Undoing Gender with Institutions. Lessons from the German Division and Reunification.

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Abstract

Social scientists have provided empirical evidence that "gender trumps money", meaning that gender norms can be more powerful than economic rationality in shaping daily arrangements between spouses. In particular, when they deviate from the "male bread-winner" norm, women react by "doing gender", i.e. overplaying their feminine role by increasing the number of housework hours that they accomplish. The risk of divorce also increases when a woman earns more than her husband. This paper shows that, however powerful, these norms are cultural and can be trumped by institutions. We use the 41-year division of Germany as a natural experiment and look at differences between East and West Länder in terms of gender behavior after the German reunification. As most countries of the socialist bloc, the former GDR had designed institutions that were much more gender equalizing than their counterpart in the former FRG. We show that these institutions have created a culture that keeps influencing behavior up to the current period. In particular, East Germany differs from West Germany in the sense that a woman can earn more than her husband without "doing gender" and without putting her marriage at risk.

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Highlights

- Gender norms can be changed by institutions, as illustrated by the 41-year experience of socialism in East Germany.

- 20 years after the German reunification, gender norms still differ in East versus West Germany.

- In 2010, West German women typically contributed an average of 20% of household income, compare with 50% for East German women.

- In East Germany, women can earn more than their spouse without having to "do gender" (i.e. spend more time on housework) or putting their marriage at risk. This situation is in sharp contrast with West Germany.

1 Introduction

Men spend more time in paid work, and women more time in housework. In spite of the rise in female participation in the labor market and the feminist struggle for gender equality, this gender-wise specialization within couples remains a quasi-universal norm (Lachance-Grzela and Bouchard, 2010). As a consequence, gender gaps in labor force participation and earnings do not subside (Bertrand et al. 2015). What is the rationale for the stability of this pattern? The economics of the household have proposed various explanations based on the notion of comparative advantage (Becker 1973, 1974), with or without bargaining between spouses (Chiappori 1988, 1992, Weiss 1997). These comparative advantages in turn, can be seen as partly natural or as being dictated by the type of economic activity that is dominant at each stage of a society's development (Alesina et al. 2013). Institutions (taxes and childcare facilities) also certainly play a role in designing the architecture of choices for men and women, and providing incentives for more or less specialization (Esping-Andersen, 2009). On top of these potential determinants, sociologists have pointed out the superimposition of social norms that directly dictate the socially desirable behavior of men and women, i.e. the type of behavior that it is rewarding to follow and costly to transgress. This notion of social norm is embedded in the economics of identity (Akerlof and Kranton 2002, 2010), which shows that people may attach some value to the roles they endorse per se, so that gender roles may be the expression of people's identity. Finally, cultural economics show that representations and beliefs exert a powerful influence on behaviors and that they possess a certain inertia that allows them to persist a long time after the grounds on which they developed in the first place have disappeared. Concerning gender identity, cultural economics show that institutions generate long lasting attitudes, in particular in terms of female labor market participation and fertility, that persist over time and across generations, even when people migrate to a different institutional environment (Fernandez 2009, 2011, Fernandez and Fogli 2010). Cultural economics also show that social norms can change with time (Bisin and Verdier 2001, 2010; Fernandez 2013), but the empirical evidence to date seems to suggest that gender norms are particularly resilient.

This paper focuses on a particular aspect of the division of tasks within the household: the number of housework hours performed by men and women, in relation with their contribution to household income. Sociologists (Bittman et al. 2003), rejoined later by economists (Bertrand et al. 2015), have shown that economic rationality is often trumped by gender norms when it comes to the allocation of women's time. Indeed, all economic models of decision-making within the household predict that a spouse should decrease her number of housework hours as her personal contribution to the household income increases. This is because of three possible reasons: (i) she can outsource these tasks, (ii) she has more constraints on her time, (iii) her bargaining power vis-à-vis her spouse increases so that she can obtain to spend less time on these tasks (Lundberg & Pollak, 1996). But the empirical evidence

shows that things are not so simple. In particular, women do decrease their number of house-
work hours as their relative contribution to the household finance increases, but only up to
the point when they earn as much as their husband. Beyond that equality threshold, their
number of housework hours stops falling or even starts rising again! Hence, although the
division of housework tends to become more equitable as women's relative earnings increase
from none to about half, it then reverts to a more traditional division as wives become the
primary breadwinner. This behavior has been documented in a number of countries, such
as the United-States, Australia and Great-Britain (Greenstein, 2000, Akerlof and Kranton,
2000, Bittman et al., 2003, Evertsson and Nermo, 2004, Schneider, 2011, Bertrand et al.,
2015). It constitutes the most impressive illustration of "doing gender" (also called "gender
display" or "gender-deviance neutralization"), a term coined by feminist sociologists (West
and Zimmerman, 1987) for the set of actions by which men and women try to preserve or to
restore the gender dimension of their identity by complying with the social norm concerning
gender behavior.

But is gender identity irremediably bound to produce this outcome? Deutsch (2007, p
106-107) regretted that "[..] *doing gender has become a theory of gender persistence and
the inevitability of inequality*". She urged for the need "[..] *to shift from talk about doing
gender to illuminating how we can undo gender*". This paper shows that cultural norms can
be changed. It focuses on Germany and exploits the natural experiment constituted by the
41-year division of the country. Before World War II, prior to the division, gender norms,
including female labor force participation, seem to have been similar in Eastern and Western
regions. During the division, East Germany adopted much more gender equalizing policies,
in line with the universal "right" (and obligation) to work. Work-family balance programs,
kindergarten and other childcare facilities, were put in place (Bauernschuster and Rainer
(2012)). The institutions and policy implemented in the two regions radically diverged and
so did gender roles. As a result, in 1989, women's labor force participation in GDR was about
89%, one of the highest in the world, against 56% in West Germany (Rosenfeld et al., 2004).
After the reunification, the government of the former FRG took over East Germany and
rapidly dissolved its institutions and structures into those of West Germany, which remained
unchanged. However, more than 20 years later, the culture of gender equality that was
instilled by the institutions of East Germany seems to persist. Previous studies have shown
that opinions concerning gender roles and relation to paid work have not converged yet. Here,
we contrast gender behavior of East German versus West German couples in terms of time
allocation. We use data from the German Socio-Economic Panel from 1991 until 2012. We
first show that the distribution of income, paid-work and housework hours is much more
egalitarian within Eastern couples than among Western couples. Next, we show that equal
earnings is a focal point in West Germany, in the sense that women who earn more than their
husband "compensate" by increasing their number of housework hours. But this is not the

case in in East Germany, where the relationship is monotonous, i.e. women keep decreasing the time spent on housework as their contribution to the household income rises. Hence, "doing gender" is prevalent in West Germany, but not (yet?) in East Germany. Consistently, in West Germany, the risk of divorce is higher for couples where female income is greater than male income, but this not he case in East Germany. These behaviors are mirrored by subjective preferences, as East German women attach as much value to paid work as that men, contrarily to West German women.

To be sure, economic conditions in Eastern versus Western regions may differ, and this could influence, in some way, the behavior of households. However, we show that among couples who currently live in the West, those who migrated from the East after 1990 display much more egalitarian behavior in terms of female labor market participation, wage earnings and housework time, notwithstanding the fact that they share the same economic environment. We show that it is the focal equal incomes threshold that triggers the increase in housework hours and marital instability in the West, and not any other alternative relative income cut-off point. We also ascertain the relevance of the historic East/West divide, by showing that none of the possible alternative divisions of Germany generate the same contrasted gender behavior.

This paper is in the line of Alesina and Fuchs-Schündeln (2007) who exploited the same episode of socialism in Germany, using the same SOEP data, in order to study the lasting (and progressively withering) effect of socialist institutions on mentalities. In the same line, other authors, such as Bauernschuster and Rainer (2012), Beblo and Georges (2015) and Campa and Serafinelli (2016), using a different survey (ALLBUS), have illustrated the persistently different preferences of East versus West Germans concerning gender roles, and the smaller gender gap in East Germany, as compared with West Germany, in terms of self-reported work and career preferences. Breen and Cooke (2005) reported that both women and men in the former GDR express less support for the traditional male-breadwinner family model than Western couples (see also the study on gender division in Germany by Künzler, et al., 2001). Cooke (2004, 2007) illustrated the greater number of male housework hours and the higher sensitivity of the latter to female paid-work hours among new-wed East German couples (as opposed to West German ones) formed in the 1990's, .

Our paper is also inspired by the work of Fernandez (2006, 2007, 2009) who has illustrated the lasting effect of institutions on cultural beliefs and attitudes concerning gender roles. Lastly, it is very close to the recent article by Bertrand et al. (2015) who documents the "doing gender" conjecture in the case of the United-States, in the wake of sociologists such as Bittman et al. (2003) or Schneider (2011). These papers illustrate the prevailing majoritarian norm that a wife should earn less than her husband. The reverse situation is exceptional and deleterious to marriage stability. Accordingly, when it occurs, to compensate this transgression of the gender norm, wives spend more time on household chores.

The fact that the threshold of equal earnings plays a specific role, as illustrated by Bertrand et al. (2015), supports an interpretation in terms of norm (Rabin 1993, Charness and Rabin 2002). Experiments in behavioral economics have shown that, in dictator games for instance, the situation of equal earnings is a focal point that powerfully influences decisions. This behavior is irrational from a strict economic point of view, but easy to explain in terms of social norm (fairness norms for that matter).

In economic terms, spouses have direct preferences for a certain type of division of tasks, and not only for the final outcome of these tasks in terms of consumption. These preferences generate some "procedural utility" via the production of identity (Frey et al. 2004). As put by Cooke (2006): *"The division of housework [...] reflects the "material embodiment of wifely and husbandly roles, and derivatively, of womanly and manly conduct [...]". Consequently, housework produces both a material and symbolic product of marriage so that what would seem the fairest division under the rules of exchange does not necessarily occur within the home".* Brines (1994) and Akerlof and Kranton (2000) have uncovered other pieces of evidence of men "displaying gender", notably by not increasing their hours of domestic tasks proportionally to the relative wage of their wife.

However, as opposed to these articles that document the inertial force of culture, this paper proposes to show that is possible to "undo gender" by modifying a country's institutions and the ensuing culture. This echoes the discussion by Alesina and Giuliano (2015) about the reciprocal links between culture and institutions. Sociologists have often shown that arrangements within couples depend on the institutional context (see the review by Lachance-Grzela and Bouchard 2010). In particular, Knudsen and Wærness (2008) showed that female earnings are more likely to translate into a more equal division of household labor in countries where social conditions are more egalitarian. Cooke (2006) showed that women's financial independence casts a greater risk of marital instability in countries with greater gender hierarchy, such as Germany, than in more egalitarian countries such as the United-States. Gender norms are also sustained by imitation, social learning and social comparison. Himsel and Goldberg (2003) for instance, have shown that during qualitative interviews, men spontaneoulsy evoke the behavior of other "reference" men as a benchmark of their own involvement in the house.

The rest of this work is organized as follows. Section 2 recalls the institutional background of East and West Germany. Section 3 describes the data; Section 4 the empirical strategy. Section 5 reports the results. Section 6 concludes.

2 The East/West Divergence and its Lasting Effects

Before the German division, nothing distinguished the Eastern and Western parts of Germany (Alesina and Fuchs-Shündeln (2007)). In 1933, for instance, the employment structure

was very similar in the two regions, as illustrated by Table 1. The main difference is the higher share of people who were employed in agriculture in the West; accordingly, employment in all of the other industries were slightly and proportionally higher in the East. As concerns gender behavior, the table shows that in 1933, the female share of employment was 2.8 percentage points higher in the East, and the rate of birth 2.7 percentage points higher in the West. However, in 1935, female labor participation hardly differed in the two regions: 31% in East Germany and 30.14% in West Germany, and the same was true of the ratio of female to male working hours and wages (Bauernschuster and Rainer, 2012). At the time of the division, women's labor force participation was around 45% in both regions (Schenk, 2003). In this context, the division of Germany was drawn by postwar agreement between the Allies, on the basis of the occupation zones of the Soviet Union and Western countries. Five Länder formed the German Democratic Republic (GDR) and the remaining ones constituted the Federal Republic of Germany (FRG). It would be hard to argue that the dividing line has been designed on any other grounds.

To investigate, Table 1 presents the structural differences between East versus West Länder in 1933 (columns 1 to 3) and then compares them with the picture that emerges from a random partition of Germany (excluding Berlin) into two groups of respectively 10 and 5 Länder. Column 4 presents the average difference between these two groups, following all of the possible random divisions of the 15 German regions. It turns out that the figures in column (3) and column (4) are always of similar order of magnitude. This result comes in support to the idea that the division of Germany was not influenced by pre-existing regional differences.

