Supplementary Material (for online only publication)
to manuscript "The gender gap in political interest: heritability, gendered political socialization, and the enriched environment hypothesis"

Table of contents

Table S1. OLS regression of political interest on gender and parental political interest, self-esteem, and associational activity

	Predictive effect of gender in subsample	**Predictive effect of gender when including row variable**
Paternal interest	0.05	0.05
Maternal interest	0.06	0.06
Self-esteem	0.09	0.09
Sports club	0.09	0.09
Music/theater group	0.09	0.10
Religious group	0.09	0.09
Workplace association/student council	0.09	0.09
Civic support	0.10	0.09
History and marksmen	0.09	0.09
Political organization	0.09	0.09

Total N = 5989 but differs per variable. All regression coefficients are statistically significant at $p < .05$.
Parental interest available for all age groups, the other variables only for adolescents and young adult.

This table shows that the predictive effect of gender is virtually unchanged when including potential alternative explanations for gender differences in political interest in the regression.

Table S2: Model fit for constrained ACE models against baseline unconstrained ACE model

Model	Number of estimated parameters	-2LL	Degrees of freedom	AIC	Difference -2LL from baseline	Difference degrees of freedom from baseline	p
(1) Age limitation	15	12811.5	5974	863.5	52.6	9	0.00
(2) Sex limitation	12	12774.2	5977	820.2	15.3	12	0.22
(3) "Adults are different" with sex limitation	18	12766.2	5971	824.2	7.3	6	0.29
(4) "Adults are different" without sex limitation	12	12813.5	5977	859.5	54.6	12	0.00

N = 5989 in 2941 complete pairs.

Note: The baseline unconstrained model estimates A, C, and E parameters for each of the six age and sex combinations (three age categories X two sex categories) separately. The age limitation model constrains parameters to be equivalent within age across sex (e.g., equivalent for 11-12 year old boys and girls), while allowing variation across the three age categories. The sex limitation model constrains parameters to be equivalent across the age categories for males and for females separately (e.g., equivalent for 11-12, 17-18, and 22-25 year old females). The "adults are different" with sex limitation model constrains parameters to be equivalent across the 11-12 and 17-18 year old age categories for males and females separately, and leaves the parameters for both men and women unconstrained. The "adults are different" without sex limitation model constrains the parameters of the 11-12 and 17-18 age groups to be equivalent regardless of sex and constrains the parameters of all adults to be equivalent. The p-values indicate whether the more constrained model is a significantly worse fit than the baseline model (i.e., p-values above 0.05 indicate that it is not a significantly worse fitting model and could be favored as more parsimonious).

Table S3a: Comparisons of heritability estimates from Table 3

Category 1	Category 2	Difference	95% CI
Male youths	22-25 Male	-3.5	(-25.8 - 15.6)
Male youths	Female youths	26.6	(-1.5 - 47.5)
22-25 Male	22-25 Female	6.7	(-12.0 - 23.4)
Female youths	22-25 Female	-23.4	(-44.1 - -1.0)

Table S3b: Comparisons of common environment estimates from Table 3

Category 1	Category 2	Difference	95% CI
Male youths	22-25 Male	0.7	(-14.1 - 17.1)
Male youths	Female youths	-19.7	(-35.5 - 3.2)
22-25 Male	22-25 Female	0.0	(-12.0 - 14.1)
Female youths	22-25 Female	20.4	(2.3 - 35.6)

Table S3c: Comparisons of unique environment estimates from Table 3

Category 1	Category 2	Difference	95% CI
Male youths	22-25 Male	2.9	(-8.6 - 14.0)
Male youths	Female youths	-6.8	(-16.3 - 2.9)
22-25 Male	22-25 Female	-6.7	(-18.5 - 5.5)
Female youths	22-25 Female	3.0	(-7.6 - 13.3)

Table S3d: Comparisons of variability estimates from Table 3

Category 1	Category 2	Difference	95% CI
Male youths	22-25 Male	-7.0	(-15.5 - 0.9)
Male youths	Female youths	10.7	(5.7 - 16.0)
22-25 Male	22-25 Female	19.4	(11.5 - 27.9)
Female youths	22-25 Female	1.7	(-3.6 - 6.7)

Table S4: Parameter estimates for baseline ACE model

		Heritability		Shared Environment		Unique Environment		Variance	
Age	**Sex**	**Estimate**	**95% CI**	**Estimate**	**95% CI**	**Estimate**	**95% CI**	**Estimates**	**95% CI**
11-12	Male	47.8	(16.5 - 57.3)	0.2	(0.0 - 23.0)	52.1	(42.7 - 64.7)	57.6	(52.5 - 63.5)
17-18	Male	50.8	(22.3 - 61.7)	2.9	(0.0 - 26.5)	46.3	(38.3 - 56.0)	61.5	(55.7 - 68.1)
22-25	Male	54.1	(36.5 - 62.3)	0.0	(0.0 - 14.1)	45.9	(37.7 - 55.5)	66.4	(59.9 - 74.0)
11-12	Female	23.1	(0.0 - 51.2)	22.7	(0.0 - 43.7)	54.2	(44.8 - 65.3)	53.0	(48.3 - 58.3)
17-18	Female	24.8	(0.0 - 49.6)	18.1	(0.0 - 38.9)	57.1	(48.8 - 66.4)	45.2	(41.6 - 49.3)
22-25	Female	47.3	(32.3 - 54.9)	0.0	(0.0 - 12.0)	52.7	(45.1 - 61.1)	47.1	(43.2 - 51.5)

N = 5989 in 2941 complete pairs.

