Gender Differences in Europeans' Attitudes About Women's Childlessness: Individual and Contextual Factors

Tanya Koropeckyj-Cox

Alin Ceobanu

Department of Sociology and Criminology & Law, University of Florida.

Address for correspondence:

Tanya Koropeckyj-Cox, Department of Sociology and Criminology & Law, University of Florida, P.O. Box 117330, Gainesville, FL 32611-7330. tkcox@ufl.edu

Gender Differences in Europeans' Attitudes About Women's Childlessness: Individual and Contextual Factors

Abstract

Persistent, below-replacement fertility in Europe has raised concerns about population aging and effects on economies and labor markets. Scholars have attributed the low fertility to cultural change, economic constraints, or their combination (see Adsera, 2013). Gender ideologies and societal gender inequalities vary widely across Europe and play a role in shaping attitudes and decisions about childbearing and childlessness, particularly for women. We use cross-national data from the European Values Study (2008) to address the following aims: 1) to examine attitudes about women's childlessness and gender differences in Europe; 2) to assess how these attitudes are related to individual-level differences in gender ideology, religiosity, and political preferences; and 3) to identify macro-level variations in gender inequality, as well as economic and demographic factors, that explain attitudes about childlessness and moderate gender differences in attitudes. The results show the significance of gendered social and policy environments in shaping attitudes about childlessness.

Gender Differences in Europeans' Attitudes About Women's Childlessness: Individual and Contextual Factors

Below-replacement fertility has been a dominant feature of European populations for several decades. Cultural explanations of these low fertility levels, including Second Demographic Transition Theory, have emphasized the influences of modernization, secularization, and changing values, including feminism and individualism. Economic factors have been implicated in postponing and reducing fertility, particularly employment insecurity, women's labor force participation, and different welfare regimes and work-place policies that either constrain or facilitate the ability to combine work and family (see review by Adsera, 2013). Policy efforts to increase fertility have reflected both cultural and economic approaches, including pronatalist campaigns to persuade adults to have children and policies to provide parental income allowances, paid time off from work, flexible work arrangements, or child care.

Within this context, changing attitudes about the normative prescription of parenthood both reflect and contribute to the social landscapes in which people form their fertility preferences and intentions. Changing demographic behaviors, in turn, play a role in influencing the future preferences and behaviors of young adult cohorts (Goldstein, Lutz, & Testa, 2003). It should be noted that very low fertility does not necessarily imply high rates of childlessness or endorsement of a childless life path. The actual proportions of childless adults have varied across populations; among women born in the 1960s, fewer than 10% have remained in Eastern Europe (e.g., Czech Republic, Estonia, Lithuania, Romania, Russia) compared to over 16% in Austria, Finland, the Netherlands, and Italy (highest at 21.1%; Sobotka, 2017). Both social norms and economic constraints have favored delayed childbearing, contributing to an increased likelihood of permanent childlessness and a greater acceptance of childlessness as an option or an

unintended consequence of delay. Economic factors may play a larger role in shaping individual intentions to remain childless, while traditional family values at the country level appear to influence ideals and expectations (Miettinen & Szalma, 2014).

The current paper investigates the wide variations in attitudes about childlessness, specifically prescriptive norms about the necessity of childbearing for women. Women are generally subject to strong pronatalist expectations that continue to equate womanhood with motherhood. Women's status and social value in some societies remains connected with their status as mothers; women without children are regarded with pity or scorn, depending on whether their childlessness is involuntary (i.e., due to infertility or circumstances) or is chosen. At the individual level, favorable attitudes toward childlessness have been reported as more prevalent among women than men and have been correlated with higher levels of education, more egalitarian gender attitudes (Koropeckyj-Cox & Pendell, 2007; Merz & Liefbroer, 2012), and preferences that emphasize work and career over family and domesticity (Hakim). At the macro-level, variations across countries in economic and labor market conditions, religious faith and institutions, and attitudes about gender roles, among other factors, have been linked to low fertility levels (see Adsera, 2013). Merz and Liefbroer (2012) have also found that attitudes about voluntary childlessness are related to micro-level characteristics (e.g., gender, education), including measures of "traditional orientation" and religiousness as well as country-level indices of Second Demographic Transition and Total Care Gap. Rijken and Merz (2014) have also reported that double standards about norms regarding voluntary childlessness for men and women are related to country-level measures of gender equality, finding similar levels of disapproval for men and women in less egalitarian settings. However, their work did not examine

