

Intergenerational transmission of domestic work patterns and gender roles

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Persistence of gender inequalities in domestic work

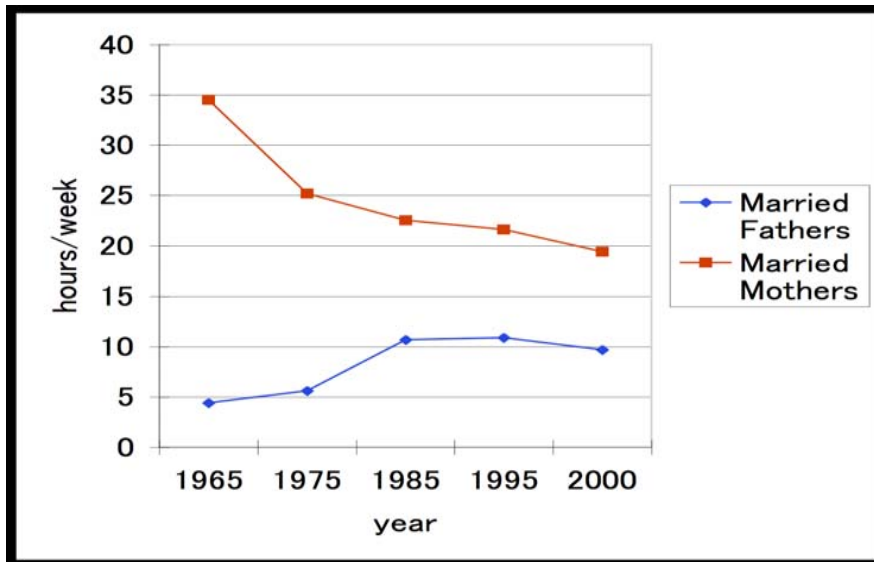
Women perform the bulk of domestic tasks

- Whatever the period, even with the development of dual-earners
- Whatever the country
- Even in couples in which woman earn more
= economic paradox?

Gender norms and stereotypes (Akerlof and Kranton 2000)

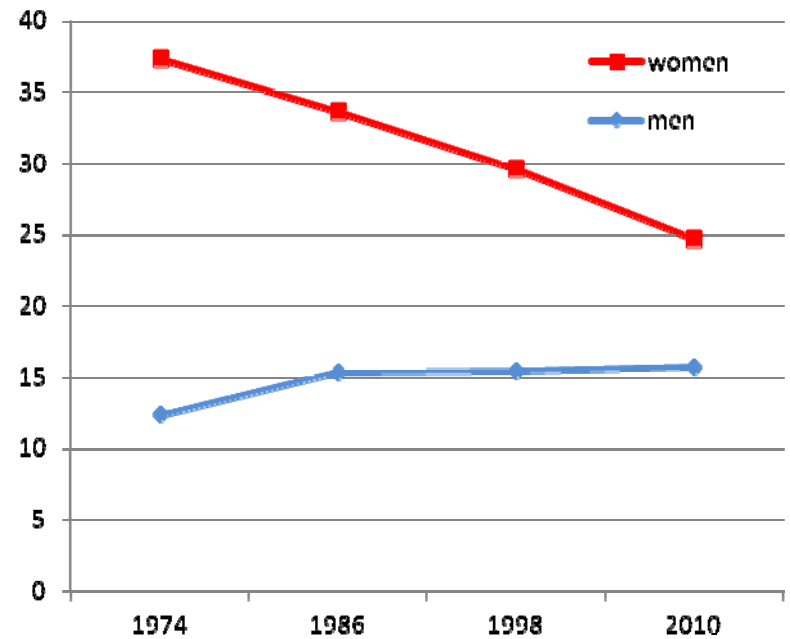
Stylised fact 1: Total hours in primary housework activities per week

US



US, Total hours in primary housework activities per week
John P. Robinson and Melissa A. Milkie "Changing Rhythms of American Family Life" p.93

