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The Effect of Parenthood on the Division of Unpaid Work

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# Gender inequality in the life cycle. The effect of parenthood on the division of unpaid work

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## Abstract

The aim of this paper is to test whether younger generations are more egalitarian or whether their more gender-balanced behaviour is due to factors associated with the life cycle. Data used in the analysis are from the two editions of the Spanish Time Use Surveys carried out in 2002-2003 and 2009-2010. The unit of analysis is the couple, and we measure the degree of equality within the couple using differences between the spouses in the amount of time spent on unpaid work (housework and caregiving). We analyse differences at both moments for generations born between 1963 and 1982. We focus on the changes observed when there is a transition from 0 to 1 child and from 1 child to 2 children. Results confirm that there is a greater difference in the amount of time spent on unpaid work after the birth of a child. However, this pattern is not the same in the transition from 1 to 2 children, which may suggest that the second child has a smaller impact on couples' division of unpaid work.

Keywords: Time use, parenthood, life cycle, gender inequality, Spain

## Gender differences in the use of time throughout the life cycle

Individuals learn their gender roles in childhood and develop their gender identity throughout their entire lives (Wight, 2008). Nonetheless, the differences are not the same in all ages and family situations; not only do gender roles vary with age, but there are also certain circumstances and events that change these roles (Anxo et al., 2011; Baxter et al., 2008). In this sense, marriage, parenthood and participation in the job market are important factors explaining the differences in time use between men and women, especially in the amount of housework performed by each individual (Treas, 2010).

Gender inequalities in time use begin at very young ages. We should bear in mind that generally speaking, very few children today perform unpaid work, and if they do it is only in specific chores. Gender differences between boys and girls can be detected at early ages, confirming that girls do more housework, especially a higher number of chores regarded as 'women's work' (Blair, 1992; Gupta, 2006; Wight, 2008). The magnitude of these differences depends on factors like the father's participation in household chores, the father's employment status and the gender attitudes shown by the parents (Blair, 1992; Ajenjo and García-Román, 2014). Specifically, the father's participation in household chores, the mother's joining the job market and less traditional attitudes all have a positive influence on sons' greater participation and a more equal division of chores between sons and daughters. These differences tend to increase with age, so female adolescents spend more time doing unpaid work than the males their age (Shouth and Spitze, 1994).

When they become independent, single men and women tend to show fewer differences in their time use (South and Spitze, 1994). Women continue doing the chores that they did in their parents' homes, while men feel "obligated" to perform them, so the gap is lowered. If we compare them with couples, women who live alone (either because they have never lived with a partner or because a relationship has ended) do less housework than married women, while single men do more than their married counterparts (Gupta, 1999).

Thus, the beginning of coupledness, either through cohabitation or marriage, signals an enlargement in the gender gap in terms of time use (Gupta, 1999). The differences increase less in the case of cohabitation, which is traditionally associated with more egalitarian attitudes and shows a division of roles that is further from the traditional one (Batalova and Cohen, 2002; Baxter, 2005; Domínguez, 2012b). Even among married

couples who cohabitated before marriage, we see a more equitable distribution of housework stemming from the relative freedom that exists during cohabitation, which enables the partners to divide their time more symmetrically (Baxter, 2005). In addition to the type of couple relationship, inequalities within couples also depend on the characteristics of the partners. Thus, higher education or income in the woman is associated with less time spent on housework and a more symmetrical division of time use (Blau, 1998; Bianchi et al., 2000; González and Jurado, 2009; Domínguez, 2012a; Sánchez and Thomson, 1997). Regarding the characteristics of the man, even though they are not as influential as the characteristics of the woman, we should note that higher education is associated with men doing more housework. Therefore, the degree of specialization of chores is lower, which is also related to more egalitarian gender attitudes (Bianchi et al., 2000; González and Jurado, 2009; Domínguez, 2012a). Thus, in couples where both members have higher education, the negotiation of roles is more egalitarian. In contrast, in homogamous couples with lower educational levels, the division is not as egalitarian and 'doing gender' is more obviously manifested (Bonke and Esping-Andersen, 2011).

Initiation into parenthood, however, signals a radical change in the time distribution between men and women and a drastic rise in inequality (Anxo et al., 2011; Craig and Mullan, 2010; Baxter et al., 2008). The birth of a child entails an increase in the amount of time spent on unpaid work at home because of both the time needed to care for the newborn and the increase in the amount of housework given the larger family unit. This burden usually falls disproportionately on the woman and tends to affect men to a much lesser degree (Craig, 2007; Crompton et al., 2006). In contrast, regarding the job market, the usual pattern shows a rise in the amount of time men spend at work, while women tend to spend less time working and oftentimes leave the job market temporarily and sometimes permanently (Craig and Mullan, 2010; Blossfeld and Drobnic, 2001). Combining parenthood and paid work seems more complicated for women than for men, and the strategies they develop therefore differ (Anxo et al., 2011). The greater inequalities occur in the first few years after the birth of children, since they require less attention as they grow up and mothers often return to work (Kitterod and Ronsen, 2013; Moreno Colom, 2009). The birth of children reinforces gender roles and a more traditional time distribution, enlarging the gender gap in favour of women in unpaid work and men in paid work (Hallberg and Klevmarken, 2003; Moreno Colom, 2009; Sandbergh and Hofferth, 2001; Sullivan and Gershuny, 2001; Sayer, 2005; Bianchi et al., 2000; Dribe and Stanfors, 2009).