the gender gap in men's compared to women's attitudes and only looked at attitudes about voluntary childlessness, not whether childbearing is necessary for a woman to be fulfilled.

The current research examines both micro- and macro-level factors that may explain varying gender patterns in attitudes about childlessness across Europe, specifically exploring the relative roles of gender and individual gender ideology within the context of country-level measures of gender inequality. We ask, to what extent are attitudes about women's childlessness among men and women conditioned by the constraints reflected in different societal levels of gender inequality.

An initial examination of attitudes about childlessness in Europe using data from the European Values Study (see Table 1) shows wide variations overall and interesting variations in the relative attitudes of men and women. Less traditional attitudes are most prevalent in Northern European countries, which are generally more secular, have more generous welfare regimes, and favor greater gender equality at the societal level. Low acceptance of childlessness is found in Eastern European countries, which are characterized by generally lower levels of economic development, greater economic insecurity, more traditional attitudes, and greater gender inequality.

The current paper uses data from 31 countries in the European Values Study (2008) to explicate these patterns in attitudes about childlessness, particularly the gender differences, and how they relate to individual factors and societal measures of economic, demographic, and social circumstances, especially gender inequality. This study focuses on attitudes about whether a woman needs to have children to be fulfilled. We explore individual-level factors including age, educational attainment, and partner status as well as measures of religiosity (frequency of attendance at religious services), political preference, and gender ideology. At the country level,

we examine the influence of gender inequality as well as economic development (GDP per capita) and demographic measures (population growth rate, density, and mother's mean age at first birth) on attitudes. We also test the extent to which gender inequality at the country level moderates the relation between gender and attitudes. We discuss our results within the context of larger discussions of the relative roles of cultural and economic factors in influencing childbearing preferences and behaviors in very-low fertility settings.

Specific research questions:

1. To what extent do Europeans report that it is not necessary for a woman to have a child to be fulfilled (i.e., rejecting or questioning the prescriptive norm of childbearing for women)?
2. To what extent do attitudes about childlessness vary by gender, controlling for other factors? How do men's and women's attitudes about childlessness vary across countries?
3. To what extent are men's and women's attitudes about childlessness mediated by individual gender ideology, political preference, religious involvement?
4. To what extent are attitudes about childlessness (and gender differences in attitudes) explained by their social and policy environments with regard to gender inequality as well as demographic and economic circumstances?
5. To what extent are gender differences in attitudes about childlessness moderated by country-level circumstances with regard to gender inequality?

Method

Data

The individual-level data for this study come from the fourth wave of the European

Values Study (EVS) project (2008-2010).[1] Despite slight variation across the countries, the sample design of the national surveys carried by the EVS is probabilistic. For the purpose of this investigation, the micro-level dataset comprises 47,256 respondents with valid responses to the variables of interest from 31 European countries.[2] Iindividual-level data were used to construct the dependent variable, the main predicting variable and several control measures. At the contextual level, the main predicting variable is represented by the United Nations' Gender Inequality Index. Additionally, drawing from the World Bank Indicators, we included in our analyses an aggregate measure for economic condition (GDP per capita) and specific indicators reflecting a country's demographic circumstances, including population growth rate, density, and mother's mean age at first birth.

Measurement

This study's dependent variable taps individual attitudes about whether a woman needs to have children in order to be fulfilled and is based on responses to the following statement: 'Do you think that a woman has to have children in order to be fulfilled or is this not necessary?' The original response categories ('needs children,' don't know,' and 'not necessary') were used to create a dichotomous variable labelled 'a woman does not need children.' Thus, the categories of 'needs children' and 'don't know' were recoded as *0* and that of 'not necessary' as *1*.

