

The Great Convergence: Gender and Unpaid Work in Europe and the United States

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Over the past decades, men's and women's time use in industrialized nations has changed dramatically, suggesting a gender revolution. Women increased their time in paid work and reduced time in unpaid activities, while men increased their time in unpaid work, but not enough to compensate for women's retreat. We investigate developments regarding men's and women's unpaid work across Europe and the United States, using time diary data from the mid-1980s and onward. We find evidence for gender convergence in unpaid work over time, but different trends for housework and childcare. Gender convergence in housework primarily resulted from women reducing their time, whereas childcare time increased for both sexes, resulting in convergence only where men increased more than did women. Decomposition analyses show that trends in housework and childcare are explained by changes in behavior rather than compositional changes in population characteristics. Though level differences in unpaid work persist, our findings regarding trends support gender convergence in that they are general across country contexts that vary regarding policy and social norms about gender, family, and work.

From a long-term perspective, men's and women's time use has changed dramatically. One of the most comprehensive changes taking place across Western nations in the past century has been the increase in female labor force participation, particularly that of married women and mothers (Goldin 1995, 2006). While women's paid work has increased, there has been a decrease in male labor force participation since young men have spent more time in education and older men have retired earlier. These developments have led to a convergence in labor force participation rates and the time spent by men and women in paid work (Gershuny 2000) and can be seen

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as the first stage in the gender revolution (Goldscheider et al. 2015; Stanfors and Goldscheider 2017).

Increase in women's paid work has meant changes in their engagement in unpaid activities. The time spent by women on home production has decreased substantially due to productivity increases through the spread of electrical appliances that have revolutionized domestic work,¹ but is most likely also due to changing norms and greater opportunities to combine paid work and family. In many countries, men increased their time in home production, albeit starting from very low levels (Bianchi et al. 2000; Coltrane 2000; Sullivan 2006). Thus, there has also been convergence, albeit slow, in the time spent by men and women in unpaid work (Gershuny 2000; Hook 2006; Kan et al. 2011; Leopold et al. 2018). Generally, convergence has been asymmetric in that women's time allocation has changed more than men's (Bianchi 2000; Bianchi et al. 2006; Sayer 2005; Stanfors and Goldscheider 2017). Moreover, women's time in unpaid work did not decline enough to compensate for the larger increase in their paid work time (Bianchi 2000), even when seen in combination with men's increased time in unpaid work, which occurred later (Stanfors and Goldscheider 2017). Still, women spend more time on both housework and childcare than do men, like a "second shift" (Hochschild 1989), even if they are employed or have similar (or higher) earnings than their partners (Greenstein 2000; Hook 2010; Sayer 2010, 2016; Schneider 2011). Some scholars have suggested that the gender revolution has stalled due to gendered family processes and institutions that together support a gendered division of labor, especially in the home (Cherlin 2016; England 2010). Proponents of convergence, however, argue that the gender revolution is ongoing and spreading because (young) men and women have adopted more gender-equal ideals and have adapted to a less gender-specialized use of time (Gershuny and Robinson 1988), though the process is slow (Bianchi et al. 2012; Sullivan et al. 2015). Men's, and particularly fathers', increasing involvement in unpaid work since 1990 can thus be seen as the second stage of the gender revolution (Altintas and Sullivan 2016; Goldscheider et al. 2015; Stanfors and Goldscheider 2017).

Though trends toward gender convergence in unpaid work are observed across Europe and the United States, cross-national studies indicate that gender gaps and level differences in housework and childcare are determined by complex relationships between microlevel characteristics and macrolevel factors such as economic development, policy and welfare state arrangements, and social norms about gender and work (Altintas and Sullivan 2017; Fuwa 2004; Hook 2010; Neilson and Stanfors 2014; Pfau-Effinger 2005). There is more gender equality in housework and childcare in countries with higher levels of female labor force participation, greater provision of publicly funded childcare, parental leave rather than maternity leave programs, and more egalitarian gender attitudes (Cooke and Baxter 2010; Treas and Drobnic 2010). These patterns reflect fundamental

differences between countries not only in terms of ideologies and institutions supporting full employment irrespective of gender but also in terms of risk-sharing and the role of the family versus the state where interventions are made in the private sphere (i.e., through welfare state arrangements and work–family policy). Analyzing differences across countries therefore helps us understand gender inequalities in unpaid work (Bianchi et al. 2012; Yu 2015).

Persistent gender differences in unpaid work when seen across countries lead us to ask whether a more equal sharing (i.e., convergence) of such activities is a distant goal. Although there are economic incentives for both men and women to participate in the labor market, the returns to unpaid work are less clear. The gendering of unpaid activities would even seem to be self-reproducing, which indicates that norms and behaviors adapt slowly to changes in the labor market and in the qualifications held by men and women. The fact that men are generally more likely to increase time with children (Gauthier et al. 2004; Neilson and Stanfors 2014; Sayer et al. 2004) than housework time leads us to believe that the answer to our question regarding gender convergence in unpaid work might be different if we consider only housework or childcare or the two combined. The answer to our question may also depend on which country we study and on how far the gender revolution has advanced in that context.

We are inspired by the seminal paper of Bianchi et al. (2000) that assessed trends in men's and women's housework time in the United States between the mid-1960s and the mid-1980s. The present work is an update, an extension, and an elaboration of this paper. We thus add to the literature on cross-national gender differences in unpaid work in several ways. We provide more evidence on convergence in men's and women's unpaid work over the past decades, from the mid-1980s to the early 2010s, using several time use surveys. We have also extended the geographical scope to include six industrialized countries (five in Europe plus the United States). The countries studied differ with respect to public policies, social norms and gender relations, the factors that should shape the way men and women take on responsibilities in the labor market and in the home. We have elaborated on the outcome variable and study both housework and childcare. This distinction is important because while housework time has declined over time, across countries, there is a trend toward intensive parenting since the 1980s, at least in the United States (Hays 1996; Lareau 2003). Though our focus is on trends in unpaid work among all men and women, we also establish whether trends are similar or different between parents and nonparents. Moreover, we have analyzed the factors that explain men's and women's time in unpaid work by disentangling the factors working for or against gender convergence in housework and childcare. More specifically, we ask whether trends are explained by compositional changes in the population (i.e., by characteristics such as education, employment, family

status) or whether trends are rather explained by behavioral and normative changes. We compare six countries with different levels of female labor force participation, policy ambitions regarding gender equality, and also different social norms. The countries explored are France, Italy, the Netherlands, Sweden, the United Kingdom, and the United States. We use nationally representative data from countries that feature different models for gender equality and work–family policy. The comparative approach allows us to assess both temporal and spatial dimensions of change in men’s and women’s housework and childcare time and if gender convergence can be observed across the countries studied.

Gender division of unpaid work

Why women spend more time than men on unpaid work—including housework and care for children and others—is a topic that has received much attention from scholars across the social sciences (e.g., Akerlof and Kranton 2000; Berk 1985; Becker 1965, 1985; Oakley 1974). The question of why there are gender differences in unpaid work has become more, not less, relevant in present-day country contexts where men’s and women’s qualifications and labor market participation have converged, more people are embracing gender equality in the labor market and in the home, and policies and institutions (at least in some countries) actively support equality, yet where differences in unpaid work persist.² The debate largely stands between whether women do more unpaid work due to rational choice and because they are systematically different from men in terms of characteristics or whether they do more unpaid work in order to conform with gender norms and social pressure arising from unequal power structures in partnerships and in society. The first perspective builds on economic and social theories on gender division of labor in the broader context of the organization of family life and is generally preferred by proponents of gender convergence, while those who emphasize a stalled revolution tend to side with the gender perspective.

Specialization, time availability, and unequal relative resources

A large literature relates to theory that explains gender differences in unpaid work in economic terms. Becker (1965) modeled choice relating to the allocation of time in paid and unpaid work as rational, yet restricted, and as being determined by returns to specialization and trade within marriage with the goal of maximizing family utility. In this process, men and women specialize in paid and unpaid work, respectively, because of human capital and biological differences that generate comparative advantages in the labor market and in the home (Becker 1991). Relatedly, the “time availability”

approach states that employment and work hours set limits for how much time there is for unpaid activities and reduce time spent on housework and childcare (Coverman 1985). This explanation fits well with the historical narrative, but also implies that if men and women become more equal with respect to the human capital determining their earnings potential and work hours, we should observe a more equal division of labor whereby men and women do more similar amounts of paid and unpaid work. A stronger position of women in the labor market should also speed up gender convergence in unpaid work because of more equal relative resources determining bargaining outcomes.

