

Parental background as a factor of gender role attitudes across Europe (the evidence of EVS data)

Natalia Soboleva

Ronald F. Inglehart Laboratory for Comparative Social Research

HSE University

natsobol@gmail.com

Abstract

Gender role attitudes are largely formed in the parental family because children see some definite distribution of gender roles. Parents with different education and social status are likely to transmit different types of values to their children: higher education and social status lead to more egalitarian gender attitudes. At the same time individual and contextual characteristics play a role. The objective of this research is to reveal the impact of parental background on gender role attitudes in across European countries with different level of societal gender inequality. The European Values Study 2017-2020 is used as a dataset. According to the results of the multilevel regression analysis, more favorable parental characteristics lead to more egalitarian gender role attitudes both in the public and in the domestic sphere. Material wealth is positively associated with gender role attitudes in the domestic sphere, whereas for gender role attitudes in the public sphere the result is mixed. Almost no interaction effects were found for parental characteristics and gender inequality level in a country for gender role attitudes in the public sphere. The association between gender role attitudes in the domestic sphere and parental background differs in countries with lower and higher level of gender inequality index (GII). In countries higher level of gender equality (low GII) all the effects are as expected. The higher parents' cultural capital is and the more favorable situation is, the more egalitarian gender role attitudes are. Material wealth at the age of 14 leads to more egalitarian gender role attitudes. In countries with lower GDP and higher gender inequality the results are less trivial. The impact of parent's education, employment status and material wealth is weaker, insignificant or possibly even negative.

Key words: gender role attitudes, gender equality, parental background, multilevel regression modeling, European Values Study, comparative research

Introduction

Gender equality is one of the key aspects of economic development (Inglehart, Norris, 2003) but it varies tremendously across countries. Low level of gender equality may hinder economic development and modernization process (Inglehart and Welzel, 2010; Welzel, 2013). Although gender role attitudes can be transformed during the adult life they are largely formed in the childhood. Parental family can play a key role in this process (Cunningham, 2008; Guveli *et al.*, 2007; O'Shea and Kirrane, 2008). Higher education and social status of parents is associated with more egalitarian gender role attitudes (Grusec and Goodnow, 1994; Guveli *et al.*, 2007; Van de Werfhorst and Kraaykamp, 2001)

The role of parental background can be different in countries depending on the level of gender inequality in countries. In this paper I apply comparative research. Theoretically, I base on the social learning theory (Bandura, 1977) and the 'plethora of capitals' theory (Bourdieu, 1986). In this research I extend this framework by incorporating into analysis societal gender inequality measured by gender inequality index (GII) on the country level. In the societies where the level of gender equality is low the parental background may play a different role. First, situation in the family and in the society may be in conflict. Family is an important but not the only agent of socialization. Second, parental educational background in such countries would not necessarily lead to more egalitarian gender role attitudes because different values and attitudes may be transmitted through the value system.

The objective of this research is to reveal the impact of parental characteristics on gender role attitudes in public and domestic sphere across 26 European countries depending on the level of gender equality when the respondent was young using the 5th wave of European Values Study.

Gender role attitudes in the public and in the domestic sphere

Gender role attitudes are 'normative beliefs about what gender relations in society should be like, or the extent to which a person supports the norm of gender equality' (Bergh, 2007). They vary from traditional to egalitarian. Traditional gender role attitudes support different social roles of men and women with men being the primary or only breadwinners and women being responsible for household chores and childcare. In contrast, egalitarian gender role attitudes are in favor of similar roles of men and women in public and domestic domains (Albrecht *et al.* 2000; Cunningham *et al.*, 2005; Voicu and Constantin, 2016).

At the same time multidimensionality of gender role attitudes has to be taken into account. Gender role attitudes in public sphere reflect attitudes toward women rights and capacities in the areas of education, labor market and politics. Gender role attitudes in domestic sphere, in their

turn, comprise attitudes to work-family balance, division of household responsibilities and childcare (Constantin and Voicu, 2015; Lomazzi, 2022). Gender role attitudes in the two spheres are strongly correlated (Lomazzi, 2022) but at the same time they may have different association with external variables including parental characteristics. Hence, I differentiate between gender role attitudes in the two spheres. Although both parental background and societal gender inequality are likely to be associated with gender role attitudes in both spheres the size of the effects may differ because they are different conceptually.

Intergenerational transmission of gender role attitudes on the individual level

Family is one of the most important agents of socialization and plays a key role in intergenerational transmission of values and beliefs including gender role attitudes (Davis and Greenstein, 2009). There are two main theoretical explanations regarding the value transition in the family: social learning theory and ‘plethora of capitals’ theory

Social learning theory posits that in early childhood children shape their values and attitudes including gender beliefs by observing parents’ behavior and opinions (Bandura, 1977). The child sees certain distribution of gender norms in the family (Akerlof and Kranton, 2000, Fernández *et al.*, 2004, Giménez-Nadal *et al.*, 2019) and thus forms an opinion what is right and what is wrong.

According to ‘plethora of capitals’ framework the process of childbearing and socialization is regarded as investment (planned and unintentional) in different forms of capital. Children from wealthier and happier families become more educated and cultural, because they have more favorable habitus (Bourdieu, 1986). Human and cultural capital of parents plays a role in forming certain value and attitudes (Van de Werfhorst and Kraaykamp, 2001). Higher education and social status lead to more egalitarian gender role attitudes of individuals (Cunningham, 2008; Guveli *et al.*, 2007; Rhodebeck, 1996; Van de Werfhorst and de Graaf, 2004). If parents have more egalitarian gender role attitudes, they are likely to transmit them to children.

