Appendix

"Using Social Media to Respond to Negative Polls:
Politicians' Issue Responsiveness on Facebook"

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Section I: Sample Representativeness

Table A1. Representativeness of MPs with a public Facebook profile, 2016

	All MPs	MPs with public Facebook
Female (%)	37.4	38.6
Mean age	45.0	45.5
Social Democratic Party (%)	26.3	26.0
Liberal Party (%)	19.0	20.6
Danish People's Party (%)	20.7	15.8
Conservative Party (%)	3.4	4.1
Liberal Alliance (%)	7.3	8.2
Social Liberals (%)	4.5	5.5
The Alternative (%)	5.0	6.9
Red-Green Alliance (%)	7.8	8.9
Socialist People's Party (%)	3.9	4.1
Nordic mandates (%)	2.2	0
N	179	146

Section II: Main Analyses Testing H1-H3

Table A2. Politicians' media focus in their Facebook posts before and after a poll in Denmark, 2016-2017. Testing H1

	(1)	(2)	(3)	(4)	(5)
Count (part I)					
(1) Post poll (vs pre poll)	0.017	0.017	0.011	0.015	0.014
	(0.033)	(0.025)	(0.029)	(0.033)	(0.033)
(2) ΔPoll	0.045	0.045	0.038	0.041	0.087*
	(0.042)	(0.046)	(0.037)	(0.042)	(0.051)
1 x 2	-0.098**	-0.098**	-0.092***	-0.095**	-0.162***
	(0.041)	(0.043)	(0.036)	(0.041)	(0.056)
ΔPoll accumulation	-0.001	-0.001	-0.002	-0.001	-0.000
	(0.006)	(0.005)	(0.006)	(0.006)	(0.006)
ΔPoll average	-0.002	-0.002	0.007	0.005	-0.006
	(0.062)	(0.094)	(0.056)	(0.062)	(0.060)
Total issue posts	0.216***	0.216***	0.215***	0.219***	0.216***
	(0.006)	(0.015)	(0.008)	(0.006)	(0.006)

Poll counter (1 to 11)	0.019*	0.019	0.020**	0.020**	0.020*
	(0.011)	(0.016)	(0.010)	(0.010)	(0.011)
Female (= 1)				-0.106***	
				(0.034)	
First election (= 1)				-0.012***	
				(0.003)	
Age				0.008***	
				(0.002)	
Constant	-2.083***	-2.083***	-2.089***	-1.796***	-2.091***
	(0.105)	(0.117)	(0.208)	(0.138)	(0.105)
Logit (part II)					
(1) Post poll (vs pre poll)	0.456***	0.456***	0.559***	0.460***	0.454***
	(0.062)	(0.054)	(0.059)	(0.062)	(0.062)
(2) ΔPoll	-0.214***	-0.214	-0.197***	-0.215***	-0.203***
	(0.065)	(0.202)	(0.061)	(0.065)	(0.066)
1 x 2	0.137*	0.137	0.109	0.136*	0.124
	(0.078)	(0.187)	(0.074)	(0.078)	(0.080)
Constant	-26.328***	-26.328***	-37.311***	-26.339***	-26.327***
	(0.048)	(0.404)	(0.046)	(0.048)	(0.048)
Observations	3358	3358	3358	3358	3358
Estimation includes		Clustered standard errors	Politician fixed effects	Controls for gender, seniority, age	Poll, large changes

Note: Table A2 is the extended version of Table 1 in the main manuscript. Standard errors in parentheses. All estimations include robust standard errors, except the estimation in column two, in which standard errors cluster on the parties. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Estimations include fixed effects for parties and polls. In column five, the "ΔPoll" variable focuses on large changes and takes three values: -1 (< μ-σ), 0 (> μ-σ, < μ+σ), 1 (> μ+σ). "ΔPoll accumulation" measures the number of negative vs. positive polls in the period until the relevant poll. To illustrate, imagine that an MP in his 7th poll experiences a poll drop and has already had 5 poll drops and 1 improvement before that. The latter variable then has the number 6 (since it is the 6th poll drop he has experienced so far in our data). If the 7th poll is an improvement, the number would be "-2" since the number of improvements are counted from 0 to -11, and the number of drops are counted from 0 to 11. "ΔPoll average" reports the average poll change in the period until the relevant poll.

In Table A3, we test H2 with two alternative measures of electoral insecurity: 1) A categorical variable separating "unsafe" (margin < 10 percentage points) from "safe" (margin ≥ 10 percentage points) politicians as the stronger reaction may only be found among those feeling insecure while it makes less of a difference if a politician is safe with a 45 or 50 percentage point margin. 2) A categorical variable including information from the electoral districts based on the Risbjerg Index to separate "highly insecure" (margin < 10 percentage points and party standing to lose seats in the district), "insecure" (margin < 10 percentage points but party not standing to lose seats in the district *or* margin > 10 percentage points but party

standing to lose the seat of the relevant politician), and "secure" (margin > 10 percentage points and party not standing to lose seats in the district) politicians. These alternative operationalizations also result in statistically insignificant interaction terms in Table A3.

