Supporting information for:
Affective polarization and the salience of elections

Electoral Studies

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APPENDIX A: Operationalization and descriptive data

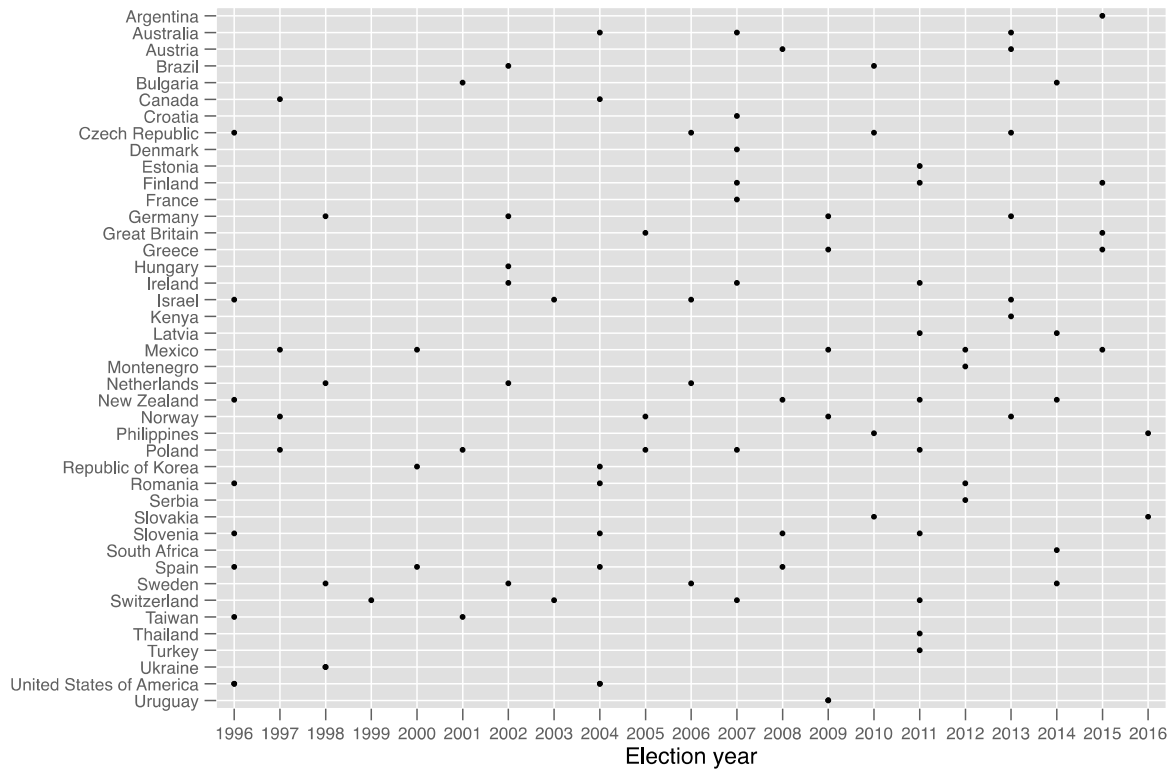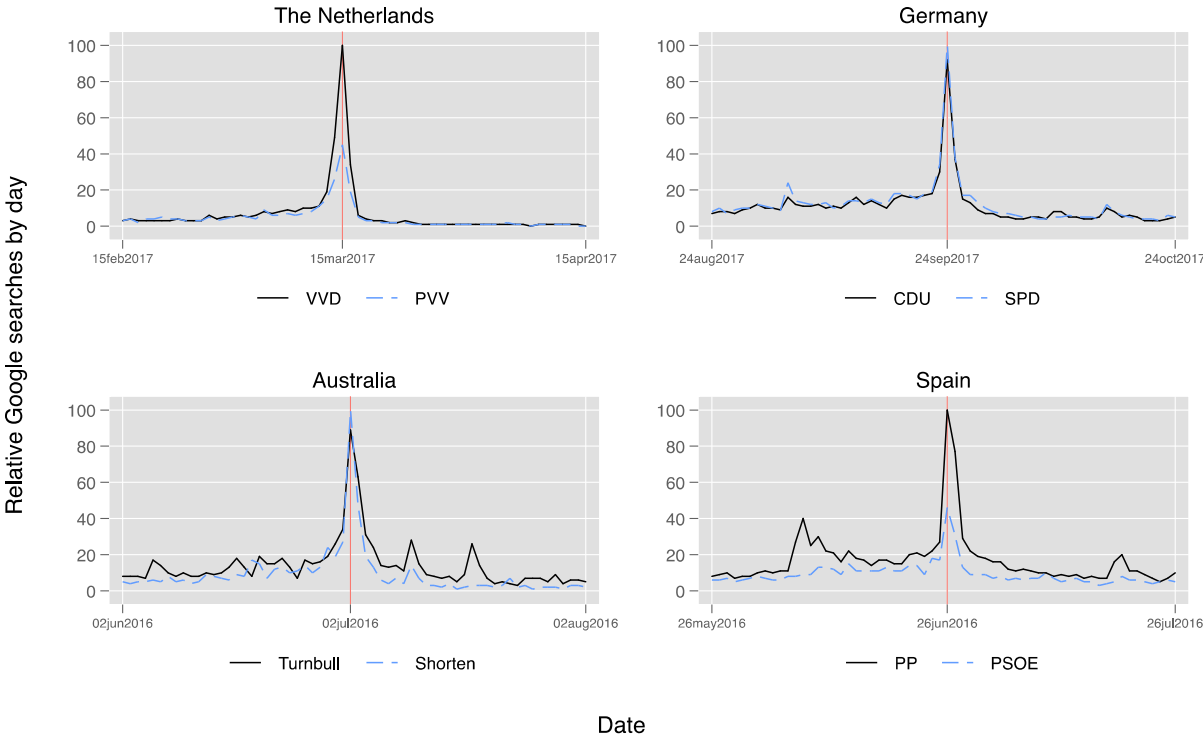**Figure A1: Countries and elections included in the analyses**

Figure A2: Google searches for main parties and candidates one month before/after election day in 4 countries.