France



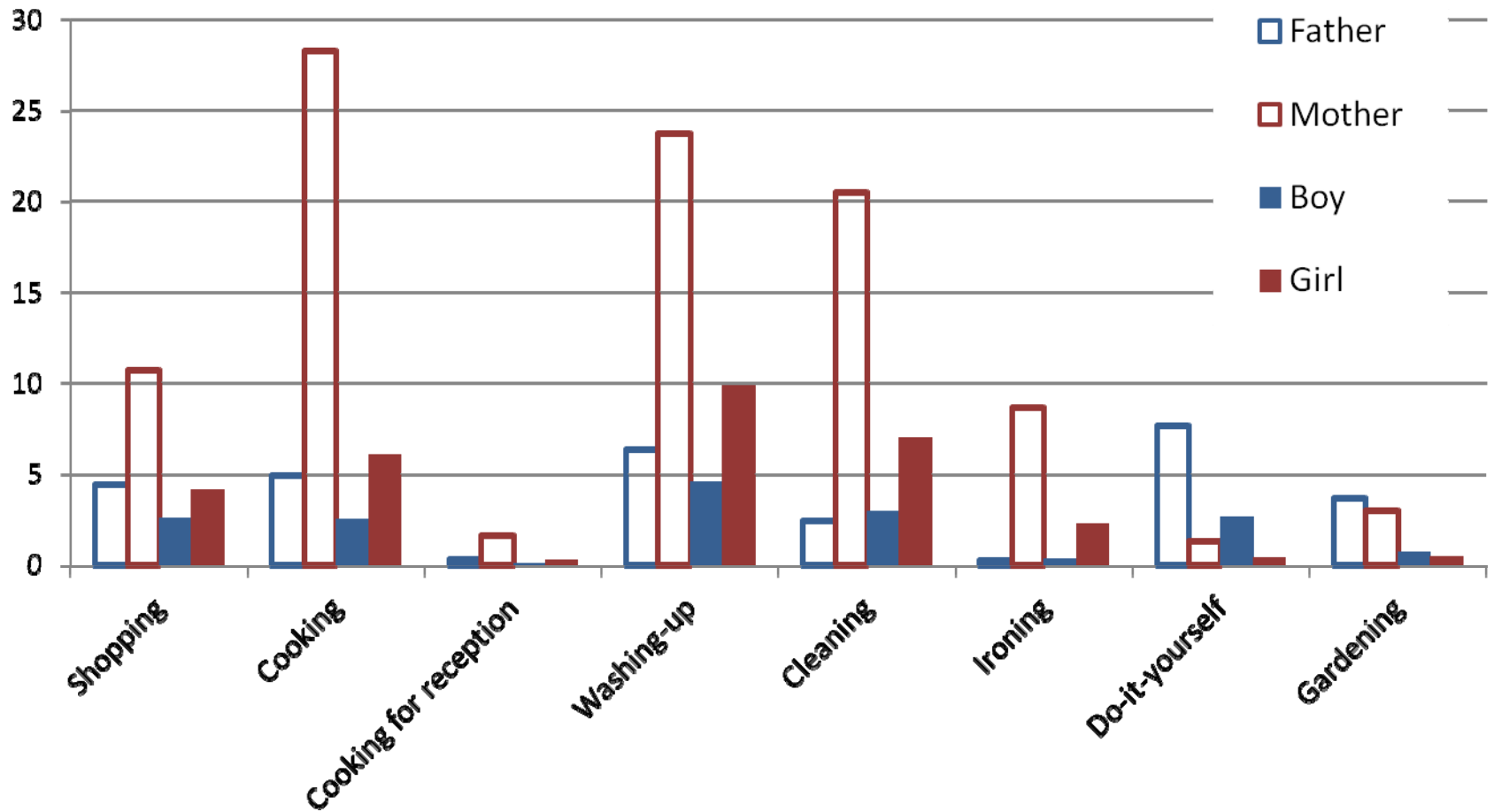
Data from Chenu, Herpin 2002 and Ricroch Roumier 2011

Stylised fact 2: Gender inequalities exist for teenagers (15-22)



	% of participation	Average time (mn)	Average time for participants
Boys	0.52	40.5	78.6
Girls	0.73	74.1	101.9
Δ =Boy-Girl	-0.21***	-33.58***	-23.36***

Stylised fact 3: mirror of gender inequalities of parents



Boy- Girl-1.540*** -3.505*** -0.180** -5.303*** -4.078*** -1.940*** 2.271*** 0.218

Research questions

- To what extent are domestic production patterns transmitted from parents to children?
 - From **parents' modelling**: total domestic time and type of tasks performed in the household.
 - + different effect on daughters and sons?
 - From **parent's time allocation**: the mother's and father's time
 - + different effect on daughters and sons?

Background (1)

- Intergenerational transmission of behaviours such as
 - divorce (Amoto, Deboer 2001, Wolfinger 2000)
 - fertility (Booth and Kee 2006)
 - labour market participation (Fernandez, Fogli, Olivetti 2004)
- Beyond social and economic situation, how are behaviors transmitted from parents to children?

