



Number of children and family values across Europe: does generation matter?

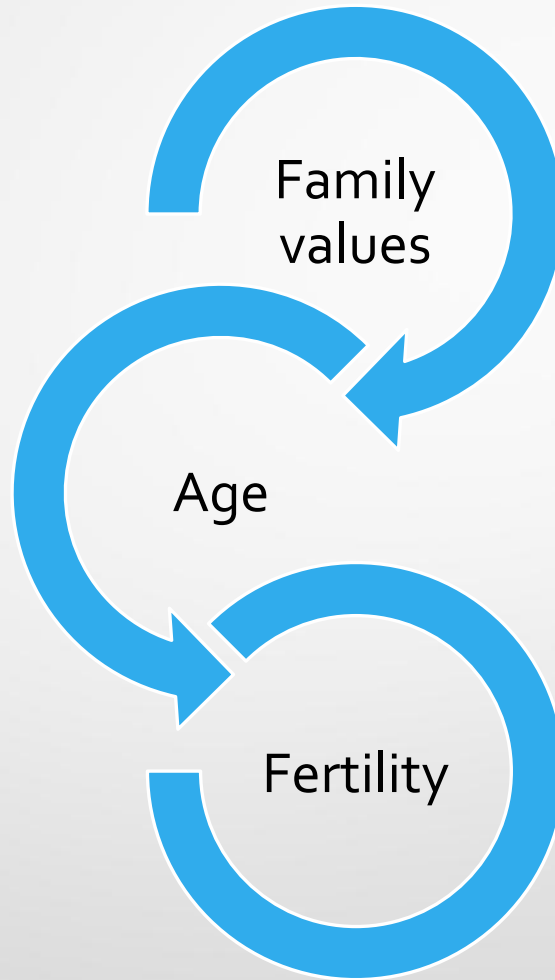
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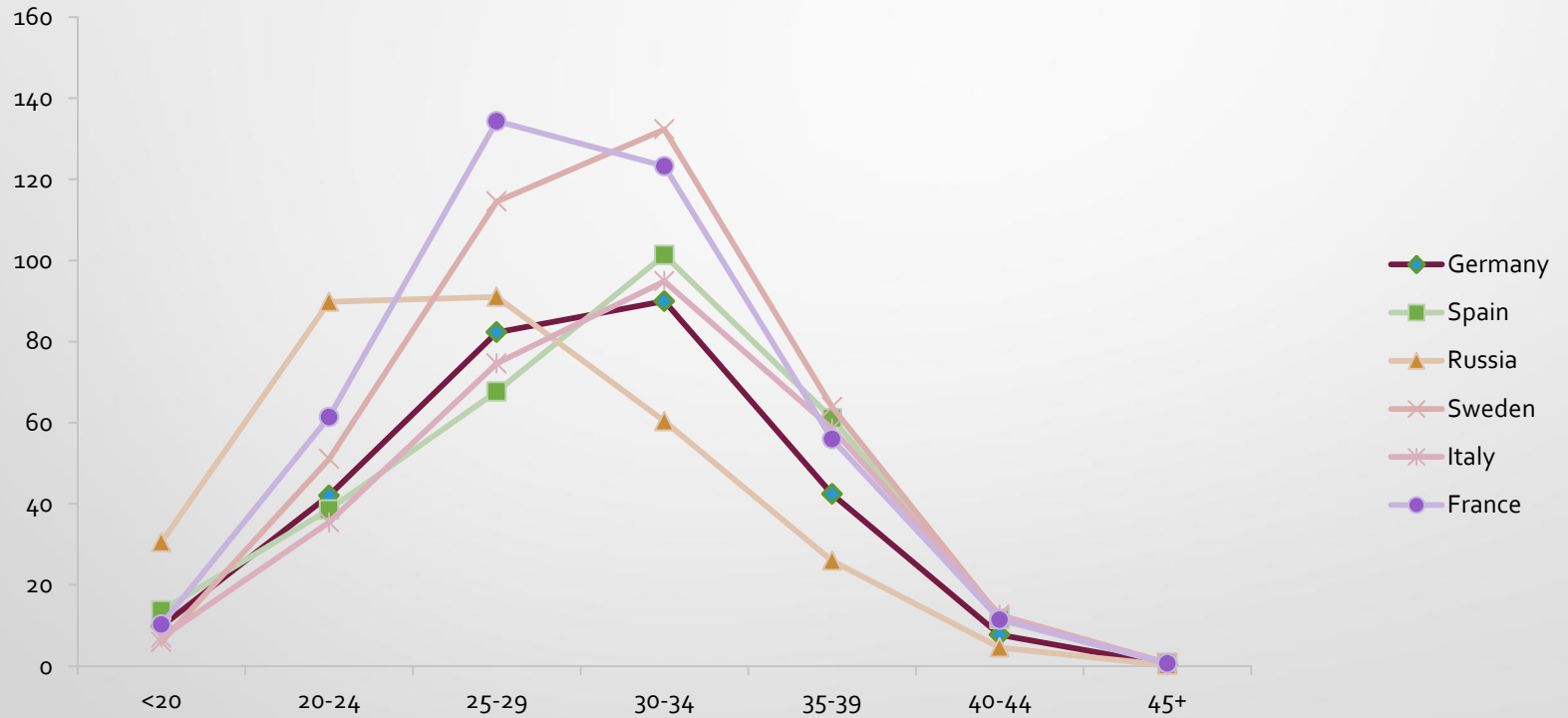
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Motivation



