

Time for a Change?  
The Domestic Division of Labor in Comparative Perspective, 1994 and 2002

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## **Time for a Change? The Domestic Division of Labor in Comparative Perspective in 1994 and 2002**

This paper examines housework over time in comparative perspective. We seek to understand gendered housework in the larger context of social change, testing specifically whether cross-national differences in domestic labor patterns converge over time. Using data from 16 countries from the 1994 and 2002 waves of the International Social Survey Program (ISSP), we find that the division of labor at home became somewhat more egalitarian over this period. Social context matters in shaping housework patterns: While we establish an overall trend towards more equality, we also demonstrate that the shift in the domestic division of labor was greatest among the most traditional countries, and smallest among those who already had a more egalitarian division of labor. Our findings provide support for the thesis of cultural convergence, yet do not imply that converge is directed towards complete equality.

## **Time for a Change? The Domestic Division of Labor in Comparative Perspective in 1994 and 2002**

### **Introduction**

Compared with changes in other aspects of social life, change in the domestic division of labor has been slow, and traditional patterns remain prevalent. Nevertheless, there is a broad trend toward men's greater participation in domestic work, and a decline in the burden shouldered by women. However, most studies of change in the housework division of labor have relied on data from the United States (e.g., Bianchi et al. 2006), and few have been comparative. Comparative studies of social change have served to deepen our understanding of the underlying forces at work in such diverse arenas as the relationship between democracy and economic inequality (Muller 1988), intergenerational mobility (Ganzeboom et al. 1991), and cultural modernity (Schooler 1996). Yet despite intense research interest, only a small handful of housework studies are comparative (e.g., Batalova & Cohen 2002, Fuwa & Cohen 2007, Geist 2005, Knudsen & Waerness 2008, Ruppner 2008), and even fewer also analyze change over time (Hook 2006). This shortfall hampers our understanding of gendered housework in the larger context of social change.

Modernity and gender egalitarianism are sometimes seen as inextricably linked. On one extreme, some believe that, "[G]ender inequality does not fit the needs, the distribution of power, the organizational logic, or the moral perspectives of modern society" (Jackson 1998:241). On the other hand, some feminists have found that modernity merely spawns "new manifestations of patriarchal structures and ideologies," because patriarchy is "the flesh and blood of modern, progressive capitalism" (Mies 1998:ix). Although we cannot hope to resolve this debate, studying change in comparative perspective is a crucial tool for addressing that larger question.

In particular, we are concerned about whether cross-national differences in the housework gender gap are narrowing over time. That would suggest a convergence around modern gender patterns. On the other hand, if the gaps remain stable or even diverge, that would indicate an unstable relationship between gender inequality and social change – with no central modernization pattern – and underscore the contested nature of progress toward gender equality.

The domestic division of labor is a socially embedded process, and change in the housework patterns is linked to larger scale processes of social change. The comparative work to date has shown that context matters for family and housework: Individual level mechanisms are not universal and societal standards cannot be ignored when trying to understand individual's housework patterns. Using data from 16 countries from the 1994 and 2002 International Social Survey Program (ISSP), we seek to answer two specific questions: (1) Have the mechanisms that shape the domestic division of labor universally changed in recent years? (2) Do patterns in the division of labor converge towards equality? In the remainder of the paper, we first review the theoretical background about the mechanisms shaping the domestic division of labor, before describing data and methods. We then turn to the results and close with a summary and conclusions.

## **Theoretical Background**

### *Individual Level Mechanisms*

An impressive body of literature has established the importance of three distinct factors that shape the domestic division of labor: relative resources, time availability, and gender. In the first conception, the domestic division of labor can be conceptualized as a reflection of

bargaining based on financial contributions. A larger contribution to the household income is seen as being associated with more power in the bargaining process for (less) housework. Consequently, the partner who contributes more money may feel that this contribution excuses him (or, less frequently, her) from housework. If a partner does not earn enough money to support him/herself (and potentially his/her children) independently, the lack of bargaining power can be seen as a form of dependency (Sorensen & McLanahan 1987). Because of their weak bargaining position, fuelled by their perception that they cannot “afford” to leave the relationship, these “dependent” partners (usually women) may end up with a disproportionately high level of housework. Even if women could theoretically be economically self-sufficient, they still rely on their partners for their current standard of living, which may be considerably better than what they could afford on their own (Brines 1994).

