

***Supplementary Materials:
The Cultural Sources of the Gender Gap in Voter Turnout***

CONTENTS

Question wording	2
Descriptive statistics	3
Non-Linear Decomposition	4
Election-level differences in the effect of female	5
Attitudinal measure of gender attitudes	7
Ordered logit estimation	10

QUESTION WORDING

TABLE 1: Question wording for political interest in EES surveys

Survey years	Question wording
1979 and 1984	Not available. (The surveys did not include questions on general political interest.)
1989, 1994, 1999, 2004 and 2009	To what extent would you say you are interested in politics? Very, somewhat, a little, or not at all? [answer options] ‘Very’; ‘Somewhat’; ‘A little’; ‘Not at all’.
2014	For each of the following statements, please tell me to what extent it corresponds or not to your attitude or opinion. [item] ‘You are very interested in politics’ [answer options] ‘Yes, definitely’; ‘Yes, to some extent’; ‘No, not really’; ‘No, not at all’.

DESCRIPTIVE STATISTICS

TABLE 1: Descriptive Statistics

Variable	Mean	Std. Dev.	Min.	Max.	N
Turnout	0.64	0.48	0	1	123398
Female	0.53	0.5	0	1	123398
Age	48.4	17.6	14	99	123398
Postsecondary	0.37	0.48	0	1	123398
Working	0.5	0.5	0	1	123398
Unemployed	0.43	0.49	0	1	123398
Not working	0.07	0.26	0	1	123398
Working class	0.26	0.44	0	1	123398
Middle class	0.64	0.48	0	1	123398
Upper class	0.1	0.3	0	1	123398
EU membership bad	0.12	0.32	0	1	120509
EU membership neither good nor bad	0.27	0.44	0	1	120509
EU membership good	0.61	0.49	0	1	120509
Trade union member	0.19	0.39	0	1	122589
Attendance of religious services	0.19	0.39	0	1	123252
Closeness to a party	0.65	0.48	0	1	123398
Interest in politics	0.49	0.31	0	1	123398
Women parliament survey	23.07	10.79	6	46.95	116198
Women in parliament 18-21	14	10.18	0	46.8	118649
EIGE	61.99	9.02	45.9	82.60	88512
EIGE (2005-2015 average)	62.31	8.63	48.88	80.3	117996
PISA	-0.02	0.01	-0.04	0.01	98358
TIMSS	-0.01	0.01	-0.03	0.01	93357

NON-LINEAR DECOMPOSITION

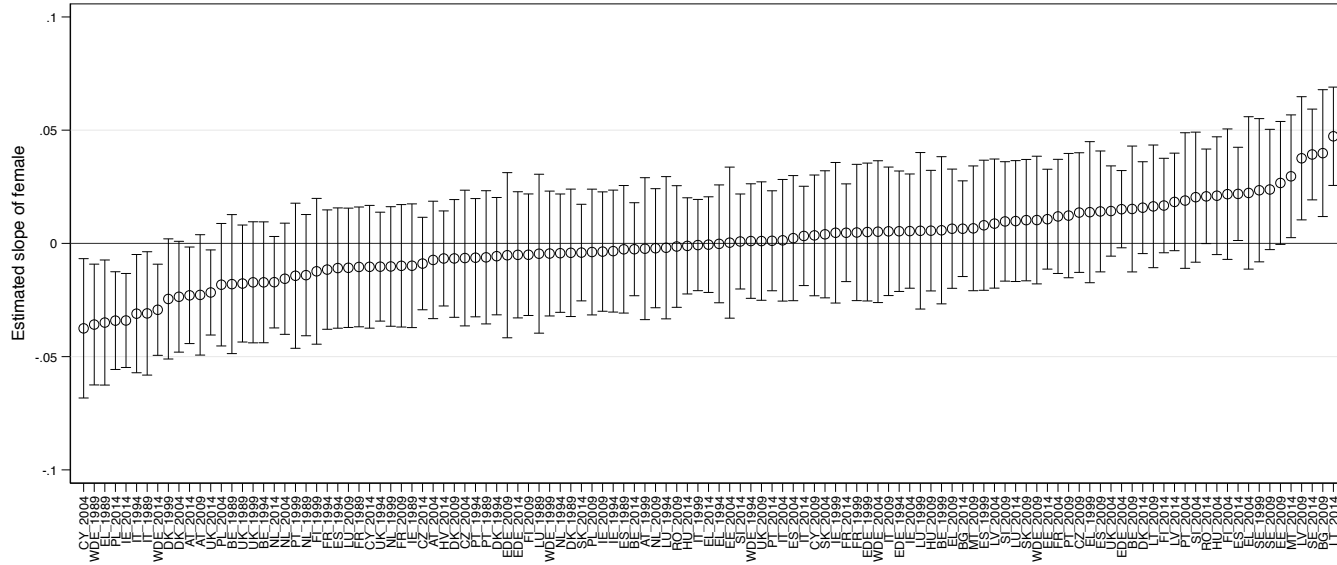
TABLE 1: Non-Linear Decomposition of the Gender Gap in Voter Turnout