In contrast to trends in housework, where women's tasks have decreased while men's slightly increased, in recent years the amount of time spent caring for children has been on the upswing for both men and women (Bianchi et al., 2006). New parents 'do parenthood' in such a way that mothers behave according to the cultural ideals of motherhood and fathers do the same for fatherhood (Walzer, 1997; Dribe and Stanfors, 2009; Kitterod and Ronsen, 2013). In this sense, the new ideals of parenthood promote fathers' greater involvement in raising children and a more active role (Pleck, 2010; Gracia, 2014). Therefore, even though mothers are still the primary caregivers, a role which is also determined by the ideals of 'good mothering', the gap in the amount of time men and women spend caring for children has dropped (Bianchi et al., 2006; Sandbergh and Hofferth, 2001; Sevilla Sanz et al., 2010).

On the other hand, we should bear in mind that the effect of parenthood on gender inequality in time use varies according to the social and institutional factors where they live. The kind of welfare state system, the degree of gender equality in the country, work-family balance policies and expectations of the amount of unpaid work to be performed are just some of the factors that may influence the inequalities that arise (Hook and Wolfe, 2012; Craig and Mullan, 2010; Geist, 2005; Fuwa, 2004). For example, the effect of specialization may be mitigated by policies that promote mothers working and fathers being more involved in childrearing (Kitterod and Ronsen, 2013; Neilson and Stanfors, 2014). In countries like Sweden and Norway, where work-family balance policies are more developed, the policies being carried out since the 1990s have entailed less role specialization due to motherhood, and the time distribution of both fathers and mothers is similarly affected with a drop in the amount of time spent on paid work and an increase in unpaid work (Dribe and Stanfors, 2009; Kitterod and Ronsen, 2013; Neilson and Stanfors, 2013). Even though the inequalities generated by motherhood are lower and to some extent reversible in more egalitarian countries, they are deeper and more irreversible in less egalitarian countries and in countries where the policies implemented by the state are less developed (Bühlmann et al., 2010).

Regarding Spain, our area of study, policies in favour of a traditional, patriarchal family model survived throughout the Franco dictatorship until 1975 (González, 2001; Castle, 1998; Baizan et al., 2002). Despite the advances in recent decades, there are still sociocultural difficulties in promoting work-family balance policies in Spain, since men and women have fully internalized the male breadwinner model (Torns, 2005). The norms of masculinity, which state, for instance, that men should not do housework and should earn more than women, and the norms of femininity, which confer upon women the primary responsibility for housework and the care of dependent children, seem to

be more deeply entrenched in Spain, and this can particularly be seen with the entry into parenthood (Sevilla Sanz et al., 2010).

In recent decades, Spanish society has modernized somewhat, which has come hand in hand with the rising prominence of women in public life, along with policies that promote equality (Lapuerta et al., 2011; González, 2001; Dema, 2005). The most important policies implemented include the law on equal opportunities between men and women, which has led to the harmonization of work and family responsibilities by promoting continuous careers for women and fathers' involvement in childrearing (Lapuerta et al., 2011). Nevertheless, the effect of these policies has been conditioned by the strength of the traditional family, and despite the desire for greater equality, real-life behaviour is otherwise. Even though most of the population defends an egalitarian society between men and women, those in favour of women temporarily leaving the job market to care for their children and home are still in the majority (CES, 2011; Domínguez and Castro, 2008).

### **Objectives and working hypothesis**

There is a clear consensus that the differences in time use between men and women have dropped considerably in recent years (Bianchi et al., 2006; Sayer, 2005; Gershuny, 2000; Ajenjo and García-Román, 2014). Part of this decrease is due to more egalitarian behaviour in the society, while the rest can be attributed to more egalitarian behaviour among youth, whom tend to practice greater equality than adults. This has been proven by time use surveys, in which the differences in the amount of time spent doing unpaid work by men and women who live together as a couple is lower among younger couples than among their older counterparts.