Age-specific fertility coefficients, 1000 women



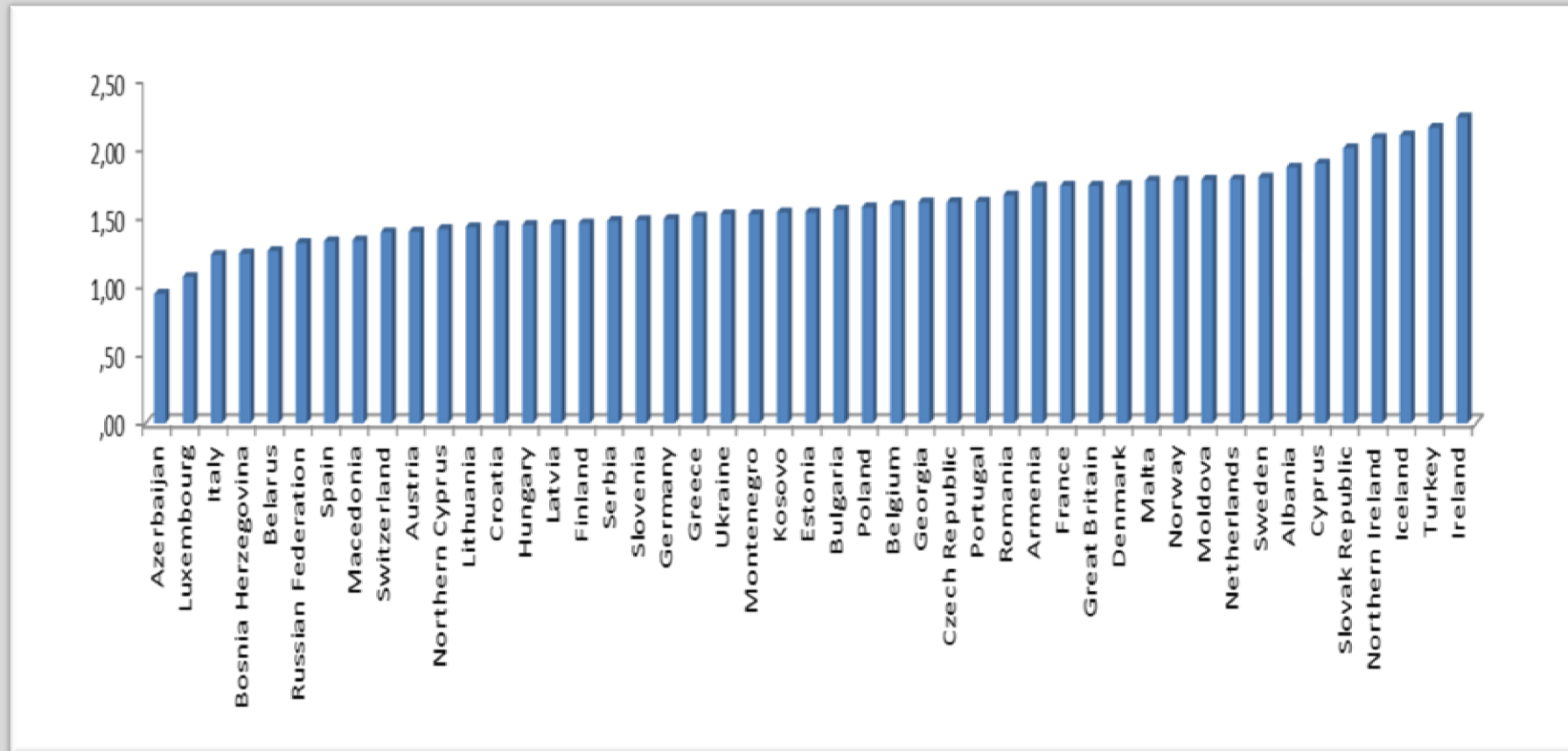
The Goal and Research Questions

The goal of the study is to reveal the relationship between values and fertility through age effects across European countries

Research questions:

- How much are the European countries different in terms of age and family values effect on childbearing behavior?
- Can we explain these differences in the number of children across Europe by the impact of post-materialistic values on country level on age-family values relationship?

Average number of children by countries, EVS 2008, women 19-68



Theoretical background

- *Second Demographic Transition Theory* (Van de Kaa, Lesthaeghe): existential and expressive needs, value shift to autonomy and individualization-> divorce, cohabitation, fertility decrease
- *Modernization theory* (Inglehart R., Welzel C., Norris P.): economic development-> value shift-> fertility decrease
- *Emancipation theory* (Welzel C. 2014, Bystrov E. 2015): free choice and equal opportunities-> empowerment

Family values: operationalization

Emancipative value index (Welzel C.)

- **Autonomy** (independence, imagination as desirable child qualities (apart from obedience))
- **Choice** (acceptance of divorce, abortion and homosexuality)
- **Equality** (a)education is more important for a boy than a girl; b) when jobs are scarce, men should have priority over women to get a job; c) men make better political leaders than women
- **Voice** (a)protecting freedom of speech; b)giving people more say)

Family Values in the study

- Reproduction function-duty to society
- Freedom in family formation
- Gender inequality(household)
- Pro-fertility value index (acceptance of divorce, abortion and homosexuality)
- Family and children importance