In reality, these two mechanisms of transmission of gender role attitudes are closely connected. If parents have more egalitarian gender role attitudes it is likely that they will have more egalitarian distribution of household duties, etc. Higher level of mother’s education and her participation in the labor market is an exposure to situation reflecting higher gender equality (Davis and Greenstein, 2009) that is in line with exposure-based approach (Bolzendahl and Myers, 2004).

A lot of research has shown that parental education and work experience contribute to egalitarian gender role attitudes. For example, it was shown for US that mother’s employment that higher educational level contributes to more tolerant attitudes towards gender roles (Bolzendahl and Myers 2004; Farré and Vella 2013). Guveli *et al.* (2007) demonstrated for the

Netherlands that higher parental educational is associated with more egalitarian gender role attitudes. O'Shea and Kirrane (2008) have shown that both fathers and mothers education affects gender attitudes in Ireland and the US. Higher education leads to more egalitarian attitudes. According to Mays (2012), in Germany parents' education contributes to egalitarian gender attitudes, whereas only mother's employment affects gender attitudes of the man. Furthermore, higher educational level of parents is associated with lower control and leads to more egalitarian values and a higher opportunity for children to discuss different questions with their parents (Grusec and Goodnow, 1994). Individuals whose parents' have lower than secondary education are likely to have less tolerant gender attitudes (Guveli *et al.*, 2007). Higher parents' cultural capital and material wealth positively contributes to tolerant gender attitudes (Van de Werfhorst and Kraaykamp, 2001).

Platt and Polavieja (2016) showed that for British children both parental attitudes and parental behavior played a role in predicting attitudes towards the sexual division of labor. At the same time mother's time out of the labor force was a stronger predictor for daughters' attitudes (and almost as strong for sons) than both mothers and fathers' attitudes. The effect of parental education is stronger than of parental attitudes.

At the same time in some studies the impact of parental education and their working status was insignificant. Cunningham (2008) using the intergenerational panel study from US showed that whereas parental division of labor and mother's gender role attitudes predicted individual gender roles parents' education, working hours and family income were insignificant. Cano and Hofmeister (2022) showed that in Australia father's time devoted to housework at adolescence and his time spent on childcare when a child was small lead to more egalitarian gender role attitudes. His education and employment in its turn was insignificant in contrast to mother's education and employment that was positively associated with egalitarian gender role attitudes.

Hence, the following hypotheses will be tested on the wide range of European countries for gender role attitudes in the public and in the domestic sphere.

1.1. Paternal and maternal level of education has a positive impact on individual gender role attitudes.

1.2. If individual's mother had no work when the respondent was 14 on the gender role attitudes are more traditional.

1.3. Higher material wealth at the age of 14 leads to more egalitarian gender role attitudes.

Country-level differences

Despite the general trend towards gender equality European countries differ a lot on in the level of gender equality in the society (Inglehart and Norris 2003; Fortin 2005; Braun and

Gloeckner-Rist 2011). In countries with different levels of societal inequality the factors of gender role attitudes may vary. In this research I extend framework of Bourdieu (1976) by incorporating into analysis the level of gender equality in the society. In our viewpoint the process of socialization is affected not only by situation in the family but also in the society on the whole. Gender role attitudes in the public and in the domestic sphere are likely to be formed by the value system and level of gender equality in the society.

Despite the fact that there is a lot of research showing that parents' background plays a crucial role in forming individual gender role attitudes, the research comparing a large set of countries is scarce. A person not only grows up in a certain family but in a society that contributes to formation of certain values and attitudes. Individuals who grew up in egalitarian context are likely to have more egalitarian gender role attitudes. According to the dependence theory, women are dependent on man and this dependence exists on individual and societal level (Baxter, Kane, 1995; Kunovich and Kunovich, 2008). Two levels of dependence may strengthen each other. Higher societal gender inequality may lead to more traditional gender role attitudes and vice versa. Hence, factors contributing to gender equality (like woman's educational attainment and labor market participations) may have higher impact in more egalitarian societies and this could be true regarding parental background.

Also, the role of educational system may differ in countries with different level of gender inequality. Usually, educational system transmits societal values, norms and beliefs (Turner, 1997).). If the level of gender equality is high, the educational system transmits more egalitarian values. If the level of gender inequality is low, educational system forms more traditional values. For this reason, parental educational background may play a different role in more and less gender equal countries.

Studies looking on the impact of parental background across a wider range of countries are scarce. Analyzing the adolescents in 36 countries Dotti Sani and Quaranta (2016) showed that higher maternal education contributes to more egalitarian attitudes of women but not of men. They showed that in countries with higher gender equality there is a higher gender gap in attitudes. However, the effect of mother's education does not change depending upon the societal level of gender inequality.

Based on these arguments, the research hypotheses regarding country differences are as follows:

2.1. The higher societal gender inequality is (measured through GII) is, the weaker the effect of parental level of education on gender role attitudes is.

2.2. The higher GII is, the weaker the effect of mother's having no work when the respondent was 14 on the gender role attitudes is.

2.3. The higher GII is, the weaker the effect of material wealth at the age of 14 on the gender role attitudes is.

Based on the fact that gender role attitudes in the domestic sphere may to a larger extent be formed by parental characteristics, it is possible to suppose that the interaction effects named above will be stronger for gender role attitudes in the domestic sphere.