Table 1: East and West Germany in 1933. Descriptive Statistics

	East	West	|East − West|	Average Regional Differences
	(1)	(2)	(3)	(4)
Industry and Handcraft %	44.64	40.08	4.55	4.69 (2.92)
Retail and Transport %	16.32	16.65	0.33	2.05 (1.77)
Agriculture %	16.01	21.21	5.20	5.79 (3.66)
Services%	9.10	9.60	0.51	0.49 (0.46)
Free occ. / Self-employed %	13.95	12.98	0.97	0.66 (0.49)
Female share of employees** %	35.92	33.12	2.80	2.94 (1.91)
Marriages per 1000 inhabitants	9.87	9.45	0.42	0.52 (0.34)
Births per 1000 inhabitants	13.02	14.97	1.95	1.02 (0.78)
Population (in Millions)	11.43	35.44		

Notes: Sources: Own calculations based on Statistisches Reichsamt (1936:27, 37, 1935:297) for 1933. We use the regions of the former German Empire that coincide with the later boundaries of GDR, excluding Berlin and FRG, excluding Berlin. East: Anhalt, Mecklenburg, Prov. Sachsen, Sachsen, Thüringen. West: Baden, Bayern, Bremen, Hamburg, Hessen, Hohenzollerische Lande, Lippe, Lübeck, Oldenburg, Prov. Hannover, Prov. Hessen-Nassau, Prov. Westfalen, Rheinprovinz, Schaumburg-Lippe, Württemberg. ** For these statistics, the divide is based on the State Employment Office Districts, i.e. for GDR: Mitteldeutschland, Sachsen, and for FRG: Bayern, Hessen, Niedersachsen, Rheinland, Sudwestdeutschland, Westfalen. Column (4) displays the average absolute value of differences between regions in all possible regional partitions of 15 regions into 5 + 10, as well as the standard error of these averages in parenthesis. In row 6 (female share of employees), the calculation was made on the basis on the 8 regions available in official statistics (instead of 15).

After the division, between 1949 and 1990, the GDR rapidly settled institutions in favor of gender equality. Beyond its constitution ensuring full equality between men and women, *the Mother and Child Care and Women's Rights Acts*, adopted in 1950, aimed at *"[establishing] a range of social services in support of full female employment, including a network of public childcare centers, kindergartens and facilities for free school meals"* (Cooke, 2006), as well

as paid maternity leaves. By 1972, additional policies expanded childcare facilities and paid maternity leave to 18 weeks. Finally, a last set of reforms implemented between 1972 and 1989 improved childcare facilities, extended parental leave to 20 weeks and allowed fathers as well as grandmothers to take one (Cooke, 2007). In summary, these policies were targeted at making participation in the labor force compatible with maternity (see Goldstein and Kreyenfeld (2011) on fertility trends in both regions).

In the meantime, the FRG's policies strengthened the traditional male-breadwinner model. Irregular school schedules and scarce childcare facilities inhibited female employment. *"In 1961, mothers were deemed the only satisfactory educators of their children, so that schools were subsequently set up to finish after two hours on one day, six the next, and were closed over the lunch hour"* (Cooke, 2007). The tax system also favored single earner families as unemployed spouses and children could get public health insurance at no extra cost. Until 1977, the Marriage and Family law stated that: *"The wife is responsible for running the household. She has the right to be employed as far as this is compatible with her marriage and family duties"* (Section 1356, title Five of the Civil Code on the "Effects of Marriage in General", see also Rheinstein and Glendon, 1978). Subsequent policies then alternated more or less conservative incentives for female participation in the labor market.

As a result of these very different policies, the rate of female labor market participation started to diverge. In East Germany, women's share in total employment continuously rose from 1955 until the mid-1970s to reach 50%, whereas it plateaued around 37% after 1958 in West Germany. At the end of the division episode, in 1990, women's labor market participation rate in East Germany was about 89% compared to 92% for men, whereas in West Germany, only 56% of working age women were in the labor force, as compared to 83% of men (German Statistical yearbooks 1933-1991 and Rosenfeld et al., 2004). Figure 1 illustrates the diverging trends of women's participation in the labor market. In the FRG, the share of employed women, as a percentage of the total female population remains steadily around 30%, whereas in the GDR, it rises from approximately the same point to 50% between 1959 and 1987 (the years for which these statistics are available).[1] At the end of the division period, the number of kindergarten and other child care facilities were much higher in East Germany than in the West (Bauernschuster and Rainer (2012))

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[1] These diverging trends happened notwithstanding migration. Cornelius (2004) reports that 730,000 Germans moved from the Soviet Zone to the other zones in the late 1940s, and another 3.8 million moved from East Germany to West Germany between 1949 and the building of the Berlin Wall in August 1961; then only 600,000 Germans moved West between 1961 and 1988.

Figure 1: Women's Participation in the Labor Market

Ten years later (in 2000), the labor force participation was still approximately the same across gender in the former GDR (around 80%), whereas the gap remained wide in West Germany, with 65% of women in the labor force against 81% of men (Schenk, 2003). As we will show, these objective differences are supported by opinions regarding gender roles.

In terms of paid work time, in 2000, East German workers generally worked longer hours than West Germans: 35 hours for women and 42 hours for men in the former GDR against respectively 29 and 40 hours in the former FRG. This is probably a legacy of the different labor laws that prevailed during the division: the standard regulatory full-time number of work hours per week was 43.75 in the GDR against 36 to 39 in the FRG (Rosenfeld et al., 2004). The status of part-time employment also differed considerably across regions. In West Germany, part-time workers worked short weekly hours, most often less than 20 hours, and were not eligible to the same social benefits as full-time workers. They were essentially women (Rosenfeld et al. 2004). In East Germany, part-time workers had longer hours, received identical social benefits and used these contracts primarily as a transition to retirement.

This does not mean that there are no gender differences at all in East Germany. Rosenfeld et al. (2004) for instance, document the existence of gender wage gaps and occupational segregation. Within the household, although men participate more in housework in the East than in the West, Eastern women endorse a greater share of housework, but both men and women spend less time on housework in the East than in the West (Cooke, 2007).

3   Data and Variables

We use the *German Socio-Economic Panel*, a longitudinal survey run by the German Institute for Economic Research (DIW, Berlin)[2]. This survey was started in 1984 in West Germany and was extended to East Germany in 1990. In 1998 and 2000, 2002, 2006, 2009, 2011 and 2012, additional German households were added to the initial sample. We use 22 waves, from 1991 to 2012.

3.1   East versus West

Our exercise consists in contrasting the behavior of East versus West Germans. To this end, we consider two alternative division lines:

1. The first one consists in exploiting a question that was asked in 1991 about whether the household head lived in the former GDR before the German reunification. Hence, the "East" dummy variable will take the value 1 if the household head lived in East Germany before reunification, independently of where he lives at the time of the survey. This definition is likely to give an upper bound of the effects of institutions on attitudes, as it restricts the sample to households who were already adults in 1991.

2. The second definition is purely geographic. We build a dummy variable that code 1 ("East") for individuals of German nationality who reside on the territory of the former GDR at the time they are surveyed, and codes 0 for German nationals who live in Länder of the former FRG. Because we are interested in the persistence of culture, we drop non-German nationals from the sample. We also drop Berlin from the sample, as the data does not allow distinguishing East Berlin from West Berlin. With this geographic definition, we obtain a larger sample that includes the observations that have been added in 1998, 2000, 2002, 2006, 2009, 2011 and 2012 to the initial panel. Estimates based on this sample certainly lead to the lower bound of the cultural difference, due to the migration flows between the two regions.

The sample used in our main specification contains dual-earner married couples, aged 18 to 65 years old. The reason for not including households with unemployed adults is that this situation is most likely transitory and might not be reflected by the division of housework between spouses. We do not include couples where one spouse is out of the labor force, as the contribution of the latter to household finance is in most cases nil, and the allocation of her time into paid-word versus housework is trivially skewed. The reason for selecting married couples rather than all couples is that the former are generally more "stable" than simply cohabiting couples. However, in order to alleviate concerns about selection bias, we

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[2]www.diw.de/en/soep

replicate all of our results using a larger sample including non married and one-earner couples (in Appendix).

Our regression sample contains a total of 43,803 couples*years observations, over 22 years, i.e. 8,618 couples, as couples are on average present in the sample during 5 years. There are 3,291 couples for which we know whether the head of the household lived in East or West Germany before the division: 1391 are from East Germany and 1900 from West Germany. On average, these couples are present in the sample during 6.6 years, which makes up a total of 21,877 observations over 22 years. Table 2 presents the descriptive statistics on this sample.

Households differ across the two samples (although they are similar in terms of age). On average, West German households are richer, and more often without children. Men's level of income and contribution to household finance is higher in Western couples than in Eastern ones. The opposite holds for women. There are more Eastern couples where women earn more than their spouse (29% versus 11% for Western couples). East German men spend a slightly higher number of hours in housework than West German men, and the reverse is true for women.

In the West, we observe 363 transitions to a situation where "Wife Earns More" and 267 in opposite direction. These figures are respectively 559 and 473 in the East. The are 8832 observations where the wife always earns less than her husband in the West (resp. 4507 in the East) and 798 where the wife earns more at all periods (resp. 1758 in the East).

Table 2: Descriptive statistics of the East/West Samples: Historical Definition. Dual-Earner Married Couples.

	West Germany				East Germany			
	Mean	S.D.	Min	Max	Mean	S.D.	Min	Max
Woman's Share of Income	0.29	0.16	0	1	0.42	0.15	0	1
WifeEarnsMore	0.11	0.31	0	1	0.29	0.46	0	1
Woman's Housework Time	2.72	1.56	0	20	2.01	1.09	0	12
Man's Housework Time	0.62	0.76	0	16	0.66	0.73	0	10
Hswk Woman - Hswk Man	2.10	1.81	-15	19	1.35	1.31	-9	12
Paid Work Time Woman	27.21	13.27	1	80	37.78	10.19	1	80
Paid Work Time Man	43.59	9.44	1	80	45.55	9.69	1	80
Income HH (Euros)	3149.82	1415.07	10	28700	2457.77	1064.44	102	16259
Income Woman (Euros)	853.25	607.72	2	10000	989.36	590.09	17	15000
Income Man (Euros)	2089.34	1038.16	61	20452	1353.55	777.95	25	14316
Hourly Wage Woman	7.75	4.70	0	110	6.38	3.93	0	96
Hourly Wage Man	11.60	6.60	0	241	7.28	4.62	0	138
Woman's Age	41.71	8.71	18	65	41.66	8.62	19	65
Man's Age	44.35	8.95	20	65	44.12	8.78	21	65
Kids in HH (1=YES)	0.68	0.47	0	1	0.75	0.43	0	1
Observations	12536				9341			

Notes: The data comes from the German Socio-Economic Panel, using all the waves from 1991 until 2012. Descriptive statistics are based on the main sample: married couples with positive income. Eastern couples are those whose household head has lived in the former GDR before 1990. Number of housework or paid-work hours per day.

In summary, West German women earn a lower absolute income, spend fewer hours in paid-work and more time on housework than East German women, and the gender gap in wages and paid-work hours is smaller in East Germany.
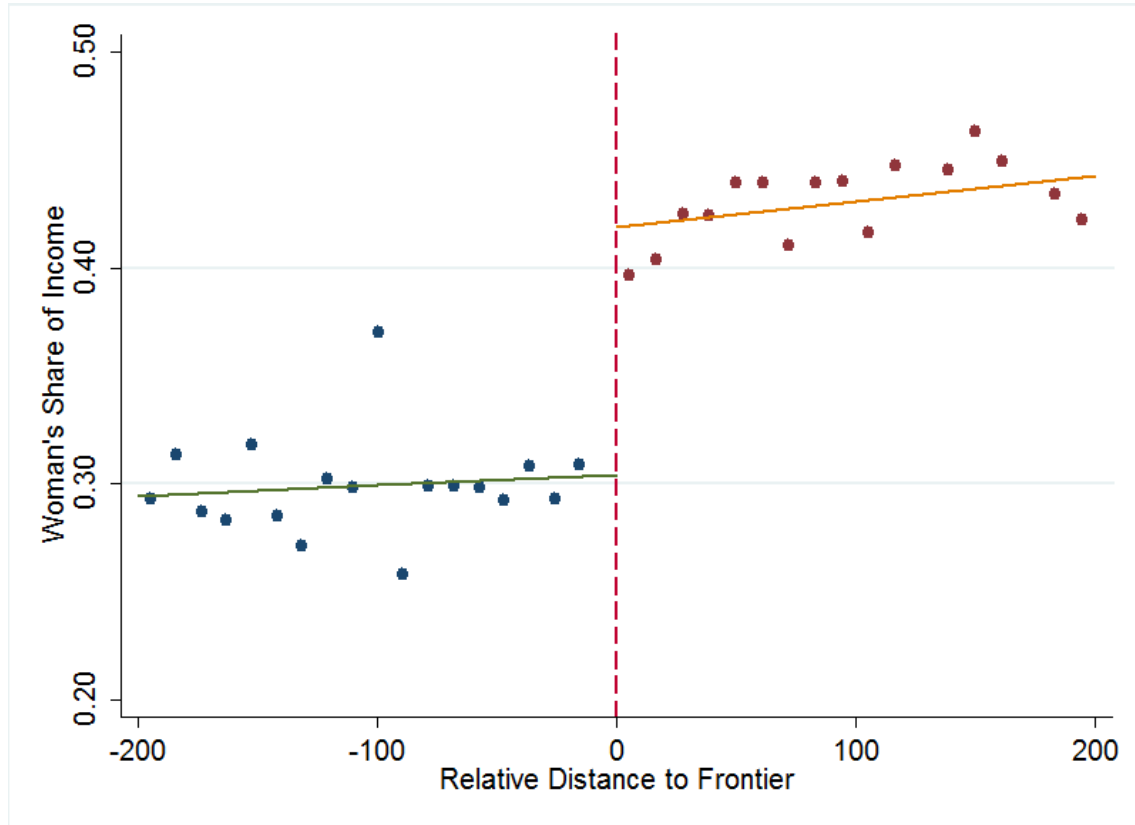
Note that household income includes all elements of income, including transfers and return on financial assets, whereas we use net labor income to construct our measure of women's relative contribution to household finance.