Hypotheses

Effect of values upon fertility:

H1. People with high traditional family values are likely to have more children than people with low family values.

H1.1. Gender inequality in the household negatively affects the number of children a woman has. Since the increasing number of studies have found stable evidence that links gender inequality and fertility (Esping-andersen, 2009; McDonald, 2000; Goldscheider, 2000). The rise of opportunities in the labor market and gender equality in other spheres of life stimulates females to have fewer children, that is why equal responsibilities at home save time for females' activities.

H1.2. Pro-fertility values are expected to have positive effect on the fertility level among all age groups (Inglehart R., 2015)

H1.3. Freedom choice in family formation values are expected to negatively affect the fertility level (Welzel C.,2013), trend to emancipative and individualistic values.

H1.4. Reproduction duties to society norms (very traditional family values) are likely to have positive effect upon fertility level among all age groups.

H1.5. Family and children importance is positively associated with the fertility level among all age groups (Inglehart R., Norris P. 2003)

Hypotheses

Effect of age upon values and fertility:

H2. The younger the generation is, the more it is characterized by liberal values, while family values and child value for younger generations should be deteriorating. Within this framework, we assume that family values vary by different age groups that influence level of fertility. (Inglehart, Welzel 2000)

Effect of values(country level interaction):

H3. In countries with more traditional family values we will not face much difference in age effects on fertility through family values.