Others emphasize that time availability drives the allocation of household tasks. Becker (1991) argues that the domestic division of labor reflects rational arrangements between partners who specialize in either domestic or market production, based on evaluations of potential earnings of both partners in the labor market. According to this theory, housework is not explicitly gendered, but its allocation depends on the involvement in the paid labor market and the resulting (lack of) availability of time at home. Although the notion of the complete specialization of the breadwinner-homemaker arrangement as “most rational” option has been challenged (Oppenheimer 1997), evidence over several decades confirms that time in the labor market and the subsequent time available for doing housework are key determinants of household labor arrangements (Bianchi et al. 2000, Coltrane & Ishii-Kuntz 1992).

Time availability and resource approaches are both drawn from rational choice models of human behavior. Domestic labor, however, is not entirely based on negotiation processes and

rational constraints, and relative earnings are not completely determinative. The assumption of women's primacy in taking on domestic responsibilities is firmly rooted in gendered behavior expectations. Domestic work is also "a symbolic enactment of gender relations" (South & Spitze 1994:327) which creates gender identity in an ongoing process through everyday activities. Domestic production is a site where men and women can live out "wifely and husbandly roles" and create gender differentiation.<sup>1</sup> Accordingly, women may do more housework than men in an active effort to affirm their femininity (West & Zimmerman 1987). There is evidence that entry into a heterosexual union exacerbates gender inequality in housework within couples, suggesting that the process of doing gender is stronger in institutionally gendered contexts (Gupta 1999, South & Spitze 1994). Thus, the "incompleteness" of cohabitation as an institution apparently allows for more flexible negotiations of domestic roles among partners in these unions (2005), and evidence suggests that cohabiting couples show more flexibility in task assignments (Cunningham 2005).

Although it is difficult to measure the concept of "doing gender" and gender socialization in quantitative surveys, it is possible to derive empirical expectations from this approach. Because of its institutional and symbolic importance, marriage should make women's traditional role expectations more salient (Batalova & Cohen 2002). Thus, wives are expected to do more housework than cohabiting partners do, as they want to fulfill the expectations of femininity associated with this status.

#### *Cross-national and Temporal Variation*

There is compelling evidence that the division of labor in the United States has become more equal over time, mostly because men's housework time has increased (Bianchi et al. 2000,

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<sup>1</sup> This can also be seen in the housework behavior of singles (De Ruijter et al. 2005).

Hook 2006). Hooke's (2006) study offers an initial glance at variation across time using data from a variety of countries at different points in time (but not over time for each country). Yet we still do not know the extent to which the underlying mechanisms that shape housework have changed over time, and even less is known about change in housework patterns in comparative perspective. While earlier studies provided evidence for systematic cross-national variation in the domestic division of labor (Batalova & Cohen 2002, Fuwa & Cohen 2006, Geist 2005), it remains unclear whether there is convergence or whether country differences remain stable over time.

Modernization theory suggests that countries move together toward secular-rational values that place a higher value on self-expression. By this theory, countries with more "traditional" value systems should show faster rates of change toward modern values, leading to convergence. However, this cultural change is path dependent, as cultural traditions "leave an imprint on values that endure[s] despite modernization" (Inglehart & Baker 2000). Since behaviors are much slower to change than values, one could expect that while values may converge, behavior differences are more persistent.

Several concrete mechanisms might produce convergence in housework patterns. First, technology has the potential to decrease women's housework (2009), not only through reducing the labor time necessary, but also through the increased labor force participation that accompanies technological change (Cotter et al. 2001). Of course, the diffusion of technology is uneven, but the adoption of new technologies crosses national borders even in the absence of developmental parity (Kumar & Echambadi 1998). Second, political pressure crosses national borders, as movement networks transmit ideas and expectations (McAdam & Rucht 1993). The emergence of global social movements presents the possibility of concerted movement toward

gender equality that is driven by political demands in addition to economic development (Moghadam 2000). Finally, legal reforms and public policies also spread in ways that might enhance prospects for gender equality across countries simultaneously (Krook 2008), which may in turn promote change in the division of household labor.