For example, in the Spanish Time Use Survey from 2002-2003, women who lived with their heterosexual partners showed a difference in the amount of time spent on unpaid work of 3.41 hours per day when the women were under the age of 35, 4.07 hours per day when they were aged 35 to 49, and 4.39 hours per day among women aged 50 to 64. On the other hand, seven years later, in the Spanish Time Use Survey from 2009-2010, these differences for the same age brackets were 2.40, 2.91 and 3.41 hours per day, respectively.<sup>1</sup>

These figures provide suggestive evidence for the two premises outlined above: a clear tendency towards equality in that gender gap in unpaid work has narrowed one hour

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<sup>1</sup> These figures were calculated based on the micro-data from both surveys.

between 2002-2003 and 2009-2010, and greater equality in younger couples, women under 35 are approximately one hour more egalitarian than those over 50.

However, while the first premise is clear in the sense that there is some unanimity among the scholarly community regarding the tendency towards greater equality, the same does not hold true with the second premise. And this is the issue we examine in this article, which aims to clarify how the differences between men and women evolve as they age, a process which comes with changes in the life cycle, especially among younger couples when children are born. As mentioned above, when couples have children, inequality rises, reinforcing gender roles in the sense that women tend to work fewer hours in order to balance their jobs with childcare, and they tend to perform more of the unpaid work that comes with the birth of a child (Bittman and Wajcman, 2000; Blossfeld and Drobnic, 2001; Hallberg and Klevmarcken, 2003; Bianchi et al., 2006; Anxo et al., 2011; Baxter et al., 2008; Moreno Colom, 2009).

Broadly speaking, the question we ask is: Are younger couples more egalitarian because of a generational change or because they are at a stage in their life cycle that favours this equality? The consequences of the different answers on the evolution of equality between men and women is diametrically opposed: the former would signal a swift change towards equality in society as a whole, an equality that might become a reality in the middle term, while the latter would show that the greater equality of younger couples is merely circumstantial, making the future evolution towards equality much slower.

The initial hypothesis is that children bring a major shift in gender equality, especially the first child. Thus, the relative equality between young men and women disappears with the birth of the first child, and this inequality increases, albeit more slowly, with the birth of subsequent children.

The indicator which will be used to evaluate whether or not these differences increase is the time spent on unpaid work by both members of the couple. Thus, in addition to evaluating whether or not there has been a rise in these differences, we will also measure the specific size of this potential increase in time spent on unpaid work.

## **Methodology and data sources**

To examine our hypothesis, it would be preferable to have longitudinal information on time use in couples, that is, a survey from which we could calculate the amount of time spent on different activities within the same couples at different stages in their life cycles. However, this information is extremely difficult to obtain and is quite rare.

To resolve this problem, we use the two Time Use Surveys which the National Statistical Institute has performed in Spain to date, the 2002-2003 and 2009-2010 editions. Both surveys follow a very similar methodology: they record all the activities being performed by all the members of the household over the age of ten in ten-minute intervals throughout the course of one day.<sup>2</sup> Even though they are not longitudinal studies, similar population features were chosen to make them as comparable as possible.

In both surveys, nuclei made up of a heterosexual couple were chosen, regardless of whether there are other household members. The explanatory variable was constructed based on the difference in the amount of time both partners spent on unpaid work, including both routine housework (washing or ironing clothes, washing dishes, mopping the floor, etc.) and non-routine chores (shopping, running errands, caring for pets, etc.), as well as the time they spent caring for either adults or children. All the times were tallied, and the difference as a whole was regarded as the best measurement of inequality. Thus, if the woman spent more time on childcare because she was nursing her child at the time, for the sake of equality, this should be offset by the man spending more time on other unpaid work activities.

To analyse the change caused by the birth of the first child, three cohorts of women who lived with a man and had no child in the 2002-2003 edition were chosen: women born between 1968 and 1972, between 1973 and 1977 and between 1978 and 1982.<sup>3</sup> These women were contrasted with women from the same generation who seven years later, in the 2009-2010 edition, had one of the following features: (1) they still had no children, (2) they had a single child who had been born in the past seven years, or (3) they had two children born in the past seven years. In this case, the most important comparison is the contrast between the childless women in the first survey and those who had a child by the second survey (group 2).

A very similar logic was used to evaluate the change prompted by the birth of the second child; in this case, the most important differences were the selection of

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<sup>2</sup> For more complete information on the two surveys, please see <http://www.ine.es/jaxi/menu.do?type=pcaxis&path=%2Ft25%2Fe447&file=inebase&L=0>.