Bargaining models, grounded in both social exchange theory and game theory, arrive at the same predictions as specialization theory, but through different mechanisms as they incorporate power differentials between men and women (Lundberg and Pollak 1996). The bargaining literature has suggested that the more resources (from education and employment) an individual has, the more influence over time allocation. This implies that higher earnings and more equal relative resources improve women's bargaining power and result in more gender-equal time allocations over time. A key element of the bargaining models is that those who bargain want to bargain away something by leveraging their relative resources of education and earnings (Blood and Wolfe 1960; Shelton and John 1996). This is understandable in the case of housework but less so for childcare, which many men and women enjoy more than other tasks (Sullivan 2013). With improved relative resources, and less gendered power relations, women are more likely to transfer less desirable tasks to others, including their partners. This would lead to more rapid gender convergence in unpaid work, especially in housework, if men increased their time in addition to women scaling back, particularly in country contexts where social norms support dual earning and men's involvement in unpaid work.

Gender perspectives

Another literature on gender differences in unpaid work stresses the power of gendered norms and expectations. In contrast to economic and social theory, the gendered division of labor is supporting unequal power relations between men and women rather than efficient production of household goods and services (Lennon and Rosenfield 1994; Thompson and Walker 1995). In line with this, unpaid work is still women's work and takes up more of their time (Twiggs et al. 1999). Men and women do different amounts of unpaid work because they internalize societal norms and values. From an early age individuals are socialized into different gender identities and different sets of preferences (Cunningham 2001; Risman 1998). Men and women also do different amounts of unpaid work and contribute to what is normative on the basis of their behavior and social interactions, either through

confirming or rejecting prevailing norms and power relations (Berk 1985; Brines 1994; Ridgeway 2011; Risman 1998; West and Zimmerman 1987). Women's greater involvement in housework and childcare may thus be related to "doing gender" (i.e., reproducing gendered power relations) or affirming gender identity (Akerlof and Kranton 2000). There is a tension in that ideas about gender equality in the public sphere may be combined with gender essentialist views about men's and women's roles in the private sphere (Charles and Bradley 2009; England 2010; Yu 2015). On the other hand, individual-level ideals in favor of more gender-equal distributions of unpaid work may be difficult to achieve in that they can be outmoded by macrolevel gender inequality embodied in policies (social as well as at the workplace level) and welfare state arrangements that slow down gender convergence (Pedulla and Thébaud 2015).

Cross-national variation

Each context, historical or geographical, is gendered both when it comes to expectations about gendered behavior and opportunities for men and women to acquire education and participate in the labor market. Ideas about gender equality in the public and private spheres are important for cross-national variation in the degree to which men and women specialize in paid and unpaid work. Macrolevel explanations emphasize that structural and cultural factors shape the way men and women take on responsibilities in the labor market and in the home (Fuwa 2004; Geist 2005; Hook 2006; Sayer 2010). Some argue that between-country variation in gender divisions of labor depends on welfare regime and work-family policies available (Altintas and Sullivan 2017; Anxo et al. 2011; Hook 2006; Sullivan and Gershuny 2001). Commitment to the dual-earner model and family support policies can influence patterns in the gender division of labor. The aim, scope, and orientation of such policies differ with welfare regime type.

Esping-Andersen's (1990, 1999) typology of welfare states is commonly used to characterize Western nations according to the way in which the welfare state distributes social risks and on what the roles of the state, market, family and the individual are. In brief, in Conservative (often Continental European) countries, social rights are selective and linked to employment, and the family together with the Church and the workplace are important welfare providers rather than the state. In liberal Anglo-Saxon countries, the provision of welfare is minimal, social rights are modest with strict entitlement rules, market dependence is high and the individual's position in the labor market is central in this respect. In Social Democratic countries such as the Nordics, the state is the main provider of general and universal welfare granted as a right to all individuals. Alternative classifications have added more types to Esping-Andersen's original typology (Arts and Gelissen 2002). One is a Southern (European) model characterized by

strong familialism, low social expenditure, and the lack of an articulated social minimum of benefits. Hybrid cases have also been identified, such as the Netherlands, which combine features from the Social Democratic and Liberal regime types.

Though subject to debate, this welfare regime typology is also a useful framework for exploring gender relations across country contexts.³ There is not an exact overlap between welfare regime types and cross-national differences in gender equality because the social influences of unpaid work are highly gendered, not least when it comes to maternal employment (Boeckmann et al. 2015; Cooke and Baxter 2010; Craig and Mullan 2010). Nevertheless, welfare state types generally reflect the extent of state support to individuals and families and how policies regulate labor market participation, promote egalitarianism in general, and gender equality in particular. The Social Democratic countries were early adopters of gender-neutral policies and the so-called dual-earner/dual-carer model, which eases work-family conflicts by reducing constraints through a package of gender-neutral parental leave programs with high levels of income replacement, reduced working hours for parents, family income support, and publicly provided (highly subsidized) childcare (Gornick and Meyers 2003). Such policies can not only increase female, and especially maternal, employment, but they can also affect men's involvement in domestic activities (Hook 2006). Conservative and Liberal welfare states are generally less oriented toward reducing gender inequalities. They are more committed toward male breadwinning/female caregiving, resulting in a stricter gender division of labor with lower levels of female labor force participation and less involvement of men in unpaid work (Neilson and Stanfors 2014). Compared to the Social Democratic countries, policies are restrictive in Liberal welfare states and gendered in Conservative countries. In Southern European countries, policies are both restrictive and gendered and issues regarding gender equality do not rank high on the political agenda.

This study: Gender and unpaid work in Europe and the United States

We have investigated the division of unpaid work between men and women in France, Italy, the Netherlands, Sweden, the United Kingdom, and the United States. All countries receive low values on the Global Gender Gap Index (GGGI), which indicates very high levels of gender equality (World Economic Forum 2018).⁴ Since the mid-2000s, Sweden (together with three other Nordic countries) has been among the top four performers (Table 1). France, the Netherlands, and the United Kingdom are among the top 20 and ranked close to each other in 2015, while the United States and Italy have a lower ranking (numbers 28 and 41, respectively). Of note, both France and

TABLE 1 Contextual indicators for France, Italy, the Netherlands, Sweden, the United Kingdom, and the United States

	France		Italy		The Netherlands		Sweden		UK		USA	
	1985	2015	1985	2015	1985	2015	1985	2015	1985	2015	1985	2015
Labor market												
Female labor force participation rate (age 15–64)	55.6	67.6	40.2	54.9	40.9	74.7	79.3	79.9	62.4	72.5	64.1	66.9
Male labor force participation rate (age 15–64)	77.3	75.5	76.3	75.2	75.3	84.6	86.3	83.5	88.1	82.8	85.4	78.5
Women's share of part-time employment (a)	82.4	78.1	72.1	73.2	74.4	70.8	77.6	67.1	80.7	73.8	68.0	64.2
Average usual weekly hours on main job (a)	36.1	36.0	37.4	35.5	30.6	29.0	36.9(e)	35.8	37.1	36.6	38.9	38.6
Women working less than 35 hours a week (%)	25.8	30.9	22.2	42.2	54.0	77.1	45.1(g)	34.3	47.7	47.4	27.9	24.0
Men working less than 35 hours a week (%)	5.8	9.3	5.0	12.0	8.4	28.3	6.7(g)	15.7	6.0	15.9	10.9	11.6
Women working more than 40 hours a week (%)	22.5	22.8	57.9	37.8	37.5	12.0	43.2(g)	48.5	23.9	28.6	60.5	67.4
Men working more than 40 hours a week (%)	40.5	41.6	49.6	79.6	76.3	50.7	84.5(g)	70.0	71.2	62.1	84.6	84.3
Welfare regime												
Proportion of children 0–2 years in childcare and preschool services (2014)	na	51.9	na	24.2	na	55.9	na	46.9	na	33.6	na	28.0

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TABLE 1 (continued)

	France		Italy		The Netherlands		Sweden		UK		USA	
	1985	2015	1985	2015	1985	2015	1985	2015	1985	2015	1985	2015
Proportion of children 3–5 years in childcare and preschool services (2014)	na	100	na	95.1	na	92.0	na	94.3	na	93.7	na	66.8
Public spending on family benefits in cash, services and tax breaks as percent of GDP(b)	2.6	3.7	0.9	2.0	2.0	1.9	3.7	3.6	2.1	4.0	0.6	1.1
Total paid leave for women (maternity + parental) in weeks (c)	16	42/110	47.7	47.7	12	16	52	60	18	39	0	0
Total paid leave reserved for fathers in weeks (c)	0	28/54	0	0.2	0	0.4	1.4	10	0	2	0	0
Gender relations												
Rank Global Gender Gap (d)	70	15	77	41	13	16	1	4	9	18	23	28
Gender Inequality Index (h) Demography	18	21	15	26	4	7	1	14	20	16	31	10
Crude divorce rate (divorces per 1,000 people)	1.9	2.1	0.3	0.9	2.3	2.1	2.4	2.7	2.8	2.0	5.0	3.2
Total fertility rate (TFR)	1.81	1.92	1.45	1.35	1.51	1.66	1.73	1.85	1.79	1.80	1.84	1.84

NOTE: (a) Earlier data: 2000. (b) Data for 1985 do not include tax-breaks for families. (c) In France: families with one child/two and more children. (d) Earlier data: 2006; (e) 2002; (f) 2012; (g) 1987; (h) 1995. na means not available.