The main predicting variable at the individual level is gender, with females coded as *1* and males coded as *0*. We also include several controls reflecting a respondent's socio-demographic characteristics, gender ideology, political preference, and religious attendance. The

[1] EVS (2016). European Values Study 2008: Integrated Dataset (EVS 2008). GESIS Data Archive, Cologne. ZA4800 Data file Version 4.0.0, doi:10.4232/1.12458

[2] Austria, Belarus, Belgium, Bulgaria, Croatia, Czech Republic, Denmark, Estonia, Finland, France, Germany, Great Britain, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxemburg, Malta, Netherlands, Poland, Portugal, Romania, Russian Federation, Slovak Republic, Slovenia, Spain, Turkey, and Ukraine. As part of a larger research project on gender and family attitudes, we focused on the 31 countries with data for both waves 3 (1999-2001) and 4 (2008-2010).

socio-demographic characteristics are represented by the following variables: age (expressed in categories – 18-24, 25-34, 35-44, 45-54, 55-64, and 65 and older), marital-partner status (living with a partner coded *1*, otherwise coded *0*), having no children (coded *1*, having one or more coded *0*), and educational level (lower, middle, and upper[3]). Our initial models also controlled for being active in the labor force (dummy variable), but it was not statistically significant in any of the models and was dropped from the analyses.

Gender ideology is a three-item index that taps into social norms that emphasize women's identities and gender expectations with regard to home and children. This index is computed by using the average for individual responses to the following statements about the changing roles of men and women: 'Being a housewife is just as fulfilling as working for pay,' 'A pre-school child is likely to suffer if his or her mother works,' and 'A job is alright but what most women really want is a home and children.' The original four-category scale was expanded into a five-category one through the inclusion of the 'don't know' option into the middle category. In addition, the initial order of responses to these three statements was reversed, with higher scores indicative of more agreement: *1* 'disagree strongly,' *2* 'disagree,' *3* 'neither disagree, nor agree,' *4* 'agree,' and *5* 'agree strongly.' For country, the factor loadings for the three items indicate the unidimensional structure of the composite measure.[4]

Two variables are used as proxies for an individual's political preference; a ten-category variable tapping self-positioning on the political scale (with *1* as 'Left' and *10* as 'Right') and a dummy variable indicating those without an expressed political preference. We opted to include this second measure of political preference because of the high number of missing cases that

[3] Original categories included in the EVS data set.
[4] Reliability scores (Cronbach's alpha) for each of the 31 national samples are in the 0.5-075 range, which is within the values that are commonly reported in cross-national studies.

would have resulted from using only the first measure. Our measure of attendance of religious services is a dummy variable ('low frequency religious attendance'), which we created from responses to the following statement: 'Apart from weddings, funerals and christenings, about how often do you attend religious services these days?' We recoded the original categories of 'only on specific holy days,' 'once a year,' 'less often,' and 'never, practically never' into *1* ('low frequency'), and the first three ('more than once a week,' 'once a week,' and 'once a month') into *0* ('not low frequency').

At the macro-level, the main independent variable of interest in this study is represented by the Gender Inequality Index for the year 2005 (United Nations). To account for the cross-country dispersion in the independent variable, we also included measures of economic circumstances (GDP per capita, adjusted for Purchasing Power parity, constant 2011 international US $, average of 3 years prior to the EVS wave 4 data collection) and demographic characteristics (mother's mean age at birth – 3-year average, population growth rate – 3-year average, and population density during the survey year). Our measures of economic circumstances and demographic characteristics come from the World Development Indicators database.