Note: Red vertical line indicates election day

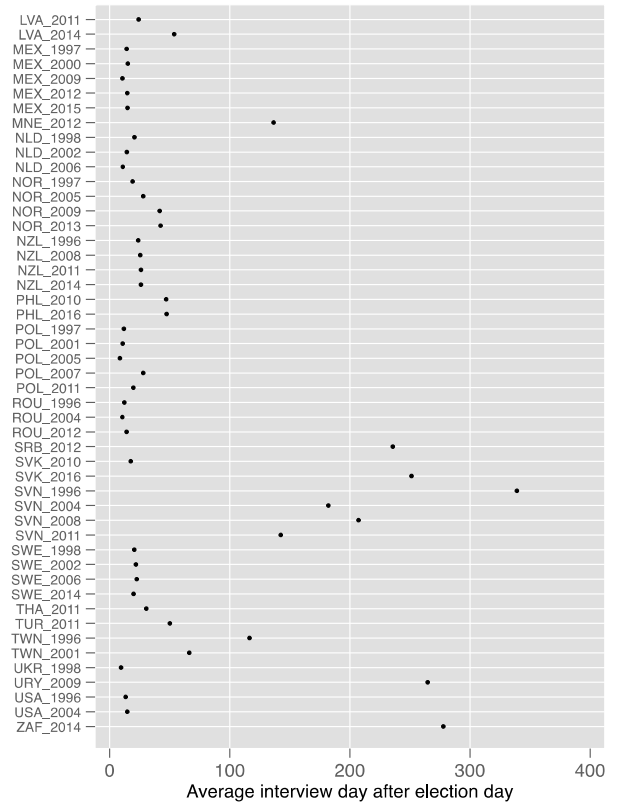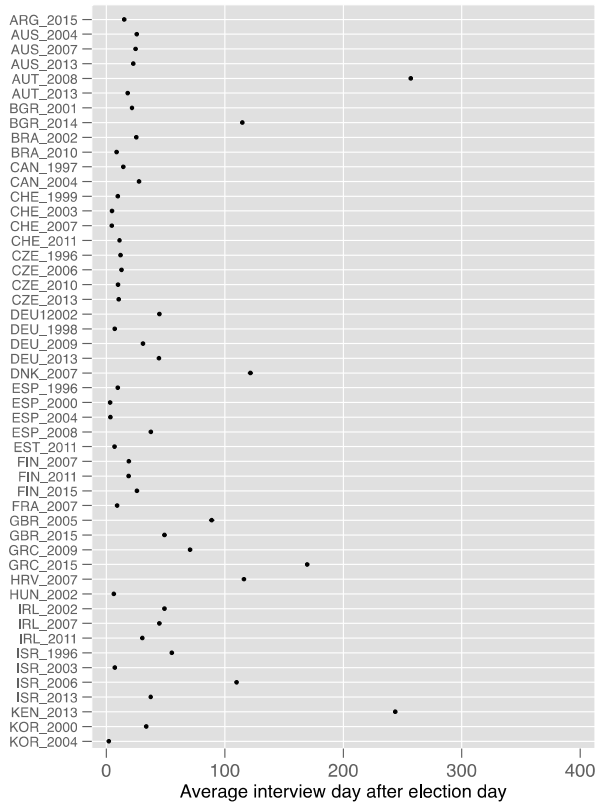**Figure A3: Average timing of interviews in each election study.**

Table A1: Correlation between main variables

	Affective polarization	Time since election day	Ideological polarization	Positive party attachment	Age	Income	Gender	Education	Labor market status
Time since election day	-0.0233								
Ideological polarization	0.476	-0.0219							
Positive party attachment	0.353	-0.0373	0.164						
Age	0.0950	-0.0117	0.0330	0.103					
Income	-0.0139	-0.0104	0.00128	0.0447	-0.176				
Gender	0.0301	-0.000928	0.0354	-0.0325	-0.00975	-0.0867			
Education	-0.0406	-0.0298	-0.0407	0.0731	-0.125	0.315	-0.0339		
Labor market status	0.0711	-0.0269	0.0349	0.0259	0.370	-0.286	0.183	-0.233	
Rural/Urban	-0.0130	-0.0629	-0.0128	0.0414	-0.0513	0.131	0.0160	0.182	-0.0585

Table A2: Operationalization and descriptive statistics of main variables

	Wording / Coding	Mean	SD	Min	Max
Affective polarization	Affective polarization (spread) measure coded following equations 1 and 2 (based on Wagner (2019)	2.37	1.11	0	7.65
Time since election day	Number of days that passed between the election day and the day when each respondent was interviewed.	41.57	62.63	0	362
Time since election day (log)	Natural log transformation of the variable measuring the number of days that passed between election day and the day when each respondent was interviewed	3.1	1.08	0	5.89
Time since election day (rescaled)	Number of days that passed between the election day and the day when each respondent was interviewed rescaled following Gelman (2008). The variable is transformed by subtracting its mean and dividing it by two times its standard deviation.	-0.05	0.46	-0.35	2.29
Time since election day (log rescaled)	Natural log transformation of the variable measuring the number of days that passed between election day and the day when each respondent was interviewed rescaled following Gelman (2008). The variable was first log transformed and then rescaled following Gelman (2008)	0	0.5	-1.43	1.29
Ideological polarization	Ideological polarization measure coded following equations 1 and 2 but based on each respondent placement of each of the parties included in the CSES on the 0-10 left-right scale instead of the extent to which they like or dislike these parties (based on Wagner 2019)	2.46	1.02	0	7.68
Positive party attachment	Variable measuring how close citizens feel to the party they identify with. The variable measuring the strength of party identification is based on the 3 categories item IMD3005_4 from the IMD CSES dataset, which we reverse code so that higher values imply greater closeness to a party. This survey item directly captures how close citizens feel to the party they identify with. We add an additional residual category (=0) to this variable based on the responses to IMD3005_1, IMD3005_2, and IMD3005_3. This residual category represents respondents who do not feel close to any party. Respondents are assigned the value 0 in this variable if they fulfill two conditions. First, these respondents declared that they did not feel close (code 5 in IMD3005_1) or closer (code 5 in IMD3005_2) to any party. Second, these respondents were, at the same time, coded either as missing (code 9999999), or were not capable (don't know answer) or refused naming the party they feel close to (codes 9999998 and 9999997) in question IMD3005_3. Note that in some	1.26	1.09	0	3