<sup>3</sup> The criterion used to select these generations was their age at the time of the first survey. First, we should bear in mind that there is no clear time reference in these surveys; rather the first edition was carried out in 2002-2003 and the second one in 2009-2010. To approximate the generations, we have assumed that the reference dates were the 1<sup>st</sup> of January 2003 and the 1<sup>st</sup> of January 2010, respectively. Therefore, the women born between 1978 and 1982 were 20-24 years old in the first edition and 27-31 years old in the second one; the women born between 1973 and 1977 were 25-29 years old in the first edition and 32-36 years old in the second; and the women born between 1968 and 1972 were 30-34 years old in the first edition and 37-41 years old in the second.

generations (see Table 1) and the age of the first child. To facilitate comparisons, we took couples with children under the age of eight, the period that elapsed between both editions. The three generations chosen among women who lived with a man in 2002-2003 and who had a child under the age of eight were: women born between 1963 and 1967, between 1968 and 1972 and between 1973 and 1977.<sup>4</sup> The comparison was performed with women from the same cohort who in the 2009-2010 edition had one of these features: (1) they still had just one child born before 2002-2003, or (2) they had two children, one of whom had been born in the past seven years and the other of whom was 8-15 years old.<sup>5</sup> In this case, too, the most important comparison was between the women who initially had a single child with those who seven years later had that child plus another one born during the period (group 2).

Table 1. Sample size

	0 CHILD IN 2002-2003		1 CHILD IN 2002-2003	
	2002-2003 (0 children)	2009-2010 (0-2 children)	2002-2003 (1 child)	2009-2010 (1-2 children)
1963-1967 (35-39 in 2002-2003)			294	186
1968-1972 (30-34 in 2002-2003)	329	268	469	265
1973-1977 (25-29 in 2002-2003)	422	428	215	101
1978-1982 (20-24 in 2002-2003)	108	341		

Source: Authors' own based on micro-data from the two editions of the Time Use Survey: 2002-2003 and 2009-2010.

We separately evaluated the transition from the first to the second child. Methodologically speaking, both analyses were performed in a very similar fashion, so here we shall only explain the methodology of the first.

In order to estimate the incidence of the first child on gender differences in unpaid work, we used general linear models, taking the difference in the amount of time both members of the couple spent on unpaid work as the dependent variable. First, we generated a model that includes the female cohort and their motherhood status described above as the independent variables, in which the reference category was

<sup>4</sup> Following the logic of the previous note, women born between 1973 and 1977 were 25-29 years old in the first edition and 32-36 years old in the second one; those born between 1968 and 1972 were 30-34 in the first edition and 37-41 in the second one; and the generation from 1963-1967 were 35-39 in the 2002-2003 edition and 42-46 in the 2009-2010 edition.

<sup>5</sup> In order to obtain symmetrical data which would make it easier to interpret the results, at first we considered the possibility of including couples who had three children, one born before 2002-2003 and the other two born more recently. However, we discarded that option because the sample of these couples was too small: only 12 cases.

always the situation in 2002-2003 (0 children), to make the interpretation easier. What is more, all the models included the variables day of the week and availability of domestic service as the control variables. Even though we did not further examine the effect of these two variables, it is known that there is lower inequality at weekends and in couples who have domestic service (Ajenjo and García-Román, 2014).

This analysis enables us to compare the changes in the amount of time spent on unpaid work for the group that had no children in 2002-2003 with their situation seven years later, when some of the women remained childless, others had a single child and others had two. It also provides an initial glimpse into the effect of generation on these changes.

However, we should bear in mind that between the two periods analysed, certain sociocultural changes occurred in Spain which may have had important effects on equality in the time spent on unpaid work. The most important are the changes in couples' employment status and the change caused by the increase in migration, which led to a considerable rise in the number of non-Spanish couples.

The former change, unquestionably the one that has had the greatest effect, was caused by the shift from a sound economic situation to a crisis, which was already quite advanced by 2009-2010. The effects of the crisis on the evolution in the amount of time spent working appeared first through employment status –a rise in unemployment– and secondly through the characteristics of these jobs –a rise in part time positions. All these changes lead first to a change in the amount of time spent on paid work and consequently on the amount spent on unpaid work (Ajenjo and García-Román, 2014).

To neutralize this change as much as possible, a variable was generated by combining the employment status of both members of the couple: dual-earner couples, couples in which only the man works, couples in which only the woman works, and couples in which neither works. Time spent working was only included in dual-earner couples because we estimated that in the other couples the importance of working or not was far more important than the workday. What is more, in dual-earner couples, in which men working part-time was a very common situation, we only used the female's work time, such that dual-earner couples are divided into those in which the woman worked full-time and those in which the woman worked part-time, regardless of what her partner did.

Regarding the increase in the non-Spanish population, we used the nationality of the couple as a control variable to distinguish between couples in which both members are Spanish citizens and those in which either member is a foreign national.

In consequence, in order to control for the changes that occurred between 2002-2003 and 2009-2010 to the extent possible, after presenting the model described above we generated a second model which included not only the initial variables but also the employment status and nationality of the couples.