Model

To assess the relations of the individual and contextual characteristics with the dependent variable, the analyses were modeled as a two-level structure, with individuals nested within countries. Using multilevel logit modeling, we specify a total of five models. The first model enters the individual-level predictor of interest (gender), while Model 2 adds all other micro-level variables. In Model 3, the main macro-level predicting variable (Gender Inequality Index) is added. Model 4 includes all micro- and macro-level independent variables, while in Model 5

we test for a cross-level interaction effect of gender and Gender Inequality Index.

At the individual-level of analysis the mathematical equation is:

$$\boldsymbol{p_{ij}} = \Pr(\boldsymbol{Y_{ij}} = 1), \tag{1}$$

$$\log[\boldsymbol{p_{ij}} / (1 - \boldsymbol{p_{ij}})] = \beta_{0j} + \sum_{\boldsymbol{q}=1}^{8} \beta_{\boldsymbol{qj}} * \boldsymbol{X_{qij}} + \boldsymbol{r_{ij}}, \tag{2}$$

where $\boldsymbol{Y_{ij}}$ is the answer of a respondent i (i = 1, 2,…, n_j) in the jth (j = 1, 2,…, 31) country on the outcome variable that a woman does not need to have children to be fulfilled, $\boldsymbol{X_{qij}}$ (q = 1, 2,…, 14) is an individual variable q for case i in unit j, β_{0j} is a level-1 intercept, $\beta_{\boldsymbol{qj}}$ is a level-1 vector of slopes, and $\boldsymbol{r_{ij}}$ is a level-1 error term.

The level-2 equation is expressed as:

$$\beta_{0j} = \gamma_{00} + \sum_{\boldsymbol{s}=1}^{9} \gamma_{0\boldsymbol{s}} * \boldsymbol{W}_{0\boldsymbol{sj}} + \boldsymbol{u}_{0j}, \tag{3}$$

where β_{0j} is the intercept estimated in equation (2), $\boldsymbol{W}_{0\boldsymbol{sj}}$ (s = 1,…, 5) is a contextual variable, γ_{00} is a level-2 intercept, $\gamma_{0\boldsymbol{s}}$ is a vector of slopes for the contextual variables, and $\boldsymbol{u}_{0j}$ is a level-2 error term.

Results

Table 1 presents the proportions of country populations that responded that a woman "does not need to have children to be fulfilled," and it shows the variations by gender (based on weighted data). As noted earlier, the countries with the highest acceptance of women's childlessness (above two-thirds of the samples) are among countries in Northern Europe: Finland, the Netherlands, the United Kingdom, Iceland, Ireland, and Belgium. Notably, in four of these countries, women's responses are significantly more accepting than men's. This gender gap is prevalent among most of the countries with greater acceptance of women's childlessness –

women in these countries are more likely to respond that women do not need to have children to be fulfilled. The countries in the middle of the range, with acceptance levels between 25% and 48% show no statistically significant difference between men's and women's attitudes. Among the nine countries with the least favorable attitudes toward women's childlessness, the men in five countries (Ukraine, Romania, Turkey, Belarus, and Bulgaria) were more likely to report favorable attitudes than the women. Thus, the gender gap in attitudes observed in previous research in the U.S. (Koropeckyj-Cox & Pendell, 2007) and in primarily non-Eastern European countries (Merz & Liefbroer, 2012), with women reporting more positive attitudes, was characteristic of a subset of countries but varied regionally across Europe.

Our multi-level analyses were motivated by an interest in explicating this more complicated pattern of gender variation, particularly the influence of macro-level variations and their interactions with respondent's gender. Table 2 summarizes the respondent characteristics for each country. The highest levels of religiosity are observed in Romania, Poland, Malta, and Greece, whereas the lowest are in the Czech Republic, France, Finland, and Estonia. With regard to gender ideology, the most egalitarian attitudes on average are observed in Denmark, Finland, Iceland, and Netherlands, whereas the least egalitarian are in Turkey, Ukraine, Malta, Russia, and Greece.