Data and Methodology

Data: EVS, 2008, 31,653 women aged 19-68, 47 countries

Methodology: Multilevel Poisson modeling:

a) separately for generational groups; b) total sample with interaction effects

Model for number of children determinants

Country level independent variables

- GDP per capita(control)
- Gender Inequality Index(control)
- Post-materialist value index (tested)

Individual level independent variables

- Age groups
- Marital status
- Education
- Household income
- Religiosity(attendance of religious services)

Values:

- Pro-fertility index (3)
- Freedom in family formation decisions (4)
- Duties to society (reproduction) (3)
- Gender inequality in household responsibilities (4)
- Importance of family and children(2)
- Interactions age groups(5)*values(5), age(5)*macro indicators(3), values(5)* macro indicators(3) for each age groups(5)

Pro-fertility index

Following Inglehart methodology we take 3 items with high factor scores to build up an index:

Do you justify

- v240 Homosexuality
- v241 Abortion
- v242 Divorce

Coding (1 always, 10 never)

Perceptions of freedom in family formation

- v150 marriage is outdated (1 agree, 2 disagree)
- v151 woman single parent, no stable relationship with man (1 approve, 2 disapprove, 3 depends)
- v155 It is alright for two people to live together without getting married (1 strongly agree, 5 strongly disagree)
- v157 People should decide for themselves whether to have children or not (1 strongly agree, 5 strongly disagree)

Coding (0 disagreement; 1 agreement)

Duties towards society (traditional norms)

- v156 It is a duty towards society to have children (1 strongly agree, 5 strongly disagree)
- v152 A man has to have children in order to be fulfilled (1 strongly agree, 5 strongly disagree)
- v149 Do you think that a woman has to have children in order to be fulfilled or is this not necessary?(1 needs, 2 not necessary)

Coding (0 disagreement;1 agreement)

Gender inequality in household responsibilities

- v162 Being a housewife is just as fulfilling as working for pay (1 strongly agree, 4 strongly disagree)
- v164 Both the husband and wife should contribute to household income (1 strongly agree, 4 strongly disagree)
- v165 In general, fathers are as well suited to look after their children as mothers (1 strongly agree, 4 strongly disagree)
- v166 Men should take as much responsibility as women for the home and children (1 strongly agree, 4 strongly disagree)

Coding (0 agreement, 1 disagreement)

Family and children importance

- V2 how important in your life: family(1 very important; 4 not important)
- V145 important in marriage: children(1 very important, 2 depends, 3 not very important)

Coding (0 not important; 1 important)

Results from Multilevel Poisson regression, EVS 2008, women 19-68

Variables	Coef.
<i>19-28</i>	-1.271***
<i>29-38</i>	-0.237***
<i>49-58</i>	0.0299
<i>59-68</i>	0.0698***
Married	0.450***
High edu	-0.326***
Medium income	-0.0994***
High income	-0.129***
Medium relig	0.00389
High relig	0.0467**
Pro-fert	0.00846**
GIH	0.0527
RFDS	0.0879***
FFF	-0.123***
CFI	0.356***
Intercept	-0.298**
Nobs	25,001
Ncountries	46

Variables	Economic development	Postmaterialist values	Institut. development	General model
<i>19-28</i>	-1.270***	-1.271***	-1.269***	-1.269***
<i>29-38</i>	-0.236***	-0.236***	-0.236***	-0.236***
<i>49-58</i>	0.0296	0.0295	0.0289	0.0289
<i>59-68</i>	0.0688***	0.0687***	0.0673***	0.0673***
Married	0.449***	0.449***	0.449***	0.449***
High edu	-0.325***	-0.326***	-0.325***	-0.325***
Medium income	-0.0995***	-0.0993***	-0.0996***	-0.0996***
High income	-0.128***	-0.128***	-0.128***	-0.128***
Medium relig	0.00428	0.00473	0.00522	0.00539
High relig	0.0467**	0.0482**	0.0479**	0.0484**
Pro-fert	0.00948**	0.00937**	0.0105***	0.0105***
GIH	0.0532	0.0525	0.0534	0.0532
RFDS	0.0945***	0.0948***	0.0975***	0.0980***
FFF	-0.126***	-0.123***	-0.129***	-0.128***
CFI	0.357***	0.358***	0.356***	0.357***
GDP	1.57e-06*			-4.16e-07
Postmat		0.247**		0.0846
GII			-0.0345***	-0.0337
Intercept	-0.348***	-0.762***	-0.0954	-0.246
Nobs	25,001	25,001	25,001	25,001
Ncountries	46	46	46	46