Table A3. Politicians' media focus in their Facebook posts before and after a poll in Denmark, 2016-2017. Testing H2 (marginality) and H3 (issue ownership)

	(1)	(2)	(3)	(4)
Hypothesis	H2	H2	H2	H3
Count (part I)				
(1) Post poll (vs pre poll)	0.008	0.023	0.026	-0.134
	(0.043)	(0.035)	(0.049)	(0.144)
(2) ΔPoll	0.033	0.040	0.098*	0.231*
	(0.050)	(0.043)	(0.057)	(0.131)
1 x 2	-0.096*	-0.088**	-0.144**	-0.458***
	(0.051)	(0.042)	(0.067)	(0.176)
(3) Electoral Marginality (continuous)	0.118			
	(0.135)			
1 x 3	0.045			
	(0.163)			
2 x 3	0.116			
	(0.205)			
1 x 2 x 3	-0.027			
	(0.260)			
(4) Electoral marginality (10% = 1)		-0.002		
		(0.085)		
1 x 4		-0.069		
		(0.111)		
2 x 4		0.057		
		(0.129)		
1 x 2 x 4		-0.102		
		(0.156)		
Electoral marginality (ref. is safe)				
Marginality (unsafe)			0.016	
			(0.057)	
Marginality (very unsafe)			-0.198**	
			(0.089)	
1 x unsafe			-0.070	
			(0.071)	
1 x "very unsafe"			0.154	
			(0.106)	
2 x unsafe			-0.085	
			(0.071)	
2 x "very unsafe"			-0.032	
			(0.101)	
1 x 2 x unsafe			0.085	
			(0.089)	
1 x 2 x "very unsafe"			-0.018	
			(0.122)	

(5) Issue ownership				-0.075
				(0.050)
1 x 5				0.064
				(0.059)
2 x 5				-0.074
				(0.053)
1 x 2 x 5				0.147**
				(0.071)
ΔPoll accumulation	0.000	-0.001	0.000	0.000
	(0.006)	(0.006)	(0.006)	(0.006)
ΔPoll average	-0.000	-0.002	0.006	-0.004
	(0.062)	(0.062)	(0.062)	(0.062)
Total issue posts	0.215***	0.216***	0.216***	0.217***
	(0.006)	(0.006)	(0.006)	(0.006)
Poll counter (1 to 11)	0.019*	0.019*	0.020*	0.021**
	(0.011)	(0.011)	(0.011)	(0.011)
Constant	-2.111***	-2.081***	-2.085***	-1.919***
	(0.109)	(0.106)	(0.111)	(0.153)
Logit (part II)				
(1) Post poll (vs pre poll)	0.448***	0.450***	0.453***	0.456***
	(0.062)	(0.062)	(0.062)	(0.062)
(2) ΔPoll	-0.126***	-0.125***	-0.123***	-0.126***
	(0.036)	(0.036)	(0.036)	(0.036)
Constant	-26.322***	-26.323***	-26.326***	-26.329***
	(0.048)	(0.048)	(0.048)	(0.048)
Observations	3358	3358	3358	3358

Note: Table A3 is the extended version of Table 2 in the main manuscript. Robust standard errors in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Estimations include fixed effects for parties and polls. We include three different operationalizations of electoral marginality. 1) a continuous measure, 2) a dummy separating politicians winning with a slim margin (< 10 percentage points) from those with greater margins, and 3) a categorical variable including quarterly analyses of where parties stand to lose seats, and which politicians are most at risk based on the Risbjerg Index. This separates politicians into three categories: "very unsafe" (margin < 10 percentage points, and party standing to lose seats in the district), "unsafe" (margin < 10 percentage points, but party not standing to lose seats in the district *or* margin > 10 percentage points, but party standing to lose the seat of the relevant politician), and "safe" (margin > 10 percentage points, and party not standing to lose seats in the district) politicians.

Section III: Robustness Tests

Table A4. Politicians' media focus in their Facebook posts before and after a poll in Denmark, 2016-2017. Testing robustness regarding operationalization of DV: Different number of top issues on the media agenda.

	(1)	(2)	(3)
Count (part I)			
(1) Post poll (vs pre poll)	-0.03	0.017	0.04
	(0.04)	(0.033)	(0.03)

(2) ΔPoll	0.02	0.045	0.07*
	(0.05)	(0.042)	(0.04)
1 x 2	-0.01	-0.098**	-0.11***
	(0.04)	(0.041)	(0.04)
ΔPoll accumulation	-0.00	-0.001	-0.00
	(0.01)	(0.006)	(0.01)
ΔPoll average	0.02	-0.002	-0.07
	(0.07)	(0.062)	(0.06)
Total issue posts	0.21***	0.216***	0.22***
	(0.01)	(0.006)	(0.01)
Poll counter (1 to 11)	0.04***	0.019*	0.01
	(0.01)	(0.011)	(0.01)
Constant	-2.33***	-2.083***	-1.89***
	(0.11)	(0.105)	(0.10)
Logit (part II)			
(1) Post poll (vs pre poll)	0.28***	0.456***	0.68***
	(0.06)	(0.062)	(0.06)
(2) ΔPoll	-0.32***	-0.214***	-0.15**
	(0.07)	(0.065)	(0.06)
1 x 2	0.29***	0.137*	0.04
	(0.08)	(0.078)	(0.08)
Constant	-25.45***	-26.328***	-27.00***
	(0.05)	(0.048)	(0.05)
Observations	3358	3358	3358
Issues on the media agenda	**4**	**5**	**6**

Note: Robust standard errors in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Estimations include fixed effects for parties and polls. The estimation in column 2 is identical to the analysis in column 1.

Table A5. Politicians' media focus in their Facebook posts before and after a poll in Denmark, 2016-2017. Testing robustness for alternative estimations.