The results of our multi-level regression models are summarized in Table 3. This table presents the fixed effects coefficients (log-odds, odds ratios, and standard errors) and random statistics (between-country variance and the deviance statistic). The results from Model 1, which tests for the independent probabilistic effect of gender on the dependent variable, indicate that being a female is significantly and positively related to greater endorsement that a woman does not need to have children to be fulfilled. The conditional expected log-odds value for female

respondents is -0.335, corresponding to a probability of nearly 21% of agreeing with this statement. Compared to the null model, the introduction of gender into the analysis increases the amount of explainable between-country variation in the dependent variable's log-odds to 19%.[5]

Model 2 builds on the previous model and introduces variety of individual-level control variables. While the previously reported effect of gender is retained, several control variables also attain statistical significance. When compared to Model 1, the inclusion of the individual-level control variables in the model decreases the between-country variation in log odds for the dependent variable, suggesting a better fit.

In Model 3, we add the macro-level predicting variable of interest (GII). Net of the individual-level variables, GII is significantly ($p \leq 0.001$) and inversely related to the outcome variable. Thus, *ceteris paribus*, a one unit decrease in the 31-country average of the GII increases the probability of endorsing that a woman does not need to have children to be fulfilled by 3.4%.

In Model 4, which builds on Model 3, the contextual variables corresponding to economic condition and demographic circumstances are introduced in the analysis. The previously reported effects are retained and we notice that economic prosperity and population density are directly and positively correlated with the dependent (although their respective effects are small in magnitude). Nonetheless, the addition of the four contextual variables into the analysis decreases the between-country variation in log-odds of endorsing that a woman does not need children to be fulfilled by almost 35% (the better model fit is also observable from the deviance statistic).

Finally, in Model 5, we test for the effect of the cross-level interactive term of gender × GII. Holding everything constant at the micro- and macro-levels, this interactive term

[5] Based on the formula of Kreft and de Leeuw (1998): (unrestricted error – restricted error)/unrestricted error.

exerts a negative significant effect ($p \leq 0.01$) on the dependent variable. This suggests that, in national settings with lower GII scores, female respondents are significantly more likely to endorse that a women does not need to have children to be fulfilled than female respondents from countries with higher GII. Thus, net of everything else, this interactive term has a conditional expected log-odds value of -0.689, which corresponds to a probability of 33%.

Discussion

[Note – this paper represents work that is in progress. A large portion of the analyses is complete. In the presentation and paper manuscript, we will discuss the results with regard to the findings on gender variations in attitudes, how they relate to coefficients for other factors at the micro- and macro-level, and specifically their relation to country-level gender inequality and its cross-level interaction with gender.

This current draft is more developed than an extended abstract but not yet a full draft of the paper. We will be further developing the literature review and conceptual framework (bringing in conceptual insights from Second Demographic Transition Theory as well as economic and feminist views), refining the analyses, and developing the discussion, including interpretations of the findings and discussion of the limitations and future research. We will discuss our results in connection with work by feminist scholars, including Michele Rivkin-Fish's article on "maternity capital" in Russia and how this idea potentially helps to explain the very low approval of women's childlessness (especially among women) in some more traditional Eastern and Southern European countries.]

References

Adsera, A. 2013. Fertility, feminism, and faith: The influence of secularism and economic conditions. In E. Kaufmann & W. B. Wilcox (Eds.), *Whither the child? Causes and consequences of low fertility*. Boulder, CO: Paradigm Publishers.

Goldstein, J., Lutz, W., & Testa, M. 2003. The emergence of sub-replacement family size ideals in Europe. *Population Research and Policy Review, 22*, 479-496.

Koropeckyj-Cox, T., & Pendell, G. (2007). The gender gap in attitudes about childlessness in the United States. *Journal of Marriage and Family*, *69*, 899-915.

Merz, E.-M., & Liefbroer, A. 2012. The attitude toward voluntary childlessness in Europe: Cultural and institutional explanations. *Journal of Marriage and Family, 74*, 587-600. DOI:10.1111/j.1741-3737.2012.00972.x

Miettinen, A., & Szalma, I. 2014. Childlessness intentions and ideals in Europe. Finnish Yearbook of Population Research, 49, 31-55. Retrieved from https://journal.fi/fypr/article/view/48419

Rijken, A. J., & Merz, E.-M. 2014. Double standards: Differences in norms on voluntary childlessness for men and women. *European Sociological Review, 30*, 470-482.