Table A1 in the Appendix presents the descriptive statistics of the East / West samples defined by the regions in which respondents currently live. The Eastern (resp. Western) sample contains couples who lives in a Länder that used to be part of the former GDR (resp. FRG). It appears that the differences between the East and West samples are essentially similar whether one considers a historical definition, as in Table 2, or a geographical one, as

in Table A1.

Tables 2 and A1 show that the proportion of couples whose wife earns more than her spouse is of 11% in West Germany, versus 30% in West Germany. Although we tend to attribute this gap to the different gender norms that prevail in these geographies, it could reflect some other factors, such as the industrial structure, the state of the labor market, the marriage market, or other structural differences. If this were the case, we should not see any difference within a small geographic area around the frontier, that is most likely characterized by the same structural conditions. Figure 2 displays the wife's contribution to household income at different points of space across the East-West frontier. Pooling all waves of the GSOEP together (1991-2012), keeping dual-earner married couples aged 18 to 65 years, dropping movers from East to West (and conversely), we calculate, for each household, the relative distance of its district to the East-West frontier. Crucially, the figure shows that the wife's contribution to household finance is sharply discontinuous at the frontier, i.e. ten kilometers East and West away from the former political border. More generally, the relative share of female income slightly increases as one moves from the Western part of Germany to the Eastern border, following parallel trends. This spatial discontinuity within an otherwise homogenous region is confirmed by the regressions displayed in Table A3 in the Appendix. Even within a distance of 50 kilometers, the wife's share of income is 10 percentage points higher in couples who live at the East of the former border, than in couples who live on the West side (the difference is statistically significant at 1%). Moving from smaller to larger orbits, in order to have more observations (and using triangular kernel to weight observations depending on their proximity to the frontier) does not alter this result.

Figure 2: Woman's share of income depending on the relative distance to the East/West frontier

Figure 3 depicts the entire distribution of female relative income in Eastern and Western couples (i.e. couples who lived in East versus West Germany before 1990). It shows the percentage of couples where the wife's share of income is equal to 0 - 100% of the total net labor income of the couple. The distribution is extremely skewed to the left in the sample of West German couples, where the mode is the point where wife earn about 20% of the total family earnings. By contrast, in the East German sample, the distribution is much more symmetrical, with a mode around equal earnings. Figure 4 and 5 show respectively that these patterns are quite stable over time and across cohorts.

Figure 3: Woman's Relative Income in West and East Germany. Dual-Earner Married Couples.
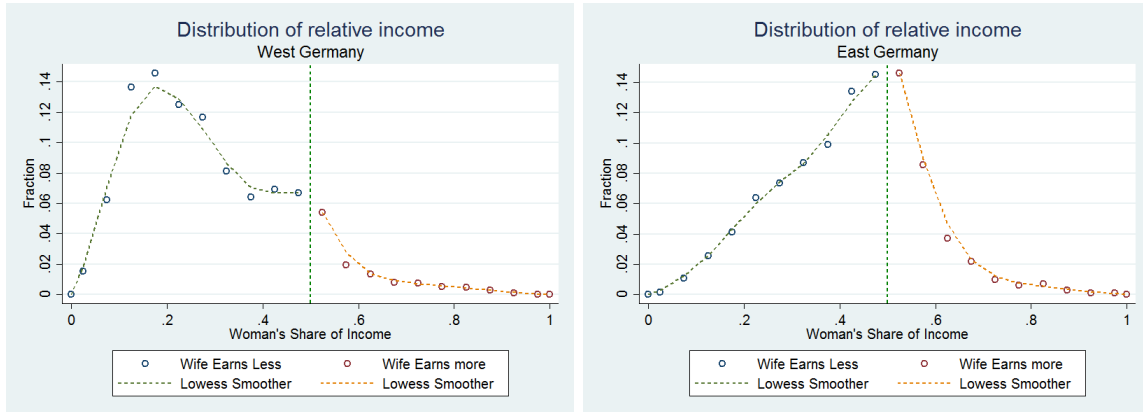
Notes: The data comes from the German Socio-Economic Panel using all the waves from 1991 until 2012. Sample: Dual-Earner married couples between 18 and 65 years of age. Woman's Share of Income is defined as *Woman's Income/(Woman's Income + Man's Income)*. The green dashed line corresponds to Woman's share of income = 0.5. Each dot represents the fraction of couples in a 0.05 relative income bin. Eastern couples are those whose household head has lived in the former GDR before 1990.

Figure 4: Woman's Relative Income in West and East Germany in Different Years. Dual-Earner Married Couples.
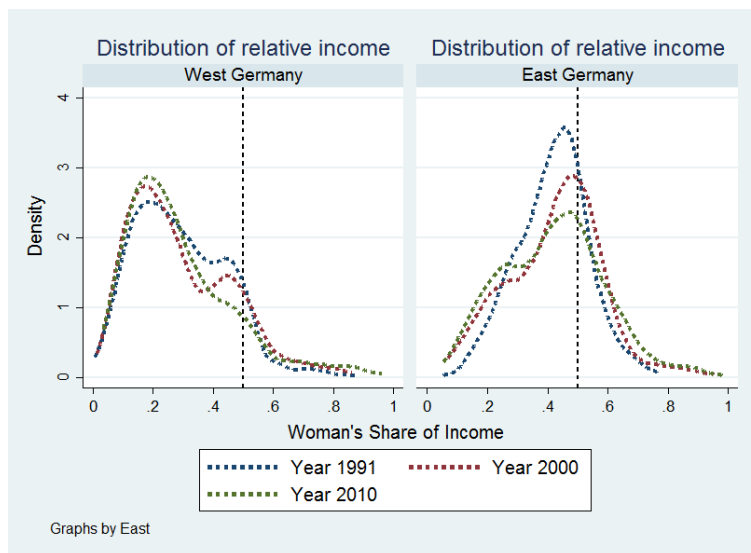
Notes: The data comes from the German Socio-Economic Panel waves in 1991, 2000 and 2010. Sample: Dual-Earner married couples between 18 and 65 years of age. Woman's Share of Income is defined as *Woman's Income/(Woman's Income + Man's Income)*. The black dashed line corresponds to Woman's Share of Income = 0.5. Eastern couples are those whose household head has lived in the former GDR before 1990

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Figure 5: Woman's Relative Income in West and East Germany per Generation. Dual-Earner
Married Couples.
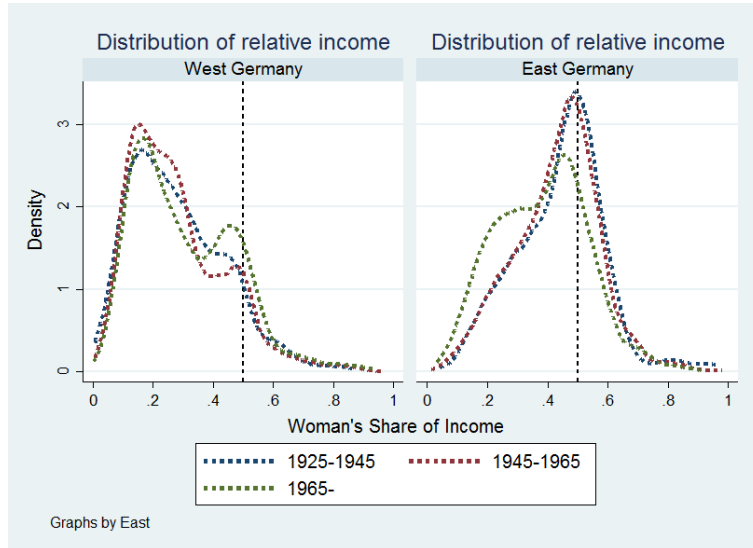
Notes: The data comes from the German Socio-Economic Panel using all the waves from 1991 until 2012. Generations are based on the year of birth. Sample: Dual-Earner married couples between 18 and 65 years of age at the time of the survey. Woman's Share of Income is defined as *Woman's Income/(Woman's Income + Man's Income)*. The black dashed line corresponds to Woman's Share of Income = 0.5. Eastern couples are those whose household head has lived in the former GDR before 1990

Unlike Bertrand et al. (2015), we do not test for the existence of a discontinuity in the distribution of household income. This is because, in our dataset, the number of observations at the point of equal earnings is too high, and is higher in the East (2.75%) than in the West (1.37%). This concerns 172 observations in the West and 257 in the East. This makes it impossible to run a McCrary test for the discontinuity of the distribution function at the point of equal earnings. We attribute this to the approximation of self-declared income by respondents in the SOEP survey, but we have no means to correct these figures and we are reluctant to -artificially- simply drop these observations.

3.2   Housework

The time spent on housework is measured using the following question: " *What is a typical weekday like for you? How many hours per normal workday do you spend on housework (washing, cooking, cleaning)?*". The definition of housework, i.e. the list of tasks included in the survey, follows to the general usage in this literature (see Lachance-Grzela and Bouchard, 2010). In particular, it does not include the time parents spend with children. The norm concerning childcare has changed since the 1970's: a new norm of intensive parenting has

diffused, whereby the time spent with children has replaced the former adult leisure time. This is particularly true of more educated parents and wealthier families (Sullivan, 2010). As this heterogeneity interacts with the influence of female relative income, we leave this aspect of couples' time-use aside from our main specification. However, for robustness, we replicate our results with a definition of housework that includes childcare.

3.3 Attitudinal Variables

We use subjective attitudes elicited in the SOEP survey, namely: *How important is success in job for satisfaction? How important is marriage for satisfaction? How important is work for satisfaction? How important is a successful career for satisfaction? How important is family for your satisfaction ?* The first two questions were asked in 1992, 1995, 2004, 2008 and 2012. The remaining three questions were asked in 1991, 1994, 1998 and 1999. The answers are given on a 1-4 scale, labeled as "very important", "important","unimportant" and "not important at all". Given the distribution of preferences (see the descriptive statistics and Figures A1, A2, A3, A4 and A5 in the Appendix), we define dummy variables that code 1 if the respondent has declared the matter to be very important and 0 otherwise.

3.4 Divorce

In Section 5.3, we look at the impact of female relative income on the risk of divorce. We consider the sample of married working couples, aged 18 to 65 years old, and estimate the likelihood of divorce within the next years, depending on their relative income. We use the marital status reported by each spouses at each wave, as well as the biography data file.

As divorce takes time, our main variable of interest is the risk of divorce in a 5-year horizon. Table A2 in the Appendix presents the descriptive statistics of the sample for which this variable is defined. This sample is similar to that described in Tables 2 and 12. West German couples exhibit a higher divorce rate (within a 5-year horizon) than East German ones (11% versus 6%).

4 Empirical Strategy

We are mainly interested in the relationship between the number of housework hours performed by women and their relative contribution to the household finance. Hence, the former will be our main dependent variable.

To be sure, housework and paid-work hours are chosen jointly, and are also a joint decision between spouses. However, our goal is not to estimate a collective model of paid labor supply and housework supply, but simply to verify whether the general relationship that derives from such models is verified or violated, i.e. that the number of housework hours of a person should decrease with her level of income as well as with her contribution to the couple's total income.

Such reduced-form estimates are in the line of Brines (1994), Bittmann et al., (2003) Gupta (2007) and Bertrand et al. (2015).

We follow Bertrand et al. (2015) and focus on the discontinuity in the relationship between female relative income and housework hours at the point of equal incomes of spouses. This is captured by a dummy variable coding 1 if the income of the wife is greater than that of her husband. We also try to control for all of the factors that, according to the Beckerian or collective household models, influence non-market work. We thus include, among the right-hand-side variables, a measure of female relative income, which captures the influence of the relative resources and bargaining power of the wife. When this is controlled for, the dummy that stands for the point of equal incomes captures the purely cultural norm represented by this focal point. Some authors, such as Gupta (2007) have criticized the focus on relative income, insisting that what is decisive for the time spent by women in housework is their absolute level of income, which reflects their degree of autonomy. Gupta has argued that introducing this measure in the estimates suppresses the statistical significance of the squared term of relative income. To allow for this possibility, following Bertrand et al. (2015) and Schneider (2011), we also include a measure of female income, male income and total household income, on top of relative income, in the list of r-h-s variables. These are not totally collinear because measures of male and female earnings essentially account for labor income, whereas household income includes other elements that cannot be attributed to either partner, such as transfers, rents, asset yields, etc. Including total household income is important because it is likely that richer couples, who can afford ancillary work, will spend less time on housework. To alleviate concerns about endogeneity issues, we replicate all of our estimates without controlling for individual incomes (Tables A6 and A7 for housework and A8 and A9 for divorce), and alternatively, using hourly wages instead (Table A6 in the Appendix).