Finally, in addition to these variables, we deemed it worthwhile to generate a third model which would include the woman's educational level and the legal status of the couples (married versus cohabitating). These two variables are just some of the ones that the literature considers highly influential in changes in the distribution of work time (Gershuny, 2000; González and Jurado, 2009; Domínguez, 2012a; Ajenjo and García-Román, 2011). Despite the fact that this article works with generations, which means that it does not seem very important to take these two variables into account, we generated this last model to check whether including it led to significant changes. And, in fact, it is not extremely important given that changes in educational level and cohabitation are inherent to age. Thus, when analysing the same generations, there was some improvement in the educational level of the women between 2002-2003 and 2009-2010, especially among the youngest of them, resulting from the fact that some of them had not finished their education in the first version of the survey. Likewise, there was a decline in cohabitation, but this was also a result of some couples' decision to get married upon the birth of their first child (Perelli-Harris et al. 2012).

Despite the fact that the age of the younger child is also important when analysing the differences in the amount of time spent on unpaid work, it was not included in any of the models but instead was controlled for to the extent possible by adding the restriction that the younger child could not be older than seven, which is the period that separates the two editions of the survey.<sup>6</sup>

## **Results: The impact of children on gender differences**

Figure 1 shows the gender gap in unpaid work according to the number of children for the total sample. The graph clearly shows the rise in inequality prompted by

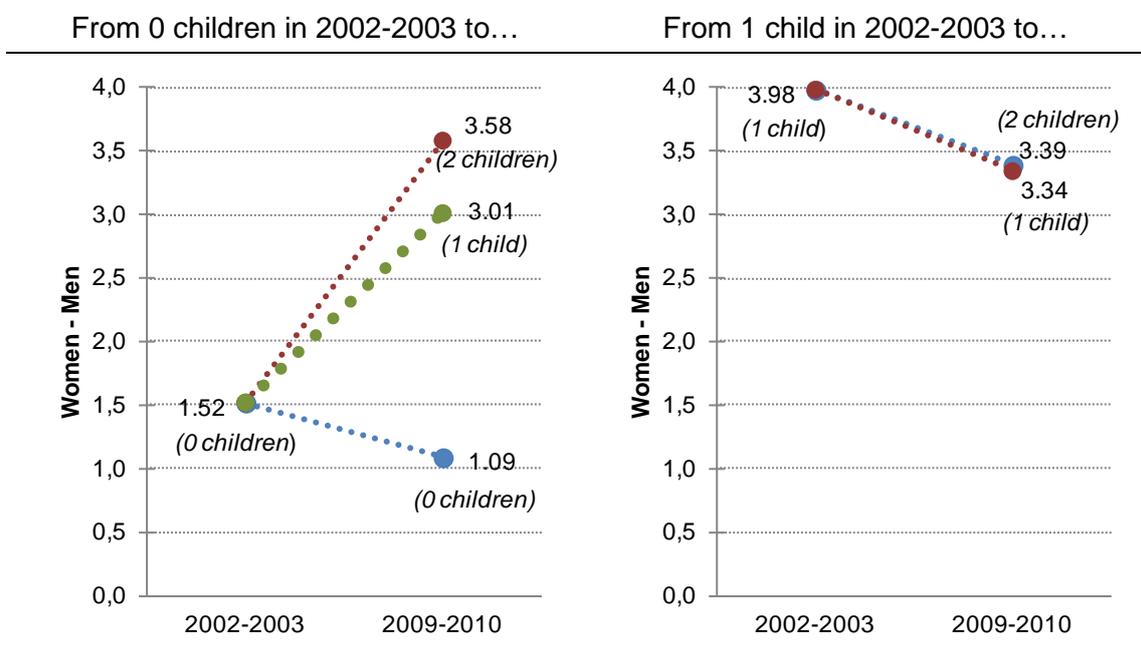
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<sup>6</sup> Introducing them into any of the comparisons made no sense. For example, if we compare women who had a child under the age of 8 in 2002-2003 who had been born between 1995 and 2002 with women who had a single child in 2009-2010 born in the same period, we would be comparing the same generation of mothers with one child, even though their children would be different ages.

parenthood. At the first observation in 2002-2003, when the couples chosen had no children, the difference was an hour and a half. Seven years later, the difference had dropped by approximately half an hour among couples who remained childless. In contrast, the difference had doubled in couples who had had a child during that seven-year period. For couples who had had two more children, the difference increased by two hours.

On the other hand, having a second child led to hardly any changes in gender differences. What is more, the changes were opposite to what we expected, such that the couples who had two children in 2009-2010 were a bit more than half an hour more egalitarian than couples who had one child in 2002-2003.

Figure 1. Time differences between men and women in unpaid work according to number of children



Source: Authors' own based on the micro-data from the two editions of the Time Use Survey: 2002-2003 and 2009-2010.