Rivkin-Fish, M. 2010. Pronatalism, gender politics, and the renewal of family support in Russia: Toward a feminist anthropology of "maternity capital." *Slavic Review, 69*, 701-724.

Sobotka, T. 2017. Childlessness in Europe: Reconstructing long-term trends among women born in 1900-1972. In M. Kreyenfeld & D. Konietzka (Eds.), *Childlessness in Europe: Contexts, causes, and consequences.* Springer.

Table 1. Gender Differences (EVS, 2008): Percent reporting that "A woman does not need to have a child to be fulfilled" (compared to "needs to have children or "don't know)."

	Total	Women	Men	
		%	%	
Finland	88.1	**93.5**	82.4	***
Netherlands	91.1	92.1	90.0	
United Kingdom	76.6	**82.8**	69.9	***
Iceland	70.3	**77.2**	63.6	***
Ireland	69.7	**73.8**	65.6	**
Belgium	71.1	70.9	71.3	
Slovenia	63.8	63.7	64.0	
Luxembourg	55.4	**61.9**	48.7	***
Austria	57.3	**59.7**	54.7	*
Spain	55.0	**60.1**	49.7	***
Malta	50.5	**56.7**	43.4	***
Croatia	49.9	48.9	51.1	
Portugal	44.4	**48.9**	40.6	***
Germany	43.1	44.1	42.1	
Slovakia	42.8	42.7	43.0	
Italy	40.0	40.6	39.4	
France	38.2	40.0	36.2	
Poland	39.5	38.1	40.9	
Lithuania	33.4	33.7	33.0	
Czech Republic	33.9	33.1	34.8	
Estonia	27.2	25.9	28.8	
Denmark	19.9	**22.6**	17.1	**
Bulgaria	23.3	20.9	**26.0**	*
Greece	21.7	20.7	22.7	
Belarus	22.0	19.4	**25.0**	**

Turkey	20.5	18.5	**22.6**	***
Latvia	16.4	16.3	16.6	
Hungary	12.7	13.9	11.4	
Romania	15.3	12.3	**18.6**	***
Russia	12.6	12.1	13.3	
Ukraine	9.4	7.5	**11.7**	**

Table 2 Sample size and descriptive statistics for the individual-level predicting variables in 31 European countries.

					Completed education			Political preference			
Country		**Female**	**Lives with partner**	**Has no children**	**Lower**	**Middle**	**Upper**		**missing**	**Low religious attendance**	**Gender ideology**
	n	%	%	%	%	%	%	mean (s.d.)	%	%	mean (s.d.)
Austria	1,510	52	48	36	19	72	10	5.24 (2.00)	17	48	2.79 (0.96)
Belarus	1,500	54	49	30	11	61	28	5.75 (1.65)	46	45	2.75 (0.92)
Belgium	1,507	51	67	27	34	35	32	5.12 (1.87)	6	67	2.96 (0.98)
Bulgaria	1,500	52	57	22	28	53	19	5.32 (2.46)	35	39	2.92 (0.82)
Croatia	1,498	53	58	30	23	57	20	5.18 (2.28)	19	37	2.97 (0.83)
Czech Rep.	1,793	52	47	31	13	75	13	5.57 (2.42)	21	78	2.86 (0.85)
Denmark	1,507	51	57	27	25	40	35	5.43 (2.01)	4	59	3.84 (0.73)
Estonia	1,518	55	38	28	46	31	23	5.68 (1.88)	24	72	2.64 (0.83)
Finland	1.134	52	56	33	14	33	53	6.03 (2.47)	18	74	3.15 (0.84)
France	1,501	52	48	29	23	45	31	4.94 (2.28)	8	74	3.07 (0.99)
Germany	2,038	51	53	34	17	64	19	5.07 (1.72)	14	56	3.05 (1.03)
Greece	1,498	51	61	35	38	43	19	5.39 (2.22)	20	15	2.46 (0.76)
Hungary	1,513	53	58	31	24	59	16	5.44 (2.12)	10	62	2.69 (1.01)
Iceland	808	49	80	24	27	41	33	5.39 (2.15)	6	63	3.15 (0.72)
Ireland	979	50	50	37	38	40	22	5.80 (1.88)	29	36	2.91 (0.83)
Italy	1,519	52	58	34	41	44	15	5.32 (2.46)	23	24	2.67 (0.80)