Usually, change over time is most easily detectable when longer time spans are covered. However, we argue that in the time frame of our study, 1994 to 2002, substantial social change took place, especially when considering the broad spectrum of countries we consider. There is clear evidence that there has been a trend towards liberalization of gender attitudes (Bolzendahl & Myers 2004, Brooks & Bolzendahl 2004) in the United States in the past few decades.<sup>2</sup> In Eastern Europe, the era of state socialism ended in the early 1990s and since then, their economic, political, and social systems have experienced great changes. The fact that many Eastern European countries joined the European Union in 2004 is a further sign that in just a little more than a decade since the fall of state socialism, major shifts in socio-political orientation have taken place in these countries.

Our focus in this paper is on convergence and cross-national change. In that vein, we investigate two hypotheses. Based on women's continuing integration into labor markets worldwide, and the move towards greater gender equality, we can expect that the domestic division of labor becomes more egalitarian, as has been shown in previous studies. As that occurs, the differences between individuals and couples grow less pronounced, and the predictive power of individual and couple characteristics, such as time availability, relative resource, and

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<sup>2</sup> However, the convergence of men's and women earnings (in the United States) seems to have slowed in the 1990s, suggesting that past trends towards gender equality cannot easily be projected in the future (Blau & Kahn 2000, 2006).



gender attitudes, should erode over time. We therefore hypothesize that, across our sample of countries,

*The effect of individual and couple level characteristics on the domestic division of labor diminishes over time. (H1)*

We also investigate convergence cross-nationally. Existing research has shown that the domestic division of labor is not merely a result of individual or couple level characteristics and negotiations. The embeddedness of individuals in social context plays both a role in the level of housework performance and in the way individual and couple characteristics shape domestic task performance (Cooke 2006, Cunningham 2005, Davis & Greenstein 2004, Fuwa & Cohen 2006, Geist 2005, Geist 2009, Forthcoming). This growing literature on comparative housework mostly compared housework across contexts cross-sectionally, so little is known about the differences in rates of change across contexts. We examine whether countries with a traditional domestic division of labor tend to “catch up.” The convergence hypothesis is that:

*Cross-national differences in the household division of labor converge; countries with a more traditional division of labor experience greater changes towards equality than countries that were already more egalitarian. (H2)*

## **Data and Analytic Strategy**

We rely on data from the International Social Survey Programme, waves 1994 and 2002 (International Social Survey Program 1994, 2002). The ISSP is an ongoing program of cross-national collaboration on surveys covering topics important for social science research; these particular modules focus on issues pertaining to family and gender issues.<sup>3</sup>

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<sup>3</sup> For a detailed description of the ISSP structure and origins, as well as member organizations refer to the ISSP website at [www.ISSP.org](http://www.ISSP.org) and (Smith 1992).

We describe the division of labor at home across three household tasks for 16 countries (see Table 1 for countries and sample sizes; only countries that participated in both the 1994 and 2002 waves are included). We restrict the sample to individuals who are married or have a steady partner. Since the partner's sex is not recorded, we have to assume that all couples are opposite sex couples. We only include observations from those who live in a household with at least two adults and who have valid information on the division of labor. Since labor market status is a crucial factor in the study of housework, the sample is restricted to those in "prime" working age, 25 to 55. We further exclude those who have missing information for measures used in the analyses. This results in a sample of 13,241 observations from 16 countries.

#### TABLE 1 ABOUT HERE

##### *Domestic Division of Labor*

The surveys include questions about the allocation of different household tasks. Respondents are asked to indicate "who in your household does the following things". In this paper, we focus on three tasks that are traditionally considered routine, female typed tasks: preparing dinner, doing laundry, and shopping for groceries. We restrict the analyzed tasks to daily tasks usually done by women, since they have to be done in almost all households. We excluded questions about responsibility for small repairs and taking care of sick relatives, since these tasks occur much less frequently, or not at all in some households.<sup>4</sup> Respondents were asked to state whether it was "always" the respondent him- or herself, "usually" the respondent, "about equal/both together", "usually the spouse/partner", "always the spouse/partner", or

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<sup>4</sup> In 2002 respondents were also asked about cleaning responsibilities, but this item was not included in 1994.

whether the task is done “by a third person.” Tasks that were done by a third person were considered to be shared equally, because it is implied that both partners are equal in the (non) performance of a task.