Some of the previous results were confirmed when we controlled for the other variables, while other results require further explanation, as follows:

*The transition from 0 children to 0 children* (Table 2). First of all, when we controlled for type of day, the presence of domestic service and the generation we observed a decrease in the gender gap in unpaid work that can be considered an improvement of around 20 minutes ( $-0.352$ ) in equality for couples who had no children in 2002-2003 and were still childless seven years later (Model I). This improvement stems primarily from the change in the partners' employment status: we should bear in mind the economic changes in these seven years, the main consequence of which was a rise in

unemployment, which primarily affected men.<sup>7</sup> Thus, by eliminating the effects of this circumstance on gender differences in unpaid work, we can see that the difference dropped so considerably (−0.083) that it became non-significant (Model II). Introducing other variables (Model III) only served to confirm that differences are not significant.

*The transition from 0 children to 1 child* (Table 2). Broadly speaking, we can say that this change is much more significant than the transition from 0 children to 0 children, regardless of the economic conditions. We can see first (Model I) that when going from 0 to 1 children, the inequality between men and women rises a bit more than an hour and a half (1.574), which is clearly significant. This difference does not change if we introduce the couple's employment status or nationality into the model (Model II), nor does it alter if we introduce the other variables (Model III).

In this case, we might think that employment status plays a contradictory role stemming from the crisis and the very circumstance of having a child. Thus, the crisis led to an increase in the number of couples in which only the woman worked, even though to a lesser extent than in the previous group (from 3.2% to 7.8%), while having a child led some women to leave their jobs for a period, such that the number of couples in which only the man worked rose from 23.6% to 28.1%, just as the number of women who went from a full-time to a part-time job rose considerably, from 4.8% to 23.2%. Despite these changes, if we analyse the differences between men and women when the partners' employment status was the same, the differences remain virtually unchanged and are clearly significant, which proves that the change is not due to the economic circumstances or to the increase in the foreign population, which have virtually no effect.

*The transition from 0 children to 2 children* (Table 2). On the other hand, going from 0 to 2 children in those seven years led the inequality in the amount of time that men and women spent on unpaid work to rise to over two hours (2.28). This is a significant increase, more than what occurred in the transition from 0 to 1 child, but it drops by half an hour (to 1.807) if we include the couples' employment status in the model (Model II). It is quite likely that some of these women who had two children during this period stopped working in order to care for these children.

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<sup>7</sup> If we only examine childless couples, only the woman worked in 3.2% of the couples that participated in the 2002-2003 edition, a figure which had more than quadrupled (14.0%) just seven years later. This increase came at the expense of dual-earner couples.

Table 2. Explanatory model of the change in the differences in the amount of time men and women spent on unpaid work as the result of the first child

	Model I		Model II		Model III	
	B	sig	B	sig	B	sig
Life cycle. Number of children		***		***		***
2 children 2009-2010	2.280	***	1.807	***	1.889	***
1 child 2009-2010	1.574	***	1.457	***	1.516	***
0 children 2009-20010	-0.352	*	-0.083	ns	-0.014	ns
0 children 2002-2003	ref		ref		ref	
Cohort		ns		ns		ns
1978-1982	-0.228	ns	-0.300	*	-0.354	**
1973-1977	-0.190	ns	-0.150	ns	-0.131	ns
1968-1972	ref		ref		ref	
Employment status				***		***
Neither works			1.026	***	0.955	***
Female breadwinner couple			-2.178	***	-2.156	***
Male breadwinner couple			2.200	***	2.175	***
Dual earner, female works full-time			-0.319	ns	-0.245	ns
Dual earner, female works part-time			ref		ref	
Nationality				ns		ns
Both Spanish			-0.034	ns	-0.076	ns
At least one foreigner			ref		ref	
Educational attainment of the woman						***
Primary or less					0.493	***
Secondary school					0.433	***
University degree					ref	
Type of union						ns
Cohabitation					0.069	ns
Married					ref	
Day of the week		***		***		***
Monday-Thursday	0.547	***	0.609	***	0.591	***
Friday-Sunday	ref		ref		ref	
Domestic service		***		***		***
Yes	-1.316	***	-0.798	***	-0.668	***
No	ref		ref		ref	
Constant	1.417	***	1.086	***	0.735	**
r <sup>2</sup>	0.102		0.264		0.267	

The thresholds of significance are: \*\*\* 1%; \*\* 5%; \* 10%.

Source: Authors' own based on the micro-data from the two editions of the Time Use Survey: 2002-2003 and 2009-2010.

*The transition from 1 child to 1 child* (Table 3). We observed some improvement in couples that had a child under the age of eight in 2002-2003 and still had just one child seven years later, in 2009-2010. This difference, which is slightly significant (-0.479, with a significance of 0.042), might be attributed to a reduction in inequalities in those

seven years, but it totally disappears and even changes sign when we control for the employment status. Thus, the apparent improvement in equality should be attributed to the change in employment status, either because unemployment has affected men and women differently or simply because the child no longer requires as much care and some women who might have left the job market went back to work (Model II).