	countries the question on leaners (IMD3005_2) was not asked and this is likely to reduce the share of respondents who are presented with item IMD3005_4. These country-elections are: Australia (2004, 2013), Canada (1997), Switzerland (2007), Latvia (2011, 2014), Norway (2005, 2009, 2013), New Zealand (1996), Slovenia (1996, 2008, 2011).				
Age	Age of respondents	47	16.83	16	102
Age (rescaled)	Age of respondent rescaled following Gelman (2008).	0	0.49	-0.9	1.61
Income	Categorical variable measuring the household income of respondents in 5 categories (from lowest income group = 1 to highest income group = 5)	3	1.39	1	5
Gender	Catgorical variable measuring the gender of respondents in 2 categories (1= Male 2= Female)	1.52	0.5	1	2
Education	Categorical variable measuring the level of education of respondents in 5 categories, ranging from no education = 0 to university education = 4	2.1	1.2	0	4
Labor market status	Categorical variable measuring the labor market status of individuals in 6 categories	2.32	1.68	1	7
Rural/Urban	Categorical variable mesuaring whether the respondent lives in a village = 1, a small town = 2, the suburbs of a large city = 3, or a large city = 4.	2.57	1.21	1	4
Maximum affect	Maximum level of affect for the party(ies) respondents like the most. That is, the variable captures the highest score assigned in like-dislike scale to any party by each respondent.	7.87	1.99	0	10
Minimum affect	Minimum level of affect for the party(ies) respondents like the laest. That is, the variable captures the lowest score assigned in like-dislike scale to any party by each respondent.	1.46	1.82	0	10

Figure A4: Distribution of main variables
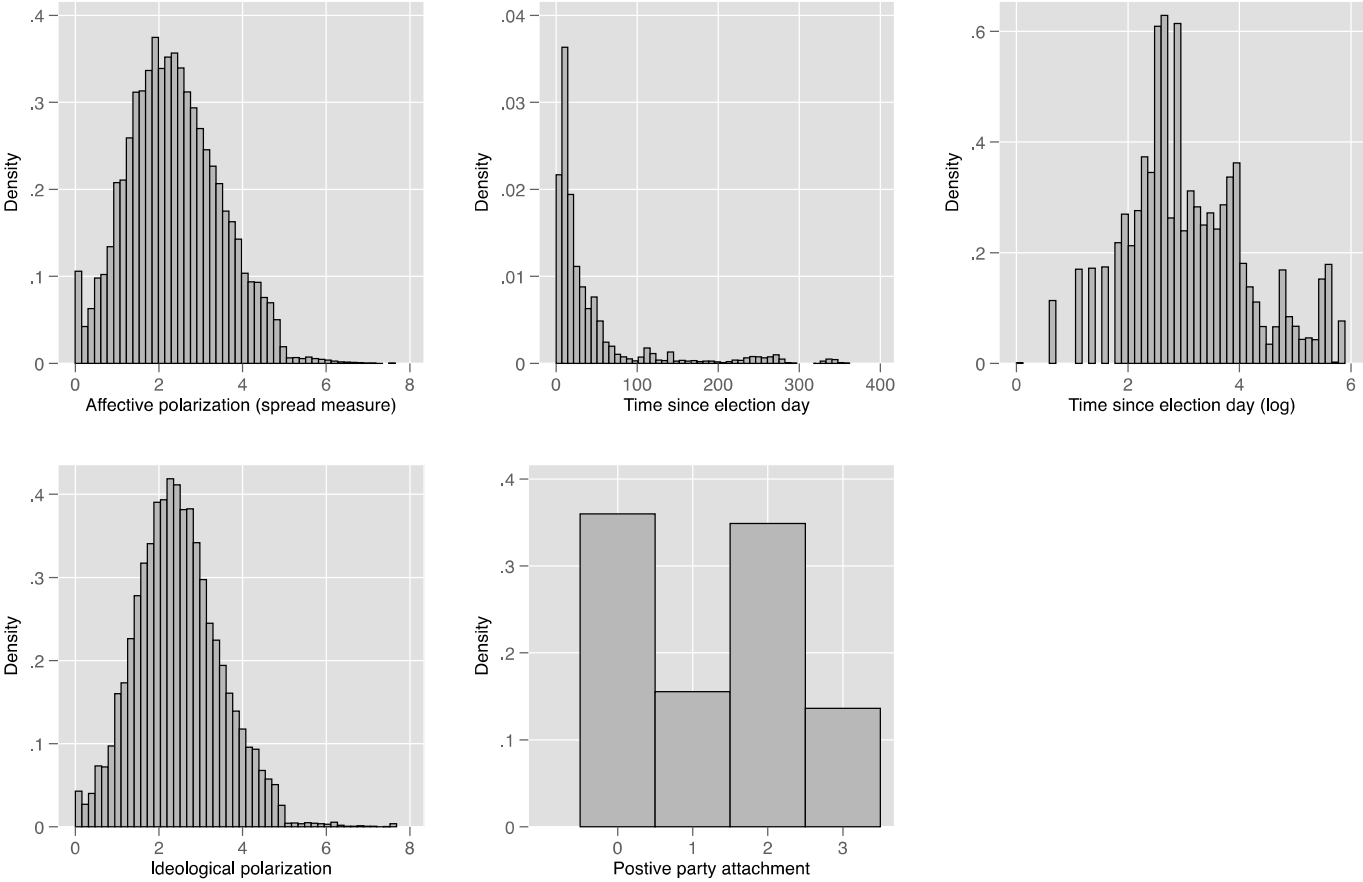
Note: Y-axis with different scales