SOURCE: OECD Employment Database, OECD Family Database, World Economic Forum (2018).

Italy considerably improved their ranking as of 2006 when they were both ranked 70th.

Other indicators presented in Table 1 have been selected to illustrate salient differences between countries of relevance for our study. In alignment with the theoretical discussion above, we have chosen labor market indicators to illustrate the degree of specialization in paid work between men and women. We show indicators of welfare state regime in order to illustrate institutional differences between countries in terms of their commitment to dual earning through state support facilitating the combination of paid and unpaid work and commitment to dual caring/gender-neutral parenthood. Finally, we present some demographic indicators.

Table 1 shows that men are more involved in paid work than women across the countries studied. Female labor force participation is trending upward across countries, supporting gender convergence. Women are, however, more likely to work part-time (Boeckmann et al. 2015). The relative positions of countries with respect to women in the labor market have been stable over time. From the mid-1980s, female labor force participation has been highest in Sweden, in part because of the important role of public-sector employment. It increased sharply in the Netherlands, partly due to extensive part-time employment, though women's participation in paid work also made considerable progress in France, Italy and the United Kingdom. Table 1 indicates variation in the degree of specialization across countries: less so in Sweden compared to other countries, and mostly so in Italy.

The countries investigated represent different welfare regimes: Sweden serves as an example of a Social Democratic welfare state, France represents the Conservative model, the United Kingdom and the United States belong to the liberal Anglo-Saxon model, and Italy is an example of the Southern Model. The Netherlands is a hybrid case. The countries explored possess distinguishable macrolevel policy mixes, especially when considering the generosity and design of policies that reconcile work–family conflicts, facilitate mothers' employment and encourage men's involvement in domestic activities. Public expenditures on family benefits have been high in the United Kingdom, France, and Sweden from the mid-1980s, although there is variation in the extent to which these expenditures have been directed toward cash benefits or subsidies, which has a bearing on the in-home or institutionalized daycare of children, and whether they are universal or targeted to certain groups. Hence, childcare provision for young children is more extensive in France and Sweden than in the United Kingdom, as illustrated by the enrolment rates for young children. Public spending on family benefits is very low in the United States, where childcare is mainly private and statutory paid parental leave does not exist. Paid leave for women varies substantially across Europe with respect to duration and benefits, with the highest entitlements in terms of time and

a low flat rate in France, discouraging low-skilled mothers' labor force participation. The way men are perceived as carers also varies with much more paid leave being reserved for fathers in France and Sweden than elsewhere.⁵ Childcare enrolment rates for children under three vary more across countries than they do for children aged 3–5. When it comes to state support for families and how that might affect the division of labor between men and women, the combination of measures applied has been the important factor. All this considered, Sweden and France mark themselves as providing comprehensive (though qualitatively different) support for families, while Italy and the United States rank the lowest in this respect.

As for gender ideology, gender role attitudes have become less traditional, and more egalitarian, in all study countries, though cross-country differences persist (Table 2). We show indicators reflecting the norms regarding the division of labor on the basis of the responses given on male- and dual-breadwinning; on whether it is perceived as harmful to young children that their mother works; and on whether fathers' involvement in child and home care is accepted. When it comes to norms reflecting gender equality, the ranking of countries is similar to that of the GGI in that dual earning is most commonly accepted in Sweden and least accepted in Italy and the Netherlands. There is a strong support for working mothers in the United Kingdom and the United States in that respondents are much more likely to disagree with the idea that this could be harmful to children than are respondents elsewhere. Respondents in the United Kingdom are also very accepting of fathers' involvement in child and home care. Furthermore, they are in agreement with the respondents in France and Sweden in believing that men and women should share equal responsibility for family tasks and that fathers are as well-suited for looking after children.⁶ Values provide a fuzzier picture than other indicators, indicating a tension between ideals and reality in some country contexts.

Hypotheses

In line with the preceding discussions on theory and national context, we make the following conjectures. The theoretical approaches all involve assumed impacts on the division of unpaid work between men and women. From the economic and sociological perspectives, it is expected that women's increased human capital and orientation toward paid work will reduce their time in unpaid work. More equal relative resources should also affect women's unpaid work time, enabling women to bargain away housework or set a new (lower) standard for it. This should imply that men increase their inputs within the domestic sphere. More emphasis on gender equality and egalitarian gender roles in the labor market and in the home should also imply a reduction of women's unpaid work over time while men's time in housework and childcare should increase. Thus, we expect

TABLE 2. Share of respondents agreeing or disagreeing with certain gender norms for France, Italy, the Netherlands, Sweden, United Kingdom, and the United States

	France			Italy			The Netherlands			Sweden			UK		USA		
	1990	1999	2008	1990	1999	2009	1990	1999	2008	1990	1999	2009	1990	1999	2009	1990	1990
Strongly disagree: <i>Being a housewife is just as fulfilling as working for pay</i> (a)	8.5	12.8	14.5	7.9	7.7	9.5	7.4	9.5	8	14.9	14.4	11.9	60.9	60.1	69.5	74.5	74.5
Disagree: <i>When jobs are scarce, men have more right to a job than women</i> (b)	58.9	68.3	84.5	47.7	56.8	67.6	69.9	83.4	85.3	87.9	93.4	97.5	35	21	13.6	23.8	23.8
Agree strongly: <i>Both the husband and wife should contribute to household income</i> (a)	37.5	43.9	58.5	24	24.9	28.6	8.5	7.8	9.5	60.5	57.2	44.7	53.3	45.6	37.2	51.7	51.7
Strongly disagree: <i>A preschool child is likely to suffer if his or her mother works</i> (a)	6.7	17.6	27.9	2.1	1.1	2.6	6	12.3	15.4	9.7	28.2	31.9	72	68.9	73	67	67
Agree strongly: <i>Men should take as much responsibility as women for the home and children</i> (a)			65			34.7			23.1			62.1			93.7		
Agree strongly: <i>In general, fathers are as well-suited to look after their children as mothers</i> (a)		42.1	54.1		16.1	18.1		22.4	20.6		59.6	45		70.8	77.3		

NOTE: Questions were formulated as: (a) People talk about the changing roles of men and women today. For each of the following statements I read out, can you tell me how much you agree with each. Please use the responses on this card. 1 Agree strongly/2 Agree/3 Disagree/4 Disagree strongly. (b) Do you agree or disagree with the following statements? 1 Agree/2 Disagree/3 Neither.

SOURCE: European Value Survey 1990, 1999 and 2008. (<https://zaccat.gesis.org/webview/index.jsp?object=http://zaccat.gesis.org/obj/ICatalog/Catalog5>); World Value Survey 1990 (<http://www.worldvaluessurvey.org/wvs.jsp>).

gender convergence over time in housework and childcare across national contexts (H1).

Convergence may come from women reducing their unpaid work time, or from men doing more unpaid work, or it may come from change in the behaviors of both men and women. We expect women to be the main agents of change over time across contexts because they are more affected by changes in the labor market and in the scope of policies supporting the combination of work and family. We expect changes in housework to be most salient among women (H2). We expect changes in childcare to be bigger than changes in the time spent on housework among men (H3) because of widespread attitudes toward active fathering, trends toward intensive parenting, and more policies supporting gender-neutral parenting than there are policy incentives and support for an equal sharing of housework.

We expect the degree of gender convergence in unpaid work to vary across national contexts (H4), reflecting different orientation toward the dual-earner/dual-carer model, especially important for parents, for example through family benefits, leave policies and provision of (public) childcare. We expect national context to be more important for change in men's involvement in childcare than in housework (H5). Gender convergence seems to be developing along regime type lines, with Liberal and, in particular, Social Democratic countries showing a relatively faster and earlier convergence than their Conservative counterparts. One early indicator that the gender division of labor is becoming more gender-neutral is that men are performing more childcare as a way into the domestic sphere (Craig and Mullan 2010; Hook and Wolfe 2012; Sayer and Gornick 2012; Stanfors and Goldscheider 2017). In this respect, individuals may be more or less constrained in their time allocation choices by the regime type in question. We anticipate that unpaid work time is converging along gender lines across Europe and the United States, but that there are still gender differences in line with specialization across countries, potentially with the exception of Sweden, which is a well-known forerunner when it comes to gender equality, not least among parents (Dribe and Stanfors 2009; Neilson and Stanfors 2014). Countervailing factors such as low spending on family benefits and low childcare enrolment may hinder gender equality in the domestic sphere, despite attitudes supporting dual earning, implying that there should be a more traditional division of labor in Continental Europe and the Anglo-Saxon countries compared to Sweden.