Data and methodology

The fifth wave of the European Values Study (2017-2020) is used as a dataset¹. This dataset includes relevant measures of gender role attitudes and a wide range of parental characteristics. The following 26 countries were included into the analysis: Austria, Armenia, Bulgaria, Croatia, Czech Republic, Denmark, Estonia, Finland, France, Georgia, Germany, Hungary, Iceland, Italy, Lithuania, the Netherlands, Norway, Poland, Romania, Russia, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom. Other countries were dropped from the analysis because information on some variables was absent.

For disclosing the effect of individual and country level variables multilevel regression modelling is used. This method allows to distinguish two levels of analysis and takes into account variances on individual and country levels (Hox *et al.*, 2010; Snijders and Bosker, 1999).

Dependent variables. EVS data of 2017-2020 allows distinguishing gender role attitudes in public and in domestic sphere. Gender role attitudes in public sphere consist of the following items: “On the whole, men make better political leaders than women do”, “A university education is more important for a boy than for a girl”, “On the whole, men make better executives than women do”. Gender role attitudes in the domestic sphere comprise: “When a mother works for pay, the children suffer”, “A job is alright but what most women really want is a home and children”, “All in all, family life suffers when the woman has a full-time job”. All these items were measured by a four-item scale. The indicators were standardized from 0 to 1 and summed up. Hence, indices reflecting gender role attitudes in public and domestic sphere range from 0 to 3 where 0 means the most traditional gender role attitudes and 3 means the most egalitarian gender role attitudes. It was demonstrated via multi-group confirmatory factor analysis and the alignment method that measurement equivalence is reached cross-sectionally as well as across modes of data collection (Lomazzi, 2022).

Independent variables. The main independent variables on individual level include the level of mother’s and father’s education, their employment status and household income at the time the respondent was 14 years old. The level of paternal and maternal educational level was

¹ EVS, 2020. European Values Study 2017: Integrated Dataset (EVS 2017). GESIS Data Archive, Cologne. ZA7500 Data file Version 4.0.0, doi:10.4232/1.13560.

measured through questions: “What is the highest educational level that your father (mother) has attained?” Three levels of education were distinguished: low (pre-primary or no education, primary education or first stage of basic education and lower secondary or second stage of basic education), medium (upper and post-secondary non-tertiary education) and upper (first and second stage of tertiary education). In addition, some respondents, were classified into the category “other” which was kept but not interpreted.

The employment status of respondents’ father and mother was operationalized through the questions: “When you were 14, was your father (mother) employed, self-employed or not?” and contained three answer categories: employed, self-employed and not working. All three categories were included because self-employment is distinct from employment and could mean various strategies.

Finally, the household income at the time when respondent was 14 was measured through a question “When you think about your parents when you were about 14 years old, could you say whether these statements correctly describe your parents? My parent(s) had problems making ends meet” that comprised four answer categories: yes, to some extent, a little bit, no. This variable was kept as categorical because it is one of our main dependent variables and there are substantive differences between all the answer categories.

Control variables. We controlled for the socio-demographic characteristics of respondents. First, we took into account individual level of education and status on the labor market (Guveli *et al.*, 2007; Cunningham, 2008). For the educational level the same three categories as for respondent’s parents were distinguished: low, medium, upper and other. Respondents were divided into those who have and do not have paid jobs following the answers to the question “Are you yourself gainfully employed at the moment or not?” Individuals with paid jobs included those working 30 hours a week or more, less than 30 hours a week and self-employed. Individuals without paid jobs comprised retired / pensioned, students, unemployed, disabled and other categories. The respondents had to choose their main activity. Also, we controlled for the household income level through a following question: “Here is a list of incomes and we would like to know in what group your household is, counting all wages, salaries, pensions and other incomes that come in. Just give the letter of the group your household falls into, after taxes and other deductions”. Ten income groups for each country were distinguished. The information for Portugal on income level was absent and for this reason it was dropped from the analysis.

Second, we controlled for family characteristics than can influence gender role attitudes (André *et al.*, 2013; Sjöberg 2004). Respondents were divided into not married (widowed, divorced, separated and never married) and married (married and living together as married).

Individuals were divided into those who have and do not have children. We also controlled for age and divided respondents into three age groups: 18–29, 30–49 and 50 years and older. Importance of God (“And how important is God in your life?”, 10-item scale) was used to control for religiosity because more religious individual in general has more traditional gender role attitudes (Guiso *et al.*, 2003).

Country level. For measuring the country level of gender equality when respondent was younger, we used gender inequality index (GII) in 1995. This index was elaborated by United Nations Development Programme. It comprises three dimensions: reproductive health, empowerment and the labor market². High GII values mean higher level of gender inequality and low values mean high level of gender equality. The year of 1995 was chosen because it allows to measure gender inequality in a country some time ago. The level of gender inequality is decreasing but does not change very rapidly. The data for some countries like Albania, Azerbaijan, Bosnia and Herzegovina, Belarus, Montenegro, Serbia and North Macedonia was absent and they were excluded from the analysis.

In the results section first I describe the models regarding gender role attitudes in the public sphere and then turn to the gender role attitudes in the domestic sphere.