Table S4a: Comparisons of heritability estimates from Table S4

Category 1	Category 2	Difference	95% CI
11-12 Male	17-18 Male	-3.0	(-38.2 - 27.3)
11-12 Male	22-25 Male	-6.3	(-38.7 - 13.3)
11-12 Male	11-12 Female	24.7	(-17.1 - 53.6)
17-18 Male	22-25 Male	-3.3	(-33.0 - 18.6)
17-18 Male	17-18 Female	26.0	(-12.8 - 56.3)
22-25 Male	22-25 Female	6.7	(-12.0 - 23.4)
11-12 Female	17-18 Female	-1.7	(-40.5 - 36.6)
11-12 Female	22-25 Female	-24.3	(-51.8 - 5.3)
17-18 Female	22-25 Female	-22.5	(-49.7 - 5.5)

Table S4b: Comparisons of shared environment estimates from Table S4

Category 1	Category 2	Difference	95% CI
11-12 Male	17-18 Male	-2.7	(-26.5 - 22.9)
11-12 Male	22-25 Male	0.2	(-14.1 - 23.0)
11-12 Male	11-12 Female	-22.6	(-43.7 - 10.1)
17-18 Male	22-25 Male	2.9	(-14.0 - 26.5)
17-18 Male	17-18 Female	-15.2	(-38.8 - 17.6)
22-25 Male	22-25 Female	0.0	(-12.0 - 14.1)
11-12 Female	17-18 Female	4.6	(-26.8 - 36.0)
11-12 Female	22-25 Female	22.7	(-1.2 - 43.7)
17-18 Female	22-25 Female	18.1	(-5.0 - 38.9)

Table S4c: Comparisons of unique environment estimates from Table S4

Category 1	Category 2	Difference	95% CI
11-12 Male	17-18 Male	5.8	(-7.8 - 20.7)
11-12 Male	22-25 Male	6.2	(-7.3 - 21.2)
11-12 Male	11-12 Female	-2.1	(-16.7 - 13.6)
17-18 Male	22-25 Male	0.4	(-12.2 - 13.1)
17-18 Male	17-18 Female	-10.7	(-23.2 - 1.9)
22-25 Male	22-25 Female	-6.7	(-18.5 - 5.5)
11-12 Female	17-18 Female	-2.9	(-16.2 - 11.0)
11-12 Female	22-25 Female	1.5	(-11.1 - 14.9)
17-18 Female	22-25 Female	4.4	(-7.4 - 16.4)

Table S4d: Comparisons of variability estimates from Table S4

Category 1	Category 2	Difference	95% CI
11-12 Male	17-18 Male	-3.9	(-12.2 - 4.4)
11-12 Male	22-25 Male	-8.8	(-18.0 - 0.0)
11-12 Male	11-12 Female	4.7	(-2.8 - 12.2)
17-18 Male	22-25 Male	-5.0	(-14.5 - 4.3)
17-18 Male	17-18 Female	16.2	(9.2 - 23.8)
22-25 Male	22-25 Female	19.4	(11.5 - 27.9)
11-12 Female	17-18 Female	7.7	(1.5 - 14.2)
11-12 Female	22-25 Female	5.9	(-0.5 - 12.5)
17-18 Female	22-25 Female	-1.8	(-7.6 - 3.8)

Table S5: Effect of parental political interest, self-esteem, and associational activity on heritability of interest in politics (full sample)

	Twin correlation of interest in politics				**Basic heritability calculation**		
	rMZ	*rDZ*	*rMZ (partial)*	*rDZ (partial)*	*% genetic (subsample)*	*% genetic (partial)*	*% difference*
Paternal interest	0.51	0.31	0.49	0.29	40%	40%	0%
Maternal interest	0.54	0.31	0.52	0.29	46%	46%	0%
Self-esteem	0.53	0.27	0.53	0.26	52%	54%	-2%
Sports club	0.54	0.25	0.54	0.25	58%	58%	0%
Music/theater group	0.54	0.24	0.54	0.23	60%	62%	-2%
Religious group	0.54	0.24	0.54	0.24	60%	60%	0%
Workplace association/student council	0.53	0.24	0.52	0.23	58%	58%	0%
Civic support	0.53	0.25	0.53	0.25	56%	56%	0%
History and marksmen	0.53	0.24	0.53	0.24	58%	58%	0%
Political organization	0.54	0.24	0.50	0.24	60%	52%	8%

The first two columns show the correlation among MZ twins and DZ twins for interest in politics in the subsample in question (of whom we have observations regarding the row variable in question). The second two columns indicate the MZ and DZ correlations for interest in politics when covariation with the row variable has been partialled out. These partial correlations are calculated by regressing interest in politics on the confounder (separating twins within pairs to prevent correlated observations), then calculating MZ and DZ correlations from the residuals of the regressions. The final three columns indicate the variance components of interest in politics attributed to genes and the difference therein when partialling out the variance due to the row variable.

Table S6: Comparison of twin correlations by residence of twin pairs (aged 18 and older)

	All twin pairs (age 18+)	**Twin pairs living at parental home**	**Twins pairs not living in parental home**
rMZ	0.55	0.55	0.57
rDZ	0.23	0.27	0.23
A	0.64	0.56	0.68
C	-0.09	-0.01	-0.11
E	0.45	0.45	0.43
N (pairs)	1023	598	257

Note: ACE estimates calculated without constraining components to be zero. Negative C components can result when the MZ correlation is more than twice the DZ correlation and should be interpreted as no C component.