Imitation, doing by watching

Values and norms of parents affect child preferences

What about unpaid work?

Background (2)

- **Housework**

- might reveal preferences, **Identity formation** (Akerlof Kranton 2000) applications: labour market+education
- at the heart of gender norms. Explain **persistance of gender inequalities**

- **Teenagers' behaviour**

- role **of another actor** within household and time allocation
- driven by 2 channels: family and society(Bisin, Verdier 2001)

Measure of **vertical transmission**

- Help to explain **gender inequalities before couple formation = comparative advantage**

Previous research

- Alvarez & Miles-Touya 2011

(Spanish time-use)

The boy-girl gap is reduced if the parental couple is less traditional

Boys' participation to « female-oriented task » depends of father participation

Data & sample

Data

- French time-use survey (INSEE 1999-2000)
- All household members over age 15 are interviewed and filled a 24h-booklet
- Allows us to observe two generations at the same moment

Sample

- Households with at least one teenager from 15 to 22 living with a parental couple (not necessarily both biological parents)
- N= 1316

Domestic time indicators

- Two information sources:

Daily from the booklet: time spent in total housework (not childcare) the day of interview

Monthly performing frequencies for 8 tasks :

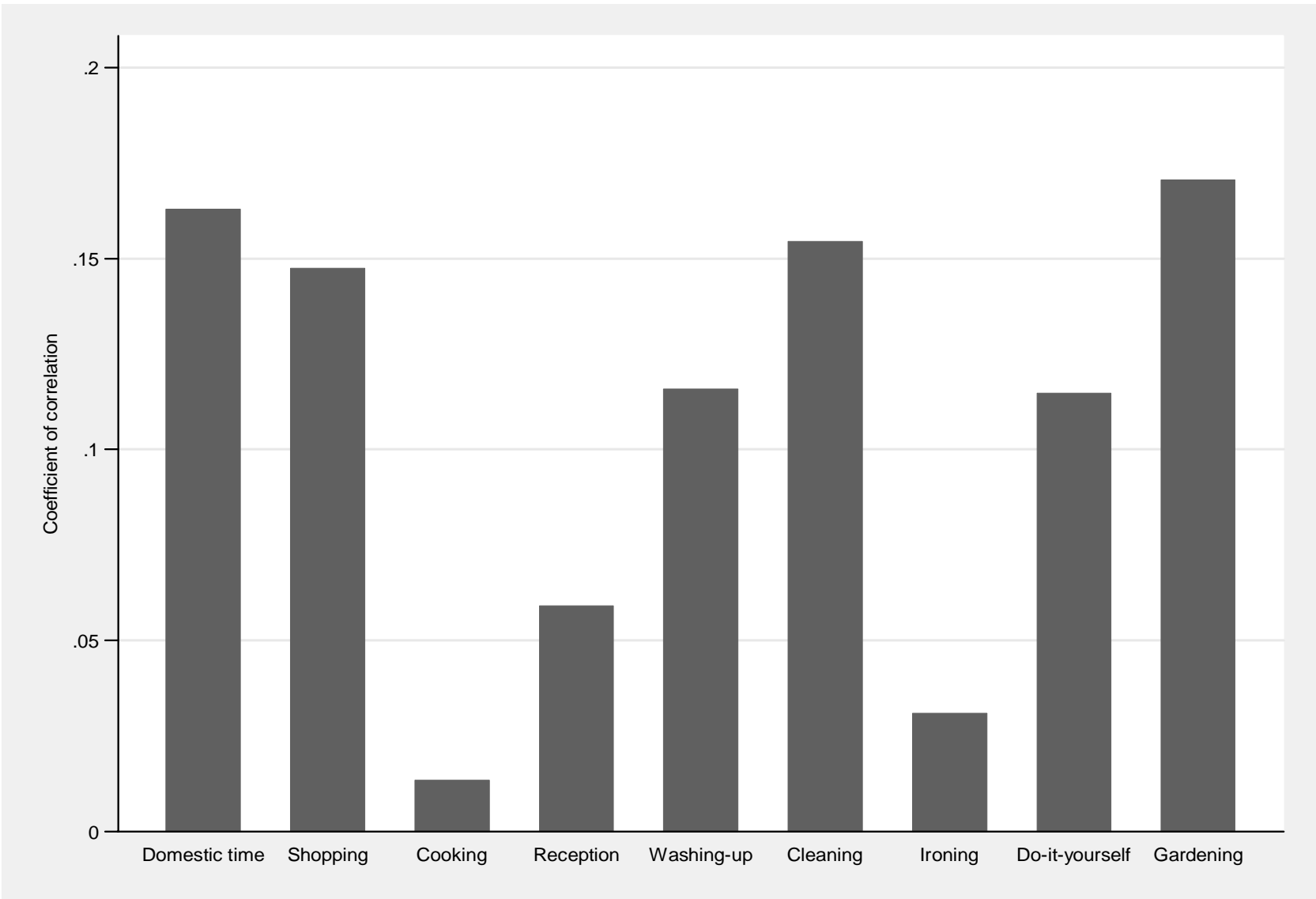
Shopping, Cooking, Cooking for guests, Washing-up, Cleaning, Ironing, Small repairs, Gardening