Observations	119610	
Probability to vote: Men	0.660	
Probability to vote: Women	0.633	
Gender gap	0.027	
Explained	0.044	
Unexplained	-0.016	
Factor	Contribution (Explained part)	Share of the gap
Age	0.003 ***	10.8 %
Postsecondary	0.001***	2.5 %
Unemployed	0.002***	7.5 %
Not working	0.000***	0.1 %
Middle class	-0.001***	-1.9 %
Upper class	0.001***	2.6 %
EU membership neither good nor bad	-0.001***	-5.3 %
EU membership good	0.006***	23.6 %
Trade union member	0.002***	6.6 %
Attendance of religious services	-0.004***	-13.0 %
Closeness to a party	0.007***	26.7 %
Interest in politics	0.033***	119.6 %
28 country dummies (total contribution)	-0.005	-16.7 %
7 election dummies (total contribution)	-0.001	-2.9 %

Note: Significance levels: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

ELECTION-LEVEL DIFFERENCES IN THE EFFECT OF FEMALE

Figure 1: Random slope of female, by election

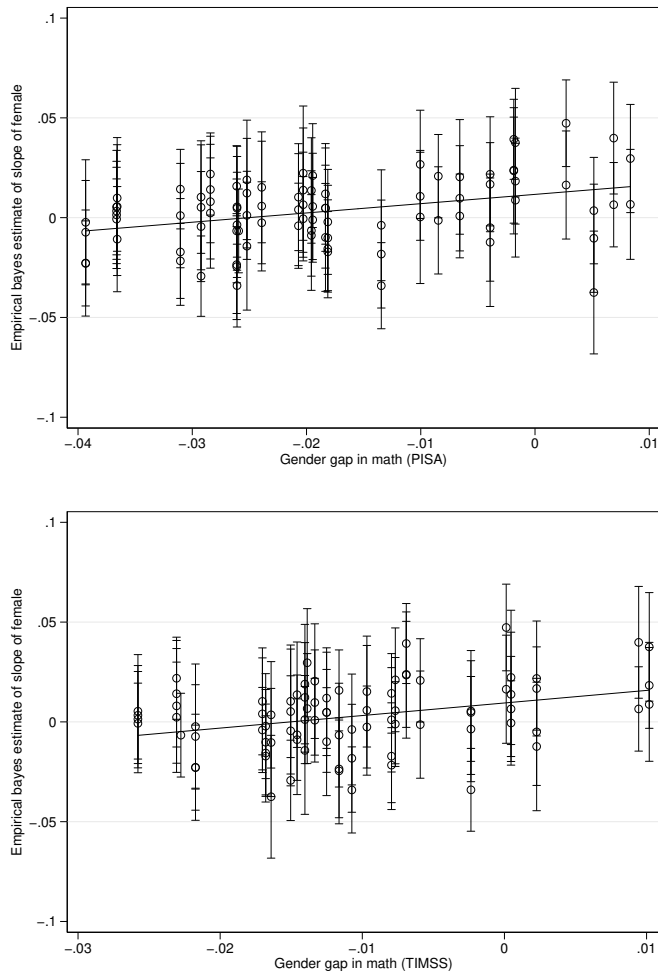


Note: Empirical Bayes estimates and 95% confidence intervals of random effect of female by election sample. Estimates from an ordered logit model to explain political interest. Only individual-level control variables are included.

Using the empirical bayes estimates of the random effect of gender (Figure 1), we can explore the association between the gender gap in political interest and gender differences in math scores in a bivariate way.

The graphs in Figure 2 show the bivariate correlation between the gender gap in political interest and the difference in math scores between boys and girls in the PISA (upper panel) and TIMSS dataset (lower panel). These graphs show a positive association between the random effect of gender and these two indicators of cultural gender inequality. While these bivariate associations are quite noisy – which is not surprising given the lack of controls – they show tentative evidence of the significant association that we find in the regression models.

