

Education and the empowerment of women in household decision-making in Spain

Josep-Oriol Escardíbul

Universitat de Barcelona & Institut d'Economia de Barcelona

Cecilia Albert

Universidad de Alcalá

We analyse whether investment in the education of both women and men serves to empower wives resulting in more balanced household decisions being taken on matters related to consumption and financial management. We consider that household decision-making can be made by mainly the wife, mainly the husband or the couple acting jointly. We then apply multinomial probit models to the Spanish Living Conditions Survey of 2010. Results show that, when controlling for family characteristics, the level of education of both the husband and wife has a positive effect in terms of a more egalitarian decision-making process in relation to three areas of expenditure: daily shopping, expensive purchases of consumer durables, and significant expenditure on children. However, only women's education has a positive effect on borrowing money and no effect of education is observed with regard to the use of savings. Results are less conclusive for households where decisions are taken primarily by the wife or husband, since men's education increases the role of husbands in the household making-decision process whereas no effect of wives' education is observed.

Keywords: Consumption; Education; Empowerment; Household; Multinomial; Savings..

1. Introduction

Important economic decisions are often made by households rather than by individuals. Just who is in charge of such major household decisions was the object of a pioneering analysis by Blood and Wolfe (1960). There are several models of household behaviour that allow to explain the decisions taken by its members. The traditional neoclassical model, known as the 'unitary' model, which is based on the existence of an altruistic husband, assumes that households behave as if they were a single entity with a common utility function and income pooling (Becker, 1991). An alternative or 'collective' model, however, considers that household members have different preferences and, as a result, household behaviour is determined in a bargaining process that leads to an efficient use of the available resources (Vermeulen, 2002 and Browning et al., 2006). Also, several models have sought to relate this bargaining power with access to economic resources outside the household (Usdansky and Parker, 2011).

Although collective models allow for the participation of both spouses in the decision-making process within households, women are traditionally less involved at all levels (Jan and Akhtar, 2008),

even allowing for the dramatic changes in family and social relationships in the second half of the 20th century characterized by a trend towards greater equality in most dimensions of the roles of men and women (Thornton and Young-DeMarco, 2001). In this context, it seems pertinent to analyse the role of education in household decision-making. It is relevant to determine whether education serves to empower women in their marital negotiations and, thus, to achieve a more balanced decision-making process in relation to household economic activities. We do not consider the role of other family members, such as children, who can be involved in the household decision-making process (see Wut and Chou, 2013).

This impact of education falls within the analytical framework of Human Capital Theory, typically referred to as the ‘non-monetary benefits of education’, which includes, among others, the positive effects of education on health, fertility or family structure (see Vila (2000) and Wolfe and Haveman (2001) as well as Escardíbul (2005) for Spain). Education is a key instrument in empowering women in the household because it helps them gain a better understanding of their rights and responsibilities, and it can raise their confidence with regard to their possibilities, especially in less developed countries (Acharya, 2008). Mederer (1993) shows that women with more resources demand a more equal division of labour and perceive anything less than that as unfair. Similarly, Usdansky and Parker (2011) show that married women in the US with a college degree express greater gender egalitarianism.

This paper focuses on the impact of the education of both genders on a woman’s participation in specific aspects of household decision-making, such as household expenses (daily shopping, expensive purchases of consumer durables and significant expenditure on children) and financial management (loans and savings). Thus, the purpose of the research is to analyse the role of education in the household decision-making process. Our study makes several contributions to the literature. First, rather than examining solely the effect of women’s education on their empowerment in the household decision-making process, we also consider the impact of men’s education. Second, to date, most studies conducted in this field have adopted a qualitative approach, but by undertaking a quantitative analysis we are able to include a large sample of households. Finally, this is the first empirical analysis to be carried out in Spain, a Mediterranean economy with strong cultural links to other Southern European countries. As such, this study should serve as useful guide for the conducting of analyses in these similar countries, since in comparison with Northern European countries they have a limited development of family policies, and welfare public policies are characterized by family solidarity and dependency still based on the existence of a male breadwinner, especially in Italy, Greece and Spain (Flaquer, 2002; Naldini, 2003; Moreno Mínguez, 2013). Likewise, Southern European countries are also more attached to traditional gender roles in the division of labour in the household (Hank and Jürges, 2007). We expect that in a country like Spain,

where equality between men and women has advanced significantly since the advent of democracy (Zufiaurre et al., 2010), an increase in the educational level of the wife and/or husband promotes that some household decisions traditionally developed by women are shared by both spouses.