Results from Multilevel Poisson regression, EVS 2008, women 19-68

Variables	M0.	Age#profertility	Age#GIH	Age#FFF	Age#RFDS	Age#CFI
<i>19-28</i>	-1.314***	-1.714***	-1.333***	-1.200***	-1.563***	-1.982***
<i>29-38</i>	-0.242***	-0.354***	-0.219***	-0.205***	-0.259***	-0.332***
<i>49-58</i>	0.0460***	0.00879	0.0238	0.0155	0.0426*	0.104*
<i>59-68</i>	0.115***	0.0855**	0.173***	0.106***	0.106***	0.127**
Pro-fert	0.00982***	0.000876	0.00985***	0.00968***	0.00983***	0.00976***
GIH	0.00715	0.00699	0.0134	0.00727	0.00736	0.00673
RFDS	0.0502***	0.0515***	0.0504***	0.0503***	0.0160	0.0502***
FFF	-0.0613***	-0.0588***	-0.0612***	-0.0540	-0.0612***	-0.0634***
CFI	0.338***	0.338***	0.337***	0.339***	0.337***	0.300***
age1928#profertility index		0.0589***				
age2938#profertility index		0.0175***				
age4958#profertility index		0.00574				
age5968#profertility index		0.00465				
age1928#GIH			0.00997			
age2938#GIH			-0.0125			
age4958#GIH			0.0113			
age5968#GIH			-0.0316			
age1928#FFF				-0.209**		
age2938#FFF				-0.0661		
age4958#FFF				0.0552		
age5968#FFF				0.0157		
age1928#RFDS					0.456***	
age2938#RFDS					0.0342	
age4958#RFDS					0.00609	
age5968#RFDS					0.0170	
age1928#CFI						0.768***
age2938#CFI						0.103
age4958#CFI						-0.0690
age5968#CFI						-0.0154
Intercept	0.0847**	0.142***	0.0728	0.0807*	0.105***	0.122**
N obs	25,001	25,001	25,001	25,001	25,001	25,001
Ncountries	46	46	46	46	46	46
AIC	69964	69923	69970	69961	69920	69906
Log likelyhood	-34966	-34941	-34965	-34960	-34940	-34933