Results

Gender role attitudes in the public sphere

First, with the help of multilevel regression modelling, the effect of parental background on gender role attitudes in the public sphere was calculated. In the models 1.1-1.3 fathers’ characteristics are included and in the models 1.4-1.6 mothers’ characteristics are displayed (table 1). Model 1.1 shows the effect of father’s educational level and employment status when the respondents was 14. Then I test the interaction effects between father’s employment status and GII (model 1.2) and between father’s educational level and GII in 1995 (model 1.3). Model 1.4 demonstrates mother’s educational level and employment status when the respondents was 14. The interaction effects between mother’s employment status and GII in 1995 and mother’s educational level in GII are calculated in models 1.5 and 1.6 respectively.

Table 1. Multilevel regression modeling. Effect of parental educational level and their employment status on gender role attitudes in the public sphere, EVS 2017-2020

	Model 1.1	Model 1.2	Model 1.3	Model 1.4	Model 1.5	Model 1.6
Individual level						
<i>Father’s education: baseline – low education</i>						

²More information and data can be found here: <https://hdr.undp.org/data-center/thematic-composite-indices/gender-inequality-index#/indicies/GII>

Has children	-0.012	-0.012	-0.012	-0.004	-0.004	-0.004
	(0.009)	(0.009)	(0.009)	(0.009)	(0.009)	(0.009)
Importance of God	-0.019***	-0.019***	-0.019***	-0.018***	-0.018***	-0.018***
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Household income	0.009***	0.009***	0.010***	0.009***	0.009***	0.009***
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Country level						
GII1995	-2.418***	-2.438***	-2.396***	-2.442***	-2.436***	-2.439***
	(0.321)	(0.322)	(0.322)	(0.319)	(0.320)	(0.320)
Interaction effects						
Father self-employed*GII1995		0.200**				
		(0.085)				
Father not working*GII1995		-0.052				
		(0.127)				
Father medium education*GII1995			-0.001			
			(0.064)			
Father higher education*GII1995			-0.087			
			(0.072)			
Father*other educationGII1995			-1.134			
			(1.046)			
Mother self-employed*GII1995				0.013		
				(0.108)		
Mother not working*GII1995				-0.023		
				(0.062)		
Mother medium education*GII1995					0.031	
					(0.063)	
Mother higher education*GII1995					-0.058	
					(0.072)	
Mother other education*GII1995					-0.765	
					(1.371)	
Constant	2.558***	2.561***	2.553***	2.564***	2.563***	2.563***

	(0.090)	(0.090)	(0.090)	(0.089)	(0.090)	(0.090)
Model characteristics						
Observations	33,203	33,203	33,203	34,613	34,613	34,613
Countries	26	26	26	26	26	26
Log Likelihood	-29,500.120	-29,497.160	-29,498.640	-30,801.370	-30,801.280	-30,800.490
Akaike Inf. Crit.	59,040.250	59,038.320	59,043.280	61,642.740	61,646.560	61,646.980
Bayesian Inf. Crit.	59,208.450	59,223.350	59,236.720	61,811.780	61,832.510	61,841.370

Note: ***p<0.01

In line with our hypotheses most of the parental characteristics are significant predictors of gender role attitudes. Both paternal and maternal medium and upper educational level contributes to more egalitarian gender role attitudes in the public sphere. Compared to the effect of medium education the effect of upper education is almost three times stronger for fathers and almost two times stronger for mothers. At the same time the respondent's education is stronger associated with his or her gender role attitudes in the public sphere than his or her parents' education.

Employment status of the parents' when a respondent was 14 leads to more egalitarian gender role attitudes in the public sphere. Meanwhile, the effect of father not having a paid job has a three-time stronger effect on gender role attitudes in the public sphere compared to the effect of father being self-employment. Mother being unemployed or being self-employed equally contributed to more traditional gender role attitudes in the public sphere. Possibly, this could be due to the different type of self-employment jobs. Interestingly, the association of gender role attitudes in the public sphere with father's not having a job at the age of 14 is stronger than with individual employment status. Also gender role attitudes are as much associated with mother's employment status as with individual employment status.

Unsurprisingly in countries with higher level of gender inequality in 1995 gender role attitudes in the public sphere are more traditional. However, our hypotheses regarding the weaker role of parental education and employment status on gender role attitudes in the public sphere in countries with higher GII were not confirmed. The only significant interaction effect was that father's self-employment status influenced gender role attitudes only in countries with low GII (model 1.2, figure 1). However, this effect is not very strong.

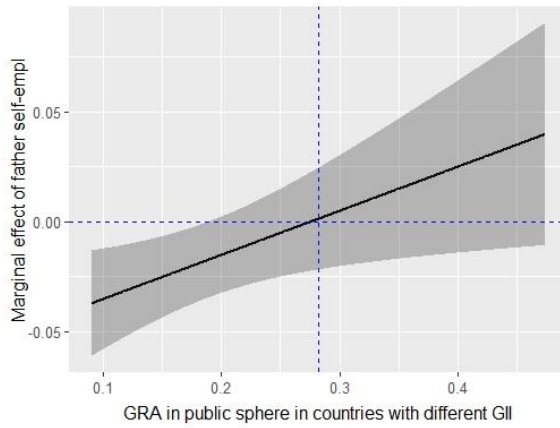


Figure 1. Effect of father being self-employed on gender role attitudes in the public sphere in countries with different GII in 1995

In table 2 the results of the multilevel modeling on the effect of material wealth at the age of 14 on gender role attitudes in the public sphere are shown. Model 1.7 illustrates the impact of material wealth on gender role attitudes in the public sphere. Model 1.8 displays the interaction effect between material wealth and GII in 1995.