	(1)	(2)	(3)	(4)	(5)
Count (part I)					
(1) Post poll (vs pre poll)	0.017	0.017	0.017	-0.012	0.017
	(0.033)	(0.033)	(0.033)	(0.012)	(0.033)
(2) ΔPoll	0.045	0.045	0.045	0.016	0.045
	(0.042)	(0.042)	(0.042)	(0.017)	(0.042)
1 x 2	-0.098**	-0.098**	-0.098**	-0.032**	-0.098**
	(0.041)	(0.041)	(0.041)	(0.013)	(0.041)
ΔPoll accumulation	-0.001	-0.001	-0.001	-0.001	-0.001
	(0.006)	(0.006)	(0.006)	(0.002)	(0.006)
ΔPoll average	-0.002	-0.002	-0.002	0.012	-0.002
	(0.062)	(0.062)	(0.062)	(0.019)	(0.062)
Total issue posts	0.216***	0.216***	0.216***	0.150***	0.216***
	(0.006)	(0.006)	(0.006)	(0.004)	(0.006)

Poll counter (1 to 11)	0.019*	0.019*	0.019*	0.008***	0.019*
	(0.011)	(0.011)	(0.011)	(0.002)	(0.011)
Constant	-2.083***	-2.083***	-2.083***	-0.009	-2.083***
	(0.105)	(0.105)	(0.105)	(0.031)	(0.105)
Logit (part II)					
(1) Post poll (vs pre poll)	0.456***	-0.262***			
	(0.062)	(0.062)			
(2) ΔPoll	-0.214***	0.042			
	(0.065)	(0.065)			
1 x 2	0.137*	-0.056			
	(0.078)	(0.078)			
Constant	-26.328***	-22.844***			
	(0.048)	(0.048)			
Observations	3358	3358	3358	3358	3358
Estimation	**Zero-infl. Poisson**	**Zero-infl. Binomial**	**Poisson**	**OLS**	**Neg. binomial**

Note: Robust standard errors in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Estimations include fixed effects for parties and polls. The zero-inflated negative binomial and the negative binomial regressions did not converge.

Table A6. Politicians' media focus in their Facebook posts before and after a poll in Denmark, 2016-2017 based on a logit estimation.

	(1)
(1) Post poll (vs pre poll)	0.585***
	(0.095)
(2) ΔPoll	0.169
	(0.117)
1 x 2	-0.271**
	(0.108)
ΔPoll accumulation	-0.006
	(0.018)
ΔPoll average	0.099
	(0.168)
Total issue posts	1.186***
	(0.060)
Poll counter (1 to 11)	0.046**
	(0.022)
Constant	-2.860***
	(0.303)
Observations	3358

Note: Standard errors in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. The estimations also include fixed effects for parties and polls. The dependent variable is categorical and takes the value 0 for no alignment and 1

for 1-5 alignments between an MP's Facebook posts and the top issue content of the media agenda.

Section IV: Evaluation of the Parallel Trends Assumption

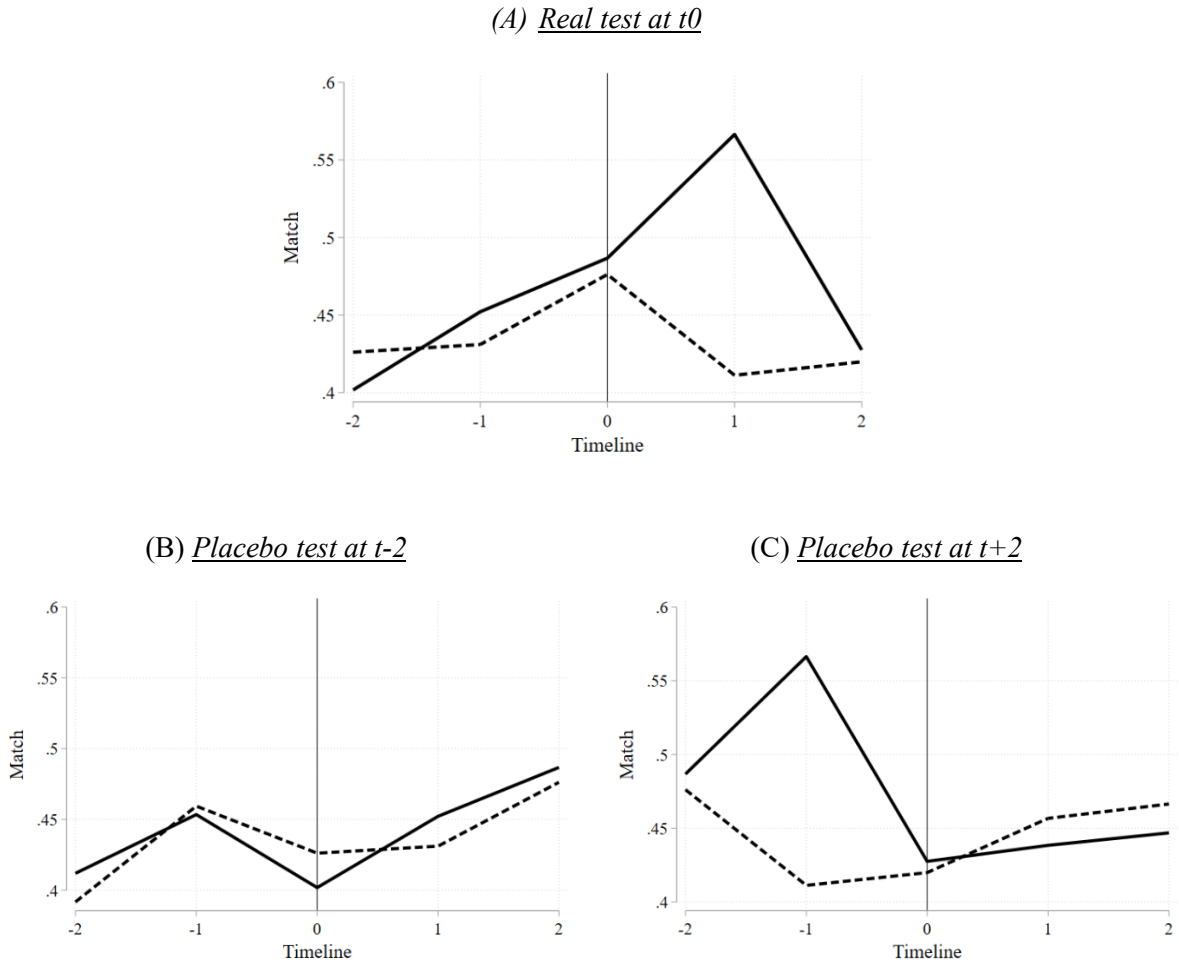
The difference-in-difference logic builds on the assumption that the treatment and control groups would have developed along parallel trends had the treatment group not been treated. Thus, we need to inspect if this assumption is plausible. We follow common practice in the literature (Helms 2023; Benesch et al. 2023; He et al. 2020; Hilbig and Riaz 2023; Morgan-Collins 2021).

