importance of a network of public services to meet the needs of everyday life, as exists in the Nordic regimes. Next is the group of Eastern European countries, where the gap is still larger due to the even greater time that women spend on housework. This group can include the cases of Lithuania and Estonia, which have slightly different behaviour patterns but the same gender gap in time use. Finally, the Italian and Spanish cases represent the Mediterranean regime. These are the cases in which the gender gap is greatest due to the small amount of time spent on housework by men and the great amount spent by women. The two countries are characterised by the central role of the family, the poor network of public services, a men’s poor assumption of domestic duties and the hiring immigrant women to keep domestic services (Bettio et al., 2006; Carrasco and Recio, 2001; Lyon and Gluksmann, 2008).

Second, Figure 1 compares the activities done by men and women in each country. The analysis by type and daily frequency of tasks suggests
Figure 1. Distribution of housework time by type and daily frequency according to sex and country (20–74 years). Mean hours and minutes per day and gender ratio. 
Source: Harmonized European Time Use Survey (Eurostat).
EH: everyday housework; OH: occasional housework; C: childcare.
that gender is more influential than the welfare regime: women spend more time on everyday maintenance task and men on occasional maintenance tasks. These data highlight the responsibility of women for daily household tasks versus the responsibility of men for flexible household tasks. Ultimately, it must be remembered that the timing of activities is related to their content and social value: taking responsibility for cooking every day is not the same as taking responsibility for doing the gardening at the weekend.

Although housework is gender-segregated in all countries, the distribution of everyday maintenance tasks is subject to daily patterns of time use linked to welfare regimes. In Nordic countries men spend more time on everyday maintenance, whereas in Mediterranean countries women do. As shown by other scholars, these two political clusters are the ones that show the greatest internal homogeneity (Gálvez et al., 2010; Kan et al., 2011). However, the time spent on childcare follows a different pattern of distribution with greater homogeneity in male behaviour, as indicated by Kan et al. (2011). Despite this relative homogeneity, in Sweden and Norway men spend more time on childcare, though they maintain their idiosyncrasy.

In contrast, several countries break the patterns of behaviour observed in housework: Finland stands out from the Nordic model because of the lower devotion of men to childcare; Belgium stands out from the Continental model also because of the lower devotion of men to childcare in comparison with Germany and France; Spain, by contrast, stands out from the Mediterranean model because men spend as much time on childcare as in Finland.

The fact that social care policies (services, benefits and parental leave) are to some extent on the political agenda of all European countries explains the relative homogeneity of male behaviour in relation to time spent on childcare. The exception of the Eastern European countries is probably due to their late inclusion in the European Union and the political difficulty of adapting to the basic patterns of the European Social Model. As explained by Gálvez et al. (2010), the entry of these countries into the European Union entails rapid economic growth with immediate consequences on employment rates, but has a less direct effect on other crucial issues such as the family model.

Despite certain homogeneity in the time that men spend on childcare, the dedication of women is greater in all countries. Although care work is historically considered a responsibility of women, several studies state that the increase in men’s dedication to childcare represents a generational change in the distribution of housework. Nevertheless, qualitative research shows a persisting social imagery reinforcing the role of women as mothers: they are responsible for the everyday care tasks, while men take part in childcare
through the more fun tasks and the ones that are more flexible in time (Moreno, 2009; De Singly, 1999).

According to longitudinal analysis, the gender gap is narrowing because men spend more time on housework (Kan et al., 2011; Sayer, 2010). However, the time that men spend on occasional maintenance tasks is growing disproportionately to the time they spend on everyday maintenance tasks. This is an important issue because responsibility for specific occasional tasks guarantees more time available for other activities outside the home. The core housework – the rigid, everyday household tasks – is still the responsibility of women, affecting their wellbeing and the access to resources (employment, education, political participation, etc.). In order to comparatively measure the differences between time spent on each type of task, the gender differentials in the structure of time use were calculated by dividing the average time spent by women on each activity by the average spent by men.