APPENDIX B: Additional results (affective polarization spread measure)

Table B1: Impact of time since election day on affective polarization (numeric covariates rescaled).[1]

	(1)	(2)	(3)	(4)	(5)
Time since election day	-0.38***	-0.33***	-0.36***		-0.62***
	(0.03)	(0.03)	(0.03)		(0.07)
Time since election day (squared)			0.11**		
			(0.04)		
Time since election day (log)				-0.15***	
				(0.01)	
Constant	2.39***	2.39***	2.36***	2.39***	
	(0.05)	(0.05)	(0.05)	(0.04)	
Observations	116027	116027	116027	116027	116027
Elections	99	99	99	99	99
Country-election random-intercepts	Yes	Yes	Yes	Yes	No
Individual-level covariates	No	Yes	Yes	Yes	Yes
Country-election fixed-effects	No	No	No	No	Yes

Note: Models 1-4 are mixed effects linear models. Model 5 is a non-parametric series regression with a cross-validation criterion used to select the optimal number of terms in a third-order B-spline basis function. In model 5, coefficients report average marginal effects estimates based on the average of derivatives. Standard errors in parentheses (in Model 5 robust standard errors are reported). *p < 0.05, ** p < 0.01, *** p < 0.001

Table B2: Impact of time since election day on affective polarization (numeric covariates not rescaled).

	(1)	(2)	(3)	(4)	(5)
Time since election day	-0.003***	-0.002***	-0.003***		-0.004***
	(0.000)	(0.000)	(0.000)		(0.000)
Time since election day (squared)			0.000**		
			(0.000)		
Time since election day (log)				-0.070***	
				(0.006)	
Constant	2.524***	2.503***	2.498***	2.606***	
	(0.047)	(0.049)	(0.047)	(0.049)	
Observations	116027	116027	116027	116027	116027
Elections	99	99	99	99	99
Country-election random-intercepts	Yes	Yes	Yes	Yes	No
Individual-level covariates	No	Yes	Yes	Yes	Yes
Country-election fixed-effects	No	No	No	No	Yes

Note: Models 1-4 are mixed effects linear models. Model 5 is a non-parametric series regression with a cross-validation criterion used to select the optimal number of terms in a third-order B-spline basis function. In model 5, coefficients report average marginal effects estimates based on the average of derivatives. Standard errors in parentheses (in Model 5 robust standard errors are reported). *p < 0.05, ** p < 0.01, *** p < 0.001

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[1] To facilitate the interpretation of the results we rescale numeric covariates (*time since election day* and *age*) by subtracting their mean and dividing them by two times their standard deviation (see data and methods section).

Table B3: Impact of time since election day on the evaluation of the most- and least-liked parties: mixed-effects linear models (numeric covariates rescaled).

|	(1. Most liked party)	(2. Least liked party)	(3. Most liked party)	(4. Least liked party)	(5. Most liked party)	(6. Least liked party)
Time since election day	-0.45*** (0.05)	0.38*** (0.05)	-0.48*** (0.06)	0.46*** (0.05)		
Time since election day (squared)			0.08 (0.06)	-0.29*** (0.06)		
Time since election day (log)					-0.20*** (0.02)	0.20*** (0.02)
Constant	7.92*** (0.06)	1.73*** (0.08)	7.89*** (0.06)	1.81*** (0.08)	7.92*** (0.06)	1.72*** (0.07)
Observations	116027	116027	116027	116027	116027	116027
Elections	99	99	99	99	99	99
Country-election random-intercepts	Yes	Yes	Yes	Yes	Yes	Yes
Individual-level covariates	Yes	Yes	Yes	Yes	Yes	Yes

Note: Standard errors in parentheses. $^{*}p < 0.05$, $^{**}p < 0.01$, $^{***}p < 0.001$