Theories about specialization, time availability, and bargaining/relative resources emphasize that changes in women's human capital and employment are important determinants of changes in unpaid work. Gender theories, in contrast, stress the role of changing and conflicting norms. Institutional factors are important for supporting change in characteristics, but also for supporting change in norms and values regarding gender

equality and work orientation. We have good reason to believe that change over time is partly determined by compositional factors because there have been great advances in (particularly women's) education, work patterns, and change in family structure; however, there have also been dramatic changes in norms that are perhaps independent of advances in human capital and family lifestyle. We thus remain agnostic as to whether change is primarily determined by observable characteristics that we can control for or by changing behavior and norms. To the extent that changing norms and practices provide the main explanation, we expect this to be the case primarily in Sweden (H6).

Data

Time-use surveys are good sources of information on time measures and allow cross-country comparisons (Juster and Stafford 1991). They provide particularly reliable information if based on the time diary technique, whereby individuals report their time use over a 24-hour period at ten or fifteen-minute intervals. We have selected two surveys for each study country, taken directly from each country's data provider: one for the mid-1980s (or the earliest available) and one for the 2010s (or the latest available, see Table A1 in the Supporting Information for survey details). We have thus used data from 12 time diary surveys from France (1985/1986 and 2009/2010), Italy (1988/1989 and 2008/2009), the Netherlands (1985 and 2005), the United Kingdom (1983/1984 and 2014/2015), Sweden (1990/1991 and 2010/2011), and the United States (1985 and 2010). Each sample is nationally representative. Weights control for over- and under-sampling of certain population groups and interview days in both descriptive statistics and model estimates.

The surveys present some differences in the sample design, existence, and number of precoded activities, the length of the time slot and the number of daily diaries. However, these methodological differences should not be a source of significant bias in our analysis since time diary data is generally robust to variation in data collection (Sayer 2010). Importantly, the coding of the groups of activities focused on in our analysis has been harmonized by looking at most detailed categories to ensure comparability across countries and over time.⁷ We have analyzed both weekday and weekend entries for each country. All surveys include information on the demographic and socioeconomic situation of individuals and households.

Sample

For each country, we selected a sample of working age (20–60) men and women who completed time diaries. Respondents all belong to one-family

TABLE 3 Sample sizes

	Survey year	Age 20–60		Age 20–60 with children (<18) in household		Age 20–60 without children (<18) in household	
		Men	Women	Men	Women	Men	Women
		France	1985/1986	5,451	6,251	3,038	3,529
	2009/2010	4,957	5,712	2,359	2,817	2,598	2,895
Italy	1988/1989	9,974	10,810	5,239	5,528	4,735	5,282
	2008/2009	10,417	10,897	3,806	4,284	6,611	6,613
The Netherlands	1985	1,015	1,337	499	799	516	538
	2005	624	797	289	344	335	453
Sweden	1990/1991	3,354	3,925	1,466	2,344	1,888	1,581
	2010/2011	1,901	2,549	873	1,365	1,028	1,184
UK	1983/1984	2,431	3,746	1,359	2,211	1,072	1,535
	2014/2015	4,390	5,218	1,686	2,349	2,704	2,869
USA	1985	1,173	1,402	530	650	643	752
	2010	3,534	4,396	1,974	2,772	1,560	1,624

households that do not include kin and others. Individuals older than 60 years were excluded because of their specificity in terms of employment status (often retired), health and family structure (usually alone as a couple) correlated with time allocation. The analysis of childcare included only individuals with at least one child under 18 in the household. Sample sizes are reported in Table 3.

Measures

Two broad time use categories consisting of unpaid work activities—housework and childcare—were constructed to serve as our main dependent variables. The aggregated measures are based on main activities reported in individual diaries. *Housework* includes activities done around the house on a daily basis. It contains both *core housework* that includes routine tasks such as cooking, washing up, cleaning and laundry and *discretionary housework* that includes activities performed less often, such as home repairs and gardening, shopping, household administration and care for adult family members. Generally, discretionary housework can be scheduled to fit in with other commitments more easily than core housework. *Childcare* includes a range of activities directly aimed at children in the household, such as routine tasks including nappy changing, dressing, feeding and bathing, and transport related to children’s activities, hereafter called *routine childcare*, as well as interactive activities such as reading, talking, playing, and supervising homework that constitute *developmental childcare*.

Methods

Our analysis includes a descriptive part on trends in average housework and childcare time for men and women across Europe and the United States, starting in the mid-1980s, with the goal to establish whether there has been gender convergence over the recent decades for all men and women and dependent on whether they have children under 18 in the household. The comparison of changes in average time between countries, gender and tasks allows us to test hypotheses H1–H5. Since the surveys did not take place in exactly the same years in different countries, and the duration between the two surveys is not the same, we calculated yearly growth rates that allow us to measure and compare the speed of changes. These yearly growth rates can also be used to predict the values of housework and childcare for years for which time-use survey is not available. To investigate which factors explain change in the time men and women devote to housework and childcare (H6), and to further investigate time period differences, we employed an Oaxaca-Blinder decomposition (Blinder 1973; Oaxaca 1973). This method allows us to partition change in housework and childcare between the mid-1980s and 2010s into two components; the contribution due to changes in the population, and that which is behavioral or unexplained by changes in population characteristics measured by the explanatory variables. This approach is relevant because observed changes over the past decades in time devoted to housework and childcare time may be driven compositionally, but also be behavioral, or driven by some combination of composition and behavior. This approach has become increasingly common in cross-national family research as a means of placing families in context and inferring macrolevel influences on the gendered division of unpaid work (Yu 2015). To investigate whether change was driven by characteristics or residual unobserved factors, including behavior, we pooled the two surveys for each country, and performed decompositions on differences over our study period for dependent variables, separately by sex. This method first estimated linear regressions

$$T_{t+1} = \alpha_{t+1} + \beta_{t+1}\mathbf{X}_{t+1} + \varepsilon$$

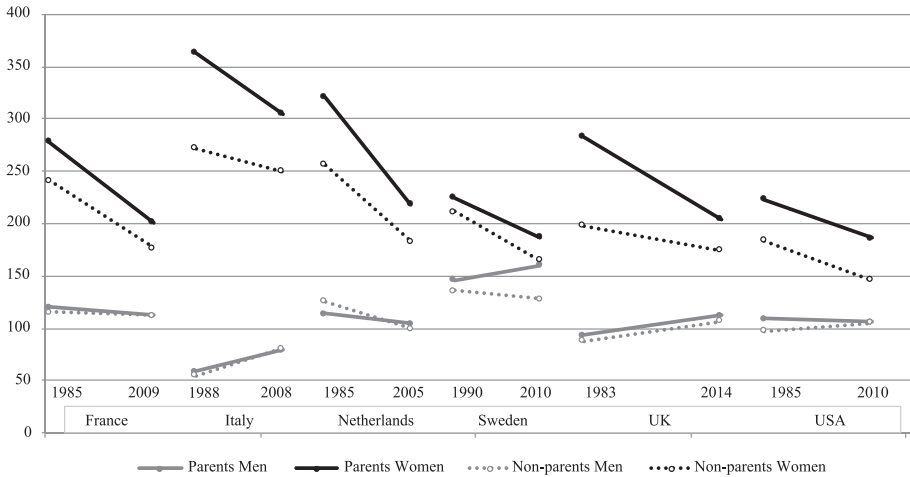
$$T_t = \alpha_t + \beta_t\mathbf{X}_t + \varepsilon$$

where T represented our dependent variable, β represented the coefficients, \mathbf{X} is a vector of time use determinants, ε the error term, and subscripts t and $t + 1$ for first and second surveys, respectively. Given the average first-stage values, the difference was next decomposed into two components:

$$\bar{T}_{t+1} - \bar{T}_t = (\alpha_{t+1} - \alpha_t) + (\beta_{t+1} - \beta_t)\bar{\mathbf{X}}_t + \beta_{t+1}(\bar{\mathbf{X}}_{t+1} - \bar{\mathbf{X}}_t)$$

The between-year difference in mean minutes was decomposed into the amount that we would expect in the last period (2010s), based on

FIGURE 1 Trends in men’s and women’s housework, differentiated by parental status (i.e., parents have at least one child under 18 in the household while nonparents have no child under 18 in the household)



first (mid-1980s/1990) sample characteristics (the structural component), $\beta_{t+1}(\bar{\mathbf{X}}_{t+1} - \bar{\mathbf{X}}_t)$ and the amount that is behavioral $(\beta_{t+1} - \beta_t)\bar{\mathbf{X}}_t$.