For our analyses, a value of -2 was assigned if a task was done “almost always” by the woman, -1 was assigned if a task was “usually” done by the woman. Equal sharing and tasks being done by a third person were coded as 0. If a man was “usually” or “almost always” responsible for a task values of 1 and 2 were assigned. Values for all three tasks were added, and in the resulting housework score, more negative values indicate more housework responsibility of the female partner. The resulting housework scale ranges from -6 (all tasks always/usually done by the female partner) to +6.

#### *Independent variables and controls*

In the multivariate models, we include measures of the established predictors of the domestic division of labor. *Relative resources* are measured by the male partner’s share of the household income. We allow those who are not employed to have nonzero earnings, since employment status is based on the current employment status, but the respondents may report earnings from employment that has just ended. *Time availability* is measured by two sets of measures: Employment status of both of the partners and household size. We distinguish between full-time employment, part time employment, and those who are not employed. The group of the non-employed is heterogeneous and includes both homemakers and those who are unemployed, yet it may also include respondents who work for a family business on an unpaid basis. In the multivariate models, full time employed respondents with full-time employed partners are the reference category. Household size is a proxy for the housework burden; while

additional measures for the number and ages of children would be desirable, they are not consistently available across years and countries.

We create an additive gender attitude score based on the responses to three well-established different items concerning women and paid work: “A man’s job is to earn money; a woman’s job is to look after the home and family.” “All in all, family life suffers when the woman has a full-time job” and “A pre-school child suffers if his or her mother works.” Respondents were asked to strongly disagree (assigned a value of 1), disagree, neither agree or disagree, agree, or strongly disagree (assigned a value of 5). Higher values indicate more traditional values.

We also distinguish between those who are married to their partner and those who are not, since marriage has been shown to make traditional role expectations more salient and may also reflect a more traditional orientation of respondents (compared to those who are cohabiting). Age and education indicators are only available for the partner responding to the survey, but it is plausible to assume a correlation between both partners’ ages and education levels. Although it would be preferable to have information on both partners’ gender attitudes, the presence (or absence) of at least one partner with egalitarian gender role attitudes can be expected to result in a somewhat more egalitarian division of labor.

## TABLE 2 ABOUT HERE

### *Contextual Housework*

For a subset of our analyses we include a contextual measure of housework in our analyses of individuals’ domestic division of labor for the year 2000. This contextual housework

measure is the average housework score across all respondents for each country in 1994. As such this measure represents a certain country level “standard” in the domestic division of labor.

### *Analytic Strategy*

Our analyses proceed in three steps. First, we show how housework patterns changed between 1994 and 2002 across all countries, based on country averages. In a second step, we turn to multivariate analyses to account for possible differences in sample characteristics between the years. We then estimate models for 1994 and 2002 both separately and as a fully interactive model<sup>5</sup> that allows all independent variables to vary across the years. Since individual observations are nested within countries, we estimate multilevel mixed models. In all the models, we include a random intercept (indicated as RI in equation 1), allowing the overall level of housework to vary across countries. Equation 1 shows a simplified version of the estimated equation for our second analytic step:

$$HWscore_{ij} = \beta_1 + \overbrace{\zeta_{R1j}}^{RI} + \beta_2 t_{ij} + \beta_3 x_{ij} + \epsilon_{ij} \quad (\text{Eq. 1})$$

*i=1, ..., N (individuals, level 1), j=1, ..., 16 (countries, level 2)*  
*ζ indicates the random intercept that varies across countries (j), x represents all independent variables, and t represents the year of survey.*

In a third analytic step we analyze individual level data from 2002 using the country average housework patterns from 1994 ( $h_j$ ) as a predictor. As before we include a random

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<sup>5</sup> In the fully interactive model we allow for shifts in the domestic division of labor between the years by including a year dummy ( $t_{ij}$ ); in addition to the random intercept (RI) we also allow for cross-national variation of this year effect (random slope RS). Since the mechanisms of housework allocation may be different between 1994 and 2002 we include year interaction effects for all independent variables:

$$HWscore_{ij} = \beta_1 + \beta_2 x_{ij} + \beta_3 (t_{ij} * x_{ij}) + \beta_4 t_{ij} + \overbrace{\zeta_{R1j}}^{RI} + \overbrace{\zeta_{R2j}}^{RS} t_{ij} + \epsilon_{ij}$$

intercept to allow the housework score to vary across countries (random intercept RI), and we also allow the effect of the 1994 aggregate housework score to vary across countries (random slope RS).

$$HWscore02_{ij} = \beta_1 + \beta_2 x_{ij} + \beta_2 h_j + \overbrace{\zeta_{R1j}}^{RI} + \overbrace{\zeta_{R2j} h_j}^{RS} + \epsilon_{ij} \quad (\text{Eq. 2})$$

We estimate models as generalized mixed models (GLLAMM), using the GLLAMM software implemented in Stata (Rabe-Hesketh & Skrondal 2008). The GLLAMM software allows us to use weights in the random coefficient models<sup>6</sup> and provides empirical Bayes estimates of random intercepts, coefficients, as well as standard errors for the random components.