First, we inspect the data to visually depict trends around the cut-off of the poll (t_0). Figure A1, Panel A shows the trends of the politicians who receive a negative poll and those who do not. These changes at t_0 but follow similar trends prior to the cut-off (t_{-1} and t_{-2}). Further, Panel B and C show what the trends look like if we as a placebo test move the cut-off point to t_{-2} or t_{+2} (Morgan-Collins 2021). In both panels, we see few indications of diverging trends at these artificial cut-offs.

Second, we provide an event-study (Helms 2023; Benesch et al. 2023; He et al. 2020) to further test the illustrated trends. We interact a variable for whether politicians receive a negative poll (1) or not (0) with a dummy-variable for each week before and after the poll. Table A7 shows the estimates of the zero-inflated Poisson regression with robust standard errors and fixed effects for parties and polls (like in the main analysis in Table 1), while Figure A2 illustrates the differences between the groups of politicians for each week around the treatment (poll at t_0) with the vertical lines showing the coefficient with a 95% confidence interval. It is common practice in the literature to use the last observation before treatment as the reference category for this estimation (Helms 2023; He et al. 2020).

The estimates in Figure A2 show that the number of matches in the treatment and control groups do not differ systematically in any of the weeks before and after the poll at t_0 except at t_{+1} where politicians in the treatment group immediately following a poll have systematically more matches than politicians in the control group (in line with the finding in Table 1). This serves as some evidence in support of the plausibility of the parallel trends assumption.

Figure A1. The development in the average number of matches for two groups of politicians two weeks before and after 12 polls, 2016-2017 (A), including placebo tests at t-2 (B) and t+2 (C).



Note: The lines show the average number of matches two weeks before and after poll (located at 0 on the x-axis) for two groups of politicians – one group that experiences a poll drop (black line) and one group that experiences a poll improvement or an unchanged poll (dotted line). Panel (A) shows the trends around the real cut-off when the poll is released at t0. For the placebo tests (B) and (C), the poll is artificial at t0. The real poll cut-off point in (B) is at t-2, in (C) it is at t+2.

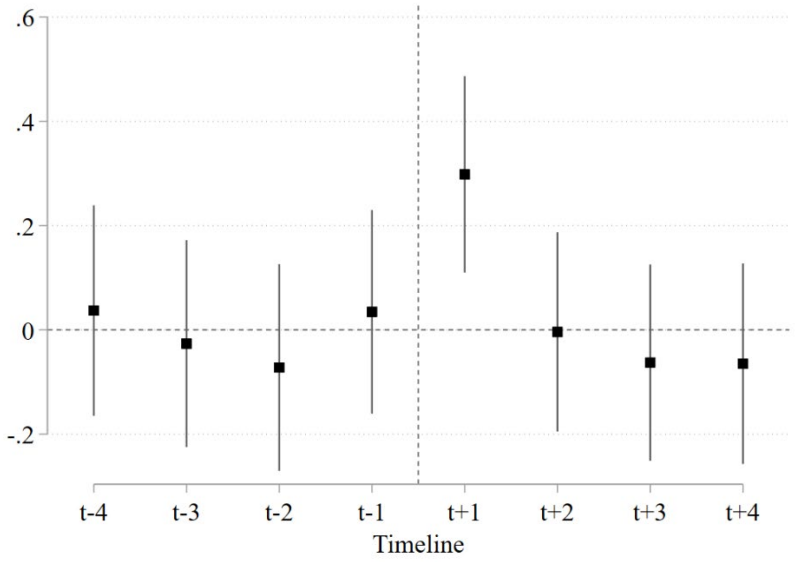
Table A7. Event study estimates. Predicting the difference in the number of matches between Facebook posts and the media agenda in each week before and after the 12 polls for 146 politicians divided into two groups.