The estimates also include all of the elements that are related to housework and paid-work supply (the X term), i.e. age, age squared and education of both spouses, presence of children in the household, as well as year and federal state fixed-effects.

We thus estimate the following equation on the sample of women indexed by i (individuals) and time (t):

$$FemaleHouseworkTime_{it} = \gamma_1 WifeEarnsMore_{it} + \gamma_2 WifeEarnsMore_{it} * East_i +$$
$$\gamma_3 East_i + \gamma_5 RelativeIncome_{it} + \gamma_6 RelativeIncome_{it} * East_i + \gamma_7 LnFemaleIncome_{it} +$$
$$\gamma_8 LnMaleIncome_{it} + \gamma_9 LnHouseholdIncome_{it} + \beta X_{it} + \epsilon_{it} \qquad (1)$$

If "doing gender" is the norm in West Germany, but not in the East, we expect the estimate of γ_1 to be positive and that of γ_2 to be negative.

We also want to know whether female relative income has an impact on the risk of divorce. We thus estimate the following equation:

$$Divorce_{it+j} = \gamma_1 WifeEarnsMore_{it} + \gamma_2 WifeEarnsMore_{it} * East_i + \gamma_3 East_i +$$
$$\gamma_7 LnFemaleIncome_{it} + \gamma_8 LnMaleIncome_{it} + \gamma_9 LnHouseholdIncome_{it} + \beta X_{it} + \epsilon_{it} \qquad (2)$$

Where the dependent variable is the risk of divorce at horizon t+j. The interpretation is similar as that of equation (1): we expect the estimate of γ_1 to be positive and that of γ_2 to be negative. Following Bertrand et al. (2015), we do not control for female relative income in equation (2), as there is no reason why this variable should have any relationship with the risk of divorce. This was not true for the number of housework hours, which might reflect a pattern of specialization in the household and are mechanically correlated with the relative number of paid-work hours.

To assert the robustness of our results, we establish our results in cross-section and fixed-effects specification. Including individual fixed-effects adresses the issue of selection bias, i.e. the risk that some women both earn more than their husband and do more housework hours because they are over-achievers or their husband is under-achiever, lazy, depressed or disabled. We also test a series of variants in terms of control variables, sample restrictions, and model specification (Appendix Tables A5 to A10).

5 Results

The following results show evidence that "doing gender" is typical of West German couples, but not of East German ones. We start with the aforementioned historical dividing line, contrasting couples who have actually lived in the former GDR before 1990 to those who have not. We then consider a geographic dividing line, comparing couples who currently live in the Länder of the former GDR versus the former FRG. We first look at housework hours, and then turn to the risk of divorce, depending on women's relative contribution to household finance.

5.1 Couples of the Former GDR are not "Doing Gender"

We start with non-parametric visual evidence about the supply of housework hours by women, depending on whether they have lived in the former GDR or not. Figure 6 displays the number of female housework hours depending on the contribution of female earnings to the total earnings of the couple (female earnings/ (female + male earnings)). Here, we chose to divide the sample into 20 equal size (0.05) intervals of relative income measures. We keep bands that include at least 50 observations (99.5% of the total sample). Each interval is then characterized by the average number of housework hours of women included in the interval, and represented by one dot on the graph.

The left-hand-side panel shows that in couples who have not lived in East Germany before 1990 (which we abusively call "West Germans" here) women decrease their number of house-work hours as their relative earnings rise, until they reach the vicinity of equal earnings. They

then start "doing gender" by increasing the time they spend on housework. By contrast, the right hand-side panel shows that East German women monotonically reduce the time they devote to housework as their relative contribution to the household finance increases. One can suspect an inflection in the curve at the point where women earn more than 80% of the couple's income, but the small number of couples who are in this situation does not allow to draw more than one dot.

Figure 6: Female Housework Time Depending on Woman's Share of Income. Dual-Earner Married Couples
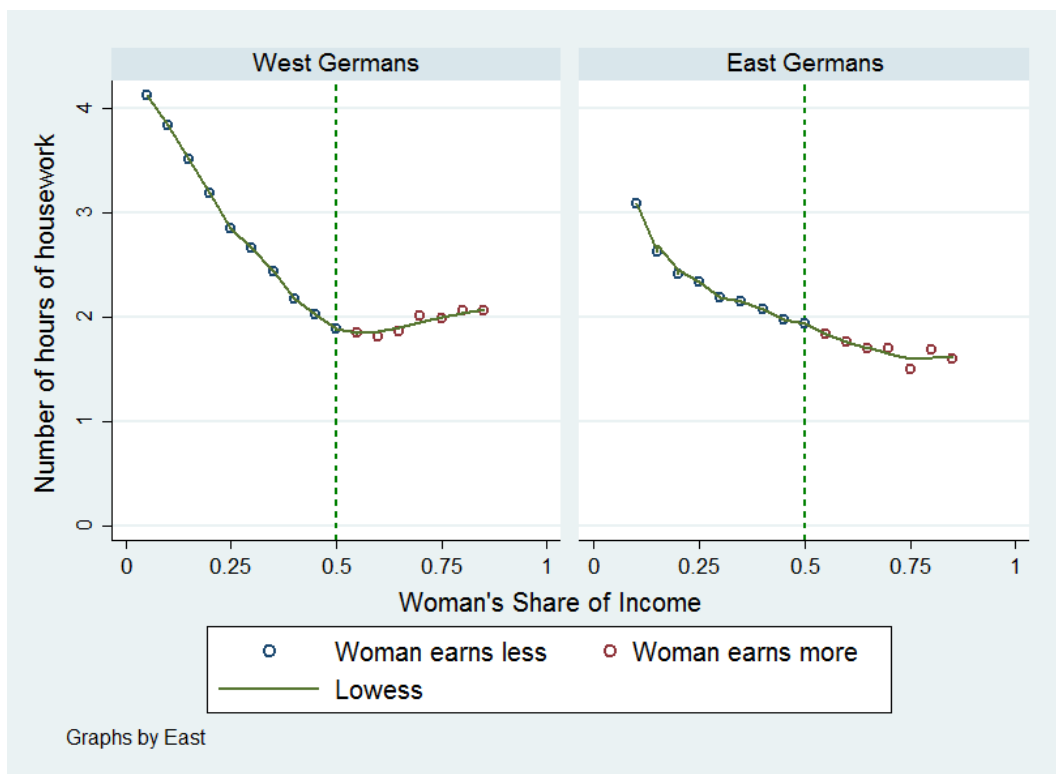
Notes: The data comes from the German Socio-Economic Panel using all the waves from 1991 until 2012. Sample: Dual-Earner married couples between 18 and 65 years of age. Woman's Relative Income is defined as *Woman's Income/(Woman's Income + Man's Income)*. Each dot represents at least 50 observations in a 0.05 relative income bin (99.5% of the total sample). The green dashed line corresponds to relative income = 0.5. East Germans are those whose household head has lived in the former GDR before 1990.

Figure 7 represents the relationship between men's housework time and their wife's relative income. Men monotonically increase their number of housework hours, with a small plateau around the point of equal incomes.

Figure 7: Male Housework Time Depending on Woman's Share of Income. Dual-Earner Married Couples.

To complement this visual piece of evidence, we run the above-mentioned estimates of female housework hours. Table 3 displays OLS estimates of female housework time on the sample of married women in dual-earner couples. The East dummy is equal to 1 when both household members lived in the former GDR before 1990. Column 1 to 3 display cross-section OLS estimates and columns 4 to 6 individual fixed-effects OLS. As expected, the number of housework hours performed by women increases when they earn more than their husband (row 1). The East dummy variable attracts a negative coefficient (row 3), indicating that East German women spend less time on housework than West German women. More importantly, the interaction between the two variables, "East" and "Wife Earns More" (row 2) is negative, and its order of magnitude is sufficient to compensate exactly the positive coefficient of "Wife Earns More", so that there is no effect left for East German couples. Accordingly, the coefficient on "Wife earns more" is not statistically significant when the

regression is run on the subsample of East German women (in columns 2 and 5). In a similar way, female relative income attracts a negative coefficient, but the effect disappears in East Germany (the sum of the coefficients on "East" and "Female relative income * East" is equal to zero). Finally, as expected, individual and total income exert a globally negative impact on the number of housework hours. These results hold in cross-section as well as in fixed-effects specifications.

It may come as a surprise that the coefficient on Relative income is not statistically significant in the East. This suggests that East German dual-earner couples are more of the type suggested by Gupta (2007), i.e. what matters for women's behavior is their degree of autonomy (as captured by their absolute level of income) rather than their relative bargaining power. De facto, when we omit individual incomes from the specification, we obtain a statistically significant coefficient on Relative income, even in the East (see Tables A6 and A7 in the Appendix).

Table 3: Female Housework Time and Relative Income Depending on Whether Couples Have Lived in the former GDR or FRG. OLS Estimates. Dual-Earner Married Couples.

	West (1)	East (2)	All (3)	West (4)	East (5)	All (6)
	Dependent variable: Woman's Housework Time (hours per day)					
WifeEarnsMore	0.12*	-0.04	0.14**	0.17***	0.01	0.19***
	(0.07)	(0.05)	(0.07)	(0.06)	(0.03)	(0.06)
WifeEarnsMore*East			-0.19**			-0.18***
			(0.08)			(0.07)
East			-0.89***			
			(0.12)			
Relative Income	-1.75***	0.89	-1.31**	-1.44*	0.86	-1.12*
	(0.66)	(1.04)	(0.59)	(0.79)	(0.76)	(0.63)
(Relative income)*East			1.42***			1.24***
			(0.29)			(0.25)
Log Income Woman	-0.63***	-0.74***	-0.68***	-0.45***	-0.56***	-0.48***
	(0.11)	(0.23)	(0.10)	(0.13)	(0.15)	(0.11)
Log Income Man	-0.38***	0.19	-0.13	-0.21	0.23	-0.02
	(0.14)	(0.22)	(0.12)	(0.16)	(0.16)	(0.12)
Log Income HH	0.19**	-0.06	0.09	0.02	-0.10*	-0.04
	(0.09)	(0.07)	(0.06)	(0.07)	(0.06)	(0.05)
Individual fixed-effects	No	No	No	Yes	Yes	Yes
Observations	12536	9341	21877	12536	9341	21877
Individuals				1900	1391	3291

Notes: * p < 0.1, ** p < 0.05, *** p < 0.01. The data comes from the German Socio-Economic Panel using all the waves from 1991 until 2012. The sample contains only dual earner married couples. Standard errors clustered at the individual level are given in parentheses. East is a dummy equals to 1 when the household head has lived in the former GDR before 1990. Controls: respondent and partner's age and age squared, respondent and partner's education level (4 categories), a dummy controlling for the presence of children, years fixed-effects, Länder fixed-effects and individual fixed-effects (columns 4,5 and 6).

Because "doing gender" is about within-couple interactions, it is of interest to observe the difference in the time spent on housework by each spouse. Table 4 presents estimates of the time gap on the usual controls. Again, for West German couples, the time gap is greater when the wife earns more (column 1 and 4, row 1), but this is not the case for East German couples (columns 2 and 5, row 1). Likewise the coefficients on "Wife Earns More" and "Wife Earns More"* "East" totally compensate each other, so that no effect is left in East Germany (column 3, 6 and 7). Female relative income reduces the number of female housework hours for West German couples (column 1, 4, row 4), but not for East German ones (column 2,

5, row 4). This is confirmed by the interaction term in columns 3 and 6. But the level of individual female income also reduces the number of female housework hours (row 6). .

Table 4: Housework Time Gap within Eastern versus Western Household. Historical definition of "East". OLS Estimates. Dual-Earner Married Couples.

	West (1)	East (2)	All (3)	West (4)	East (5)	All (6)
Dependent variable: Housework Time Gap (Woman's Time - Man's Time)						
WifeEarnsMore	0.21** (0.08)	0.04 (0.06)	0.25*** (0.08)	0.18** (0.07)	0.04 (0.04)	0.20*** (0.07)
WifeEarnsMore*East			-0.24** (0.10)			-0.17** (0.08)
East			-1.02*** (0.14)			
Relative Income	-2.44*** (0.75)	-0.42 (1.16)	-2.20*** (0.66)	-2.25** (0.93)	0.56 (0.98)	-2.04*** (0.74)
(Relative income)*East			1.81*** (0.33)			1.79*** (0.29)
Log Income Woman	-0.68*** (0.12)	-0.63** (0.25)	-0.71*** (0.11)	-0.43*** (0.16)	-0.57*** (0.19)	-0.47*** (0.13)
Log Income Man	-0.24 (0.17)	0.14 (0.24)	-0.03 (0.13)	-0.12 (0.19)	0.29 (0.20)	0.03 (0.14)
Log Income HH	0.24** (0.11)	0.02 (0.08)	0.16** (0.07)	0.07 (0.08)	-0.03 (0.07)	0.02 (0.05)
Individual fixed-effects	No	No	No	Yes	Yes	Yes
Observations	12536	9341	21877	12536	9341	21877
Individuals				1900	1391	3291

Notes: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. The data comes from the German Socio-Economic Panel using all the waves from 1991 until 2012. The dependent variable is defined as Woman's Housework Time - Man's Housework Time within the household. The sample contains only dual earner married couples. Standard errors clustered at the individual level are given in parentheses. East is a dummy equals to 1 when the household head has lived in the former GDR before 1990. Controls: respondent and partner's age and age squared, respondent and partner's education level (4 categories), a dummy controlling for the presence of children, year fixed-effects, Länder fixed-effects and couple fixed-effects (columns 4,5 and 6).