These ratios are shown in Figure 1: the larger the ratio, the greater the difference between men and women. Data from different countries show how patterns of time use of housework depend partly on the types of welfare regime. Four groups emerge: the Nordic countries plus Belgium, with a ratio of between 1.5 and 1.6; the Continental countries, the liberal UK and Slovenia, with a ratio of between 1.8 and 1.9; the countries of Eastern Europe, with a ratio of between 2 and 2.1; and the Mediterranean countries, with a ratio of between 3.1 and 3.4.

In addition to the total ratios, the data on each type of activity reveal new similarities and differences between countries and accentuate the gender inequalities. Again, it is seen that the core of the segregation of housework is related to the everyday maintenance tasks, which show the highest ratio in all countries (2 in Sweden and 8 in Italy). Conversely, occasional maintenance tasks have the lowest ratio (less than 1 in almost all cases except Spain), followed by care work (1.5 in Sweden and 4.1 in Belgium). The finding that the greatest gender differences are in everyday maintenance tasks stresses the importance of gender ideology over the welfare regime. Some examples are Belgium (Continental regime) and the United Kingdom (Liberal regime), which are located near the Nordic countries.

This change in the distribution of traditional political clusters questions the level of influence and capacity for influence of the policies implemented in the Nordic countries. For example, the United Kingdom, which has shown little intervention regarding gender equality, has results close to those of the Nordic countries. Kan et al. (2011) claims that the explanation can be sought in the employment status of women. She argues that, in practice, employment policies to facilitate women’s paid labour are the most effective indirect strategy for facilitating the distribution of housework between men and women: female employment means less availability of
women for housework and encourages or requires men to increase the time they spend on housework. It is therefore interesting to take into account the employment status of women. Figure 2 presents a scatter plot that relates gender ratios of each domestic task with the female employment rate. It is seen that Sweden (77.1%) and Norway (77.5%) have the highest female employment rates and lowest gender ratios. The next countries are Finland at 72.5%, the United Kingdom at 68.4% and finally Belgium at 60.3%. In this last case, the hypothesis on the importance of employment is not fulfilled and other explanatory factors must be found. In the opposite sense, France and Germany have a high female employment rate (64.8% and 66.7%, respectively) but they form part of the second group of countries with a gender differential of between 3.1 and 3.9 in relation to everyday maintenance tasks. This group also includes Slovenia (67.1%), Poland (55.5%) and Lithuania (69.1%). Finally, the group of Mediterranean countries comes, Spain (58.6%) and Italy (49.9), also including Bulgaria (63.5%), Lithuania (70.1%) and Estonia (72.6%). All of these countries have a ratio close to 4, with the exception of Italy, which reaches 8.

Figure 2 suggest that there is not a high correlation between female employment and time spent on housework tasks in all the countries. Next section explores the differences established by employment status between men and women within the same country.
How is the distribution of housework influenced by paid work?

The analysis is focused on the gender segregation of housework of the Catalan population according to employment status. From the theoretical discussion and the results of the descriptive cross-national analysis at the European level, it is suggested that female employment is a necessary but not sufficient factor for a more equal distribution of housework. The aim is to determine the extent to which having a job in the context of a Mediterranean regime, exemplified by Catalonia, Spain, contributes to a more gender-equal distribution of housework.

Theoretically, this analysis is based on the historical interrelationship between the system of social reproduction and production (Borderias et al., 1994): the time spent on housework and family care is related to the time spent on paid work. From this perspective, the data in Figure 3 confirm, as a general trend in both genders, that employed people spend less time per day on everyday household maintenance than unemployed and

Figure 3. Distribution of housework time by type and daily frequency according to sex and employment status of the population aged 16 and over. Mean hours and minutes per day and gender ratio, Catalonia 2011.7
Source: Catalan Statistics Institute/EUT 2010-2011.
EH: everyday housework; OH: occasional housework; HM: household management; C: childcare.
inactive people. Although it is observed that employment status affects the
time spent on unpaid work by women more than by men. Among the
working population, the data show that women spend an average of 1
hour 17 minutes more than men on everyday maintenance tasks. Among
the unemployed population, this gender difference increases to 1 hour 47
minutes. That is, the differences between women and men in relation to
housework are greater in the absence of employment, as other European
research has shown (Fagan and Norman, 2013).