- Two types of indicators

Quantity : participation (doers), time or frequency

Variety of tasks: how many different tasks?

Parent-child correlation in domestic activities



Econometric specification (1)

Intergenerational correlation between child and parent

$$t_k = \gamma_k X_k + \gamma_p X_p + \beta_p t_p + \varepsilon_k$$

t_k time devoted to domestic work by the child (kid)

X_k characteristics of the child

X_p characteristics of parents and household

$t_p = t_f + t_m$ time devoted by parents (both mother and father)

β_p coefficient of interest, vertical transmission

t_k is censored

we observe $t_k = 0$ when $t_k^* \leq 0$ with t_k^* the latent variable

$t_k = t_k^*$ otherwise

$$t_k = \max(0; t_k^*)$$

Tobit specifications

Results (1)

Variables	Domestic time	Shopping	Cooking	Cooking for reception	Washing-up	Cleaning	Ironing	Do-it-yourself	Gardening
Model A (without other family characteristics)									
Parent: domestic time/activity	0.094***	0.133***	0.069	0.299**	0.217***	0.145***	0.029	0.183***	0.280***
	-5.41	-4.25	-1.12	-2.53	-4.95	-4.68	-0.47	-4.36	-5.11
Model B (with other family characteristics)									
Child: girl	59.838***	3.486***	9.482***	3.246***	12.326***	8.978***	12.052***	-12.589***	-4.616***
	-8.36	-5.35	-9.89	-3.01	-10.82	-10.59	-8.89	(-9.71)	(-4.03)
Child: age	6.733***	0.503***	1.655***	0.391*	1.973***	0.687***	1.109***	0.808***	0.412
	-3.17	-2.63	-5.79	-1.8	-5.77	-3.05	-4.09	-2.63	-1.23
Parent: domestic time/activity	0.092***	0.127***	0.067	0.278***	0.213***	0.129***	0.068	0.166***	0.240***
	-5.35	-4.08	-1.14	-2.85	-5.1	-4.29	-1.08	-3.94	-4.53

Tobit models, clustered standard errors. N= 1316 children (993 families).

Controlled for nb of siblings, nb of siblings <9, birth order, father's age, father mother ages gap, father's education (4 categories), 2 dummies relative father/mother education levels, father's employment, mother's FT work/PTwork/nowork, household income (log), nb of rooms per household member, dishwasher, microwave oven, garden, rural area, day of interview.

Econometric specification (2)

Intergenerational correlation between child and parent times + child sex specific effect

$$t_k = \gamma_k X_k + \gamma_p X_p + \beta_p t_p + \delta_p (t_p * s) + \varepsilon_k$$

$s = 1$ when the child is a girl ted to domestic work by the child (kid)

X_k characteristics of the child

X_p characteristics of parents

$t_p = t_f + t_m$ time devoted by parents (both mother and father)

β_p coefficient of interest, vertical transmission

δ_p is significant and >0 (<0) if parental time spent on domestic tasks has a more pronounced influence on daughters (sons) than sons (daughters)

Results (2)



Variables	Domestic time	Shopping	Cooking	Cooking for reception	Washing-up	Cleaning	Ironing	Do-it-yourself	Gardening
Model C									
Child: girl	49.042***	2.204**	13.641***	2.582**	15.010***	6.811***	12.149***	-11.149***	-4.543***
	-3.43	-2.17	-3.52	-2.46	-5.61	-4.7	-7.05	(-7.11)	(-3.16)
Child: age	6.709***	0.497***	1.657***	0.395*	1.969***	0.679***	1.110***	0.839***	0.411
	-3.16	-2.6	-5.79	-1.82	-5.77	-3.03	-4.13	-2.73	-1.23
Parent: domestic time/activity	0.079***	0.084*	0.132	0.163	0.257***	0.080*	0.074	0.212***	0.242***
	-3.47	-1.73	-1.59	-1.54	-4.38	-1.86	-0.78	-3.92	-4.19
Parent: domestic time/activity *	0.026	0.082	-0.124	0.249*	-0.086	0.092	-0.01	-0.134	-0.007
Child: girl	-0.81	-1.38	(-1.11)	-1.72	(-1.14)	-1.61	(-0.08)	(-1.45)	(-0.07)