Latvia	1,506	54	64	28	19	57	24	5.99 (1.85)	26	58	2.82 (0.74)
Lithuania	1,499	55	52	28	21	40	39	5.67 (2.02)	41	32	2.35 (0.62)
Luxembourg	1,609	51	58	32	37	36	27	5.35 (1.99)	20	53	2.84 (1.02)
Malta	1,497	53	59	33	68	12	20	5.31 (2.80)	47	14	2.29 (0.74)
Netherlands	1,550	51	68	31	36	31	33	5.45 (1.81)	7	62	3.14 (0.85)
Poland	1,479	52	56	33	16	65	19	5.99 (2.05)	16	11	2.65 (0.78)
Portugal	1,553	45	59	35	61	25	14	4.90 (1.82)	29	47	2.94 (0.88)
Romania	1,489	52	61	30	32	58	11	5.79 (2.19)	40	15	2.63 (0.80)
Russia	1,490	55	51	26	15	53	32	5.57 (2.07)	43	59	2.42 (0.78)
Slovak Rep.	1,509	52	59	28	16	72	12	4.98 (1.95)	25	41	3.02 (0.98)
Slovenia	1,366	51	71	29	46	35	19	4.99 (1.98)	26	49	2.93 (0.85)
Spain	1,497	52	56	40	48	34	18	4.62 (1.94)	16	62	3.10 (1.00)
Turkey	2,325	50	71	28	72	19	10	5.88 (2.40)	25	31	2.04 (0.80)
Ukraine	1,507	55	58	22	12	47	41	5.58 (2.32)	44	35	2.30 (0.85)
United Kingdom	2,038	52	47	29	57	19	24	5.37 (1.72)	22	67	3.03 (0.78)

Source: European Values Survey, 2008. Unweighted sample size; proportions and means based on weighted data.

Lives with partner includes those who report being married or having a cohabiting partner.

Political preference is a self-report of political views on a scale from *1* (left) to *10* (right). Cases with missing values were imputed using country means.

Low religious attendance is a binary variable indicating religious attendance once a year or less.

Gender ideology is measured on a scale from *1* (agree) to *4* (disagree); high values represent less traditional view.

Table 3 Results from multilevel binary logistic regression models predicting the probability of responding that a woman does not need to have children to be fulfilled in 31 European countries, EVS 2008