5.2 Eastern versus Western Länder

The former results suggest that couples who have been socialized in the East German system before 1990 follow more egalitarian gender norms than West German couples. We now use a geographically defined dividing line and ask whether all couples who live on the territory

of the former GDR, even if they have not experienced the institutions of the former GDR themselves, are still impregnated by the specific culture that was developed in that country. We therefore contrast couples living in East Länder to couples living in West Länder. If we uncover any difference, the latter will at least partly be attributable to fact that inhabitants of the Eastern Länder have inherited the cultural legacy of socialist institutions.

Table 5 shows that this is indeed the case. It is only in Western Länder that women increase their housework time when they earn more than their spouse (row 1). Again, in column 3, the interaction term with the "East" dummy totally neutralizes the impact of "Wife Earns More". Relative income reduces the number of female housework hours, but only in the West. Finally, female individual income is associated with less housework hours in East and West Germany. These results hold in cross-section (columns 1-3) and individual fixed-effects (columns 4-6) specifications.

Table 5: Female Housework Time and Relative Income, in Eastern versus Western Länder. OLS estimates. Dual-Earner Married Couples.

	West (1)	East (2)	All (3)	West (4)	East (5)	All (6)
Dependent variable: Woman's Housework Time (hours per day)						
WifeEarnsMore	0.16***	-0.04	0.18***	0.19***	0.02	0.20***
	(0.04)	(0.04)	(0.04)	(0.04)	(0.03)	(0.04)
WifeEarnsMore*EastGeo			-0.20***			-0.19***
			(0.06)			(0.05)
EastGeo			-0.92***			-0.55*
			(0.10)			(0.32)
Relative Income	-1.31***	0.72	-1.19***	-1.56***	-0.14	-1.50***
	(0.40)	(0.79)	(0.37)	(0.47)	(0.72)	(0.42)
Relative Income*EastGeo			1.17***			1.05***
			(0.21)			(0.21)
Log Income Woman	-0.61***	-0.68***	-0.62***	-0.33***	-0.35**	-0.34***
	(0.07)	(0.17)	(0.06)	(0.08)	(0.14)	(0.07)
Log Income Man	-0.23***	0.14	-0.13*	-0.19**	0.00	-0.13*
	(0.08)	(0.16)	(0.07)	(0.09)	(0.15)	(0.08)
Log Income HH	0.13**	-0.05	0.07*	-0.03	-0.07	-0.05
	(0.05)	(0.06)	(0.04)	(0.05)	(0.06)	(0.04)
Individual fixed-effects	No	No	No	Yes	Yes	Yes
Observations	26561	11037	37598	26561	11037	37598
Individuals				5420	1939	7307

Notes: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. The data comes from the German Socio-Economic Panel using all the waves from 1991 until 2012. The sample contains only dual earner married couples. Standard errors clustered at the individual level are given in parentheses. East is a dummy equals to 1 (resp. 0) if the individual currently lives in Länder that used to be part of the former GDR (resp. FRG) and have the German nationality. Controls: respondent and partner's age and age squared, respondent and partner's education level (4 categories), a dummy controlling for the presence of children, year fixed-effects, Länder fixed-effects and individual fixed-effects (columns 4,5 and 6).

5.3 Marriage Instability

Where gender norms are compelling, transgressing them should put one's marriage at risk. To enquire, we look at the association between women's relative income and marital instability.

Table 6 displays the probability of divorce within the next five years, depending on the relative income of the wife, controlling for the usual socio-demographic variables. The coefficient on "Wife Earns More" is positive and statistically significant in estimates that include

individual fixed-effects (columns 2-5), but not in the cross-section (column 1). Hence, it is a change in the situation of a couple that triggers divorce, rather than the difference between couples. This is consistent with the idea of self-selection of couples into different time-use organizations.

When a wife starts earning more than her husband, the risk of divorce in the next 5 years increases by 4 percentage points, but only for couples who have not lived in East Germany. There is no effect in East Germany. As is classical, a higher level of household income reduces the risk of divorce. The coefficients on individual income and relative income are not statistically significant.

Table 6: Female Relative Income and the Risk of Divorce within a 5-year Time Horizon. Dual-Earner Married Couples.

	All (1)	All (2)	All (3)	West (4)	East (5)
Dependent variable: Divorced within a 5-year time horizon					
WifeEarnsMore	-0.01 (0.03)	0.04** (0.02)	0.03 (0.02)	0.04** (0.02)	-0.01 (0.01)
East	-0.06* (0.04)				
WifeEarnsMore*East	-0.00 (0.03)	-0.05** (0.02)	-0.04* (0.02)		
Log Income HH	-0.00 (0.02)	-0.04*** (0.01)	-0.04*** (0.01)	-0.03* (0.02)	-0.03* (0.02)
Log Income Woman	0.02** (0.01)	0.01 (0.01)	-0.01 (0.03)	0.01 (0.01)	0.01 (0.01)
Log Income Man	-0.02 (0.02)	-0.01 (0.01)	0.02 (0.04)	-0.01 (0.02)	-0.01 (0.01)
Relative Income			0.16 (0.21)		
(Relative Income)*East			-0.04 (0.08)		
Couple fixed-effects	No	Yes	Yes	Yes	Yes
Observations	9725	9725	9725	5891	3834
Individuals		1707	1707	1077	630
Probability of divorce	8,9%	8,9%	8,9%	10,7%	6,1%

Notes: * p < 0.1, ** p < 0.05, *** p < 0.01. The data comes from the German Socio-Economic Panel using all the waves from 1991 until 2012. The dependent variable is a dummy that equals 1 if the couple has divorced within a 5-year time horizon. The sample contains only dual earner married couples. Standard errors clustered at the individual level are given in parentheses. East is a dummy equals to 1 when the household head has lived in the former GDR before 1990. Controls: respondent and partner's age and age squared, respondent and partner's education level (4 categories), a dummy controlling for the presence of children, year fixed-effects, Länder fixed-effects and couple fixed-effects.

It would be unrealistic to imagine that couples divorce immediately as soon as the wife starts earning more than her spouse. Accordingly, Table 7 displays the estimates of a linear probability model of the risk of divorce at different time-horizons. The estimates get more precise as we move from a 1-year horizon to a 5-year horizon. It is only after 4 years that the risk of divorce becomes statistically significantly associated with the higher earnings of the wife (row 1, columns 4 and 5). Again, the effect is annihilated for former East German

couples (row 3).

Table 7: Female relative income and the risk of divorce at different time horizons. Fixed-effects OLS Estimates. Dual-Earner Married Couples.

	1 year	2 years	3 years	4 years	5 years
Dependent Variable: Divorced at horizon:					
	(1)	(2)	(3)	(4)	(5)
WifeEarnsMore	-0.00	0.01	0.01	0.02*	0.04**
	(0.01)	(0.01)	(0.01)	(0.01)	(0.02)
WifeEarnsMore*East	0.00	-0.02	-0.02	-0.04**	-0.05**
	(0.01)	(0.01)	(0.02)	(0.02)	(0.02)
Log Income HH	-0.01	-0.02***	-0.03***	-0.03***	-0.04***
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Log Income Woman	0.01*	0.01	0.01	0.01	0.01
	(0.00)	(0.01)	(0.01)	(0.01)	(0.01)
Log Income Man	-0.01**	-0.01	-0.01	-0.01	-0.01
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Couple fixed-effects	Yes	Yes	Yes	Yes	Yes
Observations	16468	14201	12413	10948	9725
Individuals	2721	2389	2122	1896	1707
Probability of divorce	1,6%	3,3%	5,1%	6,9%	8,9%

Notes: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. The data comes from the German Socio-Economic Panel using all the waves from 1991 until 2012. The dependent variable is a dummy that equals 1 if the couple has divorced within the indicated time horizon. The sample contains only dual earner married couples. Standard errors clustered at the couple level are given in parentheses. East is a dummy equals to 1 when the household head has lived in the former GDR before 1990. Controls: respondent and partner's age and age squared, respondent and partner's education level (4 categories), a dummy controlling for the presence of children, year fixed-effects, Länder fixed-effects and couple fixed-effects.

Finally, we would like to know whether the risk of divorce is generally lower in the Länder of the former East Germany, whether couples have lived there under the socialist institutions or not. We thus run the same estimates as in Table 7, but with the geographic definition of the East/West divide. Table 8 below shows that the results have the same flavor, although with smaller coefficients (row 1).

Table 8: Divorced within 5-year time horizon in Eastern versus Western Länder.

	All (1)	All (2)	All (3)	West (4)	East (5)
Dependent Variable: Divorced within a 5-year time horizon					
WifeEarnsMore	0.00 (0.02)	0.02* (0.01)	0.02 (0.01)	0.02* (0.01)	-0.01 (0.01)
EastGeo	-0.01 (0.03)				
WifeEarnsMore*EastGeo	0.01 (0.02)	-0.03* (0.02)	-0.03* (0.02)		
Log Income HH	0.00 (0.02)	-0.02** (0.01)	-0.02** (0.01)	-0.02 (0.01)	-0.03** (0.01)
Log Income Woman	0.02** (0.01)	0.01 (0.01)	0.01 (0.02)	0.01 (0.01)	0.01 (0.01)
Log Income Man	-0.01 (0.01)	-0.01 (0.01)	-0.00 (0.02)	-0.01 (0.01)	-0.01 (0.01)
Relative Income			0.04 (0.14)		
Relative Income*EastGeo			-0.01 (0.06)		
Couple fixed-effects	No	Yes	Yes	Yes	Yes
Observations	14725	14725	14725	10378	4347
Individuals		3001	3001	2219	799
Probability of divorce	8,7%	8,7%	8,7%	9,8%	6,1%

Notes: * p < 0.1, ** p < 0.05, *** p < 0.01. The data comes from the German Socio-Economic Panel using all the waves from 1991 until 2012. The dependent variable is a dummy that takes the value 1 if the couple has divorced within a 5-year time horizon. The sample contains only dual earner married couples. Standard errors clustered at the couple level are given in parentheses. East is a dummy equals to 1 (resp. 0) if the couple currently lives in Länder that used to be part of the former GDR (resp. FRG) and both members have the German nationality. Controls: respondent and partner's age and age squared, respondent and partner's education level (4 categories), a dummy controlling for the presence of children, year fixed-effects, Länder fixed-effects and couple fixed-effects.

5.4 Direct Evidence on the East/West Divide in Gendered Preferences

We interpret all of the previous findings as the track left by almost five decades of socialism on gender identity norms. In order to sustain this interpretation, we present some

evidence of self-stated preferences and attitudes. This complements the evidence produced by Bauernschuster and Rainer (2012) and Beblo and Georges (2015), who used the German General Social Survey (ALLBUS). Table 9 and 10 present the marginal effect of the following equation:

$$Preference_{it} = \gamma_1 Female_i + \gamma_2 East_i + \gamma_3 Female_i * East_i + \beta X_{it} + \epsilon_{it}$$

where the preferences of individual i in year t depend on her gender and whether she has lived in East Germany or not before 1990, controlling for the usual socio-demographic variables (household income, work hours of both spouses, age, age squared, presence of children in the household, education of both spouses, year and Länder fixed-effects).

Table 9: Attitudes to Work of East versus West Germans. Probit marginal effects

	Dependent Variable: How Important is … for your satisfaction ?				
	(1) Work	(2) Success In Job	(3) A Successful Carreer	(4) Marriage	(5) Family
East	0.139***	0.051***	0.039**	0.007	0.022*
	(0.019)	(0.014)	(0.016)	(0.013)	(0.012)
Female	-0.181***	-0.133***	-0.133***	0.049***	0.038***
	(0.015)	(0.011)	(0.014)	(0.009)	(0.008)
Female*East	0.119***	0.086***	0.074***	-0.020	0.013
	(0.021)	(0.018)	(0.019)	(0.015)	(0.011)
Observations	11,011	12,839	10,963	12,991	11,122

Notes: * p < 0.1, ** p < 0.05, *** p < 0.01. The data comes from the German Socio-Economic Panel using all the waves from 1991 until 2012. The sample contains only married couples. Standard errors clustered at the individual level are given in parentheses. East is a dummy equals to 1 when the household head has lived in the former GDR before 1990. Controls: respondent and partner's age and age squared, respondent and partner's education level (4 categories), a dummy controlling for the presence of children, a dummy representing whether the woman is working, a dummy representing whether the man is working and their interaction with the East dummy, year fixed-effects and Länder fixed-effects.