Table 2. Multilevel regression modeling. Effect of the material wealth at the age of 14 on gender role attitudes in the public sphere, EVS 2017-2020

	Model 1.7	Model 1.8
Individual level		
<i>My parent(s) had problems making ends meet: baseline - yes</i>		
to some extent	-0.026**	-0.040*
	(0.010)	(0.024)
a little bit	-0.025**	-0.011
	(0.011)	(0.024)
no	0.009	0.034
	(0.010)	(0.022)
Female		
	0.254***	0.254***
	(0.006)	(0.006)
<i>Age: baseline – 18-29 years</i>		
30-49 years	-0.016	-0.016
	(0.011)	(0.011)
50 and more years	-0.060***	-0.060***
	(0.011)	(0.011)
<i>Education: baseline - low</i>		
Medium	0.106***	0.105***
	(0.009)	(0.009)

Higher	0.213***	0.213***
	(0.010)	(0.010)
Other	0.247***	0.248***
	(0.075)	(0.075)
Employed	0.041***	0.041***
	(0.007)	(0.007)
Married	-0.003	-0.003
	(0.007)	(0.007)
Has children	-0.008	-0.008
	(0.009)	(0.009)
Importance of God	-0.019***	-0.019***
	(0.001)	(0.001)
Household income	0.010***	0.010***
	(0.001)	(0.001)
Country level		
GII1995	-2.373***	-2.334***
	(0.313)	(0.319)
Interaction effects		
My parent(s) had problems making ends meet to some extent*GII1995		0.066
		(0.086)
My parent(s) had problems making ends meet a little bit*GII1995		-0.057
		(0.085)
My parent(s) had problems making ends meet no*GII1995		-0.103
		(0.078)
Constant	2.571***	2.560***
	(0.088)	(0.089)
Model characteristics		
Observations	36,143	36,143
Countries	26	26
Log Likelihood	-32,259.940	-32,256.630
Akaike Inf. Crit.	64,555.890	64,555.250
Bayesian Inf. Crit.	64,708.800	64,733.650

Note: *p**p***p<0.01

Quite surprisingly, compared to those whose parents had problems making ends meet those who encountered those problems to some extent or a little bit have even more traditional gender role attitudes in the public sphere (model 1.7). The difference between two extreme categories is insignificant. Also contrary to the initial expectations, no interaction was found between material wealth of the family when the respondent was 14 and GII on country level (model 1.8).

Gender role attitudes in the domestic sphere

Next, the same multilevel regression models for gender role attitudes in the domestic sphere were calculated. In table 3 models reflecting the impact of fathers' (models 2.1-2.3) and mothers' (models 2.4-2.6) education level and employment status are demonstrated. In model 2.1 the effect of father's educational level and employment status when the respondent was 14 is tested. The interaction effects between father's employment status and GII and mother's educational level in GII are calculated in models 2.2 and 2.3 respectively. Model 2.4 shows mother's educational level and employment status when the respondents was 14. The interaction effects between mother's employment status and GII and mother's educational level in GII are illustrated in models 1.5 and 1.6 respectively.

Table 3. Multilevel regression modeling. Effect of parents' education level and their employment status on gender role attitudes in the domestic sphere, EVS 2017-2020

	Model 2.1	Model 2.2	Model 2.3	Model 2.4	Model 2.5	Model 2.6
Individual level						
<i>Father's education: baseline – low education</i>						
Medium	0.042***	0.042***	0.129***			
	(0.009)	(0.009)	(0.018)			
Higher	0.099***	0.099***	0.228***			
	(0.011)	(0.011)	(0.020)			
Other	0.038	0.038	-0.016			
	(0.068)	(0.068)	(0.170)			
<i>Father's employment status: baseline - employed</i>						
Self-employed	-0.018*	-0.051***	-0.015			
	(0.009)	(0.020)	(0.009)			
Not working	-0.054***	-0.079**	-0.055***			
	(0.018)	(0.039)	(0.018)			
<i>Mother's education: baseline – low education</i>						
Medium				0.043***	0.043***	0.127***
				(0.009)	(0.009)	(0.018)
Higher				0.097***	0.097***	0.244***
				(0.012)	(0.012)	(0.021)
Other				-0.025	-0.025	-0.097
				(0.085)	(0.085)	(0.213)
<i>Mother's employment status: baseline - employed</i>						
Self-employed				-0.047***	-0.085***	-0.043***
				(0.013)	(0.027)	(0.013)
Not working				-0.072***	-0.111***	-0.069***
				(0.008)	(0.017)	(0.008)
Female	0.121***	0.121***	0.121***	0.118***	0.117***	0.117***