*The transition from 1 child to 2 children* (Table 3). The differences between couples who had one child in 2002-2003 and two in 2009-2010 are also slightly significant in the first model (-0.597, significance 0.044). However, this difference runs counter to our expectations, since we would expect that as the number of children rises so would inequality, as in the change from 0 children to 1 child. What we observe, however, is the opposite: a certain tendency towards greater equality in the distribution of time spent on unpaid work (Model I). Regardless of whether or not we control for generation (and the kind of day and the presence of domestic service), couples with two children in 2009-2010 are half an hour more egalitarian than couples with one child seven years earlier.

Generally speaking, the increase in equality between the two periods may be almost entirely attributed to the shift that happens in the kind of couple depending on their employment status, more specifically, the drop in the number of couples in which only the man works, which went from almost one-half to one-third of the total (from 46% to 34%). This decrease contributed equally to the increase in the number of dual-earner couples and couples in which only the woman worked. The loss of prominence of more traditional and the greater presence of more egalitarian couples would explain why, even though the number of children rose, we can see greater equity (Model II).

This change in the composition of couples has two facets. First, the increase in the number of couples where only the woman works is probably a consequence of the economic crisis and its effect on unemployment, which affects men more than women. Likewise, the increase in the number of dual-earner couples is part of the logical evolution which has been observed in Spain for some years now for women as a whole, namely a steep increase in female employment. This increase occurs precisely at the prime childbearing years in women's life cycle that, at least a priori, is not exactly ideal for work. This circumstance, coupled with the opposite circumstance seen in the shift from 0 to 1 child, runs precisely counter to the hypothesis posited at first, which is a heavy influence on equality with the first child and a much lower influence with the second child.

In order to further examine why the influence of the second child is so small, we questioned to what extent the workload changes for both members of the couple with the birth of the second child. The most prominent finding is that the additional workload brought by the second child is not significant for either men or women (the increase is approximately 15 minutes for both men and women, which is statistically not significant). Therefore, the fact that the workload barely rose with the birth of the second child can be attributed to the fact that the impact of the amount of time required by the second child is much lower and affects mothers and fathers similarly, so the influence on gender inequalities is minimal. We could expect that the birth of the second child would require much more involvement by the man, who is less affected by the first transition. However, in reality this is not so, which enables us to conclude that the amount of time needed to do all the unpaid work in couples with a single child differs little from the time needed in couples with two children.

Table 3. Explanatory model of the change in differences between the amount of time that men and women spend on unpaid work as a consequence of a second child

	Model I		Model II		Model III	
	B	sig	B	sig	B	sig
Life cycle. Number of children		**		ns		ns
2 children 2009-2010	-0.597	**	-0.091	ns	-0.030	ns
1 child 2009-2010	-0.479	**	0.215	ns	0.207	ns
1 child 2002-2003	ref		ref		ref	
Cohort		**		ns		ns
1973-1977	0.678	**	0.323	ns	0.247	ns
1968-1972	0.517	**	0.196	ns	0.150	ns
1963-1967	ref		ref		ref	
Employment status				***		***
Neither works			0.337	ns	0.406	ns
Female breadwinner couple			-4.142	***	-4.023	***
Male breadwinner couple			2.641	***	2.723	***
Dual earner, female works full-time			-0.913	***	-0.751	**
Dual earner, female works part-time			ref		ref	
Nationality				ns		ns
Both Spanish			-0.157	ns	-0.157	ns
At least one foreigner			ref		ref	
Educational attainment of the woman						**
Primary or less					0.646	***
Secondary school					0.468	**
University degree					ref	
Type of union						*
Cohabitation					0.538	*
Married					ref	
Day of the week		***		***		***
Monday-Thursday	0.881	***	1.014	***	1.017	***
Friday-Sunday	ref		ref		ref	
Domestic service		***		ns		ns
Yes	-1.136	***	-0.199	ns	0.036	ns
No	ref		ref		ref	
Constant	3.218	***	2.654	***	2.074	***
$r^2$	0.037		0.296		0.302	

The thresholds of significance are: \*\*\* 1%; \*\* 5%; \* 10%.

Source: Authors' own based on the micro-data from the two editions of the Time Use Survey: 2002-2003 and 2009-2010.

*The effect of generations.* The contribution of generation to the models is very slight and statistically only significant at a level of 0.05 for the 1978-1982 cohort in the complete model for the first transition (Table 2). It means that differences observed by

cohort are due to other variables. However, we found a relatively surprising result in the second transition (Table 3). Specifically, while in the first analysis the differences between the three generations is largely unimportant and the sign always points in the expected direction, that is, less inequality in the more recent generations, in the second we can see significant differences between women born in 1963-1967 and those born later, between 1968 and 1977, which points to greater equality among the former. It is important to note that this difference becomes non-significant when we incorporate employment status into the model. The reason is that the first child in both generations was relatively recent. Thus, even though the age of the first child was controlled for by only selecting couples with a child under the age of eight, this child was on average two years older for the generation born in 1963-1967 than for the other two cohorts.<sup>8</sup> This age difference directly affects the women's employment status and therefore the differences between the amount of time men and women spend on unpaid work. Thus, in the generation born in 1963-1967, we can see that only the man worked in 34% of the couples, while in the other generations this percentage rose to 44%.