Figure 2: Random slope of gender, by election

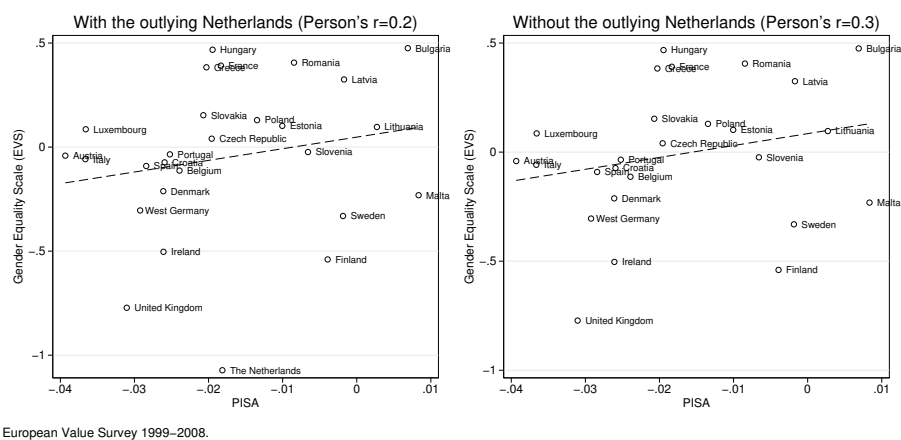


Note: Empirical Bayes estimates and 95% confidence intervals of random effect of female by election sample by gender gap in math. Estimates from mixed linear models to explain political interest. Individual-level control variables are included.

ATTITUDINAL MEASURE OF GENDER ATTITUDES

To evaluate the validity of our measure of cultural gender attitudes (the difference in math scores between boys and girls), we incorporated in our data set a gender equality scale based on items from the European Value Survey (Waves from 1999 and 2008, variables: C001, D019, D056, D057, D058, D061, D062, D063, D064). The scale taps attitudes towards equality in the household and women's independence (i.e., the EVS variables D058 and D063 had the strongest loadings on our scale in the factor analysis). As shown in Figure 1, there is a consistent positive correlation between this survey indicator and mathematical performance (from PISA). The more respondents have attitudes favourable to gender equality, the smaller the traditional gap in mathematical performance.

Figure 1: Correlation: Gender Equality (EVS) Mathematical Performance (PISA)



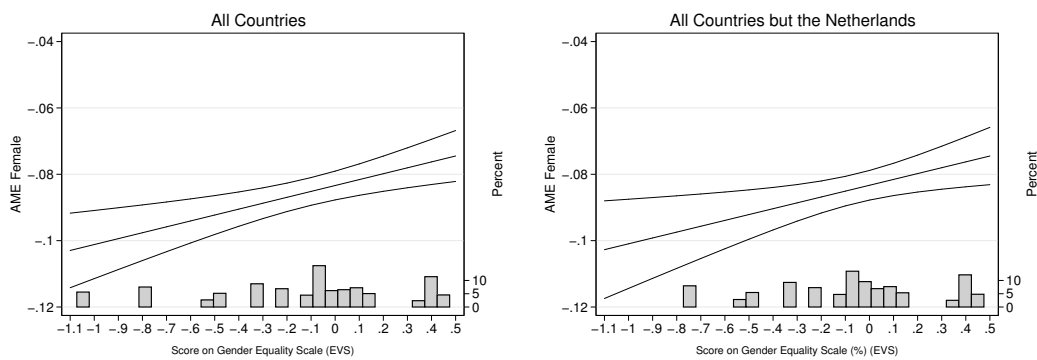
Furthermore, as evident from the results in Table 1 and Figure 2, when we employ the explicit survey measure from the EVS instead of mathematical performance, the substantive results remain similar and both statistically and substantively significant. In more gender-equal countries, where more respondents believe that men and women should both contribute to the household income, there is a weaker gender gap in political interest.

TABLE 1: Explaining Political Interest with gender attitudes

	(1)	(2)
	With the Netherlands	Without the Netherlands
Female	-0.083*** (0.003)	-0.083*** (0.003)
Gender Equality Scale (EVS)	-0.052 (0.035)	-0.075 (0.042)
Female \times Gender Equality Scale (EVS)	0.018** (0.006)	0.018* (0.008)
Age	0.002*** (0.000)	0.002*** (0.000)
Postsecondary	0.096*** (0.002)	0.097*** (0.002)
Unemployed	-0.008*** (0.002)	-0.008*** (0.002)
Not working	-0.029*** (0.003)	-0.030*** (0.003)
Middle class	0.056*** (0.002)	0.056*** (0.002)
Upper class	0.102*** (0.003)	0.100*** (0.003)
Closeness to a political party (a dummy)	0.150*** (0.002)	0.153*** (0.002)
Constant	0.250*** (0.013)	0.251*** (0.013)
σ^2 countries	0.004	0.004
σ^2 elections	0.003	0.003
σ^2 female	0.000	0.000
(<i>N</i>) countries/elections	28/116	27/110
(<i>N</i>) individuals	121210	114421

Note: Coefficients of random intercept linear probability models, random slope specified for gender. Standard errors in parentheses. Significance levels: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Figure 2: Average Marginal Effect of female on political interest, by gender attitudes



Note: Estimates and 90% confidence intervals come from Table 1.