All analyses were undertaken separately by country and by sex, and include the same set of demographic and socioeconomic characteristics of potential importance for time in unpaid work. The controls include respondent’s age, whether the individual was living in a couple (married or cohabiting), the number of children in the household, whether there was a young child (preschooler) in the household, respondent’s level of education, and employment status. Educational attainment has been harmonized in three categories: low (lower than secondary education), medium (completed secondary education) and high (post-secondary studies). Employment status include: in employed, unemployed, student, homemaker, or for another reason outside the labor market. A dummy indicates part-time work. Finally, because time use varies over the week, a dummy variable for weekend day has been included in the model.

Results

Housework

Table 4 reports the amount of time men and women spent on average on housework per day, as well as change over the observation period. Trends in average time spent on housework, by country, sex, and parental status, are illustrated in Figure 1 (figures are given in Table A2 in the Supporting Information). Across countries, women, especially mothers (here defined as those with at least one child under 18 in the household),

TABLE 4 Daily housework time (weighted averages) by sex (minutes per day)

	Average time (minutes per day)			Women's share		Participation rate (%)		Average time for participants (minutes per day)	
	Men	Women	Difference	Men	Women	Men	Women	Men	Women
France									
1985–1986	117	260	143	69%	99	132	261		
2009–2010	112	189	77	63%	93	149	203		
Raw difference	-5	-71***	-66			17***	-58***		
Yearly growth	-0.18%	-1.32%				0.51%	-1.04%		
Italy									
1988/1989	57	318	261	85%	96	95	330		
2008/2009	80	272	192	77%	95	129	288		
Raw difference	23***	-46***	-69			34***	-42***		
Yearly growth	1.71%	-0.78%				1.54%	-0.68%		
The Netherlands									
1985	120	292	178	71%	100	123	292		
2005	102	199	102	62%	100	104	199		
Raw difference	-18***	-93***	-76			-19***	-93***		
Yearly growth	-0.81%	-1.90%				-0.84%	-1.90%		

/...

TABLE 4 (continued)

	Average time (minutes per day)			Participation rate (%)		Average time for participants (minutes per day)		
	Men	Women	Difference	Men's share	Men	Women	Men	Women
Sweden								
1990/1991	140	220	80	61%	92	98	153	224
2010/2011	142	175	33	55%	91	97	156	181
Raw difference	2	-45***	-47				3	-43***
Yearly growth	0.07%	-1.14%					0.10%	-1.06%
UK								
1983/1984	91	247	156	73%	79	96	115	258
2014/2015	109	186	77	63%	86	96	127	195
Raw difference	18***	-61***	-79				12***	-63***
Yearly growth	0.58%	-0.91%					0.32%	-0.90%
USA								
1985	102	202	100	66%	81	96	126	210
2010	105	167	62	61%	80	92	132	181
Raw difference	3	-35***	-38				6	-29***
Yearly growth	0.12%	-0.76%					0.19%	-0.59%

Asterisks indicate significant change compared to previous survey year at ***p < 0.01, **p < 0.05, *p < 0.1.

consistently devoted more time to housework than men. Another similarity across the countries studied is that housework time decreased over time, and so did the difference between men and women. There existed notable cross-country level differences in the amount of housework women did. In the 1980–1990s, women in Sweden and the United States spent more than three hours per day on housework, women in France and the United Kingdom did around four hours of housework, while women in Italy and the Netherlands devoted more than five hours per day to housework. Because almost all women performed housework on a daily basis, there were minor differences between average time for all and average time conditional on participation. In 2005–2015, women in Sweden and the United States spent less than three hours per day on housework, women in the United Kingdom, France and the Netherlands did somewhat more, while women in Italy still spent almost five hours per day on housework.

Cross-country differences were more limited when it comes to men's housework time, in actual minutes, which ranged over a more limited span (basically between one and two hours among all and around two hours conditional on participation). Men in France, the Netherlands and Sweden, on average, spent more time per day on housework than did men in the other countries. Men in Italy did least housework. In the 1980s–1990s, this pattern held up when conditioning on participation. In 2005–2015, the ordering of countries with respect to men's average housework time changed when looking at participants only, which indicates that in Italy and, to some extent, France, there was polarization of behaviors between men who were very involved in housework and men who did no housework.

Change in women's housework time was more pronounced than change among men; that is, women decreased their time in housework more than men increased their time. There was gender convergence in housework time across countries. For women, the average yearly rate of decrease was similar (approximately 1 percent) across the countries studied, though slower in Italy and faster in the Netherlands.⁸ This decline is slower than that observed during the 1960s and 1970s in the United States when the average yearly rate of decrease was around 2 percent.⁹ Women's reduction of time in housework during the period that we study was not compensated for by men's increase in housework time. Although American men doubled their housework time between the 1960s and the 1990s, our results show that their time in housework then remained stable until 2010, indicating a stall in gender convergence, as if the men had reached the limit of their involvement in housework. Near stability was also observed for men's housework time in France and Sweden. Over the decades studied, there was a reduction in the share of men who performed housework in France, which implies a change on the intensive margin. In Italy and the United Kingdom, both the proportion of male participants and the time men spent on housework increased over time, with change being more rapid in

Italy. Nevertheless, level differences in men's and women's housework time in Italy means that women still do most of the housework. There are, however, indications of gender convergence in housework, though this is a slow process. Change was more rapid in the Netherlands and the United Kingdom, and slower in Sweden and the United States. These patterns indicate that gender convergence is an uneven, and context-specific process and that it is slower in countries with the smallest gender gaps; that is, countries that have advanced the most.

Change in housework time was most pronounced among parents in the Netherlands, Sweden, and the United Kingdom, but through different processes (Figure 1). In Sweden and the United Kingdom, there was convergence because both mothers and fathers changed their housework inputs, while change in the Netherlands was driven by mothers. In Sweden, fathers increased their time in housework more than men who did not have children in the household. Among women, mothers reduced housework time more than other women, though not in Sweden and in the United States.

Despite convergence, gender segregation in household tasks persisted across the countries studied. Women still performed most of the core housework; that is, the everyday routine tasks such as meal preparation, cleaning and laundry that take much time, while men did more of the discretionary household tasks such as home repairs (see Table A3 in the Supporting Information, see also Bianchi et al. 2000; Sayer 2010). Over the past decades, change has been concentrated in the time devoted to core housework. In particular, the time spent on cooking and cleaning has decreased substantially in all countries, especially for women, likely attributable to time-saving household appliances and changing norms and standards regarding meals and cleanliness. Consequently, core housework makes up a smaller share of women's total housework but a larger share of the housework that men do. This is also true for parents who generally do more (core) housework, with the exception of the United Kingdom where the share of core housework has increased for mothers despite a decrease in their time inputs and the United States where there is little change.

Childcare

Table 5 reports the amount of time mothers and fathers spent on average on childcare per day, as well as change over the observation period. Trends in average time spent on childcare, by country and sex, are illustrated in Figure 2. As in the case of housework, women consistently devoted more time to childcare than men, but while housework time decreased, especially among women, childcare time increased. This increase came by both men and women increasing their time devoted to childcare (though not significantly for women in Sweden). Though women in Italy and the Netherlands increased their average daily time in childcare more than men, the average

TABLE 5 Daily childcare time (weighted averages) by sex (minutes per day) for parents, that is, those with at least one child under 18 in household

	Average time (minutes per day)				Participation rate (%)				Average time for participants (minutes per day)	
	Men		Women		Men		Women		Men	Women
	Men	Women	Difference	Women's share	Men	Women	Men	Women	Men	Women
France										
1985–1986	22	82	60	79%	45	76	49	81		
2009–2010	41	95	54	70%	51	74	107	128		
Raw difference	19***	13***	-6				58***	47***		
Yearly growth	2.63%	0.62%					3.31%	1.92%		
Italy										
1988	19	57	38	75%	27	61	68	92		
2008	44	107	63	71%	52	77	84	138		
Raw difference	25***	50***	25				16***	46***		
Yearly growth	4.29%	3.20%					1.06%	2.05%		
The Netherlands										
1985	27	75	48	74%	64	80	42	93		
2005	45	110	65	71%	77	90	58	122		
Raw difference	18***	35***	17				16***	29***		
Change (yearly average)	2.59%	1.93%					1.63%	1.37%		