	(1)
Count (part I) – predicting matches	
(T) Treatment group (=1)	-0.03
	(0.07)
t_{-4}	-0.19**
	(0.07)
t_{-3}	-0.03
	(0.07)
t_{-2}	-0.10
	(0.07)
t_{-1}	-0.09
	(0.07)
t_0 (Poll released)	Ref. category
t_{+1}	-0.15**
	(0.07)
t_{+2}	-0.13*
	(0.07)
t_{+3}	-0.04
	(0.06)
t_{+4}	-0.02
	(0.07)
T x t_{-4}	0.04
	(0.10)
T x t_{-3}	-0.03
	(0.10)
T x t_{-2}	-0.07
	(0.10)
T x t_{-1}	0.03
	(0.10)
T x t_0 (Poll released)	Ref. category
T x t_{+1}	0.30***
	(0.10)
T x t_{+2}	-0.00
	(0.10)
T x t_{+3}	-0.06
	(0.10)
T x t_{+4}	-0.06
	(0.10)
Constant	-0.24***
	(0.07)
Logit (part II) – predicting sure zeros	
Treatment group (=1)	-0.19
	(1.77)
Constant	-15.83***
	(1.11)
Observations	15184

Note. Zero-inflated Poisson regression with robust standard errors in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Controls (also in Table 1) include fixed effects for parties and polls, three control variables for the

development in the polls over time and a control variable for the total number of Facebook posts with issue content per politician per week. "Treatment group (=1)" is the group of politicians who experience a poll drop (= 1; 0 otherwise). The interaction terms are visualized in Figure A2.

Figure A2. Event study. Predicting the difference in the number of matches between Facebook posts and the media agenda in each week before and after the 12 polls for 146 politicians divided into two groups.



Note: The marker with the vertical line shows the coefficient with a 95% confidence interval for the differences in trends, i.e., in the average number of matches for the politicians in the treatment group vs the control group in each week (t_{-4} to t_{+4}) before and after the polls at t_0. The reference category is t_0 and it is not reported. A positive coefficient indicates more matches in the treatment group than in the control group. The treatment group experiences a poll drop and the control group experiences a poll improvement or an unchanged poll. The markers refer to the interaction terms in the bottom part of Table A7. The vertical dotted line marks the time of the poll.

References *(Appendix Section IV)*

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Section V: Regression Discontinuity Regression

Regression discontinuity designs (RDD) have become more prevalent in political science research as a design logic to identify the causal effect of an explanatory variable on an explanandum (de la Cuesta and Imai 2016). The idea is that observations on the explanandum are spread across a continuous explanatory variable but with a sharp cutoff in the distribution (a "discontinuity"). Closely around this cutoff, observations are divided as-if-random based on the logic that some politicians (in our case) were unlucky to be on the lower side, while others were lucky to be on the higher side. Thus, the politicians are alike overall, except for this lottery outcome. RDD is often modelled in political science on incumbent personal votes – some candidates were elected (> 0), some were not elected (< 0; see, e.g., Caughey and Sekhon 2017; de la Cuesta and Imai 2016; Eggers et al. 2015; Erikson and Rader 2017; Hall and Snyder 2015; Hainmueller et al. 2015; Trounstine 2011). 0 is then a sharp cutoff because it clearly separates politicians into two groups.

Our cutoff is not nearly as sharp since we separate politicians who marginally experienced a minor poll drop from politicians who marginally experienced a minor poll improvement. Given the statistical uncertainty connected to polls, we can imagine that reactions in these two groups of politicians probably do not differ dramatically. This limitation of our RDD implies that we should expect an effect around 0 (more alignment between a politician's Facebook posts and the median agenda during a negative poll than during a positive poll). Thus, we keep this RDD-analysis as an extra test in the Appendix rather than adopting it as our main analysis.

Figure A4 shows that the politicians are approximately continuously distributed across the Δpoll variable. The McCrary test does not unambiguously indicate violations of this continuity assumption ("that the running variable is systematically manipulated"; Cattaneo et al. 2018). The conventional, bias-corrected, and robust versions of the McCrary test all reject

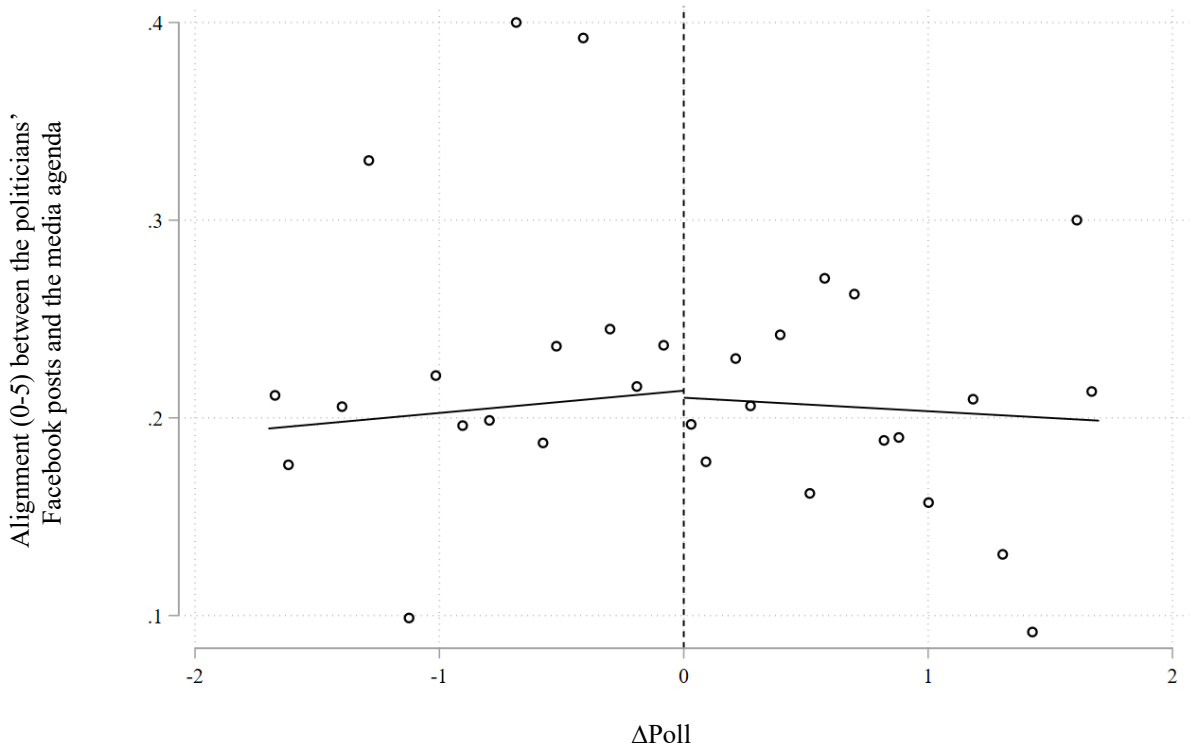
the null-hypothesis (continuity around the cutoff point) with $p < 0.054$, $p < 0.027$, and $p < 0.048$ (see Table A9).