	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)
<i>Age: baseline – 18-29 years</i>						
30-49 years	-0.098***	-0.098***	-0.101***	-0.091***	-0.090***	-0.093***
	(0.012)	(0.012)	(0.012)	(0.012)	(0.012)	(0.012)
50 and more years	-0.151***	-0.149***	-0.155***	-0.125***	-0.123***	-0.127***
	(0.013)	(0.013)	(0.013)	(0.012)	(0.013)	(0.012)
<i>Education: baseline - low</i>						
Medium	0.146***	0.147***	0.145***	0.149***	0.149***	0.149***
	(0.010)	(0.010)	(0.010)	(0.010)	(0.010)	(0.010)
Higher	0.308***	0.308***	0.307***	0.312***	0.313***	0.314***
	(0.011)	(0.011)	(0.011)	(0.011)	(0.011)	(0.011)
Other	0.186**	0.186**	0.195**	0.217***	0.219***	0.230***
	(0.084)	(0.084)	(0.084)	(0.080)	(0.080)	(0.080)
Employed	0.085***	0.085***	0.086***	0.081***	0.081***	0.083***
	(0.008)	(0.008)	(0.008)	(0.008)	(0.008)	(0.008)
Married	-0.040***	-0.040***	-0.039***	-0.040***	-0.039***	-0.039***
	(0.008)	(0.008)	(0.008)	(0.008)	(0.008)	(0.008)
Has children	-0.068***	-0.068***	-0.069***	-0.062***	-0.062***	-0.062***
	(0.010)	(0.010)	(0.010)	(0.010)	(0.010)	(0.010)
Importance of God	-0.036***	-0.036***	-0.036***	-0.036***	-0.035***	-0.035***
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Household income	0.021***	0.021***	0.022***	0.021***	0.021***	0.022***
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
Country level						
GII1995	-1.845***	-1.869***	-1.577***	-1.908***	-1.969***	-1.644***
	(0.322)	(0.323)	(0.320)	(0.316)	(0.317)	(0.313)
Interaction effects						
Father self-employed*GII1995		0.175*				
		(0.091)				
Father not working*GII1995		0.097				
		(0.137)				
Father medium education*GII1995			-0.376***			
			(0.068)			
Father higher education*GII1995			-0.576***			
			(0.077)			
Father*other educationGII1995			0.573			

			(1.125)			
Mother self-employed*GII1995					0.177	
					(0.115)	
Mother not working*GII1995					0.168**	
					(0.066)	
Mother medium education*GII1995						-0.368***
						(0.067)
Mother higher education*GII1995						-0.639***
						(0.077)
Mother other education*GII1995						0.712
						(1.461)
Constant	2.093***	2.097***	2.031***	2.111***	2.124***	2.047***
	(0.090)	(0.091)	(0.090)	(0.089)	(0.089)	(0.088)
Model characteristics						
Observations	33,362	33,362	33,362	34,794	34,794	34,794
Countries	26	26	26	26	26	26
Log Likelihood	-32,104.520	-32,102.550	-32,073.400	-33,462.730	-33,459.000	-33,425.750
Akaike Inf. Crit.	64,249.040	64,249.110	64,192.800	66,965.460	66,962.010	66,897.500
Bayesian Inf. Crit.	64,417.350	64,434.240	64,386.350	67,134.610	67,148.070	67,092.010

Note: *p**p***p<0.01

In line with initial expectations compared to low education level medium and higher education of father and mother results in more egalitarian gender role attitudes in the domestic sphere. The impact of higher educational level is more than two times stronger than the level of medium education. All the coefficients are relatively the same for father and mother and are larger than for gender role attitudes in the public sphere. Still, the link between individual educational level and gender role attitudes in the domestic sphere is much stronger.

The impact of mother's employment status on gender role attitudes in the domestic sphere is significant and stronger than on the gender role attitudes in the public sphere. The coefficient for mother not having a paid job is larger than mother is self-employed. When father is not working it is significantly and positively associated with gender role attitudes in the domestic sphere whereas father being self-employed is only weakly (but positively) significant. Individual working status is stronger linked to gender role attitudes in the domestic sphere parent's working status.

GII in 1995 in its turn is negatively related to gender role attitudes in the domestic sphere but this association is weaker than for gender role attitudes in the public sphere.

In contrast to gender role attitudes in the public sphere the link between parental background and gender role attitudes in the domestic sphere is different in countries with different GII. The largest are education differences (model 2.3, 2.6, figures 2-5). In countries with low level of gender inequality the association between parents' education and individual gender role attitudes in the domestic sphere is as expected: medium and higher education lead to more egalitarian gender role attitudes. In countries with high level of gender inequality the impact of medium or higher education is insignificant or much weaker. There is even a possible negative impact of higher father's and especially mother's education on gender role attitudes in the domestic sphere in countries with high level of gender inequality.

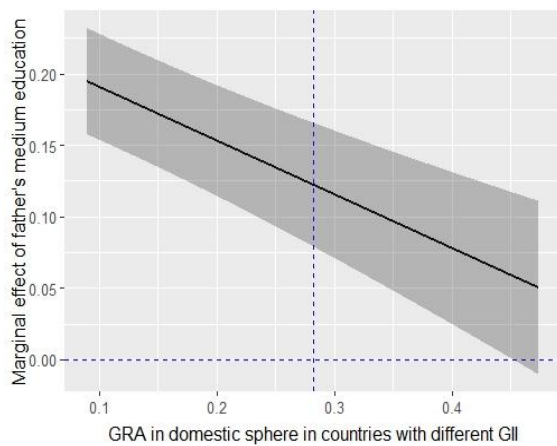


Figure 2. Effect of father's medium education on gender role attitudes in the domestic sphere in countries with different GII in 1995

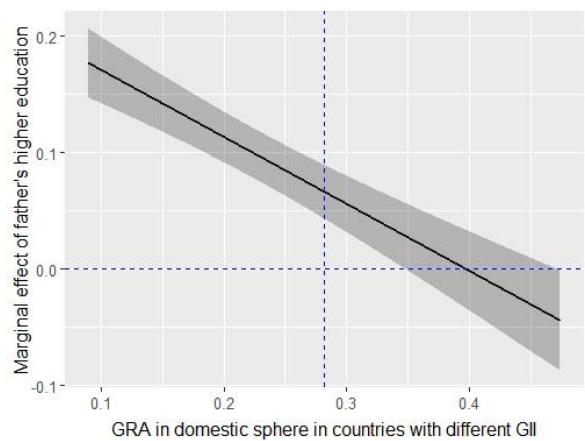


Figure 3. Effect of father's higher education on gender role attitudes in the domestic sphere in countries with different GII in 1995