When women are unemployed, their dedication to everyday maintenance
tasks increases proportionally more than that of the men. These differences
are more evident in time spent on childcare: unemployed women spend 26
minutes more than employed women on childcare while unemployed men
spend 6 minutes less than employed men on childcare. Some studies talk
about the different perception of unemployment time according to the male
breadwinner model and suggest that it may become an opportunity for
maternity and a failure for masculinity (Borra` s et al., 2009; Borra` s et al.,
2012; Torns et al., 2013; Poveda, 2006).

However, the time spent on occasional maintenance tasks increases more
proportionally for men and women in situations of unemployment, and
especially in situations of inactivity. Therefore, when the responsibility
for paid work disappears from the male life project, men increase
their dedication to housework but mainly through the most flexible and
occasional activities that do not form part of the rigid schedule of everyday
life.

The ratios for everyday maintenance tasks are slightly higher among
employed than unemployed people. However, the ratios for care work are
higher among unemployed people. These data show the limits of the
employment as a factor of equality between men and women: it affects
care work but not daily household responsibilities. Despite sharing the situ-
atution in the labour market, women spend more time than men on everyday
household tasks. Contrary to rational arguments that women devote more
time to unpaid work because they devote less time to paid work, the figures
highlight the persistence in the social imagery of the male breadwinner and
female housekeeper model. By contrast, the employment status does not
affect occasional maintenance tasks, which have a ratio of 0.7 in all situ-
ations. Only inactivity reduces the differential of household management
tasks slightly.

Among employed people there also emerge differences related to working
conditions, specifically working time, as stated by Fuwa and Cohen (2007).
Figure 4 shows that working time has an opposite effect on the time that
men and women spend on housework and family care: women working
part-time spend more time (3 hours 54 minutes) than women working
full-time (3 hours 12 minutes) on all housework except management tasks; men working part-time, on the other hand, spend less time (1 hour 41 minutes) than men working full-time (1 hour 54 minutes).

The gender ratio shows the influence of working time on the distribution of housework between men and women. People working part-time have the highest gender ratios in all types of tasks except for household management. As in the case of the unemployed, the greatest difference among types of working time is observed in childcare (1.2 and 2.2) although in occasional housework the difference is also high (0.6 and 1.2).

The gender ratios comparison shows that female employment is a positive factor to reduce the gender gap in care rather than to reduce the gender gap in everyday housework. As suggested by the scatter plot of the countries, there is not a high correlation between the female employment rate and the time spent on everyday housework. To analyse the relation between employment status and gender segregation of housework, a plausible suggestion is controlling other explanatory factors identified by the literature such as the life cycle and its influence on time to care (Kan et al., 2011; Legarreta, 2012). Figure 5 presents six MANOVA models in order to
analyse, comparatively by sex, the influence of labour factors and life cycle factors on the four groups of housework. Accordingly, everyday housework, occasional housework, household management and childcare are dependent variables and employment status, working time, age, and children under 10 at home are independent variables.