In line with expectations, we see a systematic discontinuity in the expected direction in the politicians' alignment between Facebook posts and the media agenda, but the effect is limited. Figure A3 shows the distribution of alignment across levels of poll changes (from large poll decreases to the left to large poll increases to the right). The drop at 0 (the vertical dotted line in Figure A3) is statistically significant, as reported in Table A8, and the coefficient indicates a drop of -0.092 to -0.105 on the 0-5 scale. We report conventional, bias-corrected, as well as robust estimations since the literature debates which one to rely on.

As further evidence, we conduct several placebo tests since it would undermine the RDD estimation if the politicians differed significantly also on other (potentially confounding) variables. This does not seem to be the case, and none of the regression discontinuity estimations on gender and birth year reaches statistical significance in Table A9.

Furthermore, in an alternative version of the RDD estimation, we repeat our difference-in-difference-inspired main analysis in Table 1 but limit the span of observations on our independent variable, poll changes, to focus exclusively on politicians closely distributed below and above 0. Again, we attempt to compare politicians who marginally experienced a poll drop with politicians who experienced a poll improvement. The results are reported in Table A10. Despite a considerable drop in observations (32.4%) compared to the main analysis in Table 1, the results closely resemble those in our main analysis in Table 1 (effects are even larger), thus providing additional evidence in support of our argument.

Figure A3. Regression discontinuity effect of a poll change on a politicians' Facebook issue behavior.



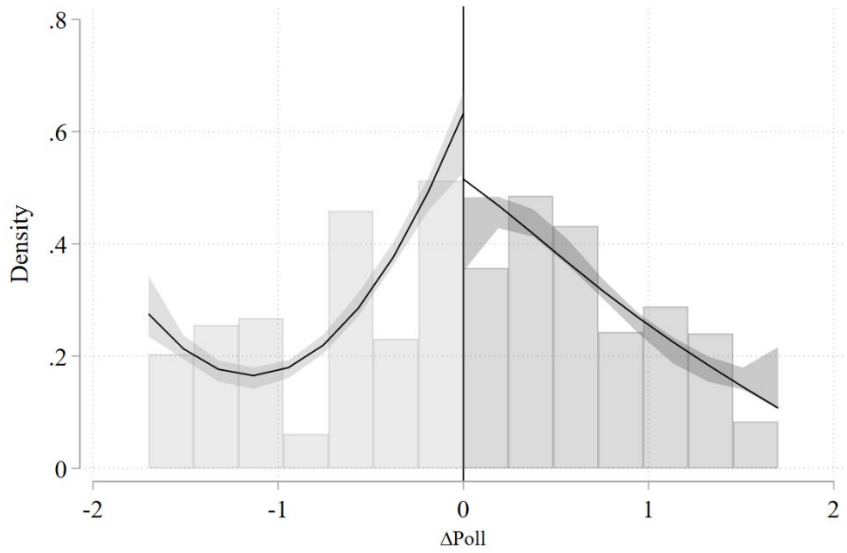
Note: Additional estimations of the effect in Table 1. We look at 146 politicians' Facebook issue behavior two weeks before and after 12 polls.

Table A8. Regression discontinuity effect of a poll change on a politicians' Facebook issue behavior.

	N	Coefficient	P-value
Conventional	3358	-0.092 (0.048)	P < 0.054
Bias-corrected	3358	-0.105 (0.048)	P < 0.027
Robust	3358	-0.105 (0.053)	P < 0.048

Note: We look at 146 politicians' Facebook issue behavior two weeks before and after 12 polls.

Figure A4. Distribution of observations (density) across the Δpoll variable.



Note: Plot of manipulation test using local polynomial density estimation (Cattaneo et al. 2018).

Table A9. Regression discontinuity effect of a poll change on a politician's age and gender.

Birth year (1943-1993)	N	(1)
Conventional	3358	-0.02 (0.040)
Bias-corrected	3358	-0.01 (0.040)
Robust	3358	-0.01 (0.047)
Gender (0-1)		
Conventional	3358	-0.25 (0.86)
Bias-corrected	3358	-0.12 (0.86)
Robust	3358	-0.12 (1.06)

Note: * p < 0.05; ** p < 0.01. We look at 146 Danish politicians' Facebook issue behavior two weeks before and after 12 polls during 2016/2017.

Table A10. Politicians' media focus in their Facebook posts before and after a poll in Denmark, 2016-2017. Only observations on ΔPoll larger than -1 and smaller than 1 are included.

	(1)
(1) Post poll (vs pre poll)	0.031
	(0.039)
(2) ΔPoll	-0.009
	(0.094)
1 x 2	-0.167*
	(0.086)
Constant	-2.012***
	(0.149)
Observations	2267
ΔPoll	-1 < x < 1

Note: Standard errors in parentheses. All estimations include robust standard errors, except the estimation in column two, in which standard errors cluster on the parties. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Estimations include fixed effects for parties and polls. All estimations include three control variables for the development in the polls over time and a variable for the total number of Facebook posts with issue content per politician per week.