ORDERED LOGIT ESTIMATION

TABLE 1: Explaining Political Interest, Contextual-Level Factors

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Female	-0.578*** (0.011)	-0.639*** (0.042)	-0.646*** (0.025)	-0.511** (0.158)	-0.509*** (0.138)	-0.435*** (0.033)	-0.470*** (0.032)
Age	0.015*** (0.000)	0.015*** (0.000)	0.018*** (0.000)	0.017*** (0.000)	0.015*** (0.000)	0.017*** (0.000)	0.016*** (0.000)
Postsecondary	0.639*** (0.012)	0.633*** (0.013)	0.634*** (0.012)	0.592*** (0.014)	0.630*** (0.013)	0.597*** (0.014)	0.601*** (0.014)
Unemployed	-0.059*** (0.012)	-0.061*** (0.013)	-0.053*** (0.013)	-0.047** (0.015)	-0.056*** (0.013)	-0.047*** (0.014)	-0.049*** (0.014)
Not working	-0.202*** (0.022)	-0.194*** (0.022)	-0.203*** (0.022)	-0.195*** (0.025)	-0.190*** (0.022)	-0.196*** (0.024)	-0.194*** (0.025)
Middle class	0.379*** (0.013)	0.374*** (0.013)	0.372*** (0.013)	0.350*** (0.016)	0.379*** (0.013)	0.357*** (0.015)	0.349*** (0.015)
Upper class	0.691*** (0.021)	0.688*** (0.022)	0.683*** (0.022)	0.632*** (0.025)	0.691*** (0.022)	0.662*** (0.024)	0.652*** (0.024)
Close to a political party	1.016*** (0.012)	1.025*** (0.013)	1.011*** (0.012)	1.013*** (0.014)	1.021*** (0.013)	1.012*** (0.013)	1.027*** (0.014)
Women parliament survey		0.009 (0.005)					
Female × Women parliament survey		0.003 (0.002)					
Women in parliament 18–21			0.004*** (0.001)				
Female × Women in parliament 18–21			0.005*** (0.001)				
EIGE				0.005 (0.009)			
Female × EIGE				-0.000 (0.003)			
EIGE (2005–2015 average)					0.019* (0.010)		
Female × EIGE (2005–2015 average)					-0.001 (0.002)		
PISA						-4.439 (6.462)	
Female × PISA						6.084*** (1.481)	
TIMSS							5.723 (10.063)
Female × TIMSS							7.274** (2.308)
Cut 1	-0.266** (0.087)	-0.051 (0.136)	-0.097 (0.091)	0.146 (0.522)	0.948 (0.588)	-0.154 (0.142)	-0.277* (0.140)
Cut 2	1.553*** (0.087)	1.757*** (0.136)	1.733*** (0.092)	1.910*** (0.522)	2.753*** (0.588)	1.657*** (0.142)	1.536*** (0.141)
Cut 3	3.711*** (0.088)	3.916*** (0.136)	3.906*** (0.092)	4.042*** (0.522)	4.911*** (0.588)	3.807*** (0.142)	3.681*** (0.141)
σ^2 countries	0.165** (0.054)	0.147** (0.049)	0.168** (0.055)	0.145** (0.053)	0.148** (0.049)	0.178** (0.057)	0.186** (0.061)
σ^2 elections	0.145*** (0.022)	0.128*** (0.021)	0.136*** (0.021)	0.099*** (0.022)	0.132*** (0.021)	0.089*** (0.017)	0.092*** (0.018)
σ^2 female		0.022*** (0.005)	0.020*** (0.004)	0.026*** (0.006)	0.025*** (0.005)	0.018*** (0.005)	0.022*** (0.005)
<i>N</i> countries	29	29	29	28	28	26	28
<i>N</i> elections	113	119	75	114	90	84	90
<i>N</i> individuals	123398	116198	118649	88512	117996	98358	93357

Note: Coefficients of random intercept ordered logit models, random slope specified for gender. Standard errors in parentheses. Significance levels: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.