The results derived from the eta-square comparison of the different models offer concluding remarks. Firstly, the importance of analysing separately the housework by type and daily frequency of tasks is confirmed because MANOVA models offer a better explanation to the time devoted to everyday housework and childcare than to the time devoted to occasional and management tasks. Secondly, the models are more explanatory for women and evidence the importance of labour and life cycle variables on female use of time. Thirdly, the variability explained by the model is null or low for the occasional housework and household management but medium or high for the everyday housework and care. Such variability increases when two control variables related to the life cycle are incorporated, especially in the case of women. In this sense, it is possible to point the explanatory limits of the employment status, as well as its heuristic potential when combined with other variables related to the life cycle. In the case of men, MANOVA models offer a better explanation to the time in childcare rather than to the time in everyday housework. They suggest that life cycle factors have a greater effect than employment factors in the male use of time spent on housework. The results indicate that fatherhood in couples of two

<table>
<thead>
<tr>
<th>Sex</th>
<th>Partial Eta-squared</th>
<th>EH</th>
<th>OH</th>
<th>HM</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model 1</td>
<td>M</td>
<td>0.007***</td>
<td>0.004*</td>
<td>0.002</td>
<td>0.059***</td>
</tr>
<tr>
<td>Employment status<em>working time</em>age</td>
<td>W</td>
<td>0.092***</td>
<td>0.009**</td>
<td>0.001</td>
<td>0.127***</td>
</tr>
<tr>
<td>Model 2</td>
<td>M</td>
<td>0.002*</td>
<td>0.002</td>
<td>0.001</td>
<td>0.239***</td>
</tr>
<tr>
<td>Employment status<em>working time</em>children under 10</td>
<td>W</td>
<td>0.015***</td>
<td>0.001</td>
<td>0.002</td>
<td>0.334***</td>
</tr>
<tr>
<td>Model 3</td>
<td>M</td>
<td>0.004*</td>
<td>0.004*</td>
<td>0.001</td>
<td>0.240***</td>
</tr>
<tr>
<td>Working time<em>age</em>children under 10</td>
<td>W</td>
<td>0.091***</td>
<td>0.010**</td>
<td>0.002</td>
<td>0.342***</td>
</tr>
<tr>
<td>Model 4</td>
<td>M</td>
<td>0.065***</td>
<td>0.041***</td>
<td>0.006***</td>
<td>0.083***</td>
</tr>
<tr>
<td>Employment status*age</td>
<td>W</td>
<td>0.166***</td>
<td>0.041***</td>
<td>0.004***</td>
<td>0.165***</td>
</tr>
<tr>
<td>Model 5</td>
<td>M</td>
<td>0.028***</td>
<td>0.021***</td>
<td>0.002*</td>
<td>0.268***</td>
</tr>
<tr>
<td>Employment status*children under 10</td>
<td>W</td>
<td>0.059***</td>
<td>0.024***</td>
<td>0.001</td>
<td>0.399***</td>
</tr>
<tr>
<td>Model 6</td>
<td>M</td>
<td>0.066***</td>
<td>0.040***</td>
<td>0.006***</td>
<td>0.269***</td>
</tr>
<tr>
<td>Employment status<em>age</em>children under 10</td>
<td>W</td>
<td>0.168***</td>
<td>0.042***</td>
<td>0.004***</td>
<td>0.415***</td>
</tr>
</tbody>
</table>

*p<.05 **p<.01 ***p<.001

Figure 5. MANOVA models: time to housework by type and daily frequency according to sex, employment status, working time, age and children under 10 at home. Population aged 16 and over, Catalonia 2011.
EH: everyday housework; OH: occasional housework; HM: household management; C: childcare.
adults working full-time has a positive effect on male use of time to childcare and it has not effect on male use of time to everyday tasks. These daily maintenance tasks represent a limit for the equal distribution of housework by gender.

**Discussion and conclusions**

This article is based on the empirical observation that differences between the time that men and women spend on domestic and care work show a decreasing trend, though there is persisting gender segregation in the type of tasks that they do. The aim was to further analyse the gendered division of housework according to the influence of the employment status. Therefore, the type and daily frequency of tasks were proposed as variables to explore the influence of individual characteristics.