## Results

Figure 1 shows how housework patterns have changed in the 16 study countries between 1994 and 2002. As previously discussed, more negative scores indicate a more traditional division of labor where the female partner is more responsible for housework tasks. To compare the fit of observed data to our hypotheses, we include two lines in Figure 1. The dashed line indicates no change between the years, so for countries where observations are on or near this line there is no change in housework patterns between 1994 and 2002. The dotted line is a fitted line across the country averages; we see that while countries have changed between the years, on average there is very little change.

FIGURE 1 ABOUT HERE

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<sup>6</sup> We created weights that maintain the country specific individual weights but prevent countries with larger sample sizes to exert too much influence on the results.

The results presented in Figure 1 do not provide support for the convergence hypothesis. That is, although there has been a slight shift toward egalitarianism, the two lines appear parallel – so the magnitude of the change was not dependent on the 1994 gender gap. A few countries that were on the traditional end of the housework pattern spectrum, Russia and Northern Ireland, have made disproportionate moves towards more egalitarian division of labor, yet other countries with a fairly conservative division of labor saw little change in their housework scores or had slightly more traditional scores in 2002 compared to 1994.

In the next step, we examine whether there is change in the domestic division of labor and its determinants once we take the differences in the sample composition between the years and countries into account.

#### TABLE 3 ABOUT HERE

For ease of presentation, Table 3 shows the estimates from separate analyses of the 1994 and 2002 samples. Differences in coefficients across years (indicated by shading) are based on fully interactive models for pooled data for both years with interaction effects for all independent variables as well as an indicator of year (see Appendix 1).

A couple's economic characteristics have the effect found in previous studies: men's less than full time employment is associated with a somewhat more egalitarian division of labor, whereas couples where women work less than full time have more traditional housework patterns. The greater the man's contribution to the household income, the more traditional the housework arrangements. Also, married couples and larger households are more traditional. We find that women as well as older respondents report a more traditional division of labor, whereas couples with at least one college educated partner indicate a more egalitarian division of labor.

Our results do not provide support for hypothesis 1 that suggested that individual and couple characteristics diminish over time. We find that the reporting gap between men and women deepens over time, and the results also suggests that the difference in the division of labor between households where the female partner works part time compared full time is greater in 2002 than in 1994. Moreover, the gap between married and cohabiting couples is greater in 2002 compared to 1994. This further underlines the relative stability in the average division of labor over time (shown earlier in Figure 1), but there is some evidence for change in housework allocation.

Although we do not find clear evidence of a trend over time in housework overall, we are particularly interested whether in there change varies across countries. The convergence hypothesis would predict greater change towards equality in less egalitarian countries, and this change could be masked by the overall lack of change in the more egalitarian countries, or by changes in sample composition and other characteristics. In a third step in our analysis, we test the convergence hypothesis by analyzing individual housework patterns in 2002, and regress them on the previously used individual level characteristics as well as on the aggregative/country level housework patterns in 1994. This allows us to understand to what extent the average housework in a country shapes households' domestic division of labor net of individual and couple characteristics. A non-significant coefficient would mean that the aggregate level housework context has no effect on household's division of labor.

#### TABLE 4 ABOUT HERE

Table 4 shows that in fact, aggregate housework context matters in shaping housework pattern beyond country context (which is accounted for through the random intercept) and individual characteristics. We allow for random variation in the effect of the 1994 housework



context across countries, but even once we take this variation into account, there is a significant relationship between the housework scores in the two years. The confidence interval we find ranges from 0.51 to 0.76. A coefficient between 0 and 1 indicates convergence towards more equality, since they have a greater absolute effect for greater absolute values, as illustrated by Figure 2. Since the housework scores in 1994 were negative, this means that the absolute change between 1994 and 2002 was greatest for the most conservative countries.