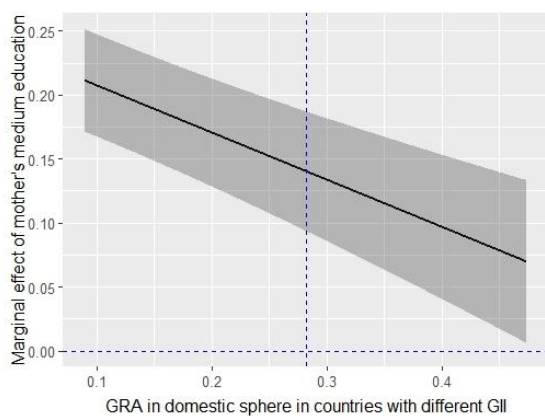


Figure 4. Effect of mother's medium education on gender role attitudes in the domestic sphere in countries with different GII in 1995

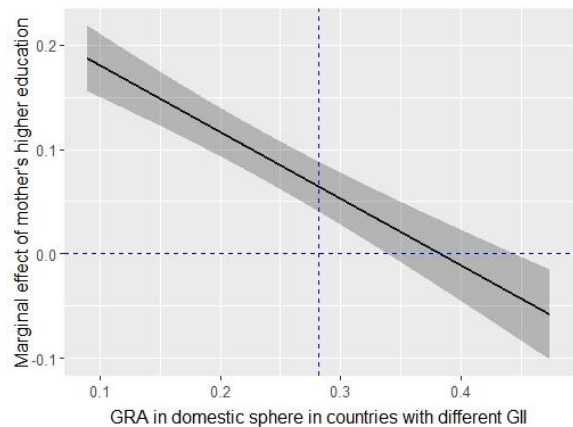


Figure 5. Effect of mother's higher education on gender role attitudes in the domestic sphere in countries with different GII in 1995

The impact of parents' employment status when respondent was 14 also can also be different in countries depending on the level of gender inequality (models 2.2, 2.5, figures 6-7). Mother being unemployed is negatively associated with individual gender role attitudes only in

countries with lower level of gender inequality. In countries with level of GII in 1995 this impact can be insignificant. The same but rather weak interaction effect was found for father being self-employed when the respondent was 14. No significant interactions for father not having job and mother being self-employed.

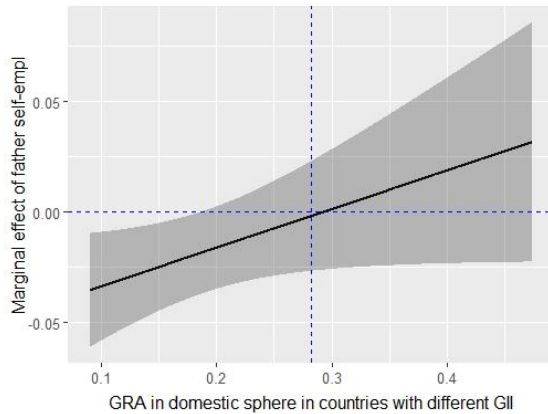


Figure 6. Effect of father being self-employed on gender role attitudes in the domestic sphere in countries with different GII in 1995

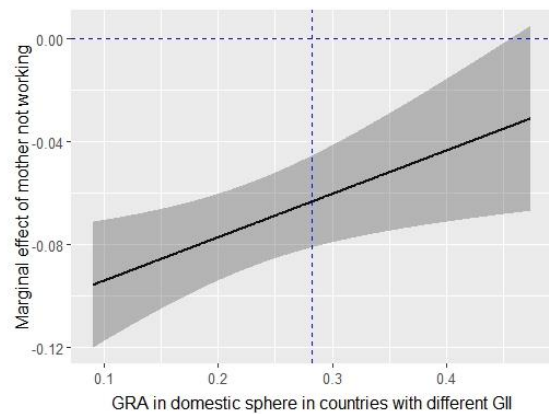


Figure 7. Effect of mother not working on gender role attitudes in the domestic sphere in countries with different GII in 1995

Finally, in order to disclose the impact of material wealth at the age of 14 on gender role attitudes in the domestic sphere multilevel regression models were calculated (table 4). In table 2 the results of the multilevel modeling on the effect of material wealth at the age of 14 on gender role attitudes in the public sphere are displayed. Model 2.7 shows the impact of material wealth on gender role attitudes in the public sphere. In model 2.8 the interaction effect between material wealth and GII in 1995 is demonstrated.