**Figure B1: Time since election day (log transformed) and affective polarization**
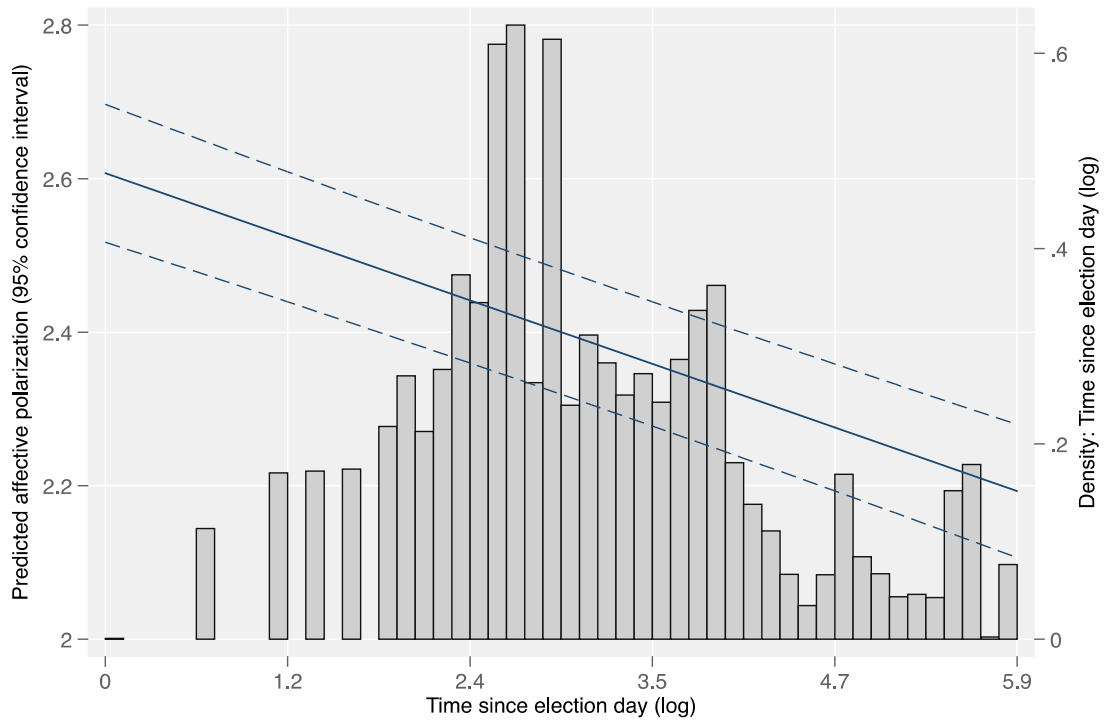
Note: Based on Model 4 of Table B2 in the Appendix. The histogram in the background summarizes the distribution of the log transformed variable measuring the number of days that passed between the election day and the day when each respondent was interviewed.

Figure B2: Estimates of the effects of "time since election day" on affective polarization excluding one country at a time.
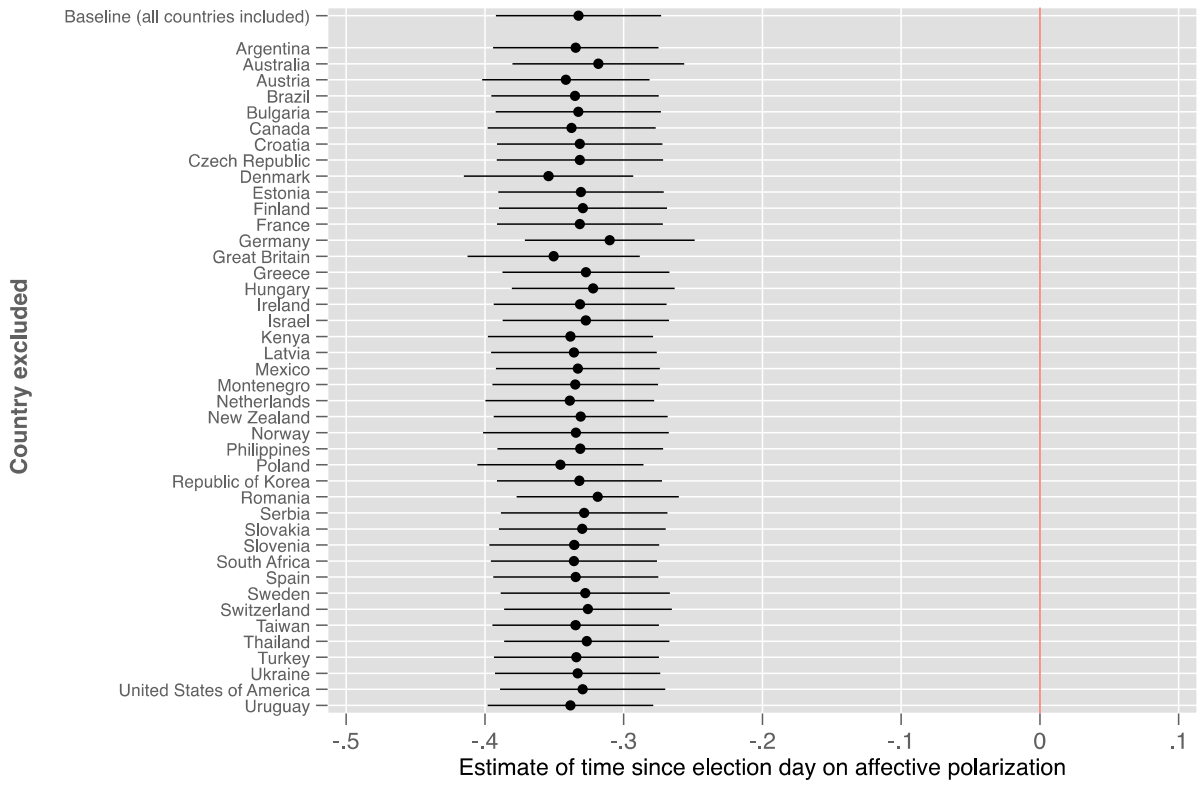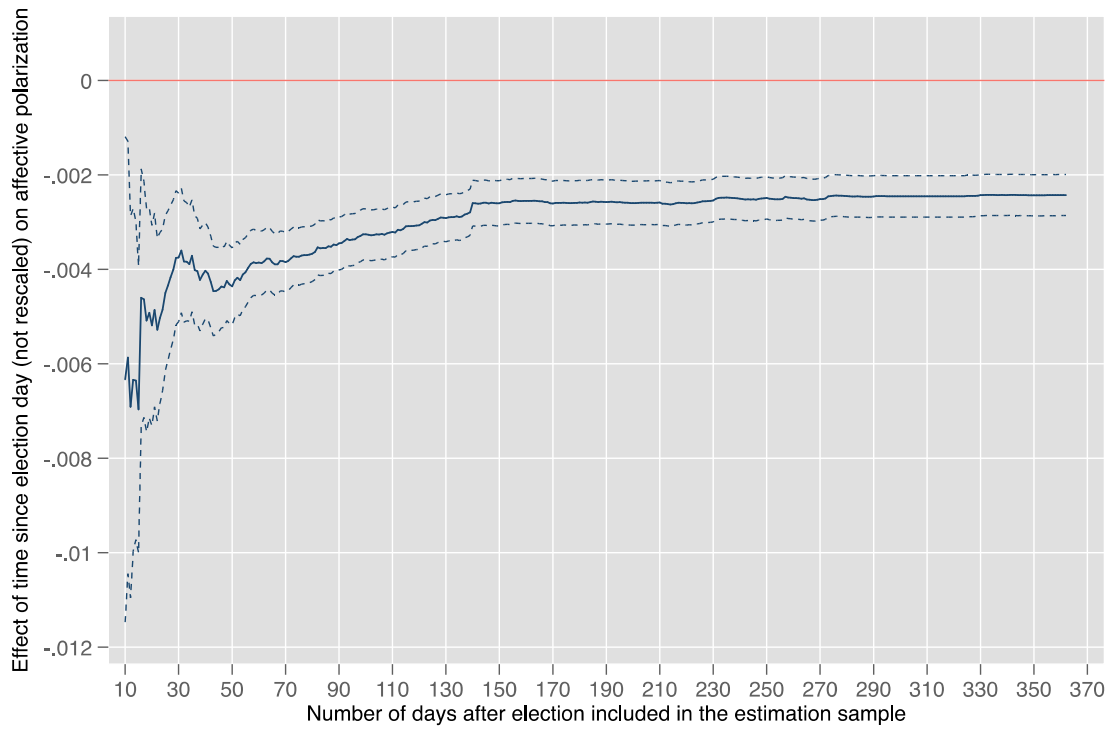