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Section VI: Validation of Issue Ownership Variable

Hypothesis 3 stipulates that "In situations of decreasing party popularity in polls, politicians' issue profile on social media aligns more with the media agenda when issues on the media

agenda match with issues beneficial to the politicians' party". Thus, politicians' social media issue alignment with the media agenda is conditional on the party's issue ownership score on the issue. According to the founding father of this concept, Petrocik (1996, 826), issue ownership is "[a] reputation for policy and program interest, produced by a history of attention, initiative, and innovation toward problems, which leads voters to believe that one of the parties is more sincere and committed to do something". Thus, issue ownership is normally defined as a party's reputation among the voters – in the eyes of the voters. The measure of issue ownership therefore typically relies on voter data and most often from national election studies (see for examples Ennser-Jedenastik et al. 2022a, Egan 2013; Dolezal et al. 2013; see also Stubager and Slothuus 2013; Levere et al. 2015). As visible in Figure A5 below, data from the 2015 Danish election study (DNES) cover voter evaluations of the parties across a multitude of issues and parties (Hansen and Stubager 2017). However, it only covers each party on five issues, which only comprises a quarter of the issues included to our analysis. Hence, we cannot use original data to test Hypothesis 3, but we must rely on a proxy, a dummy. Based on the DNES 2015 data reported in Figure A5 and secondary sources (Seeberg 2017), we create a dummy that takes the value 1 if a party belongs to the wing of the political spectrum (left or right) which most likely has issue ownership in the eyes of the voters on an issue. Since we mostly have data at the government level (centre-left vs centre-right coalition) in Denmark, we should sum issue ownership scores for left and right parties, respectively, to get an estimate of which side has issue ownership. Table A11 provides an overview of this coding and the information that we rely on for each issue. This approach provides a tough test of Hypothesis 3 since it does not provide granular data for each party on each issue.

Table A11. Our coding of issue ownership vs the coding by the Danish National Election Study (DNES)

Issue	Our coding	Coding by DNES	Margin in DNES data

Macroeconomics	Right	Right	Small, but stable
Moral, minorities	Left	-	
Health	Left	Left	Large & stable
Agriculture	Right	-	
Labor	Left	Left	Large & stable, except 2007
Education	Left	Left	Small, but stable since 2005
Environment	Left	Left	Large & stable
Energy	Right	-	
Immigration	Right	Right	Small, but stable
Transportation	Left	-	
Crime	Right	Right	Large & stable
Social welfare	Left	Left	Large & stable
Housing	Left	-	
Business	Right	Right	Large[a]
Domestic commerce	Right	-	
Defense	Right	-	
Science and technology	Right	-	
Foreign trade	Right	-	
International affairs	Right	Right	Moderate & stable
Government Operations	Left	-	
Culture	Left	-	

Source: DNES Report for 1971-2019. "-" data not available. [a] Data from 2015 DNES.

Since parties consistently prefer to talk about issues on which they have issue ownership according to the widely acknowledge selective emphasis theory put forth by Budge and Farlie (1983) – research indeed finds such a pattern (Egan 2013; Dolezal et al. 2013) and that issue ownership rarely changes (Seeberg 2017) – some research uses parties' emphasis of an issue as an indicator of its issue ownership (Busemeyer et al 2013; Ennser-Jedenastik et al 2022b; notice that these studies do not test the assumption that issue emphasis equals issue ownership). The advantage of this approach is that it has a broader coverage than an issue ownership measure based on voter evaluations and cover most parties on most issues via content coding of, e.g., party manifestos (like Busemeyer et al 2013; Ennser-Jedenastik et al 2022b). The disadvantage is that parties' issue emphasis is influenced by other important factors than just their issue ownership reputation on the issue. A growing body of research for instance show that parties might emphasize issues on which they do not have issue ownership

due to real-world problem developments. They either see an opportunity in the problem or feel forced to address it. So even rightwing parties for instance increasingly emphasis climate changes, and social democratic parties cannot and do not neglect problems related to immigration (e.g., Spoon et al. 2013; Meguid 2008; Green-Pedersen 2020; Kristensen et al. 2022). This means that such a proxy of issue ownership is distant at best and might be misleading. Due to its advantages, we follow Busemeyer et al. (2013) and Ennser-Jedenastik et al. (2022b) and use this party emphasis proxy of issue ownership as a tough robustness check of our analysis, but refrain from using this approach in our main analysis due to its disadvantages.

Thus, in Table A13, we rerun the analysis reported in Table 2 in the main manuscript but using party emphasis as a proxy. Since we are concerned with the propensity of a politician to align her Facebook posts with the issue content of the top-5 issues on the media agenda, we measure issue ownership here as the average issue emphasis by the politicians' party in the most recent party manifestos in the 2005-2007-2011-2015 Danish national elections on the five top-5 issues on the media agenda. This measure varies from 0-14.5 with a mean of 5.0 and a standard deviation of 3.2. These issue-classified party manifestos are available from Comparative Agendas Project website. The data was collected by Christoffer Green-Pedersen and Peter Bjerre Mortensen with the support from the Danish Social Science Research Council and the Research Foundation at Aarhus University (Comparative Agendas Project 2023; see also Green-Pedersen 2020). In line with our concerns with this measure, a comparison of this measure of party issue emphasis across parties and issues in Figure A6 with the best available issue ownership data based on voter surveys in Figure A5 suggests a poor relationship. Liberal Alliance for example emphasizes health, education, and housing more than the Social Democrats and the far-left Red-Green Alliance. The green party, the Alternatives, is only 6th among the parties that emphasizes the

environment the most. The-Red Green-Alliance emphasizes defence more than the Conservatives, who only emphasizes this issue very little. This goes against voter-survey data on parties' issue ownership, which suggests that leftwing parties have issue ownership on welfare issues such as health, education, and housing, green parties own the environment, and conservative parties own defence (cf. Figure A5; Seeberg 2017). Moreover, parties' issue emphasis changes a lot over time in disagreement with the prediction from issue ownership theory – see cross-time data on four issues in Figure A7 as an example.