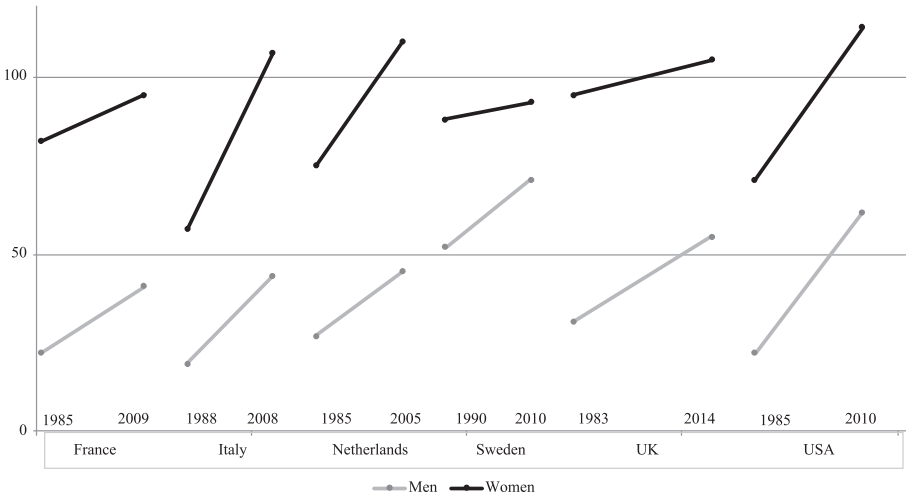
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TABLE 5 (continued)

	Average time (minutes per day)				Participation rate (%)				Average time for participants (minutes per day)	
	Men		Women		Men		Women		Men	Women
	Men	Women	Difference	Women's share	Men	Women	Men	Women	Men	Women
Sweden										
1990/1991	52	88	36	63%	58	74	88	121		
2010/2011	71	93	22	57%	67	75	107	120		
Raw difference	19***	5	-14				19***	-1		
Change (yearly average)	1.57%	0.28%					0.98%	-0.04%		
UK										
1983	31	95	64	75%	42	73	73	129		
2015	55	105	50	66%	55	77	101	137		
Raw difference	24***	10***	-14				28***	8***		
Change (yearly average)	2.32%	0.40%					1.31%	0.24%		
USA										
1985	22	71	49	76%	36	68	63	105		
2010	62	114	52	65%	55	76	111	150		
Raw difference	40***	43***	3				48***	45***		
Change (yearly average)	3.40%	1.54%					1.84%	1.16%		

Asterisks indicate significant change compared to previous survey year at ***p < 0.01, **p < 0.05, *p < 0.1.

FIGURE 2 Trends in men's and women's childcare time, parents (i.e., those with at least one child under 18 in the household) only



yearly increase was faster for men than for women across the countries studied. Moreover, there was a general increase in childcare participation among men. Parental time inputs into childcare were most comprehensive in Italy and in the United States, followed by the Netherlands. In France, Sweden and the United Kingdom, increases in parental time investments in children were more limited and concerned primarily men. In these three countries, differences between mothers' and fathers' average daily childcare time decreased. Though different configurations regarding sex, parenthood and childcare time, patterns of change indicate that women's share of total childcare time decreased everywhere. There was thus widespread gender convergence in childcare time, while time spent on this activity increased.¹⁰

Childcare was generally more equally shared among men and women than housework. The amount of time spent on childcare was, however, substantially less (about half or less) than the amount of time spent on housework across countries, even among participants (i.e., those who performed any housework at all on the diary day). Gender differences in daily childcare time were smallest in Sweden, followed by the United States, the United Kingdom, France, Italy and the Netherlands in the 2010s (generally but also largely conditional on participation). One can only partly understand these differences through state support to families, work–family policies, and female labor force participation.

When looking at what men and women did by way of childcare (Table A3 in the Supporting Information), we see that women consistently performed more routine childcare than men did. Over the decades studied,

men in France, Italy, and Sweden increased not only their time devoted to childcare but also increased their share of routine childcare. Men in the Netherlands, the United Kingdom, and the United States also increased their childcare time, but did not increase the share of routine childcare. At the same time, women in France, Italy, and Sweden also increased or kept up routine childcare efforts, while women in the other countries reduced their share of routine childcare to the benefit of more developmental childcare activities. The combination of men and women increasing their time in developmental childcare activities confirms the change toward time-intensive parenting practices, not only in the United States, but across countries with different policy orientations. Across countries, there has also been a general tendency to increase of the amount of time devoted to transport related to children's activities, which is very likely due to higher urbanization, but also to school choice and more extracurricular activities on the part of the children that also are aspects of concerted cultivation and intensive parenthood (Hays 1996; Lareau 2003).

What explains change over time?

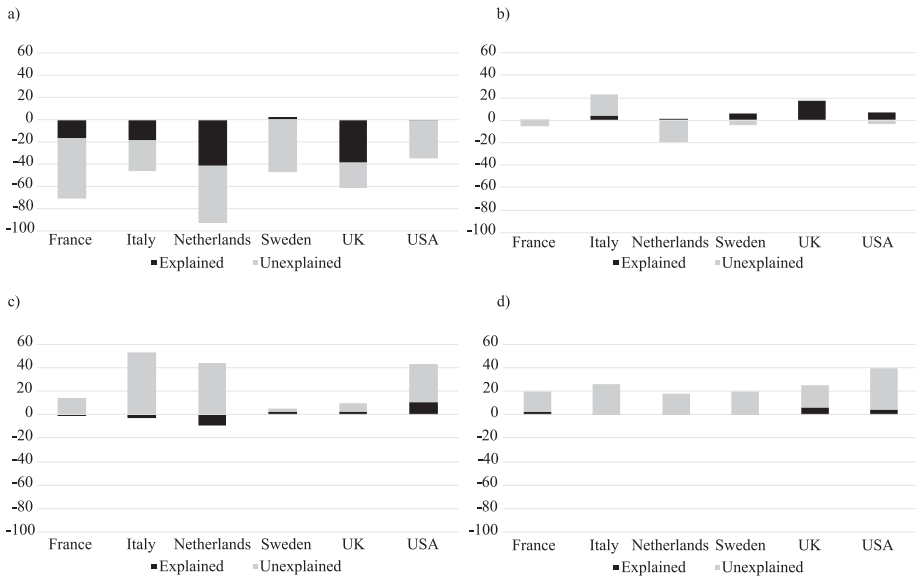
Decomposition of results

Housework

Table A4 in the Supporting Information presents the decomposition results of change in average daily housework time for men and women between survey waves, while Table A5 in the Supporting Information presents the decomposition results of change in average daily childcare time. Figure 3 summarizes the results of these decompositions. Complete regression results are available in Tables A6 and A7 in the Supporting Information. In the tables, the first three rows report the average time spent on housework or childcare in the mid-1980s/1990 and around 2010, and the raw difference between the two. This difference is then decomposed into two components, one being the part of the raw time gap explained by differences in observed characteristics of the population, and the other one being the part explained by the difference in the propensity of men and women respectively to do housework or childcare over time. This component is also called the “behavioral part.”

The main regression and decomposition results may be summarized as follows. A significant reduction in women's daily housework time—across countries—ranging from 35 minutes (United States) to 93 minutes (the Netherlands) is explained by a combination of compositional changes in population characteristics and behavioral change in France, Italy, the Netherlands, and the United Kingdom. The contribution of women's characteristics is particularly marked in the latter two countries, where they explain more than half of the change in housework time. In all four countries,

FIGURE 3 Main results of decompositions of change over time in women's and men's housework and childcare: (a) housework: women, (b) housework: men, (c) childcare: women, (d) childcare: men



change in women's employment status was the main driver of characteristics determining the reduction in housework. Change in women's characteristics does not explain the decrease in housework time in Sweden and in the United States, where the absolute decreases of housework time were the smallest. Compared to the other countries studied, the female labor force participation was already high in Sweden and the United States in the mid-1980s/early 1990s and remained so. The overall increase in the level of education among women has led, as in the other countries, to a decrease in their housework time, although to a lesser extent. Behavioral change is the main explanation for the decrease in women's housework time in almost all countries. For example, in the case of France, women's time in housework decreased by 71 minutes between 1985/1986 and 2009/2010. Only 16 minutes (23 percent) can be attributed to changing population characteristics. The rest (77 percent) should be related to the behavioral component. In Sweden and the United States, change in characteristics had no bearing at all on the decrease in women's housework time; attributing change to behavior.