#### FIGURE 2 ABOUT HERE

Figure 2 demonstrates the effect of historical housework context on current housework patterns ranging from a conservative to an egalitarian division of labor. As expected, living in a more traditional country is associated with more conservative individual housework patterns, net of individual and couple characteristics. However, Figure 2 shows that the context effect is converging, and the context has a somewhat weaker effect for the very conservative countries. These findings provide clear support for the convergence hypothesis and suggest that the housework patterns are slowly converging cross-nationally.

### **Summary and Conclusions**

In this paper we examine the domestic division of labor in comparative perspective. We find that over time, the division of labor at home has become somewhat more egalitarian. At first glance, the descriptive evidence does not suggest that the housework patterns are converging across countries. We do not find evidence that individual and couple characteristics diminish over time. However, we do find that the reporting gap between men and women deepens over time, which could suggest that women may over report their share of housework (i.e. indicating that they do tasks always instead of usually) as a reflection of their discontent with the unequal

sharing. On the other hand, this could also mean that men's responses are increasingly subject to a social desirability bias, where they would like to portray themselves as sharing in the housework to a greater extent than is the case (or is reported by women). Our finding that the gap between married and cohabiting couples is greater in 2002 compared to 1994 may indicate the selection effect into marriage may be more pronounced as nontraditional couples are more likely to postpone marriage in favor of cohabitation. The finding that households where the woman works part time compared to full-time report a more traditional division of labor may reflect the women's ongoing integration in the full-time labor market. Although more research is necessary on this issue, these findings may imply that women's part time work may become discounted as full time work is more normative for most women.

Aggregate housework context matters in shaping housework patterns beyond country context and individual characteristics. Our findings suggest that, net of other characteristics, there is a trend towards more equality, as the change in housework patterns between 1994 and 2002 was greatest for countries with the most traditional division of labor; more traditional countries are becoming less unequal more rapidly than countries that are already more egalitarian.

Our finding of cross-national convergence in the domestic division of labor further adds to the body of research on cultural convergence. We find support for the argument that modernity is associated with a trend towards more gender egalitarianism. This optimistic outlook on the future of gender relations is hampered by the fact that the overall changes are only modest in nature, although our time window is admittedly narrow. Moreover, the convergence is not towards full equality. Even in the most egalitarian countries in our sample, women still are responsible for the majority of the housework. In that sense, both sides of the debate about the

future of gender equality seem to find support in our data. Future research will illuminate the level at which gender equality will converge.

Table 1: Countries and Sample Sizes (N=12,728)

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Australia	986
Austria	766
Bulgaria	630
Czech Republic	692
Germany (East)	512
Germany (West)	913
Great Britain	864
Hungary	844
New Zealand	780
Northern Ireland	347
Norway	1493
Poland	903
Russia	785
Slovenia	591
Sweden	878
USA	744

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Table 2. Descriptive Statistics (N=12,728)

Measure	Mean	Std. Dev	Min.	Max
Female	0.53		0	1
Age	40.51	8.29	25	55
Married	0.92		0	1
Household size	3.48	1.04	2	5
Man full-time	0.86		0	1
Man part-time	0.02		0	1
Man not employed	0.11		0	1
Woman full-time	0.56		0	1
Woman part-time	0.16		0	1
Woman not employed	0.28		0	1
College/university education	0.31		0	1
Men's share of HH income	0.63		0	1
Both years combined: Housework score	-2.75	2.01	-6	6

Table 3. Random Intercept Regression of Housework Score on Individual Characteristics, 1994 and 2002.

	1994		2002	
Female	-0.549	***	-0.886	***
	(0.093)		(0.123)	
Man working PT	0.536	**	0.922	***
	(0.193)		(0.242)	
Man not employed	0.431	**	0.493	***
	(0.149)		(0.111)	
Woman working PT	-0.296	**	-0.509	***
	(0.088)		(0.078)	
Woman not employed	-0.421	***	-0.516	***
	(0.085)		(0.131)	
Man's share of HH income	-0.397	**	-0.438	
	(0.130)		(0.239)	
Married	-0.151		-0.356	***
	(0.093)		(0.065)	
Age	-0.024		0.061	
	(0.058)		(0.032)	
Age squared	0.000		-0.001	**
	(0.001)		(<0.001)	
Gender attitudes	0.083	***	0.100	***
	(0.014)		(0.013)	
College degree	0.288	***	0.268	**
	(0.059)		(0.078)	
Household size	-0.150	***	-0.114	**
	(0.025)		(0.043)	
Intercept	-1.328		-2.985	***
	(1.163)		(0.726)	
N	6754		5974	
Log Likelihood	-13437.2		-12473.5	
Variance of Intercept	0.093		0.094	