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Econometric specification (3)

Intergenerational correlation between child and mother / father times

$$t_k = \gamma_k X_k + \gamma_p X_p + \beta_f t_f + \beta_m t_m + \varepsilon_k$$

X_k characteristics of the child, X_p characteristics of parents

t_m time devoted by the mother

t_f time devoted by the father

$\beta_f \beta_m$ effects of father and mother domestic time on the transmission

Wald test of $\beta_f \neq \beta_m$

Results (3)



Variables	Domestic time	Shopping	Cooking	Cooking for reception	Washing-up	Cleaning	Ironing	Do-it-yourself	Gardening
Child: girl	59.598***	3.532***	9.450***	3.252***	12.324***	9.021***	12.093***	-12.628***	-4.601***
	-8.35	-5.39	-9.88	-3.01	-10.81	-10.66	-8.91	(-9.78)	(-4.06)
Child: age	6.742***	0.498***	1.653***	0.392*	1.982***	0.678***	1.115***	0.799***	0.414
	-3.19	-2.6	-5.78	-1.81	-5.81	-3.01	-4.1	-2.6	-1.23
Father: domestic time/activity	0.128***	0.069	0.078	0.351*	0.191***	0.213***	0.289	0.148***	0.253***
	-3.99	-1.27	-1.3	-1.88	-3.32	-3.17	-0.99	-2.76	-3.65
Mother domestic time/activity	0.054*	0.161***	0.029	0.260**	0.235***	0.100***	0.06	0.225**	0.226**
	-1.72	-4	-0.3	-2.26	-3.93	-2.77	-0.93	-2.52	-2.32
Test: Father's time = mother's time	[1.93;0.165]	[1.72;0.189]	[0.31;0.579]	[0.16;0.690]	[0.30;0.587]	[1.95;0.163]	[0.59;0.442]	[0.45;0.503]	[0.04;0.838]

Tobit models, clustered standard errors. N= 1316 children (993 families).

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Econometric specification (4)

Intergenerational correlation between child and mother / father times + child sex specific effect

$$t_k = \gamma_k X_k + \gamma_p X_p + \beta_f t_f + \delta_f (t_f * s) + \beta_m t_m + \delta_m (t_m * s) + \varepsilon_k$$

$s = 1$ when the child is a girl tied to domestic work by the child (kid)

X_k characteristics of the child, X_p characteristics of parents

δ_f daughter specific effect of time devoted by the father

δ_m daughter specific effect of time devoted by the mother

$$\delta_f - \delta_m = 0$$

Results (4)



Variables	Domestic time	Shopping	Cooking	Cooking for reception	Washing-up	Cleaning	Ironing	Do-it-yourself	Gardening
Child: girl	48.671***	2.195**	14.591***	2.553**	11.580***	6.350***	12.021***	-10.713***	-4.402***
	-3.26	-2.13	-2.8	-2.43	-3.95	-4.34	-7.06	(-6.97)	(-3.12)
Child: age	6.706***	0.492**	1.655***	0.394*	1.926***	0.672***	1.090***	0.847***	0.494
	-3.17	-2.57	-5.78	-1.82	-5.66	-3	-4.07	-2.75	-1.48
Father: domestic time/activity	0.111***	0.016	0.135	0.263	0.331***	0.224**	0.690**	0.220***	0.400***
	-2.87	-0.19	-1.57	-1.16	-4.24	-2.56	-2.3	-3.33	-4.67
Mother: domestic time/activity	0.042	0.119**	0.123	0.13	0.173**	0.029	0.03	0.165	0.026
	-1.06	-2.07	-0.94	-1.09	-2.11	-0.54	-0.31	-1.36	-0.29
Father: domestic time/activity * Child: girl	0.037	0.093	-0.112	0.301	-0.284***	-0.029	-1.337**	-0.261**	-0.415***
	-0.75	-0.99	(-0.98)	-0.81	(-2.76)	(-0.24)	(-2.27)	(-2.39)	(-2.61)
Mother: domestic time/activity * Child: girl	0.022	0.082	-0.161	0.256	0.108	0.132**	0.044	0.182	0.425**
	-0.48	-1.06	(-0.94)	-1.62	-1.04	-1.99	-0.35	-1.05	-2.48
Test: Father's time = mother's time	[1.15;0.284]	[1.08;0.298]	[0.01;0.921]	[0.26;0.608]	[1.96;0.162]	[3.24;0.072]	[4.38;0.037]	[0.14;0.710]	[7.05;0.008]
Test: Father's time * girl = mother's time * girl	[0.04;0.837]	[0.01;0.929]	[0.10;0.756]	[0.01;0.914]	[7.44;0.007]	[1.27;0.259]	[5.33;0.021]	[4.06;0.044]	[9.64;0.002]