Table 4. Multilevel regression modeling. Effect of the material wealth at the age of 14 on gender role attitudes in the domestic sphere, EVS 2017-2020

	Model 2.7	Model 2.8
Individual level		
<i>My parent(s) had problems making ends meet: baseline - yes</i>		
to some extent	0.026** (0.011)	0.047* (0.025)
a little bit	0.053*** (0.011)	0.073*** (0.025)
no	0.089*** (0.010)	0.141*** (0.023)
Female	0.117*** (0.007)	0.117*** (0.007)
<i>Age: baseline – 18-29 years</i>		
30-49 years	-0.099***	-0.098***

	(0.012)	(0.012)
50 and more years	-0.155***	-0.155***
	(0.012)	(0.012)
<i>Education: baseline - low</i>		
Medium	0.149***	0.148***
	(0.010)	(0.010)
Higher	0.323***	0.323***
	(0.010)	(0.010)
Other	0.200**	0.200**
	(0.081)	(0.081)
Employed	0.087***	0.087***
	(0.008)	(0.008)
Married	-0.047***	-0.047***
	(0.008)	(0.008)
Has children	-0.066***	-0.066***
	(0.010)	(0.010)
Importance of God	-0.037***	-0.037***
	(0.001)	(0.001)
Household income	0.021***	0.022***
	(0.001)	(0.001)
Country level		
GII1995	-1.776***	-1.659***
	(0.315)	(0.321)
Interaction effects		
My parent(s) had problems making ends meet to some extent*GII1995		-0.078
		(0.092)
My parent(s) had problems making ends meet a little bit*GII1995		-0.073
		(0.091)
My parent(s) had problems making ends meet no*GII1995		-0.211**
		(0.084)
Constant	2.052***	2.021***
	(0.089)	(0.090)
Model characteristics		
Observations	36,317	36,317
Countries	26	26
Log Likelihood	-35,020.710	-35,016.570
Akaike Inf. Crit.	70,077.420	70,075.130
Bayesian Inf. Crit.	70,230.420	70,253.630

Note: *p**p***p<0.01

In contrast to gender role attitudes in the public sphere in the domestic sphere the association between gender role attitudes and material wealth at the age of 14 is as expected (model

2.7). The less problems had the family in making ends meet, the more egalitarian gender role attitudes are. Furthermore, the effect of parents' not having problems making ends meet on gender role attitudes in the domestic sphere is significant only in countries with low level of gender inequality (model 2.8, figure 8).

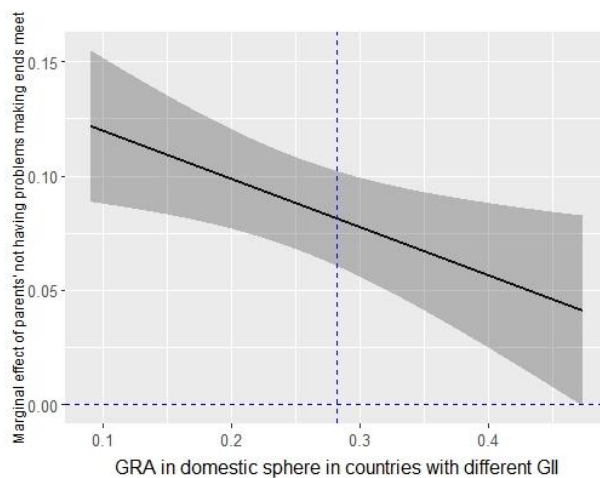


Figure 8. Effect of parents' not having problems making ends meet on gender role attitudes in the domestic sphere in countries with different GII

Discussion

This study has several contributions. First, with the help of the multilevel regression modeling, it was demonstrated that higher parental education leads to more egalitarian gender role attitudes in the public and in the domestic sphere. If mother had no job when the respondent was 14 the respondent's gender role attitudes are more traditional. In general, our results are in line with the results of the previous studies (Bolzendahl and Myers 2004; Farré and Vella 2013; Guveli *et al.*, 2007; O'Shea and Kirrane, 2008)

Second, the paper shows that gender role attitudes in the public sphere and in the domestic spheres are two distinct concepts. Parental characteristics determine more gender role attitudes in the domestic sphere than in the public sphere. Material wealth is positively associated in gender role attitudes in the domestic sphere, whereas for gender role attitudes in the public sphere the result is mixed. It could be due to the fact that gender role attitudes in the domestic sphere are closer related to actual distribution of rights between genders. Gender role attitudes in the public sphere reflect the attitudes towards the rights and capabilities of women. Meanwhile, societal gender inequality in 1995 (measured by GII per capita) is stronger associated with gender role attitudes in the public sphere than with gender role attitudes in the domestic sphere.

The main contribution of this research is revealing the impact of parent's background in the countries with low and high societal gender inequality. The role of parental background in forming the gender role attitudes in the public sphere does not depend on the societal level gender

inequality. At the same time there are considerable differences in the effect of parental characteristics on gender role attitudes in the domestic in countries with low and high level of GII in 1995. In countries with higher level of gender equality in general all the effects are as expected. Higher parental education leads to more egalitarian gender role attitudes, whereas mother having no work and lower material wealth being is associated with more traditional gender role attitudes. In countries with higher societal inequality in 1995 the impact of parental background is much weaker on insignificant. It is possible that parental higher education can result even in more traditional gender role attitudes.

These results can be explained through different theoretical perspective. Possibly in countries with higher societal inequality in 1995 educational system transmitted more conservative values including attitudes towards gender inequality (Turner, 1997). Furthermore, the weaker effect of parental background corresponds to dependence theory (Baxter and Kane 1995; Kunovich and Kunovich, 2008) according to which dependence on individual and societal level may strengthen each other. Finally, in line with ‘plethora of capitals’ theory (Bourdieu, 1986) individuals in less gender-equal societies belong to less favorable environment where it is more difficult to develop the egalitarian gender role attitudes. Hence, the special attention should be paid to the value transmission in the countries with higher inequality.

This study is not without limitations. First, only 26 countries were included into analysis. Second, unfortunately parental gender role attitudes could not be controlled for. One of the further directions of this study is comparing the effect of parental background on male and female gender role attitudes.

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