The results of the descriptive cross-national analysis showed that patterns of housework time according to the type of tasks do not always coincide with the typology of welfare regimes. As stated by Sayer (2010), the institutional context only explains part of the gender gap. The types of regime explain the gap between the time spent on each activity but not the amount of time or the content of the activities. The explanatory limit is observed in how time is distributed between different tasks. In all countries, the core of gender inequality lies in everyday maintenance tasks, in which the differences between the time spent by men and women are greatest. The patterns of behaviour blur the political clusters, although the Nordic and Mediterranean countries are still opposites. These opposites are less clear regarding the time spent on childcare, as stated by Kan et al. (2011). Qualitative studies suggest that contemporary European fathers are juggling diverse models of fatherhood (Randal and Lamb, 2003). Other studies suggest that the father’s time is different to the mother’s time (De Single, 1999).

Regarding all the household tasks, some studies argues that the differences between countries can be explained by the indirect effect of employment policies focusing on female participation in the labour market (Fuwa and Cohen, 2007; Gálvez et al., 2010; Kan et al., 2011). From this approach, the present paper relates the clusters that emerge with the gender differentials and female employment rates in each country. In some cases the data—the gender ratio in the structure of time use calculated by dividing the average time spent by women on each activity by the average time spent by men—do not coincide with the welfare regimes. At this point, three important cases stand out: Belgium forms part of the group with the lowest ratio, despite having a low female employment rate; on the other hand, Germany and France have a high ratio, despite having a high female employment rate. These realities
show that women’s employment does not act in the same way in all countries. Van der Lippe et al. (2011) states that the influence of female full-time employment is higher in the Mediterranean countries than in the other regimes.

In order to further study this question, the second part of the article discusses how employment status influences the segregation of housework in the institutional context of a Mediterranean regime. The results of the Catalan case in Spain suggest that female participation in the labour market is a necessary but not sufficient condition for the equal gender distribution of everyday maintenance and household management. While the employment status of women tends to be inversely proportional to time spent on care, it is irrelevant to management tasks and has a lower effect on everyday maintenance tasks. As claimed by Fuwa and Cohen (2007), the type of working time done by working women is an important factor in the division of household tasks: full-time work by women favours an equal distribution of tasks while part-time work reproduces the gendered division of labour in the home. In addition, the MANOVA models introduce the importance of life cycle factors in order to understand the relation between employment status and the patterns of time to housework by type and daily. In short, men participate more in childcare rather than in everyday household. This participation depends on the life cycle and the female employment, but this last variable alone does not explain the time that men spend on childcare.

In conclusion, the contribution of this article is to reinforce how the analysis of time use from a gender perspective is enhanced when the type and daily frequency of household tasks are taken into account. The institutional context and the employment status of women have a clear influence on the distribution of housework, but these factors are not sufficient to explain the gender segregation of housework. Everyday maintenance tasks are the cornerstone of gender equality. The model of two adults working full-time defend by Daly (2011) is necessary for policy design but not sufficient for effective equality between men and women. Following Daly (2010), the results indicate that the tendency towards convergence of time use occurs in couples of two adults working full-time with children under 10 where young fathers spend more time in childcare and young mothers spend less time in routine housework tasks, although gender segregation persists. As concluded by Kan et al. (2011), the engine of change is influenced by female employment rather than by a change in men’s mentality regarding their role in the home. However, it appears that the influence of life cycle and the change in fatherhood’s mentality explain the decrease of gender gap in childcare. This influence of fatherhood escapes from the time rigidity of everyday housework.
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Notes
2. See Appendix 1 for the summary of the recoding activities.
3. See Appendix 2 for details of the statistical information.
4. In this case, a fourth group of tasks related to management and organization was included in order to detect the phenomena reported in some analyses, as explained by Treas and Tai (2012). See Appendix 2 for details of the statistical information.
5. The data for 2007 (Eurostat, 2013) are used to follow the period years of Time Use Data that are recollected in HETUS database.
6. According to Cohen (1988), the scale to interpret multivariate partial eta-squared is: 0.01 small; 0.06 medium; 0.14 large.
7. As mentioned in the methodology, access to the original databases on the Catalan case allowed us to build an important additional variable to differentiate the time devoted to household management tasks.