As expected, Table 9 shows that γ_1 is negative, i.e. women generally attach less importance to work, success in job and to having a successful career, than men (the first column indicates that being a woman reduces the probability to declare work as very important by 18.1 percentage points). However, γ_3 is positive, showing that this is less true in East Germany. In line with the higher rate of labor force participation of both men and women in the former GDR, γ_2 is positive, indicating that paid-work is more important for those who have lived in East Germany. For instance, column 1 of Table 9 shows that the probability that a woman considers work as very important is 18.1 percentage points lower than it is for a man,

but if she has lived under the GDR, this effect is weakened by 25.8 percentage points (11.9 + 13.9). Overall, it seems that East German women attach at least as much importance to work as West German men. Moreover, the negative sign of γ_1 and the positive sign of γ_2 suggest that the gender gap in preferences is narrower in East Germany than in West Germany.

One may wonder whether in East Germany work values have crowded out family values. Column 4 displays the estimate of the self-declared importance of marriage. The coefficients of interest are not statistically significant, which suggests that there was no shift in preferences concerning marriage in East Germany.

Table 10 below complements the previous results using the geographical definition, which allows a larger sample, as it includes the observations collected in 1998 and 2000. The strong significance of γ_3 in columns 1,2 and 3 illustrates the smaller gender gap in work values in East Germany.

Table 10: Attitudes to Work in Eastern Versus Western Länder. Probit marginal effects.

	Dependent Variable: How Important is ... for your satisfaction ?				
	(1) Work	(2) Success In Job	(3) A Successful Carreer	(4) Marriage	(5) Family
EastGeo	0.106***	0.026**	0.026*	0.009	0.012
	(0.018)	(0.011)	(0.015)	(0.011)	(0.010)
Female	-0.178***	-0.112***	-0.123***	0.038***	0.038***
	(0.014)	(0.008)	(0.012)	(0.007)	(0.002)
Female*EastGeo	0.115***	0.085***	0.061***	-0.014	0.017*
	(0.019)	(0.014)	(0.018)	(0.012)	(0.010)
Observations	12,762	22,906	12,710	23,185	12,896

Notes: * p < 0.1, ** p < 0.05, *** p < 0.01. The data comes from the German Socio-Economic Panel using all the waves from 1991 until 2012. The sample contains only married couples. Standard errors clustered at the individual level are given in parentheses. East is a dummy equals to 1 (resp. 0) if the individual currently lives in Länder that used to be part of the former GDR (resp. FRG) and has the German nationality. Controls: respondent and partner's age and age squared, respondent and partner's education level (4 categories), a dummy controlling for the presence of children, a dummy representing whether the woman is working, a dummy representing whether the man is working and their interaction with the East (Geographical) dummy, year fixed-effects and Länder fixed-effects.

5.5 Additional Robustness Checks

5.5.1 Alternative samples and specification

We ran several robustness tests that are presented in the Appendix. First, we replicated our main estimates on the subsample of men, looking at the association between female relative earnings and male housework hours (Table A4): men monotonically decrease their

number of housework as their relative income rises, with no discontinuity at the point of equal earnings with their wife. Second, we varied the sample by enlarging it to single-earner couples (Table A5 for housework and Table A8 for divorce), and, alternatively, to unmarried couples (Table A5): the results were identical. Finally, we ran the same regressions without controlling for individual incomes or household income and introducing hourly wages (Table A6 for housework and Table A9 for divorce). The results remained essentially unchanged. We also counted childcare in the measure of housework time, and obtained identical results (Table A11).

5.5.2 The Case of migrants from the East to the West

Our main claim is that gender norms currently differ across households for cultural reasons. We do not need to exclude the possibility that the heritage of the socialist period persists, not only in families, but also in firms and potentially in other instances of society, However, we would like illustrate the legacy of past institutions without being contaminated by objective structural differences that might exist across German Länder. For example, income per capita is still lower and unemployment more pervasive in the East. Such differences could influence households' behavior, in particular female labor market participation and housework hours.

In order to rule out these confounding factors, we focus on Western Länder: within this region, we contrast the behavior of West Germans "natives" to that of East German "immigrants". Due to a small sample size, we cannot replicate the regressions but descriptive statistics and visual evidence on the distribution of relative income attest that gender norms clearly differ across these groups. Table 11 presents simple descriptive statistics about the two groups. We can see that the women's share of income is 4 percentage points higher in formerly Eastern households; their housework hours are shorter and their paid-work hours longer. The gender gap in housework is twice smaller among these couples. There are 15% of couples where the wife earns more than her spouse among those who immigrated from the East, versus 10% among other couples. The distribution of relative income within couples displayed on Figure 8 illustrates these differences: each distribution has two hikes, a principal mode around 20%, and a minor one around 45% for "native" Western couples, and the reverse pattern for former Easterners. Hence, among couples who currently live in the West, those who immigrated from the East after 1990 still follow a more egalitarian gender script.

Table 11: Descriptive Statistics of Couples Living in Western Länder Depending on Where they Used to Live During the Division. Dual-Earner Married Couples.

	Lived in FRG				Lived in GDR			
	Mean	S.D.	Min	Max	Mean	S.D.	Min	Max
Woman's Share of Income	0.29	0.16	0	1	0.33	0.16	0	1
WifeEarnsMore	0.10	0.30	0	1	0.15	0.36	0	1
Woman's Housework Time	2.74	1.56	0	12	1.93	1.03	0	6
Man's Housework Time	0.61	0.75	0	16	0.77	0.72	0	5
Hswk Woman - Hswk Man	2.12	1.81	-15	12	1.16	1.24	-4	6
Paid Work Time Woman	26.99	13.28	1	80	31.89	11.67	3	80
Paid Work Time Man	43.61	9.46	1	80	44.97	8.99	9	80
Income HH (Euros)	3134.30	1403.59	10	28700	3135.57	1395.40	650	12000
Income Woman (Euros)	837.86	594.98	2	10000	964.14	584.74	100	4000
Income Man (Euros)	2083.07	1004.59	61	12782	2025.66	1120.85	300	10000
Hourly Wage Woman	7.67	4.48	0	89	7.37	4.69	1	86
Hourly Wage Man	11.58	6.58	0	241	10.73	5.36	2	47
Woman's Age	41.64	8.69	20	65	38.79	9.44	20	63
Man's Age	44.31	8.94	20	65	41.76	9.42	21	64
Kids in HH (1=YES)	0.68	0.47	0	1	0.64	0.48	0	1
Observations	11786				664			

Notes: The data comes from the German Socio-Economic Panel using all the waves from 1991 until 2012. Descriptive statistics are based on the main sample: married couples with positive income. Eastern couples are those whose household head has lived in the former GDR before 1990. Number of housework or paid-work hours per day.

Figure 8: Woman's Relative Income In Western Germany Depending on Where the Couple Lived During the Division
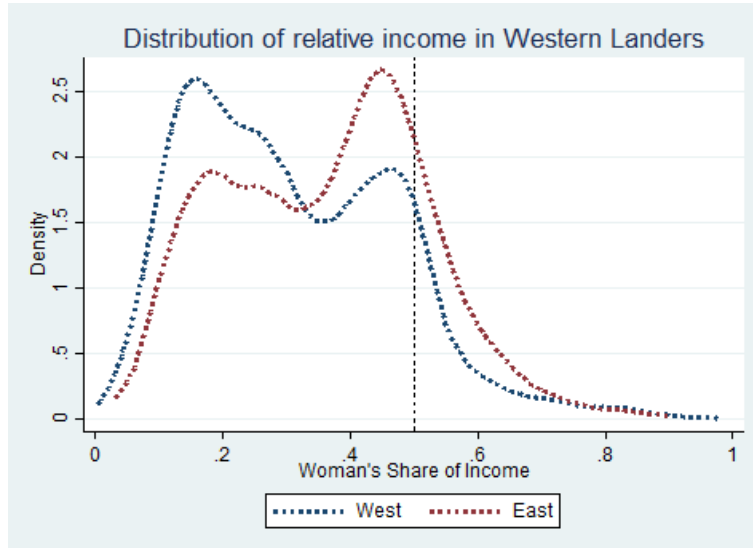
Notes: The data comes from the German Socio-Economic Panel using all the waves from 1991 until 2012. Sample: Dual-Earner married couples between 18 and 65 years of age living in Western Länder. Woman's Share of Income is defined as *Woman's Income/(Woman's Income + Man's Income)*. The black dashed line corresponds to Woman's share of income = 0.5. Each dot represents the fraction of couples in a 0.05 relative income bin. Eastern couples are those whose household head has lived in the former GDR before 1990.

5.5.3 Other possible focal points

We have followed the literature in testing for the influence of the focal point of equal earnings between spouses. But could the threshold be lower or higher? To enquire, we run equations (1) and (2), with respectively the number of female housework hours and the risk of divorce as independent variables, and we successively replace the dummy "Wife Earns More" by a dummy which code 1 if the income of the wife is greater than 10%, 30%, 50%, 70% or 90%, and 0 otherwise. The coefficient on the dummy variable starts being statistically significant only when the share of the wife's income reaches 50%. This is true of both the estimates of female housework hours (Table A12) and marital instability (Table A13). Note that we do not expect the coefficients to be insignificant for thresholds greater than 50%: if the wife's income is greater than 70%, it is obviously also greater than 50%. However, the coefficients turn statistically insignificant because of the little number of observations and because many of the couples who are "doing gender" are on the other side of the cut-off point.

5.5.4 Other possible divisions of Germany

The paper's main claim is that the difference between East versus West Germany stems from the different institutions that prevailed during the division. In order to challenge this interpretation, we run a systematic placebo exercize, which consists in testing the relevance of all of the possible divisions of the 15 German regions (excluding Berlin) into two groups of respectively 5 (Group 1) and 10 (Group 2) regions. This mimics the division of Germany into the GDR (5 Länder) and the FRG (10 Länder), excluding Berlin. We run the estimate of equation 1 (with the number of female housework hours as the independent variable) and look at whether our coefficients of interest, i.e. those associated with the dummy "Wife Earns More", and the interaction of "Wife Earns More" * "Group 1", are statistically significant, and at which level. It turns out that out of 3003 combinations, there are only 111 cases, i.e. 3,7% cases, where both coefficients are statistically significant at the 1% level. Table A14 displays a synthetic analysis of the results, i.e. estimates of the probability that both coefficients of interest are statistically significant, depending on the composition of Group 1 and Group 2, i.e. on how many Eastern Länder are included in Group 1. Column 1 displays the probability that the coefficients of interest are significant at the 10% level; column 2 at the 5% level and column 3 at the 1% level. The table shows that as more Eastern Länder are included in Group 1, the coefficients become more statistically significant. The difference between Eastern and Western Länder thus does not seem to be driven by another more relevant divide.

6   Conclusions

During the four decades of the socialist episode in East Germany, institutions provided strong incentives for women's participation in the labor market, which, in turn, instilled more equal gender norms concerning the division of tasks between spouses. We show that 25 years after the dissolution of these institutions, their cultural effects persist. Couples who lived in East Germany are still more egalitarian than those who did not. Gender roles also differ across the geographical East/West divide, i.e. not only due to couples who actually experienced the socialist institutions themselves until 1990, but, more likely, suggesting that all East German inhabitants are impregnated by the inherited cultural habits of the region. Conversely, former Eastern couples who have migrated to the West after 1990 still follow more gender equal scripts than their fellow Western inhabitants.

One can also wonder which of the many institutional differences that opposed the East and the West had the largest influence on gender norms. However, the entire and immense literature about gender gaps points to the housework-paid work nexus as the main locus where the gap is generated. It would be difficult not to recognize that the roots of the change was the full-time employment norm that became prevalent in the East during the Socialist era. This

norm, in turn, was made possible by the work-family balance policy that was implemented in East Germany (as witnessed by the number of Kindergarten, for instance).

The main part of the literature on culture usually aims at demonstrating the persistence of culture. This paper's lesson is twofold. On the one hand, it shows that culture is persistent, in the sense that the egalitarian gender culture instilled by the socialist period has persisted up to the current period. On the other hand, it shows that culture and identity can be changed by institutions. In particular, gender roles and the division of tasks within the household are not irresistibly grounded in nature. They are cultural, which means slow-moving, but moving.