Tobit models, clustered standard errors. N= 1316 children (993 families).

Controlled for nb of siblings, nb of siblings <9, birth order, father's age, father mother ages gap, father's education (4 categories), 2 dummies relative father/mother education levels, father's employment, mother's FT work/PTwork/nowork, household income (log), nb of rooms per household member, dishwasher, microwave oven, garden, rural area, day of interview.

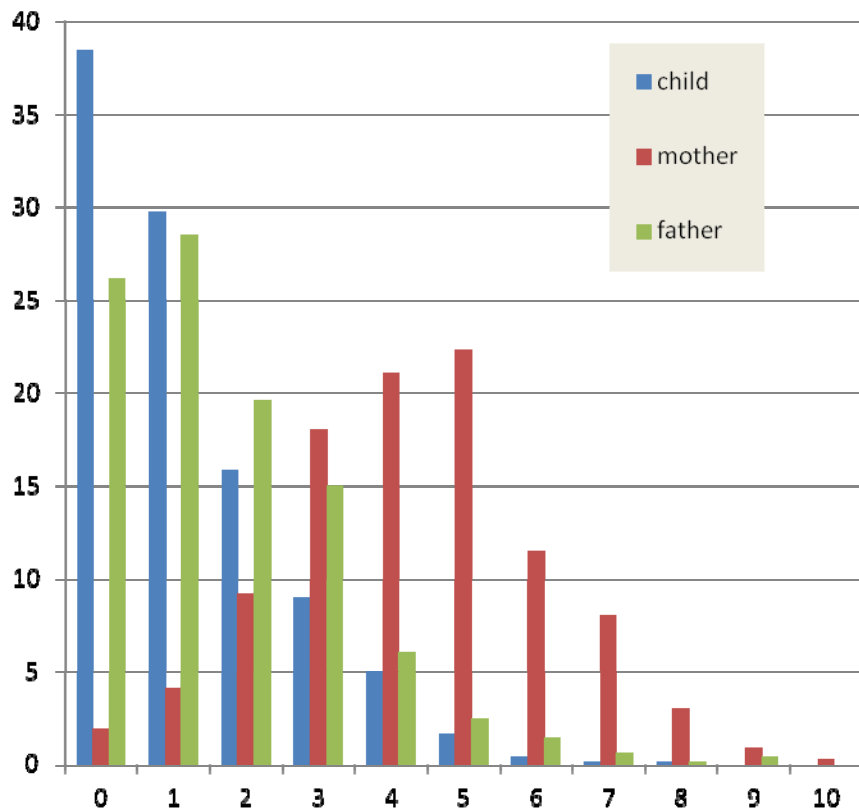
Simulations with marginal effects



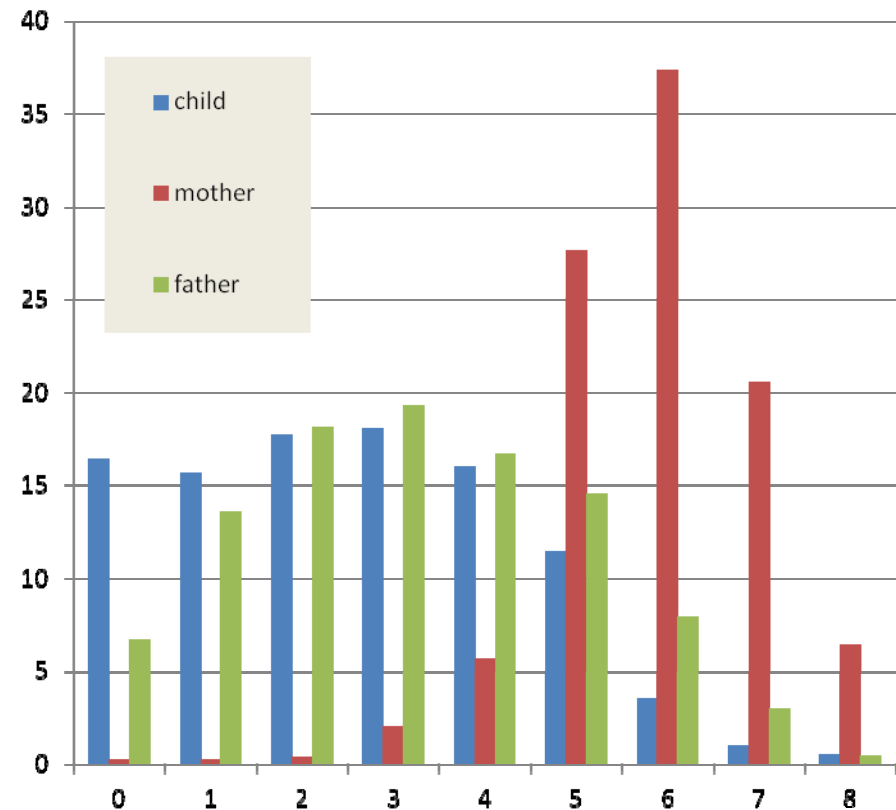
	Domestic time	Shopping	Cooking	Cooking for reception	Washing-up	Cleaning	Ironing	Do-it-yourself	Gardening
Increase of parental time	+ 60mn	+ 10 times							
for any child	3.2	0.6	0.3	0.2	1.0	0.6	0.1	0.3	0.2
for boy	2.7	0.4	0.5	0.1	1.2	0.4	0.2	0.2	0.2
for girl	3.7	0.7	0.0	0.3	0.8	0.9	0.1	0.1	0.2
Increase of father time	+ 60mn	+ 10 times							
for any child	4.4	0.3	0.3	0.2	0.9	1.1	0.6	0.3	0.3
Decrease of mother time	- 60mn	+ 10 times							
for any child	-1.9	-0.7	-0.1	-0.2	-1.1	-0.5	-0.1	-0.5	-0.2
Increase of father time	+ 60mn	+ 10 times							