Note: Numbers in parentheses are standard errors; \*  $p \leq 0.05$ , \*\*  $p \leq 0.01$ , \*\*\*  $p \leq 0.001$ ; Shading indicates significant difference of coefficients between years is based on a fully interactive model that allows for random variation of the intercept and the effect of time across countries (see Appendix 1).

Table 4. Random Coefficient Regression of 2002 Housework Scores on Individual Characteristics and 1994 Housework Scores

	2002 Housework Score
Aggregate HW in 1994	0.635 *** (0.109)
Female	-0.885 *** (0.124)
Man working PT	0.943 *** (0.244)
Man not employed	0.499 *** (0.114)
Woman working PT	-0.496 *** (0.066)
Woman not employed	-0.514 *** (0.125)
Man's share of HH income	-0.435 (0.231)
Married	-0.321 *** (0.072)
Age	0.061 (0.034)
Age squared	-0.001 ** (0.000)
Gender attitudes	0.097 *** (0.015)
College degree	0.289 *** (0.069)
Household size	-0.116 ** (0.042)
Intercept	-1.020 (0.940)
Random Effects:	
Random Intercept (Variance)	3.863
Random Slope of 94 HW (Variance)	0.738
Cov. Random Intercept, Random Slope	0.211
Residual Variance	0.066
N	5974
Log Likelihood	-12467.774

Note: Numbers in parentheses are standard errors; \*  $p \leq 0.05$ , \*\*  $p \leq 0.01$ , \*\*\*  $p \leq 0.001$ .