For men, the regression and decomposition results presented in Table A6b in the Supporting Information and Figure 3 show that there was an increase in time spent on housework in Italy and the United Kingdom, no change in France, Sweden, and the United States, and a decrease in men's housework time between survey years in the Netherlands. Irrespective of

the direction of change among men, it was mainly explained by changing behavior and practices in Italy and the Netherlands. In the United Kingdom, change was explained by weekday/weekend differences, which is denoted as a change in characteristic but may well reflect behavior since time use is usually very different during weekdays and weekend days. In contrast to women, education and employment status played a minor role in explaining change over the past decades in men's housework time, probably because these factors changed less over time for men than they did for women.

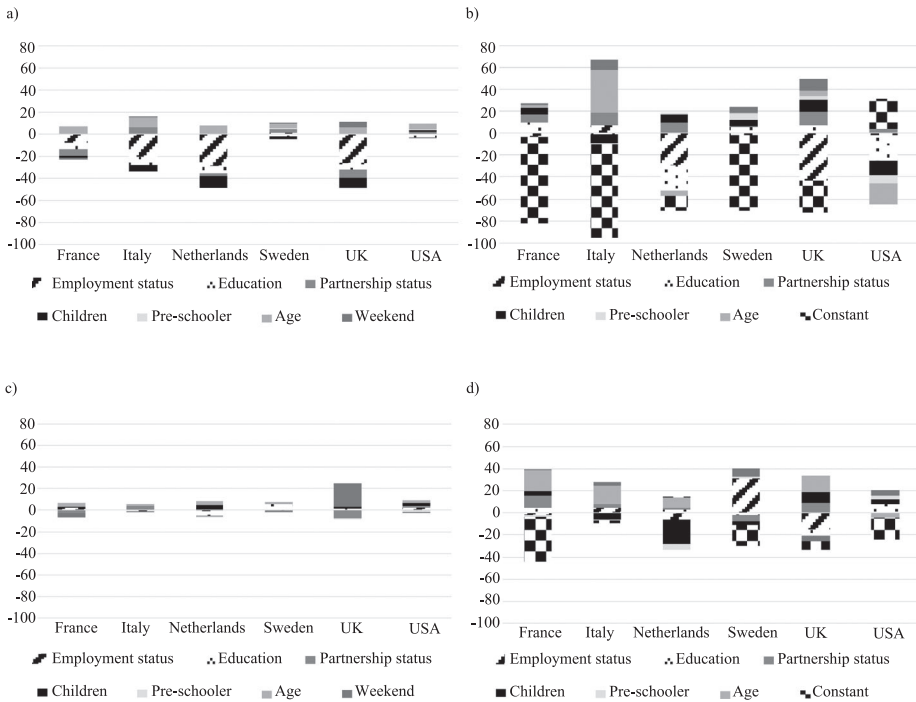
The decomposition results add information to the story of convergence in men's and women's housework time across Europe and the United States. In a way, the story is complex due to cross-country variation in change of the determinants of men's and women's housework time. Change is, however, mainly due to a decrease in women's time spent on housework, and the main explanation behind this change is behavioral change. For some countries in Europe, increasing female labor force participation is part of the explanation of women's reduced housework time from the mid-1980s onward, but not for countries where female labor force participation was high already in the 1980s (Sweden and the United States). Much change regarding housework time is behavioral. A significant share of the change in behavior stems from unobserved characteristics rather than from different behavior of subgroups over the period (i.e., the constant constitutes a large part of what is considered "behavior," see Table A6 in the Supporting Information and Figure 4). Thus, behavioral changes common to all women explain a large part of the decrease of housework time. In the Netherlands, the United Kingdom, and the United States, change is concentrated to certain subgroups; for example, employed and educated women, which have decreased their housework time more than others. Of note, among all women, family status and the presence of young children in the household have mixed results for change over time in housework time across countries.

In the case of men, change is also more a matter of behavioral change than change in characteristics. Contrary to the case of women, most of these behavioral changes are concentrated on some subgroups (though this is not the case in France). Of note, what is most distinct and common to all countries except for Sweden and the United States is an age effect with older men changing their behavior and spending more time on housework in the 2010s than in the mid-1980s.

Childcare

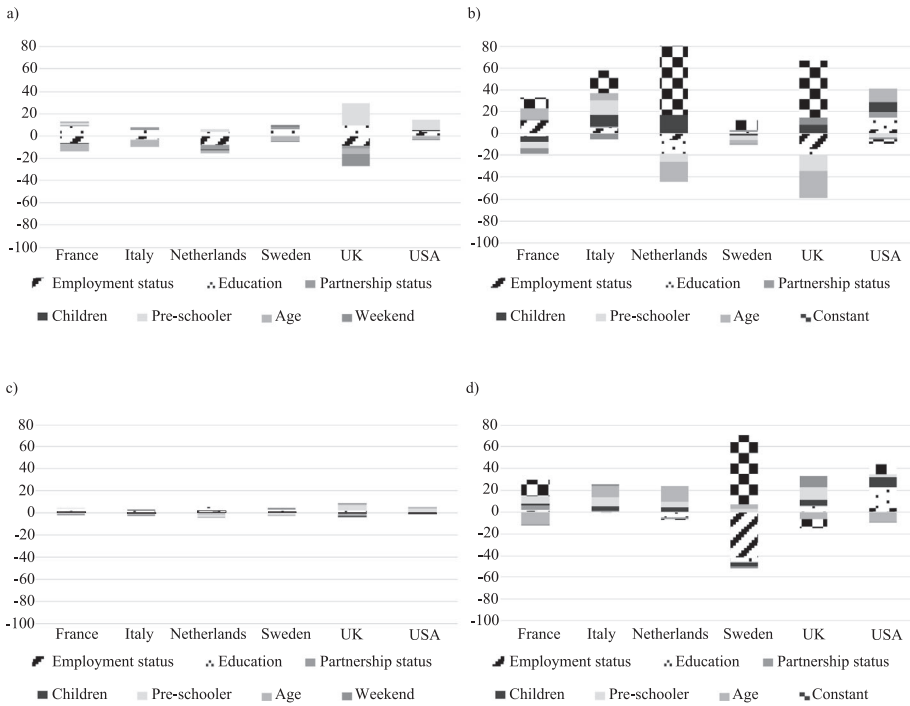
When it comes to childcare, Table A5 in the Supporting Information and Figure 3 show that there was an increase in time spent on this activity among women in all countries studied (though not significant for Sweden), ranging from 5 (Sweden) to 50 minutes (Italy) per day. Change in childcare

FIGURE 4 Decomposition of structural and behavioral factors determining change over time in women's and men's housework: (a) structural factors: women, (b) behavioral factors: women, (c) structural factors: men, (d) behavioral factors: men



time was mainly behavioral, indicating a trend toward intensive parenting in the sense that parents devote more time to their children, be it on routine or developmental childcare. Further, this increase was most substantial in Italy, the Netherlands, and the United States. Change in characteristics accounts only in small part for the change in mothers' childcare time, and, in some countries, actually reduced it. Though surpassed by change in parental practices, the details of the structural part of the difference between survey years show something interesting. Though the increase in female labor force participation tended to reduce mothers' childcare time, the increase in women's education had the reverse effect; not only has it become more common for women to be highly educated (see decomposition of the structural part in Table A5 in the Supporting Information and Figure 5), but they also devote more time to childcare over time (see decomposition of the behavioral part). In all countries, except for the United States, change in women's education trumps change in their employment status. Increasing time with children is also visible in coefficients associated with family structure, including number of children and presence of a preschooler in the household (behavioral part). Generally, two or more

FIGURE 5 Decomposition of structural and behavioral factors determining change over time in women’s and men’s childcare: (a) structural factors: women, (b) behavioral factors: women, (c) structural factors: men, (d) behavioral factors: men



children are associated with increased childcare time among mothers, but having a preschooler renders mixed effects across countries.

For men, there was a significant increase in time spent on childcare across all countries studied, ranging from 18 minutes per day in the Netherlands to 39 minutes per day in the United States. As for women, this increase in fathers’ childcare time was mainly behavioral (i.e., the structural part is very limited), which further supports a general (though strongest in the United States) trend, not only among mothers, toward intensive parenting. Fathers who have more two or more children or a preschooler in the household increased their childcare time over the decades studied more than other fathers (see the behavioral part). For any given family situation, fathers have become more involved in childcare than they used to be. In Sweden, change to states other than being employed was important for men’s childcare time (negative association) indicating different childcare practices relating to employment status. In the United States, as in the case of women, education was important for behavior and the increase in men’s childcare time.