for boy	3.8	0.1	0.5	0.2	1.6	1.1	1.4	0.4	0.4
for girl	5.1	0.5	0.1	0.3	0.2	1.0	-1.3	-0.1	0.0
Decrease of mother time	- 60mn	+ 10 times							
for boy	-1.5	-0.5	-0.5	-0.1	-0.8	-0.1	-0.1	-0.3	0.0
for girl	-2.2	-0.9	0.2	-0.2	-1.3	-0.8	-0.2	-0.7	-0.4

The variety of domestic tasks performed

Daily indicator



Monthly indicator



Intergenerational transmission of versatility



Variables	Daily indicator		Monthly indicator	
Child: girl	0.755***	0.781***	1.021***	1.233**
	-10.43	-3.96	-10.87	-2.43
Child: age	0.079***	0.079***	0.171***	0.171***
	-3.71	-3.7	-5.92	-5.9
Father: Number of different tasks	0.098***	0.115***	0.140***	0.176***
	-4.16	-3.84	-4.42	-4.37
Mother: Number of different tasks	0.039*	0.035	0.218***	0.217***
	-1.78	-1.47	-4.62	-3.27
Father: Number of different tasks * Child: girl		-0.035 (-0.80)		-0.076 (-1.45)
Mother: Number of different tasks * Child: girl		0.007 -0.18		0.005 -0.06
Test: Father's time = mother's time	[3.31;0.069]	[4.35;0.037]	[1.69;0.194]	[0.24;0.621]
Test: Father's time * girl = mother's time * girl		[0.51;0.474]		[0.57;0.449]