References


### Appendix 1. Summary of the recoding variables.

<table>
<thead>
<tr>
<th>Everyday housework</th>
<th>Occasional housework</th>
<th>Childcare</th>
</tr>
</thead>
<tbody>
<tr>
<td>Food preparation</td>
<td>Other household upkeep</td>
<td>Physical care, supervision of child</td>
</tr>
<tr>
<td>Dish washing</td>
<td>Handicraft</td>
<td>Teaching, reading, talking with child</td>
</tr>
<tr>
<td>Cleaning dwelling</td>
<td>Gardening</td>
<td>Other domestic work with child</td>
</tr>
<tr>
<td>Laundry</td>
<td>Construction</td>
<td></td>
</tr>
<tr>
<td>Ironing</td>
<td>and repairs</td>
<td></td>
</tr>
<tr>
<td><strong>Tending domestic animals</strong></td>
<td>Shopping</td>
<td></td>
</tr>
<tr>
<td><strong>Caring for pets</strong></td>
<td>and services</td>
<td></td>
</tr>
<tr>
<td><strong>Walking the dog</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

In bold: the standard classification introduces these activities into occasional group.

### Appendix 2. Reference years and samples.

<table>
<thead>
<tr>
<th>Country</th>
<th>Fieldwork period</th>
<th>Age of population covered</th>
<th>Sample size (number of respondents)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Belgium (BE)</td>
<td>1998–2000</td>
<td>12–95</td>
<td>8382</td>
</tr>
<tr>
<td>Germany (DE)</td>
<td>2001–2002</td>
<td>10–</td>
<td>12,655</td>
</tr>
<tr>
<td>Estonia (EE)</td>
<td>1999–2000</td>
<td>10–</td>
<td>5728</td>
</tr>
<tr>
<td>Spain (ES)</td>
<td>2002–2003</td>
<td>10–</td>
<td>46,774</td>
</tr>
<tr>
<td>Italy (IT)</td>
<td>2002–2003</td>
<td>3–</td>
<td>55,760</td>
</tr>
<tr>
<td>Latvia (LV)</td>
<td>2003–2003</td>
<td>10–</td>
<td>3804</td>
</tr>
<tr>
<td>Lithuania (LT)</td>
<td>2003</td>
<td>10–</td>
<td>4768</td>
</tr>
<tr>
<td>Hungary (HU)</td>
<td>1999–2000</td>
<td>15–84</td>
<td>10,792</td>
</tr>
<tr>
<td>Poland (PL)</td>
<td>2004</td>
<td>15–</td>
<td>20,264</td>
</tr>
<tr>
<td>Slovenia (SI)</td>
<td>2000–2001</td>
<td>10–</td>
<td>6190</td>
</tr>
<tr>
<td>Finland (FI)</td>
<td>1999–2000</td>
<td>10–</td>
<td>5332</td>
</tr>
<tr>
<td>Sweden (SE)</td>
<td>2000–2001</td>
<td>20–84</td>
<td>3998</td>
</tr>
<tr>
<td>United Kingdom (UK)</td>
<td>2000–2001</td>
<td>8–</td>
<td>10,366</td>
</tr>
<tr>
<td>Norway (NO)</td>
<td>2000–2001</td>
<td>9–79</td>
<td>3211</td>
</tr>
<tr>
<td>Denmark (DK)</td>
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<td>16–74</td>
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<tr>
<td>Netherlands (NL)</td>
<td>2003–2003</td>
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<td>6338</td>
</tr>
<tr>
<td>Romania (RO)</td>
<td>2000</td>
<td>10–</td>
<td>17,751</td>
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<tr>
<td>Catalonia</td>
<td>2010–2011</td>
<td>10–</td>
<td>9389</td>
</tr>
</tbody>
</table>