	Model 1[a]		**Model 2**		**Model 3**		**Model 4**		**Model 5**	
	Log-odds	Odds ratios	Log-odds	Odds ratios	Log-odds	Odds ratios	Log-odds	Odds ratios	Log-odds	Odds ratios
Fixed effects										
Constant	-0.355* (0.154)	0.701	-1.285*** (0.137)	0.277	-0.620** (0.201)	0.538	0.685 (2.027)	1.985	0.734 (2.004)	2,083
Individual-level										
Gender (female)	0.098* (0.043)	1.103	0.155*** (0.038)	1.168	0.158*** (0.037)	1.172	0.161*** (0.037)	1.174	0.296*** (0.057)	1.345
Gender ideology[b]			0.298*** (0.026)	1.347	0.297*** (0.026)	1.346	0.307*** (0.025)	1.359	0.306*** (0.025)	1.359
Age (45-54 ref.)										
18-24			-0.073 (0.044)	0.930	-0.072 (0.045)	0.930	-0.061 (0.044)	0.941	-0.059 (0.046)	0.943
25-34			-0.012 (0.045)	0.986	-0.012 (0.045)	0.988	-0.006 (0.046)	0.994	-0.007 (0.046)	0.993
35-44			0.106*** (0.028)	1.112	0.107*** (0.028)	1.113	0.112*** (0.028)	1.119	0.112*** (0.028)	1.118
55-64			-0.045* (0.023)	0.956	-0.046* (0.023)	0.955	-0.046* (0.023)	0.955	-0.046* (0.023)	0.955
65+			-0.257*** (0.028)	0.773	-0.260*** (0.028)	0.771	-0.261*** (0.029)	0.771	-0.262*** (0.029)	0.769
Lives with partner[c]			0.014 (0.018)	1.014	0.015 (0.018)	1.015	0.018 (0.018)	1.018	0.018 (0.018)	1.018
No children			0.430*** (0.041)	1.538	0.432*** (0.041)	1.540	0.430*** (0.041)	1.537	0.430*** (0.041)	1.537
Education (middle educ. ref.)										
Lower education			-0.103*** (0.029)	0.902	-0.104*** (0.029)	0.901	-0.105*** (0.029)	0.900	-0.106*** (0.029)	0.900

Upper education		0.075* (0.032)	1.077	0.076* (0.032)	1.079	0.077* (0.031)	1.080	0.078* (0.031)	1.081
Political preference[d]		-0.017** (0.007)	0.983	-0.018** (0.007)	0.982	-0.018** (0.007)	0.983	-0.017** (0.07)	0.983
No political preference given		-0.104*** (0.029)	0.902	-0.101*** (0.030)	0.904	-0.113*** (0.029)	0.893	-0.116*** (0.029)	0.891
Low freq. religious attendance[e]		0.188*** (0.028)	1.206	0.187*** (0.029)	1.205	0.193*** (0.028)	1.213	0.194*** (0.028)	1.214
Country-level									
Gender Inequality Index (GII)				-3.349*** (0.606)	0.035	-3.106*** (0.472)	0.045	-2.732*** (0.515)	0.065
GDP per capita (PPP, constant 2011 int'l $), 3 year average						0.001*** (0.000)	1.000	0.001*** (0.000)	1.000
Mother's mean age at birth, 3 year average						-0.069 (0.071)	0.933	-0.074 (0.070)	0.929
Population growth rate (annual percentage), 3 year average						0.068 (0.080)	1.071	0.069 (0.081)	1.072
Population density, survey year						0.001*** (0.000)	1.001	0.001*** (0.000)	1.001
Cross-level interactions									
Gender × GII								-0.689** (0.214)	0.502
Random statistics[a]									
Country-level var., $\boldsymbol{u}_{0j}$	1.0111		0.7502		0.6812		0.4436		0.4352
Deviance, -2ln*L*	56087.078		51367.092		51353.952		51341.733		51337.492

Notes: Robust standard errors are reported in parentheses, below the log-odds. The contextual-level predicting variables are not mean centered. Weights have been used for the individual-level data. $^{*}p \leq 0.05$; $^{**}p \leq 0.01$; $^{***}p \leq 0.001$ (one-tailed tests).

[a] For the intercept-only (null) model, country-level variance $\boldsymbol{u}_{0j}$ is 1.2482 and deviance **-2ln*L*** is 56254.818. For all models, the χ^2 test for the intercept indicates that the cross-country variability in log-odds of responding that a woman does not need to have children to be fulfilled is statistically significant ($p \leq 0.001$).

[b] Gender ideology is measured on a scale from *1* (agree) to *5* (disagree); high values represent less traditional views.

[c] Lives with partner includes those who report being married or having a cohabiting partner.

[d] Political preference is a self-report of political views on a scale from *1* (left) to *10* (right). Cases with missing values were imputed using country means.

[e] Low religious attendance is a binary variable indicating religious attendance once a year or less.