The decomposition results also add information to story of potential convergence in men's and women's childcare time. The descriptive story was one of gender convergence in absolute time devoted to childcare on a daily basis in France, Sweden and the United Kingdom where men's childcare time increased more than women's. It was also a story of divergence in Italy, the Netherlands, and the United States because, in these countries, women's childcare time, although starting from much higher levels, increased even more than men's. In all countries studied, both men and women changed their behaviors (convergence across countries and gender in spending more time on childcare) but change was more comprehensive among women than among men in Italy, the Netherlands, and the United States thus working against gender convergence in childcare time.

Conclusion and discussion

Despite of a dramatic increase in women's paid work, women continue to perform most unpaid work. We set out to analyze the trends of level shifts and gender differences in housework and childcare across Europe and the United States over the past decades, building on a growing literature on cross-country differences in men's and women's unpaid work. We looked for gender convergence and found indications of it both when it comes to housework and childcare. Consistent with our first hypothesis and previous research (Altintas and Sullivan 2016; Bianchi et al. 2006; Kan et al. 2011; Leopold et al. 2018; Stanfors and Goldscheider 2017), we found that men's and women's time use has tended to converge with respect to unpaid work, but that is primarily due to a decrease in women's housework time, especially time spent cooking. Although women everywhere have been doing less housework, there is more cross-country variation regarding men's housework time. After the sizeable increase between 1965 and 1985, this development stalled, and the time American men spent on housework remained constant between 1985 and 2006. Also, in some European countries, such as France and Sweden, men's time in housework remained stable over time, or even decreased as in the Netherlands. In Sweden, however, men have been taking on domestic responsibilities more than elsewhere with greater convergence in housework as a result, and gender equality is a not-too distant achievement. However, the relative contribution of women to the total amount of housework has slightly decreased across countries examined here over the past 25–30 years; they still mostly perform the routine, time-consuming tasks. Gender differences in housework time thus persist in both quantitative and qualitative terms.

For childcare, we observed something different. The tendency over past decades has been to devote more time to childcare, irrespective of gender, even though there are several factors that in theory suggest the opposite, for example the population becoming better educated and

more work-oriented, state support to working parents through expansion of childcare services, individualization. Everyone across the countries studied—not only the United States—has been devoting more time to children (in both routine and developmental activities) except for women in Sweden, who have marginally reduced their time by a few minutes. In France, Sweden, and the United Kingdom, men have increased their childcare time more than have women, while in the United States absolute growth is similar for men and women, and in Italy and the Netherlands it is higher for women. Nevertheless, women's share of total childcare decreased across our study countries. Thus, we found gender convergence over time in housework and childcare across national contexts (H1). Convergence mainly came from women changing time use, for example reducing housework time (H2). In line with expectations, changes in men's childcare time were greater than changes in their time spent on housework (H3). Men's increased childcare time was, however, largely surpassed by women's increased childcare time, particularly in the United States. This is an illustration of that social ideals may be conflicting and incompatible (Craig and Mullan 2010). In some national contexts, like that of the United States, expectations about maternal employment, without state support, coexist with intensive parenting norms, creating tension between ideals.

We observed different patterns of gender convergence in unpaid work across countries, largely in line with expectations (H4). We found more gender convergence, in both housework and childcare, in Sweden than elsewhere, a country that was well on the way to gender equality already in 1990. Italy, where public policies regarding gender equality are almost inexistent, consistently lagged in terms of gender convergence. Our results suggest that a country's orientation toward dual-earning and dual-caring matter for both housework and childcare time, although more generous family benefits, leave policies and provision of public childcare matter for gender convergence in childcare time. Results indicate variation within welfare regime types regarding orientation toward gender equality but also to more general egalitarianism affecting access to education and employment, as well as policy designs that affect time use. Contrary to hypothesis H5, national context was less important for change in men's involvement in childcare than in housework, as fathers' childcare time increased everywhere and more consistently than did fathers' housework.

We also wanted to examine whether the trends we see in housework and childcare were driven by changes in characteristics or by changes in behaviors and norms among men and women. The decomposition analysis showed that changes in the time spent on housework and childcare were mainly explained by changes in behavior rather than changes in characteristics of the populations studied. This was the case for both men and women. When it comes to characteristics of importance for change, increased education and work orientation among women significantly

contributed to reducing the time they devote to housework on a daily basis in the countries studied. Our findings fits with empirical studies that find that employed partnered women continue to do more housework than men, even in contexts where social norms support men's involvement in such work. Increases in men's and women's level of education also contributed to explaining the increase in childcare time for both men and women, except for in the United States where this was entirely behavioral and quite unrelated to compositional changes. Though there is a general tendency toward intensive parenting, this is strongest in the United States, in particular among men and women with a post-secondary education.

Changing practices and norms largely explain changes in housework and childcare across industrialized nations. Several factors may have accounted for the decrease in housework intensity. First, there has been greater opportunity to outsource housework. Greater use of quick-to-prepare substitutes or ready-made food and more frequent dining out have significantly reduced the time spent cooking. Housekeeping services have also grown in importance, and women do not mend clothes when they can buy new ones, whose price has come down with globalization of the garment industry. Second, technological progress in home equipment or domestic products may have helped reduce housework time, even though the major technological developments and their diffusion were largely achieved 25 years ago. Third, behavioral trends are probably due to a decrease in the standards of home cleanliness or the composition of meals over time. The low participation of men in housework and the tight time squeeze endured by women may have led the latter to review their standard of housework and invest less time in housecleaning and cooking. Men have been happy to accept lower standards of housework, and women still do the bulk of it. Changes in standards have also affected childcare, but in the opposite way. New norms about parenthood have emerged. More time and attention have been directed at the child because parental investment is now considered a necessity for a child's development. To this end, men and women belonging to the educated middle class have been the leaders of change toward intensive parenting, concerted cultivation, and investment in the child's human capital.

Regarding the cross-country differences we observe regarding levels, trends, and gender differences in unpaid work, much is in line with expectations of how men's and women's housework and childcare time correlate with welfare state regime and macrolevel indicators of relevance for gender equality. Sweden is a frontrunner, and in France, the United Kingdom and the United States gender differences in housework and childcare are smaller than in Italy and the Netherlands. This range of countries, with Sweden taking the lead toward a more equal sharing of unpaid work, gives us an idea of factors that promote gender equality. High female labor force

participation and a relatively small gender wage gap support female economic independence. Public spending on family services, such as subsidized childcare, makes the combination of paid work and family responsibilities possible for everyone, and also supports fertility around replacement level, which is essential for economies with ageing populations. A society in which women can take on a more independent role as breadwinner and provider would bring about a new equilibrium, whereby men too would start changing their behavior. For men, the change would mean taking on unpaid work. Education and changing family structures have been put forward as key to this, though our results show that change in housework and childcare seems to be related more to changing norms and practices. This indicates that gender convergence in housework and childcare is likely to continue, so does the fact that the long-term trends we observe are more similar than divergent across the countries studied.

Notes

1 We acknowledge the literature emphasizing that technological advances do not necessarily lead to less time spent on domestic work; see Vanek (1974) and Gershuny (2004).

2 Gender division of labor is generally less specialized when both spouses are full-time employed, but even in these households, women do most of the unpaid work (Hook 2010).

3 Esping-Andersen's typology has been scrutinized by feminist scholars who suggest the categorization is more applicable to class than gender because it does not account for unpaid work activities and care work (e.g., Orloff 1993; Sainsbury 1996). The broad categorization also misses economic, family, welfare, or gender policy nuances (Gershuny and Sullivan 2003). We acknowledge these objections, but use the typology as a framework for exploring whether there is gender convergence in unpaid work along welfare state regime type lines.

4 The GGGI measures the gap between men and women in health, education, the economy, and politics, focusing on gaps—not levels—in outcomes rather than gaps in inputs.

5 In France, the benefit associated with parental leave is very low—half of the min-

imum wage—and few men take up this opportunity.

6 Data for the United States are available only for 1990.

7 We harmonized the data using the most detailed coding available for each survey. Domestic work was grouped into six subcategories (cooking, cleaning, laundry and ironing, home repairs and gardening, shopping, caregiving to adults, and household administration). Childcare was grouped into four subcategories (physical childcare, interactive childcare, help with homework, transports). Table A3 in the Supporting Information presents the time spent on detailed categories, by country and by gender, for all men and women and by parenthood status. Classification schemes for each country and survey are available upon request.

8 These declines apply to both average time in general and the average time for participants because the participation rates among women have not really changed. This illustrates the fact that change in housework among women primarily takes place on the intensive margin.

9 The yearly rate of decrease was -2.3 and -1.8 percent, respectively (own computations based on figures in Bianchi et al. 2000).

10 The figures presented in Table 5 relate to time spent on activities explicitly devoted to children and do not include time with children just being present. This childcare measure is straightforward and uncontroversial, but an underestimation of gender differences in total time with children.

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