2. Literature review

In this section we examine studies that consider the role of education in household decision-making. We focus on expenditure decisions but we also consider the division of household labour (a topic mainly analysed in developed countries). Most of the literature considering the impact of education on women's autonomy focuses on developing countries and examines a range of different aspects related to the household. These studies show that women with a higher level of education make more household decisions regarding purchases and savings. Likewise, the higher the education level of their husbands, the more egalitarian these household decisions tend to be.

In Asia, Sai Sujatha and Brahmananda Reddy (2009) associated women's education in Andhra Pradesh (India) with greater autonomy in their decision-making concerning major household purchases as well as those for daily household chores. Moreover, women's access to money and their freedom to decide how to spend it (that is, having and using a bank or savings account) were also positively related to the level of education attained. Likewise, Chanda et al. (2012) concluded that in Bangladesh, women's say in decisions regarding household purchases increased with education. In the case of Taiwan, Xu and Lai (2002) showed the positive effects of a wife's education on the likelihood of her making decisions alone or jointly (with her husband) on household expenses and estate purchases. Finally, in the framework of experiments examining theories of risky choice among households as opposed to individuals, Carlsson et al. (2013) analysed household decision-making in a high-stakes experiment in China, whereby spouses had to choose between risky lotteries (first separately and then jointly). Their analysis showed that although a couple's joint decision was typically similar to the husband's, women with more education than their husband had a stronger influence on the joint decision.

In Latin America, Lawrence and Mancini (2008) found that increases in male education and female labour force participation (which is clearly related to the educational level) in Venezuela raised the probability that couples made decisions equally regarding the purchase of household goods and the management of household finances, among other issues. In Mexico, Oropesa (1997) reported that educational attainment was a key variable for increasing the likelihood of wives having an equal say in decisions and their degree of satisfaction with their influence in household decisions.

In the case of developed countries, studies have tended to focus more closely on the role of education in the division of household labour (see Gupta, 2006; Ruppner, 2010). One notable exception is the work of Treas and Tai (2012). With representative samples from 31 countries (data being drawn from the 2002 International Social Survey Program) in Europe (including Spain), Latin America, Israel, Japan, Australia, New Zealand, the United States, and Russia, the authors focused on heterosexual couples (aged 18 to 65, married with children younger than 18 years in the household). They concluded that, in relation to major purchases, better educated wives were more likely to make decisions jointly with their husbands.

These results are in line with Coltrane (2000), who reviewed more than 200 studies of household labour, and concluded that higher levels of education disposed individuals to a more equal allocation of household chores. In addition, Hank and Jürges (2007) showed that male and female education increased the egalitarian division of household labour across Europe. Nevertheless, Southern European countries have subscribed to more traditional gender roles in household management (Nordenmark, 2004; Hank and Jürges, 2007; Strickney and Konrad, 2007). Thus, although differences among countries still exist education helps to achieve higher egalitarian levels with regard to household labour.

Finally, in her review of various studies, Pahl (2000) showed that the greater the proportion of household income provided by the wife, the more likely she is to control household finances and to have power in financial decision-making. Although Pahl did not specifically consider education, a positive effect of education can be assumed given its relationship with earnings.

3. Method

3.1. Data and sample

This study draws on the secondary module entitled “Ability to make decisions” of Spain’s Living Conditions Survey (LCS) for 2010. The LCS was conducted by the National Statistics Institute in collaboration with Eurostat within the broader framework of European Union Statistics on Income and Living Conditions (EU-SILC). The LCS is an annual survey with a sample size of about 16,000 households, distributed in 2,000 census sections.

Questions regarding a couple’s decision-making on family issues were asked of each current household member aged 16 and over living with a partner. Data allows us to distinguish between married and not married couples. However, since most couples are married, especially in cohorts before 1970 with percentages above 90% (and 82% for those after 1970) in the analysis we do not

make such distinction. Hereinafter we refer to the individuals as husband and wife regardless of the legal status of their union. The survey also includes both heterosexual and homosexual couples. However, we did not have sufficient observations to analyse the decision-making in homosexual couples (0.6%), and so we only considered heterosexual unions.