Note: All estimates are based on a mixed-effects linear model with country-election random intercepts and individual level-covariates. The variable time since-election day is rescaled, so that a one-unit increase represents the effect of a change in two standard deviations. That is, the estimates replicate the results of Model 2 of Table B1, excluding one country a time.

Figure B3: Estimates of the effects of "time since election day" on affective polarization excluding one election at a time.
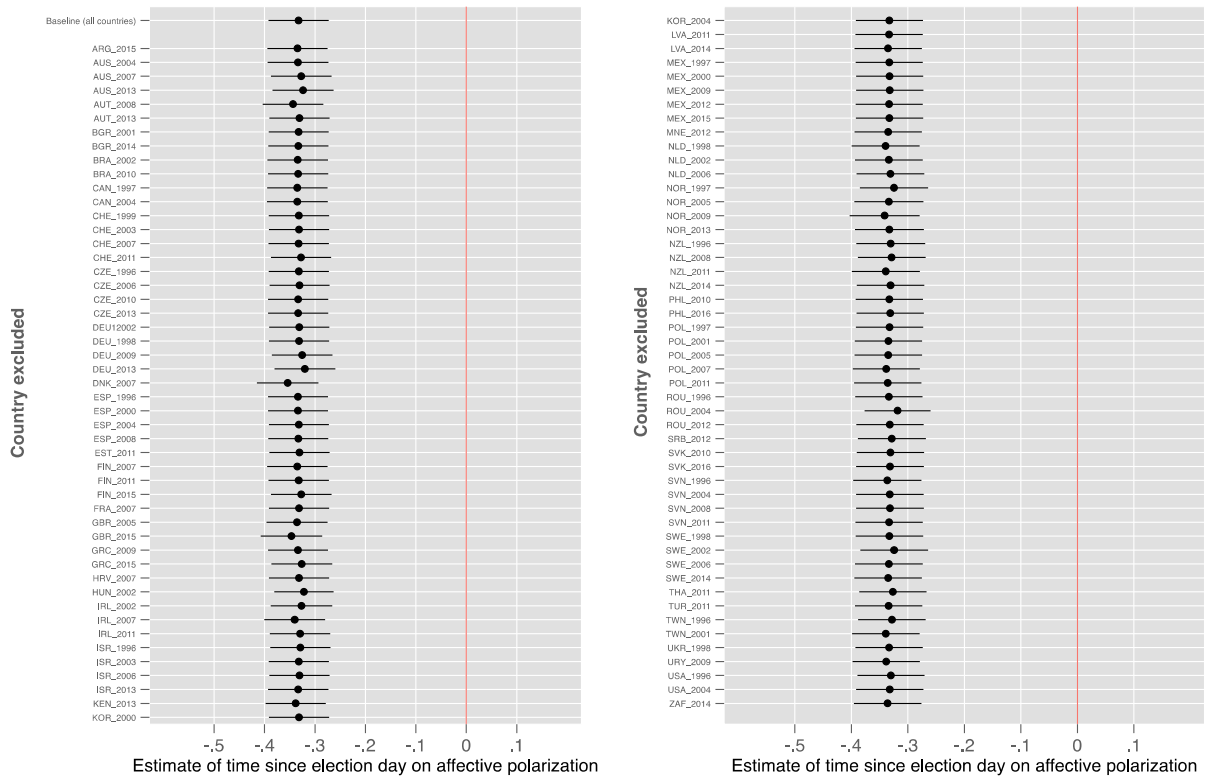

Note: All estimates are based on a mixed-effects linear model with country-election random intercepts and individual level-covariates. The variable time since-election day is rescaled, so that a one-unit increase represents the effect of a change in two standard deviations. That is, the estimates replicate the results of Model 2 of Table B1, excluding one election a time.

Figure B4: Estimates of the effects of "time since election day" (not rescaled) on affective polarization using different windows of days after election day.