In this case, the most logical sequence is that the older generations had slightly older children at the time of observation, such that some of the women who had decided to leave work as a result of having a child were back on in the job market. Thus, if the employment status was similar, the generational differences were considerably lower.

*The influence of the remaining variables.* Focusing first on employment status, we can see that there were no significant differences between whether the woman worked full-time or part-time, while there were differences in the other situations: if neither partner worked the inequalities were an hour greater, while if only the man worked they were two hours greater, a situation that was inverted when only the women worked.

In terms of educational level, the differences observed were what can be expected and what has been described in other studies (Ajenjo and García-Román, 2011). Women who are university graduates achieved greater equality than other women, which amounted to half an hour less in the difference of the amount of time that men and women spent on unpaid work. We can also see a significant drop in the inequality at weekends in all models. This reduction is around 35 minutes (0.591) in the transition to the first child and an hour for the second (1.017).

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<sup>8</sup> The justification for not including the age of the younger child in the models appears in the section on methodology.

In contrast, neither nationality nor cohabitation made a significant contribution to the model, with non-significant differences between Spaniards and foreigners and between cohabitating and married couples.

## **Conclusions**

In this study, we questioned whether the greater equality observed in younger couples stems from the fact that they are truly more egalitarian or whether, to the contrary, they are more egalitarian because of where they are in the life cycle, and more specifically because they do not yet have children.

The first conclusion is that even though childless couples show a more egalitarian (although not totally egalitarian) division of unpaid work, with the birth of children the roles become more traditional and the gender gap widens.

This analysis fully confirms the hypothesis that roles become more traditional with the birth of children. Specifically, taking the differences in the amount of time spent on unpaid work by both partners as an indicator of the gender gap, we estimate that parenthood doubles this gap. The additional workload generated by the birth of children has more repercussions on the woman, leading to a more unequal division of unpaid jobs. This higher inequality takes place in the transition to the first child, as the birth of the second child is non-significant. The impact of the first child on the organization of the household and the division of gender roles is very significant. The second child has a much lower impact, probably due to the fact that the couple has already adapted their division of roles to the new situation, in which the woman plays the role of the primary caregiver. The additional workload brought by the second child is divided similarly between men and women and is, in any event, non-significant.

On the other hand, we found no significant effects of the cohort or generation, so we cannot conclude that the younger generations are truly more egalitarian, a conclusion we might reach if we examined the raw data. If the younger generations are more egalitarian, it is due largely to the fact they do not have children. We can expect that when these couples have children, the inequality will rise to become similar to the behaviour of the older generations.

Given the major impact of parenthood as a trigger of inequality within the couple, we can consider to what extent these changes are irreversible and prevail within couples. In this sense, the results do not allow for much optimism since we did not observe a reduction in these inequalities as the children get older. More specifically, we did not find a significant reduction in inequality in couples who had a child at the first

observation time (who was 7 years older in the second time) and did not have a second child. Therefore, returning to the degree of equality in the couple before they had children is complicated, and the new traditional role division seems irreversible.

Our conclusions are not independent of the context in which the study was performed, namely Spain. Previous studies on how roles become more traditional after parenthood have been performed in the Nordic countries (Dribe and Stanfors for Sweden, Kitterod and Ronsen for Norway, Neilson and Stanfors for different countries) and they found that the effect existed but was much lower than what we found in our analysis. The fact that the traditional model prevailed in Spain until the 1990s means that certain remnants of this model still survive and can be seen more clearly with the birth of children. In view of the lack of public policies to help balance work and family life, couples tend to take on more traditional roles, giving the father the main role in the job market and the mother the main role in the private sphere. We can see that this even happens in couples where the woman has a better job (generally speaking, a higher educational level), which she could bring to bear in the negotiation of roles. To examine the reasons behind these more traditional roles prompted by parenthood, perhaps a qualitative study could be performed that would enable us to further inquire into why the principles of the traditional model are 'revived' with the arrival of parenthood.

In addition to a qualitative study, it would also be very useful to complement this study with a longitudinal source which would analyse these same couples at different moments in their life cycle. Nonetheless, despite these limitations, the approach presented in this paper, which consisted of comparing two fairly similar populations through two latitudinal sources, has provided very interesting results.

The effect of the life cycle is much more important than cohort when we analyse gender equality in couples. This leads us to predict that society will evolve more slowly towards greater equality in the division of jobs within couples than what we might predict if the younger cohorts were truly more egalitarian.

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