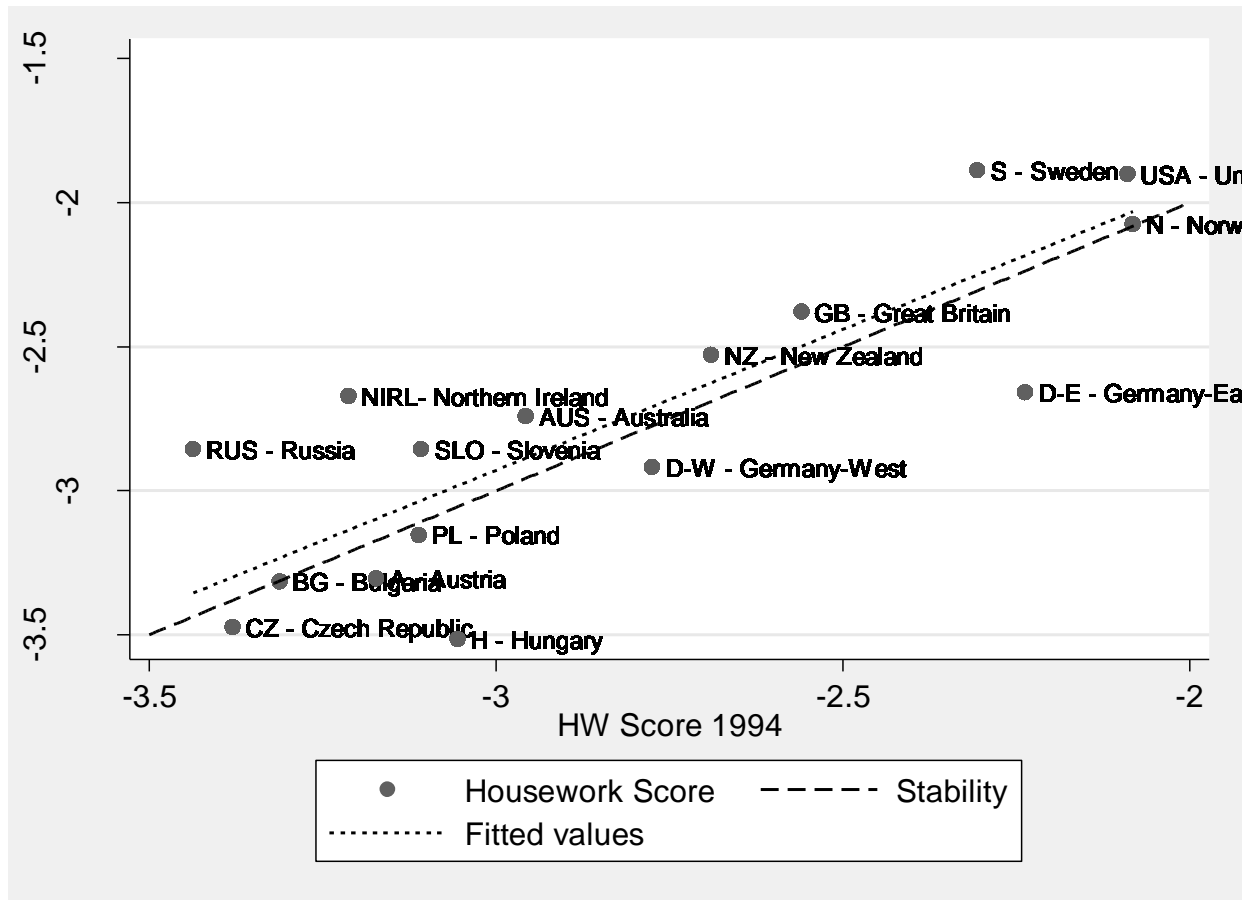
## Appendix 1. Fully Interactive Model

	Random Coefficient Model
Fixed Effects	
Female	-0.547 ***
*time	-0.346 *
Man PT	0.554 **
*time	0.388
Man Not Employed	0.438 ***
*time	0.086
Woman PT	-0.255 **
*time	-0.232 *
Woman Not Employed	-0.400 ***
*time	-0.094
Men's Share of HH Income	-0.393 ***
*time	-0.065
Married	-0.052 *
*time	-0.258 *
Age	-0.020
*time	0.087 *
Age Squared	0.000
*time	-0.001
Gender Attitudes	0.083 ***
*time	0.017
College	0.294 ***
*time	-0.003
Household Size	-0.150 ***
*time	0.032
Year	-1.441
Intercept	-1.421 **
Random Effects:	
Random Intercept (Variance)	0.208
Random Slope of Year (Variance)	0.190
Cov. Random Intercept, Random Slope	0.064
Residual Variance	3.447
Log likelihood	-25954.842

Note: N=12,728; \* p≤0.05, \*\* p≤0.01, \*\*\*p≤0.001. standard errors are not shown for ease of presentation and are available upon request.

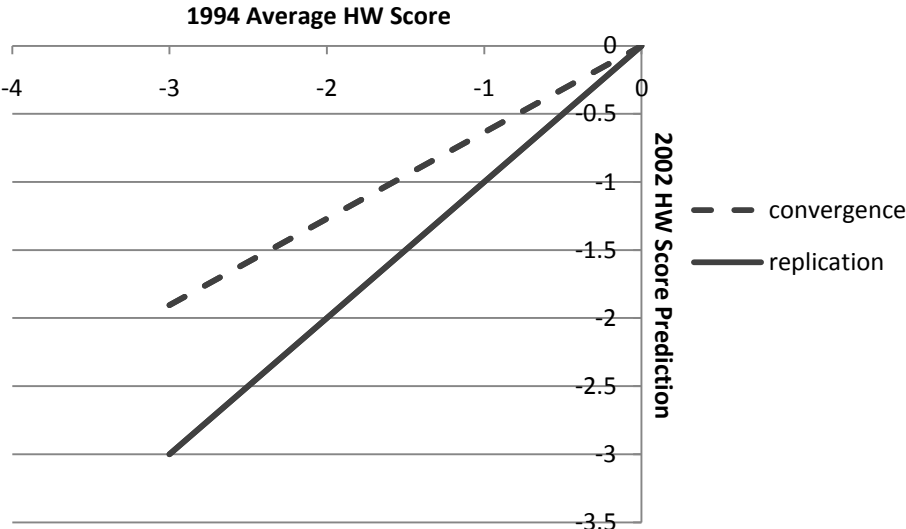


Figure1. Average Housework Scores 1994 and 2002



Note: Values are observed housework scores, averaged at the country level by year.

Figure 2. Simulation of the Link between 1994 Country Level Housework Context and 2002 Housework Scores



Note: Predicted values are based on regression results presented in Table 4.

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