Note: All estimates are based on mixed-effects linear models with country-election random intercepts and individual level-covariates. The plot is based on 356 different models that include a limited number of days after the election (x-axis). Like in Table B2, the variable measuring the time since election day is not rescaled. Therefore, the point estimates represent the effect of an increase in one day after the election on affective polarization. That is, the estimates replicate the results of Model 2 of Table B2, varying the number of days included in the estimation sample. Dashed lines represent 95 percent confidence intervals around point estimates.

Figure B5: Quantile regression model of affective polarization and the time since election day
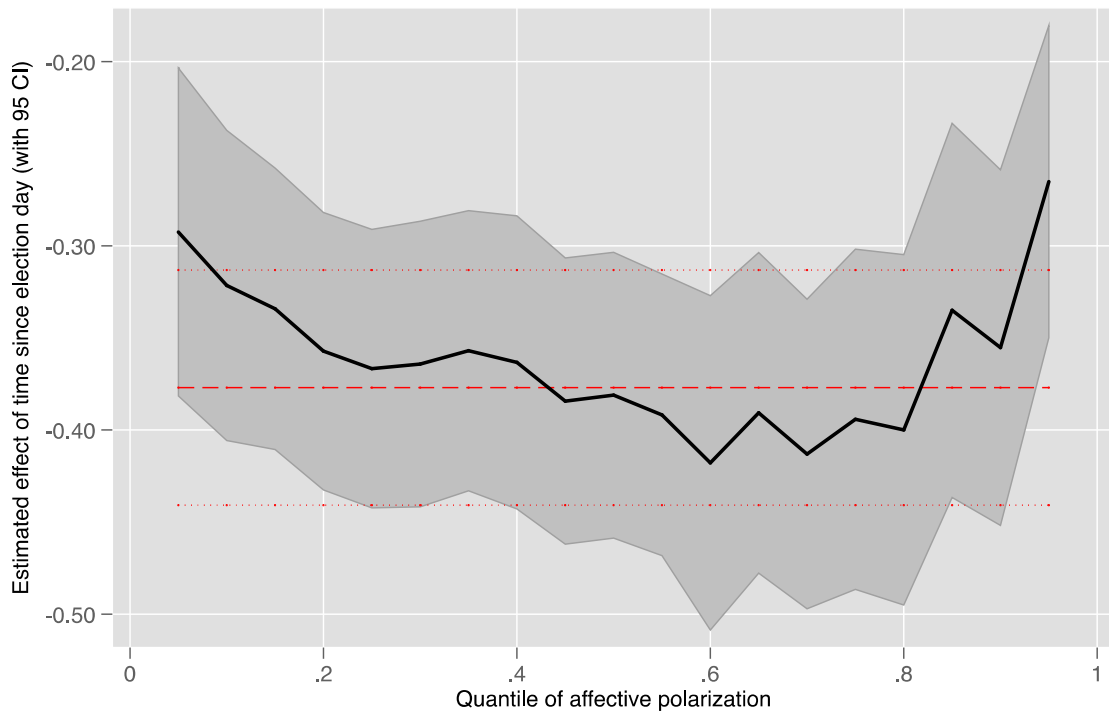
Note: The solid black line reports the estimates of the effect of the time since election day on affective polarization at different points of the distribution of affective polarization (obtained through a quantile regression). The shaded area summarizes a 95 percent confidence interval around those estimates. The estimation is based on a quantile regression model that includes the same individual-level covariates as those models summarized in Table B1 as well as country-election fixed-effects. The dotted red line represents the effects of the time since election day on affective polarization estimated through an OLS regression model and its corresponding 95 confidence intervals. The overlap between the confidence intervals of the quantile regression and the OLS regression indicates that there is no significant variation in the estimated effects of time since election day depending on the level of affective polarization of individuals.

Table B4: Summary of results of generalized random-intercepts linear structural equation model

|	(1)
Equation 1: Affective polarization	
Ideological polarization	0.388^{***}
Positive party attachment	0.295^{***}
Time since election day	-0.128^{***}
Individual-level covariates	Yes
M2[country-election]	1 (Constrained)
Constant	1.153^{***}
Equation 2: Ideological polarization	
Time since election day	-0.297^{***}
Individual-level covariates	Yes
M1[country-election]	1 (Constrained)
Constant	2.445^{***}
Equation 3: Positive party attachment	
Time since election day	-0.272^{***}
Individual-level covariates	Yes
M3[country-election]	1 (Constrained)
Constant	1.054^{***}
Random-intercepts variances:	
M1[country-election]	0.251^{***}
M2[country-election]	0.070^{***}
M3[country-election]	0.169^{***}
Error variances:	
Affective polarization	0.742^{***}
Ideological polarization	0.837^{***}
Positive party attachment	1.005^{***}
Observations	113943
Elections	99

$^{*} p < 0.05,\ ^{**} p < 0.01,\ ^{***} p < 0.001$

Table B5: Summary of results of generalized random-intercepts linear structural equation model (time since election day variable log transformed)

	(1)
Equation 1: Affective polarization	
Ideological polarization	0.389^{***}
Positive party attachment	0.295^{***}
Time since election day (log)	-0.064^{***}
Individual-level covariates	Yes
M2[country-election]	1 (Constrained)
Constant	1.151^{***}
Equation 2: Ideological polarization	
Time since election day (log)	-0.143^{***}
Individual-level covariates	Yes
M1[country-election]	1 (Constrained)
Constant	2.448^{***}
Equation 3: Positive party attachment	
Time since election day (log)	-0.119^{***}
Individual-level covariates	Yes
M3[country-election]	1 (Constrained)
Constant	1.069^{***}
Random-intercepts variances:	
M1[country-election]	0.223^{***}
M2[country-election]	0.068^{***}
M3[country-election]	0.164^{***}
Error variances:	
Affective polarization	0.742^{***}
Ideological polarization	0.837^{***}
Positive party attachment	1.005^{***}
Observations	113943
Elections	99