We matched each respondent with the partner for a total of 9,480 couples in the whole household survey; yet, the match was not complete, as less than 3 percent of individuals (both men and women) failed to respond to any of the questions that were relevant for this study. Information is collected through in person interviews (and supplemented with phone interviews) with the members of each of the households under study. The time period of data collection is around three months during the first half of the year. Data are nationally representative (see National Statistics Institute ECS, 2005).

3.2. Variables

We analyse the couples' decision-making process in relation to five aspects of the household economy. The first three are consumer decisions: daily shopping, expensive purchases of consumer durables or furniture, and significant expenditure incurred in relation to children (this is a self-defined concept although some hints may be provided to the interviewees referred to expenses that have an impact on the household budget and/or which are discussed by the couple). The last two are decisions related to finances: borrowing money and the use of savings. All the questions enquiring about the decision-making process in relation to these aspects of the household economy are phrased as follows: "The following questions about making certain decisions relate to you and your partner. Who makes decision about...?" The interviewees can respond in one of three ways: (a) More me (b) Balanced (c) More my partner. For each one of the five questions a different sample has been selected, including individuals who answered (a), (b) or (c) to each question particularly and excluding individuals who answered another possible responses such as: (d) Neither of us has had to make such decisions or (e) We have no savings in common (for the question on savings). On the basis of the responses to these questions we then proceed to measure 'marital power'. We have five dependent variables, each of which comprises three discrete categories: (a) mainly husband makes decisions, (b) primarily the wife makes decisions, and (c) the husband and wife make joint decisions.

Table 1 shows the distribution of our five dependent variables. The percentages in the first column correspond to the pooled responses, whereas the percentages in the second and third columns correspond to the answers given by the male and female members of the couples, respectively. We only find minor differences between the distribution of male and female responses in each couple to questions regarding their decision-making (less than two percentage points). This suggests that in each couple the husband and wife are in substantial agreement with regards to how decisions about

the household economy are made. For this reason, unlike Hank and Jürges (2007), this study does not undertake a separate analysis by gender.

As shown in Table 1, the decisions on household expenses are taken together by both members of the couple in a lower percentage than financial management (loans and saving). This is particularly the case in daily shopping, where only 33% of respondents report making joint decisions, whereas 62% are women who mainly decide. Thus, this task is predominantly decided by women as is commonly reported (see Bianchi et al., 2000, and Coltrane, 2000). The decisions on expensive purchases of consumer durables and significant expenditures on children are made primarily by wives and husbands together (83% and 78% respectively). Men hardly make decisions alone in these issues (only 3% in major purchases and 1% in children expenditure), whereas the percentage of decisions mainly taken by women are higher (14% and 20% respectively). A different pattern is observed in household decisions on loans and saving. Only 10% of these decisions are made basically by wife or husband (being quite evenly distributed), whereas 90% of respondents report making joint decisions in these areas.

(Insert Table 1 around here)

With regards to independent variables, we consider both human capital and other control variables. Human capital is measured in terms of both the husband's and wife's educational attainment following the International Standard Classification of Education (ISCED-1997). Thus, we consider individuals with at least primary education, lower secondary education (compulsory education ends at the age of 16), upper secondary education (academic or vocational), and tertiary education (which considers post-secondary education, mainly university studies).

The control variables are related to the labour market, on the one hand, and demographic and family characteristics, on the other. Both types of variables are also related to power in decision-making (see Usdansky and Parker (2011) for the labour market and Hamel (1990) and Clark et al. (1991) for demographic and family characteristics). Labour market variables are whether the husband or wife has a paying job and, if so, their net monthly wage (the variable is coded 0 if individuals are not employed). Demographic and family characteristics are the following: the birth cohort of the husband and the wife, the country of birth (Spain or another country) of both members of the couple, whether they are living in a family with children under the age of 16, the population density of the household residence (high, medium, and low), and the region of residence (there are 17 regions in Spain and 2 autonomous cities). For more details see the National Statistics Institute ECS, 2005 and the descriptive statistics for these independent variables in the Appendix (Table A). It has to be pointed out that the birth cohort variable reflects cultural or socio-political factors linked to the

generation of the people included in the analysis. Thus, the socio-political turning points in the modern history of Spain are considered through three birth cohorts: individuals who have lived their childhood under a dictatorship (before 1959, as reference category); in the transition to democracy period (the 1960s); and during the pre-democracy and democracy periods (the 1970s and after). The analysis is similar to that of Xu and Lai (2004) for Taiwan.