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Appendix

Figure A1-A5 - Distribution attitudinal variables

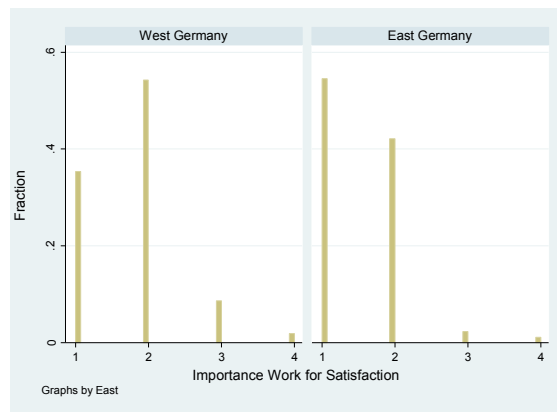Figure A1 - Importance Work for Satisfaction

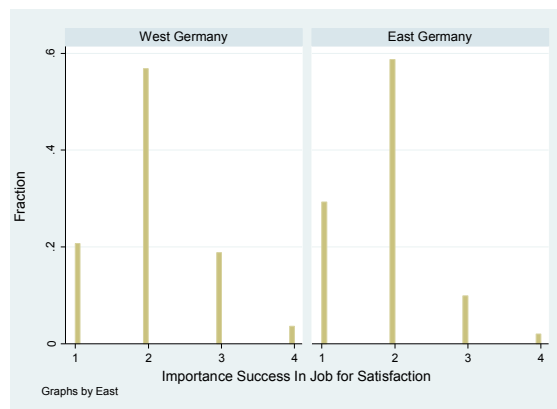Figure A2 - Importance Success in Job for Satisfaction

Figure A3 - Importance Career for Satisfaction
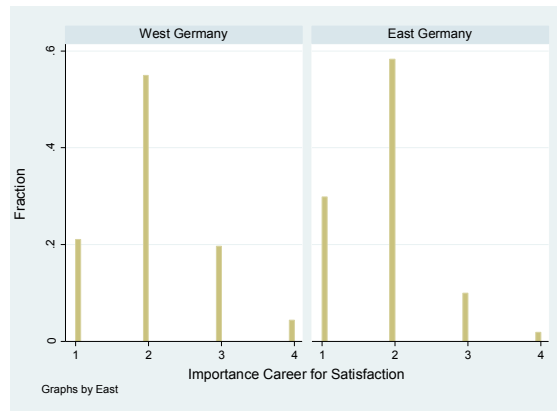

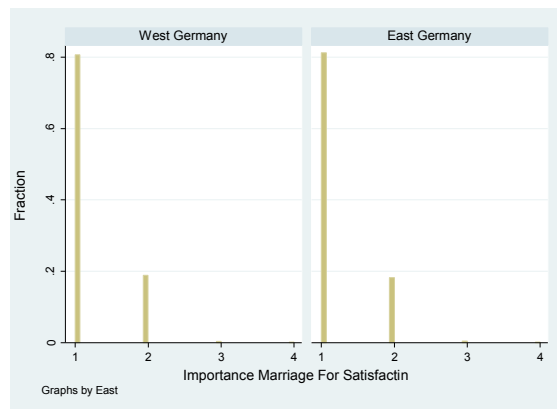Figure A4 - Importance Marriage for Satisfaction

Figure A5 - Importance Family for Satisfaction
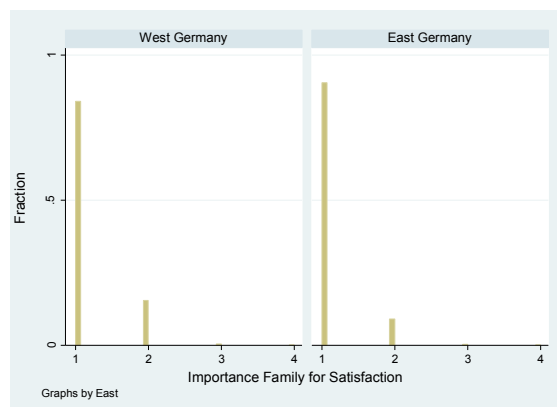
gave this answered. The answers are given on a 1-4 scale, 1 being very important, 2 important, 3 unimportant and 4 very unimportant.

Table A1: Descriptive Statistics of the East/West Samples: Geographical Divide. Dual-Earner Married Couples.

	West Germany				East Germany			
	Mean	S.D.	Min	Max	Mean	S.D.	Min	Max
Woman's Share of Income	0.29	0.17	0	1	0.42	0.15	0	1
WifeEarnsMore	0.11	0.32	0	1	0.30	0.46	0	1
Woman's Housework Time	2.59	1.47	0	14	1.99	1.08	0	12
Man's Housework Time	0.62	0.74	0	16	0.65	0.73	0	10
Hswk Woman - Hswk Man	1.97	1.72	-15	13	1.33	1.32	-9	12
Paid Work Time Woman	27.45	13.16	1	80	38.02	10.26	1	80
Paid Work Time Man	44.33	9.72	1	80	45.78	9.83	1	80
Income HH (Euros)	3554.09	2264.72	10	200000	2653.26	1283.20	102	16259
Income Woman (Euros)	962.09	807.21	2	30170	1055.32	657.16	17	15000
Income Man (Euros)	2352.42	1614.87	46	99999	1461.82	944.77	25	20452
Hourly Wage Woman	8.41	5.29	0	129	6.74	4.17	0	96
Hourly Wage Man	12.64	8.23	0	392	7.74	5.12	0	138
Woman's Age	43.06	8.69	18	65	43.00	8.51	19	65
Man's Age	45.68	8.88	20	65	45.32	8.67	22	65
Kids in HH (1=YES)	0.68	0.47	0	1	0.73	0.45	0	1
Observations	26561				11037			

Notes: The data comes from the German Socio-Economic Panel, using all the waves from 1991 until 2012. Descriptive statistics are based on the main sample: married couples with positive income. People are in the East (resp. West) sample if they currently live in Länder that used to be part of the former GDR (resp. FRG) and have the German nationality. Number of housework or paid-work hours per day.

Table A2: Descriptive statistics of the East/West samples on divorce: historical definition

	West Germany				East Germany			
	Mean	S.D.	Min	Max	Mean	S.D.	Min	Max
Divorce At 5 Years	0.11	0.31	0	1	0.06	0.24	0	1
Relative Income	0.29	0.16	0	1	0.43	0.14	0	1
WifeEarnsMore	0.09	0.29	0	1	0.32	0.47	0	1
Woman's Age	41.15	7.48	20	61	40.70	7.47	21	60
Man's Age	43.75	7.67	20	62	43.09	7.56	23	61
Income HH	3085.03	1348.62	409	25565	2466.11	960.09	460	12000
Income Woman	818.42	564.79	2	5000	1022.79	556.76	49	9715
Income Man	2072.84	1043.46	128	20452	1344.41	693.40	102	12578
Kids in HH (1=YES)	0.73	0.44	0	1	0.82	0.38	0	1
Observations	5891				3834			

Notes: The data comes from the German Socio-Economic Panel using all the waves from 1991 until 2012. Descriptive statistics are based on the main sample: married couples with positive income. Eastern couples are those whose household head has lived in the former GDR before 1990.

Table A3: **Regression discontinuity** of the Woman's share of Income on the relative distance to the East/West frontier

	50	100	150	200
	(1)	(2)	(3)	(4)
	Model A: Local linear polynomial			
East	0.097***	0.104***	0.112***	0.11***
	(0.032)	(0.025)	(0.019)	(0.017)
Observations	5112	10240	16517	22010
	Model B: Third order polynomial			
East	0.117***	0.097***	0.107***	0.11***
	(0.048)	(0.032)	(0.025)	(0.022)
Observations	5112	10240	16517	22010

* p < 0.1, ** p < 0.05, *** p < 0.01. The data comes from the German Socio-Economic Panel using all the waves from 1991 until 2012. The sample contains only dual earner married couples. Standard errors clustered at the district level are given in parentheses. East is a dummy equals to 1 when the household is located in East Germany. Model A includes a local linear polynomial in distance from the frontier and model B includes a third order polynomial in distance from the frontier. Observations are weighted by proximity to the frontier using a triangular kernel.

Table A4: **Men's Housework Time** and Relative Income Depending on Whether Couples Have Lived in the former GDR or FRG. OLS Estimates. Dual-Earner Married Couples

	West (1)	East (2)	All (3)	West (4)	East (5)	All (6)
	Dependent variable: Men's Housework Time (hours per day)					
WifeEarnsMore	-0.08*	-0.08**	-0.10**	-0.01	-0.03	-0.01
	(0.05)	(0.04)	(0.05)	(0.04)	(0.03)	(0.04)
WifeEarnsMore*East			0.05			-0.01
			(0.06)			(0.04)
East			0.13*			
			(0.07)			
Relative Income	0.70**	1.31**	0.89***	0.80**	0.30	0.92***
	(0.33)	(0.52)	(0.29)	(0.35)	(0.48)	(0.30)
(Relative income)*East			-0.38**			-0.54***
			(0.15)			(0.16)
Log Income Woman	0.05	-0.12	0.03	-0.02	0.01	-0.02
	(0.05)	(0.10)	(0.04)	(0.06)	(0.08)	(0.05)
Log Income Man	-0.13*	0.05	-0.10*	-0.09	-0.06	-0.05
	(0.08)	(0.11)	(0.06)	(0.08)	(0.10)	(0.06)
Log Income HH	-0.05	-0.08*	-0.07*	-0.06	-0.08*	-0.06**
	(0.05)	(0.05)	(0.03)	(0.04)	(0.04)	(0.03)
Individual fixed-effects	No	No	No	Yes	Yes	Yes
Observations	12536	9341	21877	12536	9341	21877
Individuals				1900	1391	3291

* p < 0.1, ** p < 0.05, *** p < 0.01. The data comes from the German Socio-Economic Panel using all the waves from 1991 until 2012. The sample contains only dual earner married couples. Standard errors clustered at the individual level are given in parentheses. East is a dummy equals to 1 when the household head has lived in the former GDR before 1990. Controls include respondent and partner's age and age squared, respondent and partner's education level (4 categories), a dummy controlling for the presence of children, along with year fixed-effects and region fixed-effects.

Table A5: Woman's Housework Time and Relative Income Depending on Whether Couples Have Lived in the former GDR or FRG. OLS Estimates. **Alternative Samples**

	Dependent variable: Woman's Housework Time (hours per day)			
	(1)	(2)	(3)	(4)
WifeEarnsMore	0.19***	0.14**	0.18***	0.15***
	(0.06)	(0.06)	(0.05)	(0.04)
WifeEarnsMore*East	-0.18***	-0.14**	-0.18***	-0.15***
	(0.07)	(0.07)	(0.05)	(0.05)
Relative Income	-1.12*	-0.67**	-0.66	-0.67**
	(0.63)	(0.29)	(0.54)	(0.27)
(Relative income)*East	1.24***	1.04***	1.34***	1.22***
	(0.25)	(0.23)	(0.22)	(0.21)
Log Income Woman	-0.48***	-0.51***	-0.54***	-0.52***
	(0.11)	(0.05)	(0.09)	(0.05)
Log Income Man	-0.02	0.07	0.11	0.11**
	(0.12)	(0.05)	(0.10)	(0.05)
Log Income HH	-0.04	-0.02	-0.06	-0.04
	(0.05)	(0.04)	(0.04)	(0.04)
Marital Status	Only Married	Only Married	All couples	All couples
Only Dual Earner	Yes	No	Yes	No
Individual fixed-effects	Yes	Yes	Yes	Yes
Observations	21877	28811	26467	33675
Individuals	3291	3930	4001	4651

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. The data comes from the German Socio-Economic Panel using all the waves from 1991 until 2012. Standard errors clustered at the individual level are given in parentheses. Controls include a dummy for whether only the woman is working and a dummy for whether only the man is working, both alone and interacted with East. East is a dummy equals to 1 when the household head has lived in the former GDR before 1990. Demographic variables include respondent and partner's age and age squared, respondent and partner's education level (4 categories), a dummy controlling for the presence of children, along with year fixed-effects and region fixed-effects.

Table A6: Woman's Housework Time and Relative Income Depending on Whether Couples Have Lived in the former GDR or FRG. OLS Estimates. Dual-Earner Married Couples. **Alternative Specifications**

	(1)	(2)	(3)	(4)
Dependent variable: Woman's Housework Time (hours per day)				
WifeEarnsMore	0.37***	0.19***	0.19***	0.40***
	(0.06)	(0.06)	(0.06)	(0.06)
WifeEarnsMore*East	-0.30***	-0.19***	-0.18***	-0.33***
	(0.07)	(0.07)	(0.07)	(0.07)
Relative Income	-2.84***	-1.16*	-1.12*	-3.18***
	(0.20)	(0.63)	(0.63)	(0.21)
(Relative income)*East	1.61***	1.25***	1.24***	1.68***
	(0.26)	(0.25)	(0.25)	(0.27)
Log Income Woman		-0.48***	-0.48***	
		(0.11)	(0.11)	
Log Income Man		-0.04	-0.02	
		(0.12)	(0.12)	
Hourly Wage Woman				0.02***
				(0.00)
Hourly Wage Man				-0.00
				(0.00)
Log Income HH	-0.27***		-0.04	-0.32***
	(0.04)		(0.05)	(0.05)
Individual fixed-effects	Yes	Yes	Yes	Yes
Observations	21877	21877	21877	20504
Individuals	3291	3291	3291	3187

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. The data comes from the German Socio-Economic Panel using all the waves from 1991 until 2012. The sample contains only dual earner married couples. Standard errors clustered at the individual level are given in parentheses. East is a dummy equals to 1 when the household head has lived in the former GDR before 1990. Controls include respondent and partner's age and age squared, respondent and partner's education level (4 categories), a dummy controlling for the presence of children, along with year fixed-effects and region fixed-effects.