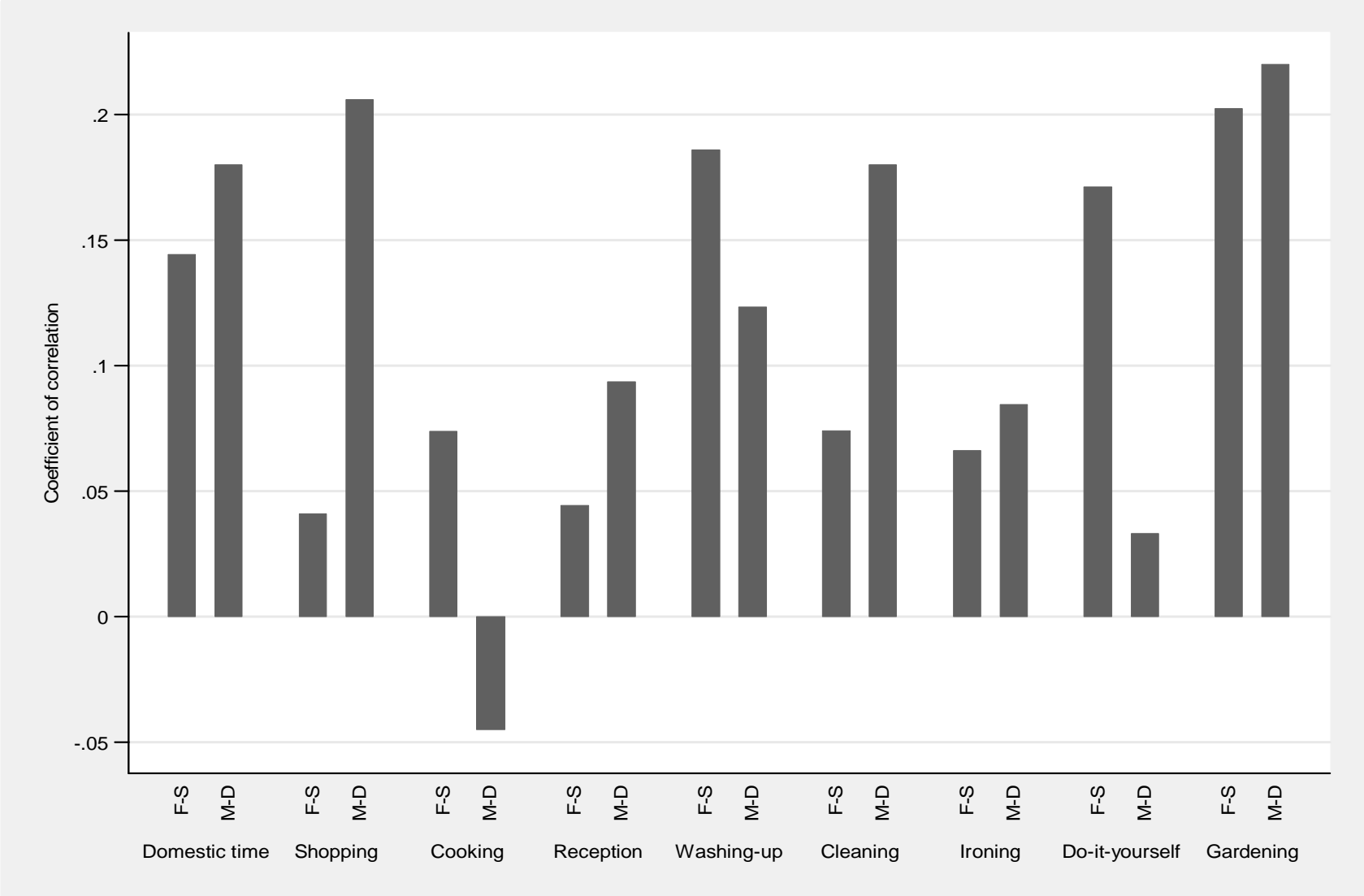
Conclusion

- Strong gender inequalities in young adults' domestic work
- Positive correlation between parents and children: vertical transmission exists (+1hour= 3,4mn)
- Importance of the type of tasks, importance of performing « oriented opposite sex » task to reverse the situation
- To reduce gender inequalities between boys and girls Policy orientation : involve father in feminine tasks (paternity leave, shared parental leave)

To go further

- Gender gap in unpaid work before couple formation is puzzling for economists, except for identity formation theory
- Parental inequality transmits to children inequality ... gender inequality multiplier
- But new behaviour (anti-conformist behaviour) have immediate effect on next generation

Father-son and mother-daughter correlation in domestic activities



other covariates

number of siblings	2.24
	-0.44
number of siblings <9	-3.148
	(-0.27)
parity	1.697
	-0.29
father's age	-1.318
	(-1.47)
father-mother age gap	0.589
	-0.45
EDUC father low	-8.293
	(-0.83)
father medium	-25.687**
	(-2.08)
father high	-31.988**
	(-2.10)
EDUC wom=men	5.06
	-0.55
wom>men	-7.406
	(-0.64)
working father	12.45
	-0.9
FT working mother	12.556
	-1.19
PT working mother	14.19
	-1.52
log (household income)	-2.523
	(-0.24)
rooms/nb household	12.745
	-0.95
dishwasher	-18.005**
	(-2.01)
microwave	1.918
	-0.21
rural	4.235
	-0.51
garden	13.541
	-1.37
week-end	20.263**
	-2.56