Results from Multilevel Poisson regression, EVS 2008, women 19-68

Variables	GDP	Post-mat	GII	Gen.model	Age# GDP	Age#postmat	Age#GII
19-28	-1.306***	-1.307***	-1.307***	-1.307***	-1.185***	-0.995***	-1.239***
29-38	-0.244***	-0.244***	-0.244***	-0.244***	-0.221***	0.0271	-0.235***
49-58	0.0465***	0.0466***	0.0467***	0.0465***	0.0765***	0.376**	0.0475***
59-68	0.108***	0.108***	0.109***	0.108***	0.135***	0.561***	0.104***
Pro-fert	0.0128***	0.0127***	0.0123***	0.0128***	0.0128***	0.0130***	0.0127***
GIH	0.0228**	0.0225**	0.0225**	0.0229**	0.0225**	0.0227**	0.0225**
RFDS	0.142***	0.142***	0.140***	0.143***	0.144***	0.142***	0.144***
FFF	-0.0517**	-0.0504**	-0.0509**	-0.0513**	-0.0517**	-0.0495**	-0.0509**
CFI	0.341***	0.342***	0.341***	0.342***	0.341***	0.342***	0.342***
GDP	1.93e-06**			1.52e-06	2.63e-06**	1.54e-06	1.52e-06
Post-mat		0.263**		0.160	0.152	0.301*	0.162
GII			-8.51e-06	6.45e-05	6.31e-05	6.47e-05	0.000115
age1928#GDP					-6.01e-06***		
age2938#GDP					-9.43e-07		
age4958#GDP					-1.26e-06**		
age5968#GDP					-1.14e-06*		
age1928#postmat						-0.172	
age2938#postmater						-0.149	
age4958#postmat						-0.182**	
age5968#postmat						-0.249***	
age1928#GII							-0.000675***
age2938#GII							-0.000100
age4958#GII							-1.25e-05
age5968#GII							4.76e-05
Intercept	-0.0687	-0.499**	-0.0138	-0.358	-0.367	-0.616**	-0.364
Nobs	25,001	25,001	25,001	25,001	25,001	25,001	25,001
Ncountries	46	46	46	46	46	46	46
AIC	69383	69384	69388	69386	69362	69384	69339
Log likelyhood	-34673	-34674	-34676	-34673	-34657	-34668	-34645

Results from Multilevel Poisson regression, EVS 2008, women 19-68

Variables	19-28	29-38	39-48	49-58	59-68
Pro-fertility	0.0119	0.0180***	0.00700	0.0146***	0.00691
GIH	0.0131	0.0158	0.0249	0.0375*	-0.00705
RFDS	0.220***	0.0825**	0.124***	0.132***	0.143***
FFF	0.238**	-0.0464	-0.114***	-0.0156	-0.0863*
CFI	-1.487	-1.447**	-0.404	-0.697	-0.0564
GDP	-3.36e-06	1.80e-06	1.89e-06*	1.24e-06	2.38e-06
Post-mat	-0.499	-0.654*	-0.123	-0.345	-0.132
GII	-0.000159	2.18e-05	0.000150*	5.93e-05	0.000161
CFI#postmat	1.189**				
CFI #postma		0.964***			
CFI #postmat			0.411*		
CFI #postmat				0.537**	
CFI #postmat					0.203
Intercept	-1.477	0.750	0.221	0.756	0.537
N obs	4,985	5,164	5,629	5,011	4,212
Ncountries	46	46	46	46	46
AIC	6776	14415	17226	15793	13670
Log likelihood	-3371	-7190	-8596	-7879	-6818

Conclusions

- H1.** People with high value of family and children importance are likely to have more children than people with low value of family and children importance - *approved for all age groups*
- H1.1.** Positive effect of gender equality in household responsibilities among 49-58 years old women speaks for less women engagement in the out-home activities.
- H1.2.** Pro-fertility values are expected to have positive effect on the fertility level among all age groups- *approved among 29-38, 49-58 years old women*
- H1.3.** Freedom choice values negatively affect the fertility level *among 39-48 and 59-68*
- H1.4.** Reproduction duties to society norms positive effect number of children for women of all age groups.- *approved*
- H1.5.** Family and children importance is positively associated with the fertility level among all age *groups.- approved*
- H2.** The younger the generation is, the more it is characterized by liberal values, while family values and child value for younger generations should be deteriorating- *partly approved*
- H3.** In countries with more traditional family values we will not see much difference in age effects on fertility through family values. Post materialistic values on country level speaks for the differences among European countries for age effects for elderly groups. -*approved*



Thank you for your attention!

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This report was presented at the 5th LCSR International Annual Conference “Cultural and Economic Changes under Cross-national Perspective”.

November 16 – 20, 2015 – Higher School of Economics, Moscow, Russia.

<http://lcsr.hse.ru/en/conf2015>

Настоящий доклад был представлен на V ежегодной международной конференции ЛССИ «Культурные и экономические изменения в сравнительной перспективе».

16-20 ноября 2015 года – НИУ ВШЭ, Москва, Россия.

<http://lcsr.hse.ru/en/conf2015>