2.3. *The empirical strategy*

The empirical strategy adopted here comprises a multinomial probit regression of the probability that mainly the husband, primarily the wife or the two jointly make the economic decisions in their respective households. The baseline category in all estimations is that mainly the husband makes the economic decisions in the household and this option is compared to mainly the wife making decisions and to both spouses making joint decisions. The reason why we opt to use the multinomial probit rather than the more usual multinomial logit is that the latter requires the assumption of independence of irrelevant alternatives, whereas the multinomial probit relaxes that assumption (Greene 2012). The advantage of the multinomial logit is that the coefficients can be directly interpreted as odds ratios (Long, 1997). Nevertheless, the calculation of marginal effects from the probit estimates is straightforward, and these are generally easier to interpret and understand than the odds ratios. The marginal effects from the probit estimates are calculated using the STATA 13 program (Long & Freese, 2006).

The structure of the multinomial probit equation is shown in (1), where $j = 1, 2$ and 3 refers to the different values of the dependent variable (the three possible outcomes for the economic decision). The term in the log-likelihood that corresponds to the choice of alternative q is shown in equation (2), and the probability for this occurrence in (3). The $J-1$ other choices are a cumulative probability from a $(J-1)$ -multivariate normal distribution.

$$U_j = x'_j \beta_j + \varepsilon_j, \quad j = 1, \dots, J, \quad [\varepsilon_1, \varepsilon_2, \dots, \varepsilon_J] \sim N[0, \Sigma] \quad (1)$$

$$\Pr[\text{choice } q] = \Pr \text{ob}[U_q > U_j, \quad j = 1, \dots, J, \quad j \neq q] \quad (2)$$

$$\Pr[\text{choice } q] = \Pr[\varepsilon_1 - \varepsilon_q > (x_q - w_1)' \beta, \dots, \varepsilon_J - \varepsilon_q > (x_q - x_J)' \beta] \quad (3)$$

In the above expressions, X refers to the vector of explanatory variables, β is the vector of coefficients linked to the explanatory variables, and ε are the stochastic error terms, which are assumed to have independent, standard normal distributions.

4. Results

The two outcomes of the multinomial probit regression models are shown separately in Tables 2 and 3. Table 2 shows regression results of the probability that both wife and husband take part in household decisions instead of mainly the husband. Table 3 displays the results of the probability that primarily wives make decisions compared to mainly husbands deciding. We show the marginal effects of wife's and husband's education as well as the effect of income (men's and women's wages). All the estimations include the common set of control variables related to labour market, demographic and family characteristics.

Results in Table 2 show that achieving higher levels of education of wives and husbands increases the probability that household decisions on purchases and expenditures (such as daily and major household needs as well as decisions on significant expenditure on children) are made together. Thus, education is statistically significant when tertiary education (and even upper secondary in some cases) is achieved. However, education hardly affects financial decisions of the households: only wife's education has a positive bearing on spouses deciding together with regards to loans, whereas no effect of education for either spouse is observed for savings.

Thus, wife's education fosters a more egalitarian decision-making process in all areas analysed except savings, whereas husband's education fosters it on all issues considered except loans and savings. Therefore, it seems that education of men and women, especially tertiary education, is relevant to fostering an egalitarian view in the household in decisions related to expenditures. However, education seems less relevant in fostering egalitarianism in the household's financial management with respect to loans and mainly savings, especially in the case of husband's education.

Table 3 shows that higher levels of husband's education (having achieved tertiary education and even upper secondary in most cases) reduces the probability that the women mainly decides compared to husbands mainly deciding. However, wife's education hardly has an effect on these probabilities. Therefore, demographic and family characteristics being equal, if the husband is better educated then the wife is less likely to decide alone.