$^{*} p < 0.05$, $^{**} p < 0.01$, $^{***} p < 0.001$

Figure B6: Main paths from generalized structural equation model).
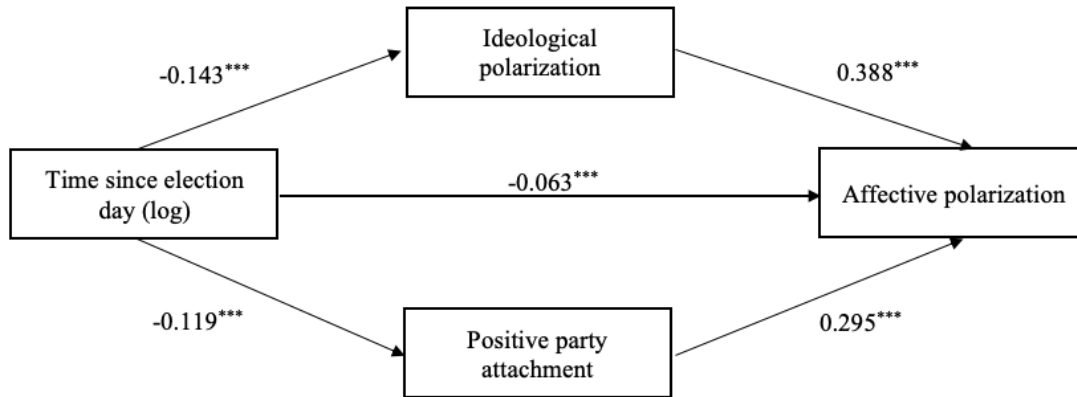
Note Based on the model summarized in Table B5. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table B6: Mediation analysis: Total, direct and indirect effects of time since election day on affective polarization (time since election day variable log transformed)

	Effect	p-value	Proportion of total effect
Total effect	-0.15	-11.03	1.00
Direct effect	-0.06	-5.11	0.41
Mediated by ideological polarization	-0.05	-11.27	0.36
Mediated by positive party attachment	-0.03	-8.62	0.23

Note: Based on the model summarized in Table B5

APPENDIX C: Alternative operationalization of affective polarization (distance measure)

The distance measure of affective polarization is also based on the 0-10 like-dislike score respondents attribute to each of parties included in the CSES. This operationalization measures the weighted average affective distance from one's most liked party to all other parties (Wagner, 2019). To operationalize the distance measure, we follow again the notation proposed by Wagner (2019). Therefore, affective polarization is measured as:

$$DISTANCE_i$$
$$= \sqrt{\sum_{p=1}^{P} v_p \left(like_{ip} - like_{max,i} \right)^2} \qquad (3)$$

where $like_{max}$ is the 0-10 score assigned to the most liked party by individual i, and p is the number of parties without the most liked party (see Wagner (2019) for further details about the operationalization of this measure). This measure, therefore, excludes those who assign the same like-dislike score to all parties in each CSES post-electoral study.

Table D1: Impact of time since election day on affective polarization (distance measure): Mixed-effects linear regressions (numeric covariates rescaled)

	(1)	(2)	(3)	(4)
Time since election day	-0.45***	-0.38***	-0.47***	
	(0.05)	(0.05)	(0.05)	
Time since election day (squared)			0.25***	
			(0.06)	
Time since election day (log)				-0.20***
				(0.02)
Constant	3.86***	3.82***		
	(0.07)	(0.07)		
Observations	111242	111242	111242	111242
Elections	99	99	99	99
Country-election random-intercepts	Yes	Yes	Yes	Yes
Individual-level covariates	No	Yes	Yes	Yes

Note: Standard errors in parentheses. $^{*}p < 0.05$, $^{**}p < 0.01$, $^{***}p < 0.001$

Figure D1: Main paths from generalized structural equation model (distance measure)
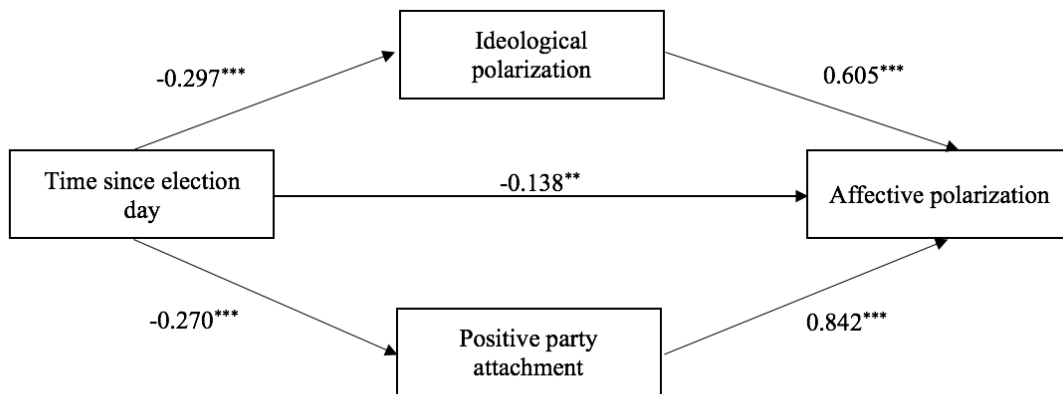
Note * *p* < 0.05, ** *p* < 0.01, *** *p* < 0.001

Table D2: Mediation analysis: Total, direct and indirect effects of time since election day on affective polarization (distance measure)

	Effect	p-value	Proportion of total effect
Total effect	-0.40	-7.50	
Direct effect	-0.10	-1.99	0.24
Mediated by ideological polarization	-0.17	-9.81	0.43
Mediated by positive party attachment	-0.13	-8.50	0.33