Table A7: Woman's Housework Time and Relative Income Depending on Whether Couples Have Lived in the former GDR or FRG. OLS Estimates. Dual-Earner Married Couples. **Adding Controls Progressively**

Dependent variable: Woman's Housework Time (hours per day)					
	(1)	(2)	(3)	(4)	
WifeEarnsMore	-0.32***	0.38***	0.21***	0.21***	0.19***
	(0.05)	(0.06)	(0.06)	(0.06)	(0.06)
WifeEarnsMore*East	0.19***	-0.32***	-0.20***	-0.20***	-0.18***
	(0.06)	(0.07)	(0.07)	(0.07)	(0.07)
Relative Income		-3.12***	-1.68***	-1.64**	-1.12*
		(0.20)	(0.64)	(0.64)	(0.63)
(Relative income)*East		1.83***	1.49***	1.49***	1.24***
		(0.26)	(0.26)	(0.26)	(0.25)
Log Income Woman			-0.46***	-0.46***	-0.48***
			(0.11)	(0.11)	(0.11)
Log Income Man			-0.11	-0.09	-0.02
			(0.12)	(0.12)	(0.12)
Log Income HH				-0.03	-0.04
				(0.04)	(0.05)
Socio-demographic variables	No	No	No	No	Yes
Year fixed-effects	No	No	No	No	Yes
Region fixed-effects	No	No	No	No	Yes
Individual fixed-effects	Yes	Yes	Yes	Yes	Yes
Observations	21877	21877	21877	21877	21877
Individuals	3291	3291	3291	3291	3291

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. The data comes from the German Socio-Economic Panel using all the waves from 1991 until 2012. The sample contains only dual earner married couples. Standard errors clustered at the individual level are given in parentheses. East is a dummy equals to 1 when the household head has lived in the former GDR before 1990. Socio-demographic variables: respondent and partner's age and age squared, respondent and partner's education level (4 categories), a dummy controlling for the presence of children,

Table A8: Female Relative Income and the Risk of Divorce within a 5-year Time Horizon. Dual-Earner Married Couples. **Alternative Samples**

| | *Dependent Variable: Divorced within 5-year* | |
| | Dual-Earner couples | Dual and Single-Earner couples |
	(1)	(2)
WifeEarnsMore	0.04**	0.03*
	(0.02)	(0.02)
WifeEarnsMore*East	-0.05**	-0.04**
	(0.02)	(0.02)
Log Income HH	-0.04***	-0.03***
	(0.01)	(0.01)
Log Income Woman	0.01	0.01
	(0.01)	(0.01)
Log Income Man	-0.01	-0.00
	(0.01)	(0.01)
Couple fixed-effects	Yes	Yes
Observations	9725	12558
Individuals	1707	2105
Probability of divorce	8,9%	8,2%

* p < 0.1, ** p < 0.05, *** p < 0.01. The data comes from the German Socio-Economic Panel using all the waves from 1991 until 2012. The dependent variable is a dummy that equals 1 if the couple has divorced within a 5-year time horizon. Standard errors clustered at the couple level are given in parentheses. East is a dummy equals to 1 when the household head has lived in the former GDR before 1990. Controls : respondent and partner's age and age squared, respondent and partner's education level (4 categories), a dummy for whether only the woman is working and a dummy for whether only the man is working, both alone and interacted with East, a dummy controlling for the presence of children, year fixed-effects, region fixed-effects and couple fixed-effects.

Table A9: Female Relative Income and the Risk of Divorce within a 5-year Time Horizon. Dual-Earner Married Couples. **Alternative Specifications**

Dependent Variable : Divorced within 5-year			
	(1)	(2)	(3)
WifeEarnsMore	0.04**	0.04**	0.03*
	(0.02)	(0.02)	(0.02)
WifeEarnsMore*East	-0.05**	-0.05**	-0.05**
	(0.02)	(0.02)	(0.02)
Log Income HH	-0.04***	-0.04***	
	(0.01)	(0.01)	
Log Income Woman	0.01		0.00
	(0.01)		(0.01)
Log Income Man	-0.01		-0.02**
	(0.01)		(0.01)
Couple fixed-effects	Yes	Yes	Yes
Observations	9725	9725	9725
Individuals	1707	1707	1707
Probability of divorce	8,9%	8,9%	8,9%

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. The data comes from the German Socio-Economic Panel using all the waves from 1991 until 2012. The dependent variable is a dummy that equals 1 if the couple has divorced within a 5-year time horizon. The sample contains only dual earner married couples. Standard errors clustered at the couple level are given in parentheses. East is a dummy equals to 1 when the household head has lived in the former GDR before 1990. Controls : respondent and partner's age and age squared, respondent and partner's education level (4 categories), children, year fixed-effects, region fixed-effects and couple fixed-effects.

Table A10: Female Relative Income and the Risk of Divorce within a 5-year Time Horizon. Dual-Earner Married Couples. **Adding Controls Progessively**

	Dependent Variable : Divorced within 5-year			
	(1)	(2)	(3)	(4)
WifeEarnsMore	0.05***	0.05**	0.04**	0.04**
	(0.02)	(0.02)	(0.02)	(0.02)
WifeEarnsMore*East	-0.05**	-0.05**	-0.05**	-0.05**
	(0.02)	(0.02)	(0.02)	(0.02)
Log Income Woman		0.03***	0.02**	0.01
		(0.01)	(0.01)	(0.01)
Log Income Man		0.02*	0.01	-0.01
		(0.01)	(0.01)	(0.01)
Log Income HH			0.02	-0.04***
			(0.01)	(0.01)
Socio-demographic variables	No	No	No	Yes
Year fixed-effects	No	No	No	Yes
Region fixed-effects	No	No	No	Yes
Couple fixed-effects	Yes	Yes	Yes	Yes
Observations	9725	9725	9725	9725
Individuals	1707	1707	1707	1707
Probability of divorce	8,9%	8,9%	8,9%	8,9%

* p < 0.1, ** p < 0.05, *** p < 0.01. The data comes from the German Socio-Economic Panel using all the waves from 1991 until 2012. The dependent variable is a dummy that equals 1 if the couple has divorced within a 5-year time horizon. The sample contains only dual earner married couples. Standard errors clustered at the couple level are given in parentheses. East is a dummy equals to 1 when the household head has lived in the former GDR before 1990. Socio-demographic variables: respondent and partner's age and age squared, respondent and partner's education level (4 categories), a dummy controlling for the presence of children

Table A11: Woman's Housework+Childcare Time and Relative Income Depending on Whether Couples Have Lived in the former GDR or FRG. OLS Estimates. Dual-Earner Married Couples. **Adding Childcare**

	Dependent variable: Woman's Housework+Childcare Time (hours per day)					
	West (1)	East (2)	All (3)	West (4)	East (5)	All (6)
WifeEarnsMore	0.95*** (0.22)	0.13 (0.13)	1.00*** (0.22)	0.83*** (0.21)	0.14 (0.10)	0.92*** (0.21)
WifeEarnsMore*East			-0.78*** (0.25)			-0.75*** (0.23)
East			-2.38*** (0.40)			
Relative Income	-5.51** (2.22)	2.99 (3.17)	-6.05*** (1.95)	-11.52*** (2.51)	0.62 (2.51)	-9.87*** (2.05)
(Relative income)*East			4.07*** (0.88)			6.51*** (0.93)
Log Income Woman	-1.05*** (0.37)	-2.13*** (0.66)	-1.12*** (0.33)	-0.80* (0.42)	-1.50*** (0.51)	-1.00*** (0.34)
Log Income Man	-0.26 (0.49)	0.93 (0.64)	-0.20 (0.38)	-1.81*** (0.49)	0.42 (0.51)	-0.82** (0.37)
Log Income HH	-0.66** (0.26)	-0.38** (0.17)	-0.64*** (0.17)	-0.58*** (0.22)	-0.44*** (0.15)	-0.49*** (0.14)
Fixed Effects	No	No	No	Yes	Yes	Yes
Observations	12028	8956	20984	12028	8956	20984
Individuals				1874	1375	3249

* p < 0.1, ** p < 0.05, *** p < 0.01. The data comes from the German Socio-Economic Panel using all the waves from 1991 until 2012. The sample contains only dual earner couples. Standard errors clustered at the individual level are given in parentheses. Controls include log of household income, log of woman's income and log of man's income. Demographic variables include respondent ant partners' age and age square, respondent and partner's education level, children along with year fixed-effects and region fixed-effects.

Table A12: **Placebo Alternative Thresholds**. Female Relative Income and Housework Time

	(1)	(2)	(3)	(4)	(5)
Dependent variable: Woman's Housework Time (hours per day)					
Wife Earns More than 10%	-0.07 (0.08)				
Wife Earns More than 10%*East	0.01 (0.14)				
Wife Earns More than 30%		-0.07 (0.05)			
Wife Earns More than 30%*East		0.05 (0.07)			
Wife Earns More than 50%			0.19*** (0.06)		
Wife Earns More than 50%*East			-0.18*** (0.07)		
Wife Earns More than 70%				0.24** (0.12)	
Wife Earns More than 70%*East				-0.12 (0.13)	
Wife Earns More than 90%					0.31 (0.24)
Wife Earns More than 90%*East					-0.28 (0.29)
Fixed Effects	Yes	Yes	Yes	Yes	Yes
Observations	21877	21877	21877	21877	21877
Individuals	3291	3291	3291	3291	3291

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. The data comes from the German Socio- Economic Panel using all the waves from 1991 until 2012. The sample contains only dual earner married couples. Standard errors clustered at the individual level are given in parentheses. East is a dummy equals to 1 when the household head has lived in the former GDR before 1990. Controls: respondent and partner's individual income (log), total household income (log), respondent and partner's age and age squared, respondent and partner's education level (4 categories), a dummy controlling for the presence of children, year fixed-effects, Länder fixed-effects and couple fixed-effects.

Table A13: **Placebo Alternative Thresholds**. Female Relative Income and Marital Instability.

	Dependent Variable: Divorced within a 5-year time horizon				
	(1)	(2)	(3)	(4)	(5)
Wife Earns More than 10%	-0.00				
	(0.02)				
Wife Earns More than 10%*East	-0.03				
	(0.02)				
Wife Earns More than 30%		-0.01			
		(0.01)			
Wife Earns More than 30%*East		0.02			
		(0.02)			
Wife Earns More than 50%			0.04**		
			(0.02)		
Wife Earns More than 50%*East			-0.05**		
			(0.02)		
Wife Earns More than 70%				0.09	
				(0.07)	
Wife Earns More than 70%*East				-0.08	
				(0.06)	
Wife Earns More than 90%					-0.02
					(0.02)
Wife Earns More than 90%*East					-0.02
					(0.01)
Fixed Effects	YES	YES	YES	YES	YES
Observations	9725	9725	9725	9725	9725
Individuals	1707	1707	1707	1707	1707

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. The data comes from the German Socio- Economic Panel using all the waves from 1991 until 2012. The sample contains only dual earner married couples who divorced during the panel. Standard errors clustered at the individual level are given in parentheses. East is a dummy equals to 1 when the household head has lived in the former GDR before 1990. Controls: respondent and partner's individual income (log), total household income (log), respondent and partner's age and age squared, respondent and partner's education level (4 categories), a dummy controlling for the presence of children, year fixed-effects, Länder fixed-effects and couple fixed-effects.

Table A14: **Placebo Exercize: Alternative Geographical Divides**

	(1)	(2)	(3)
Dependent variable =1 *if the coefficients on WifeEarnsMore and WifeEarnsMore*Group 1* *are both statistically significant,* *and 0 otherwise*			
	At 10%	At 5%	At 1%
One Eastern Lander in Group 1	0.01	0.00	-0.00
	(0.02)	(0.02)	(0.01)
Two Eastern Landers in Group 1	0.13***	0.07***	0.02
	(0.02)	(0.02)	(0.01)
Three Eastern Landers in Group 1	0.44***	0.31***	0.14***
	(0.02)	(0.02)	(0.01)
Four Eastern Landers in Group 1	0.84***	0.78***	0.52***
	(0.05)	(0.04)	(0.03)
Five Eastern Landers in Group 1	1.00***	1.00***	1.00***
	(0.30)	(0.25)	(0.17)
Observations	3003	3003	3003

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. This table tests all of possible divisions of the 15 German regions (excluding Berlin) into two groups of respectively 5 (Group 1) and 10 (Group 2) regions. We estimate equation (1) as in Table 3 column 6, with the number of female housework hours as the independent variable, but changing the composition of the "East" dummy into a dummy for belonging in Group 1 rather than Group 2. We then define a dummy that equals 1 if the coefficients associated to WifeEarnsMore and WifeEarnsMore*East are statistically significant at the relevant thresholds. We regress this dummy on the number of Eastern Länder in Group 1 as independent variable using Ordinary Least Squares. The omitted category is 0 Eastern Länder in Group 1. Column 1 displays the probability that the coefficients of interest are significant at the 10% level; column 2 at the 5% level and column 3 at the 1% level. For instance, the cell in the third column and 3rd row shows that with 3 Eastern Länder in Group 1 rather than zero, the probability that the coefficients of interest are statistically significant at the 1% level increases by 14 percentage points.

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