(Insert Table 2 and 3 around here)

5. Discussion

We can conclude that increased educational attainment of both men and women serves to empower wives in terms of their making more joint decisions in at least three of the five areas of the household economy analysed: daily shopping, expensive purchases of consumer durables and

significant expenditure on children. In addition, women's education also increases the probability of an egalitarian decision-making process in borrowing money. Our results are consistent with evidence from analyses of the non-monetary benefits of education as well as with the literature on the impact of improved education on egalitarianism (see Wolfe and Haveman, 2001; Usdansky and Parker, 2011). This is a relevant issue for countries such as Spain, a Southern European country that has maintained more traditional gender roles in questions of household management (Nordenmark, 2004; Strickney and Konrad, 2007).

However, results show the limited impact of education on fostering a joint decision process in economic issues within the household. On the one hand, education positively affects decisions on purchases but hardly on financial decisions. On the other hand, the effect of education is basically confined to have attained higher education. Other levels such as post-compulsory secondary education are hardly significant.

Results are more controversial for households where mainly one of the spouses makes the decisions. In these cases, husband's education reduces the probability of the wife deciding alone, whereas wife's education has no effect. These results may mean that husband's education reduces wife's empowerment in the household decision-making process. However, from the perspective of the division of household labour (see Coltrane, 2000 and Hank and Jürges, 2007), we also think that maybe these results show a reduction of housework for women, since their more educated husbands are taking decisions alone about daily shopping, expenditure on children or main household purchases, three activities in which men have been much less involved (see table 1). This does not seem so clear in the case of financial management (where decision-making is distributed more equally between men and women when they are the ones who mainly decide within the household). Thus, results seem to show that education fosters a more equal distribution of household tasks related to the management of expenses (since they are hardly involved).

To sum up, our results suggest that gender equality policies need to take into consideration the role of education of both men and women in their attempts to foster egalitarianism since it increases joint decision-making in the management of household expenses. In this case, education increases the probability that household decisions are made together by the couple or that men get involved when the decision is traditionally made by the wife. However, results are not so clear in financial management.

We believe that joint decision is a benefit for both couples and the society as a whole. Thus, our results may imply that the benefits of educations are higher since this type of non-monetary benefit should be included when the economic returns of education are computed.

Nevertheless, education alone will not foster an egalitarian system of household decision-making. Thus, other public policies are suggested (although more research is needed). Firstly, policies allowing better professional careers for women. The Spanish labour market has changed a lot in recent decades, and is partially moving from a traditional male-breadwinner model to a dual-breadwinner one (Lewis, 2001; Dema-Moreno, 2009). Thus, women's rate of activity has increased significantly (from 27.1% in 1980 to 53.8% in 2015). However, there is still a high gender gap in wages (around 20%), unemployment (22.5% versus 19.5 for males) or part-time contracts (25.1% for women and 8.0% for men). Therefore, the distance with men in the workplace, is still the largest in the European Union, along with other countries of Southern Europe (OECD, 2008; Guner et al., 2014). In this context, we could add other family policies that may improve women's participation in the labour market, where Spain (as well as Italy and Greece) are also below most countries of the European Union (Guner et al., 2012; Wall and Escobedo, 2013). Better working conditions do not guarantee a more egalitarian decision process at home but they are positively related to a more egalitarian joint decision-making process. Secondly, education policies aimed at modifying gender norms should be implemented. In primary and secondary education schools, children should have the opportunity of discussing gender roles, whereas in tertiary education, courses dealing with subjects that examine gender and patriarchal relations should be introduced (Carrasco and Dominguez, 2011). In this sense, it has to be taken into consideration that financial decisions that may seem as a result of negotiation between spouses are not always the case but rather tend to follow established customs (see Dema-Moreno, 2009 for a qualitative analysis for Spain).

Our investigation does not provide an explicit analysis of the decision-making model itself. However, our results seem to be more consistent with a 'bargaining' model since education encourages joint decision-making. Thus, education (of both men and women) helps wives to actively participate in the household decision-making process on issues related to purchases. However, the fact that when decisions are taken mainly by the wife or the husband, education increases in some cases men's participation in areas predominantly managed by women (such as daily household needs purchases) are not clearly related to any model, and more research is needed.

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Table 1. Descriptive Statistics: Household decision-making process measure

	All (Percent)	Men (Percent)	Women (Percent)
<i>Daily shopping</i>			
Husband	5.25	5.84	4.66
Wife	61.74	60.88	62.60
Both	33.01	33.29	32.74
<i>Major purchases</i>			
Husband	2.67	2.77	2.56
Wife	14.23	14.33	14.14
Both	83.10	82.91	83.29
<i>Children</i>			
Husband	1.16	1.44	0.88
Wife	20.46	19.92	21.01
Both	78.38	78.64	78.11
<i>Loans</i>			
Husband	5.12	5.17	5.07
Wife	4.46	4.40	4.52
Both	90.42	90.44	90.41
<i>Savings</i>			
Husband	4.23	4.63	3.84
Wife	6.65	6.38	6.92
Both	89.12	88.99	89.24

Table 2. Multinomial Probit Regression (Joint decision compared to mainly the husband): Marginal Effects

	Daily Household Needs	Major Household Purchases	Significant Expenditure on Children	Loans	Savings
<i>Husband education (Ref. Primary educ. or less)</i>					
Lower Secondary Education	0.011 (0.941)	0.006 (0.712)	0.004 (0.220)	-0.002 (-0.316)	0.004 (0.512)
Upper Secondary Education	0.048*** (3.733)	0.020* (2.214)	0.029 (1.672)	0.002 (0.298)	0.010 (1.349)
Tertiary Education	0.068*** (5.145)	0.025** (2.724)	0.066*** (3.837)	-0.011 (-1.383)	0.015 (1.920)
<i>Wife education (Ref. Primary educ. or less)</i>					
Lower Secondary Education	-0.008 (-0.669)	-0.012 (-1.309)	0.010 (0.530)	0.009 (1.443)	-0.003 (-0.395)
Upper Secondary Education	0.002 (0.134)	-0.001 (-0.144)	0.047** (2.618)	0.015* (2.074)	0.012 (1.473)
Tertiary Education	0.029* (2.019)	0.026* (2.468)	0.042* (2.151)	0.024** (3.148)	0.003 (0.343)
Control variables	Yes	Yes	Yes	Yes	Yes
Log pseudo likelihood	-14004.2	-9125.1	-3725.6	-6224.5	-7017.9
χ^2	1960.13	807.75	253.73	425.17	454.83
Degrees of freedom	72	72	72	72	72
Probability > χ^2	0.000	0.000	0.000	0.000	0.000
<i>N</i>	18,387	18,118	6,807	16,914	17,432

Note: Control variables included are the following: Husband labor market (employed, or not) wife labor market, birth cohort husband and wife, country of birth of husband and wife, children under 16 years, population density, and region. *t*- statistics in parentheses.

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

Table 3. Multinomial Probit Regression (Mainly the wife compared to primarily the husband): Marginal Effects

	Daily Household Needs	Major Household Purchases	Significant Expenditure on Children	Loans	Savings
<i>Husband education (Ref. Primary educ. or less)</i>					
Lower Secondary Education	-0.009 (-0.768)	-0.005 (-0.632)	-0.005 (-0.305)	-0.003 (-0.616)	-0.001 (-0.111)
Upper Secondary Education	-0.050*** (-3.811)	-0.018* (-2.130)	-0.030 (-1.744)	-0.013** (-2.981)	-0.013* (-2.472)
Tertiary Education	-0.066*** (-4.914)	-0.024** (-2.860)	-0.064*** (-3.760)	-0.021*** (-5.017)	-0.029*** (-5.502)
<i>Wife education (Ref. Primary educ. or less)</i>					
Lower Secondary Education	0.023 (1.872)	0.017* (1.964)	-0.008 (-0.468)	-0.002 (-0.529)	-0.002 (-0.446)
Upper Secondary Education	0.014 (1.064)	0.006 (0.691)	-0.044* (-2.501)	-0.001 (-0.221)	-0.010 (-1.674)
Tertiary Education	-0.025 (-1.697)	-0.016 (-1.615)	-0.036 (-1.859)	-0.006 (-1.050)	-0.003 (-0.421)
Control variables	Yes	Yes	Yes	Yes	Yes
Log pseudo likelihood	-14004.2	-9125.1	-3725.6	-6224.5	-7017.9
χ^2	1960.13	807.75	253.73	425.17	454.83
Degrees of freedom	72	72	72	72	72
Probability > χ^2	0.000	0.000	0.000	0.000	0.000
<i>N</i>	18,387	18,118	6,807	16,914	17,432

Note: Control variables included are the following: Husband labor market (employed, or not) wife labor market, birth cohort husband and wife, country of birth husband and wife, children under 16 years, population density, and region. *t*-statistics in parentheses.

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

Appendix

Table A. Descriptive Statistics of independent variables

	Daily	Purchases	Child	Loans	Saving
<i>Husband education</i>					
Primary education or less	34.14	33.55	16.60	32.35	33.43
Lower secondary education	23.83	24.00	29.21	24.44	23.85
Upper secondary education	18.03	18.17	23.28	18.44	18.13
Tertiary education	24.00	24.29	30.91	24.77	24.59
<i>Wife education</i>					
Primary education or less	35.03	34.58	13.35	33.16	34.52
Lower secondary education	23.75	23.78	27.40	24.13	23.70
Upper secondary education	17.18	17.30	22.76	17.80	17.22
Tertiary education	24.04	24.33	36.49	24.91	24.55
<i>Husband labor market</i>					
Not employed	43.41	42.84	18.55	40.70	42.93
Employed	56.59	57.16	81.45	59.30	57.07
<i>Wife labor market</i>					
Not employed	57.96	57.54	41.15	56.13	57.58
Employed	42.04	42.46	58.85	43.87	42.42
<i>Wage (monthly)</i>					
Husband's wage (mean)	774.55	783.51	1,106.24	812.80	786.67
Husband's wage (Std. Dev.)	1,032.33	1,036.17	1,056.15	1,041.70	1,041.10
Wife's wage (mean)	484.34	489.90	699.76	507.28	491.76
Wife's wage (Std. Dev.)	785.21	788.82	871.00	796.89	790.75
<i>Birth cohort husband</i>					
1959 or before	56.31	56.10	15.19	54.45	56.41
1960 to 1969	23.40	23.63	46.89	24.55	23.62
1970 or after	20.29	20.27	37.92	21.00	19.96
<i>Birth cohort wife</i>					
1959 or before	49.74	49.45	7.29	47.67	49.81
1960 to 1969	24.26	24.52	41.40	25.40	24.52
1970 or after	26.00	26.03	51.31	26.93	25.67
<i>Country of birth of the husband</i>					
Born in Spain	92.38	92.52	87.69	92.50	92.81
Not born in Spain	7.62	7.48	12.31	7.50	7.19
<i>Country of birth of the wife</i>					
Born in Spain	91.08	91.24	85.94	91.26	91.69
Not born in Spain	8.92	8.76	14.06	8.74	8.31
<i>Children</i>					
Children under 16 years old	62.98	62.64	100.00	61.28	62.95
Not children under 16 years old	37.02	37.36	0.00	38.72	37.05
<i>Population density</i>					
High density	46.31	46.44	45.50	46.65	46.58
Middle density	21.41	21.38	23.55	21.43	21.06
Low density	32.28	32.18	30.95	31.93	32.36

	Daily	Purchases	Child	Loans	Saving
<i>Regions</i>					
Andalusia	11.77	11.81	13.49	12.16	12.01
Aragon	4.40	4.43	4.22	4.52	4.42
Asturias	4.56	4.56	3.36	4.49	4.48
Balearic Islands	3.19	3.18	3.33	3.36	3.20
Basque Country	5.09	5.14	5.10	5.33	5.18
Canary Islands	4.16	4.18	4.95	4.25	4.15
Cantabria	3.15	3.17	2.92	3.04	3.06
Castile and Leon	6.71	6.72	5.79	6.78	6.84
Castile-La Mancha	5.43	5.38	6.11	5.17	5.42
Catalonia	10.72	10.70	10.74	10.83	10.90
Extremadura	4.08	4.11	3.67	4.16	4.22
Galicia	7.95	7.87	6.04	7.69	7.93
Madrid (Region of)	8.84	8.84	8.86	8.76	8.83
Murcia	3.98	3.97	4.75	3.96	3.69
Navarre	3.38	3.39	3.64	3.34	3.22
Rioja (La)	3.35	3.31	2.91	3.23	3.41
Valencian Community	7.46	7.50	7.58	7.19	7.25
Autonomous cities (Ceuta-Melilla)	1.78	1.74	2.54	1.75	1.80
<i>N</i>	18,387	18,118	6,807	16,914	17,432

Note: Figures are percentages (except wages, which are in euros).