We report a test using this continuous issue emphasis measure of issue ownership in Model 1 in Table A12 as the conditional variable to test Hypothesis 3. In addition, we report in Model 2 a simpler interaction where we code the measure into limited attention (0 for all observations below the mean) and great attention (1 for all observations at or above the mean). Notice that in Model 1, there are 135 observations for the estimation of the "Post-poll x ΔPoll" coefficient for those very few situations, where a politician's party does not emphasize one of the top-5 issues on the media agenda at all. This coefficient is negative in alignment with the main result in Table 2 in the main analysis, but the coefficient does not reach conventional levels of statistical significance. Most likely due to a lack of observations and therefore power. In Model 2, this coefficient reaches conventional levels of statistical significance because it is based on half of the observations due to the dummy variable operationalization of the measure.

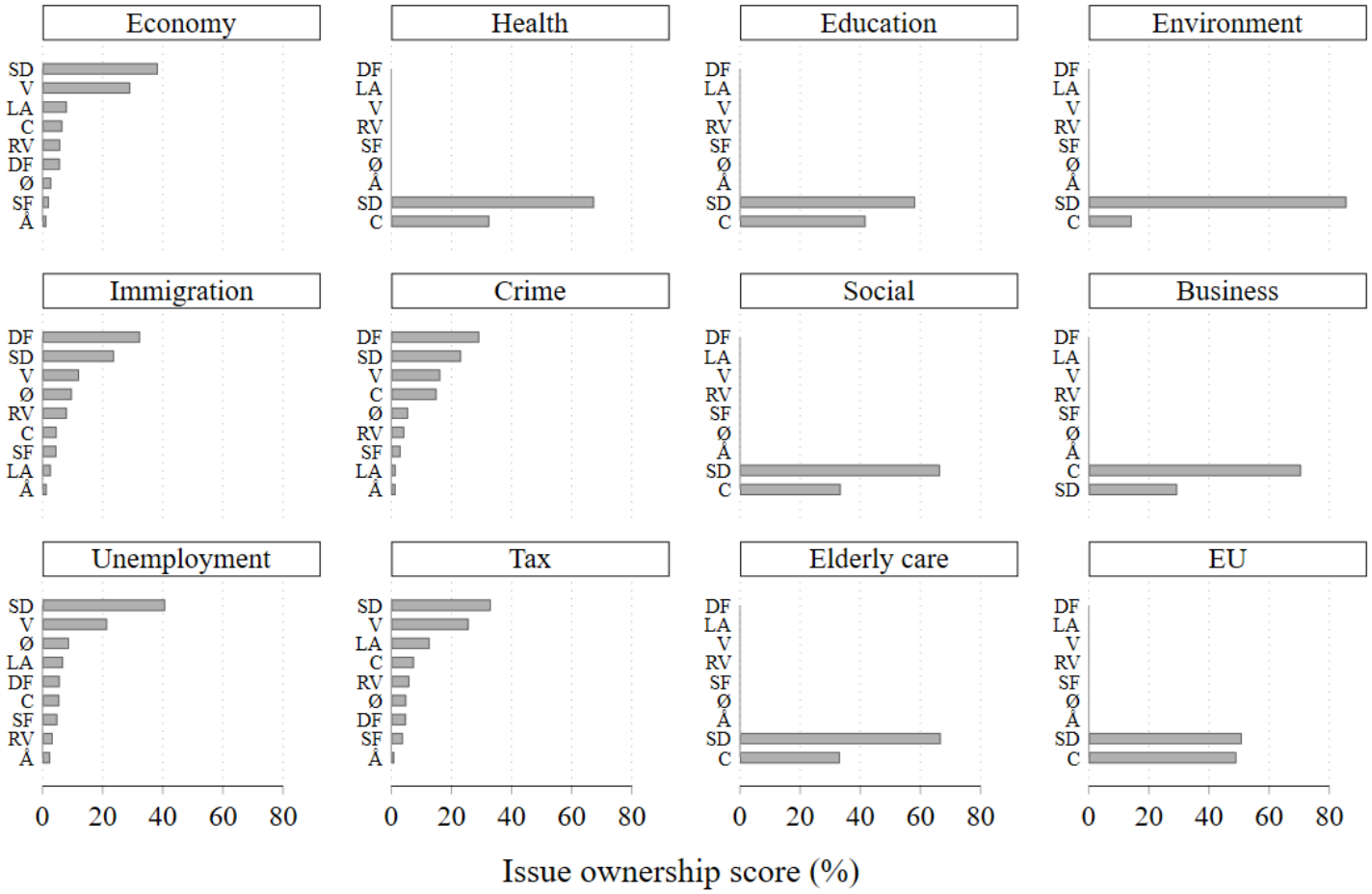
As reported in Table A13, our main conclusions do not change – the conditional effect on issue ownership ("Post-poll x ΔPoll x Issue ownership") is statistically insignificant. Thus, in disagreement with Hypothesis 3, we do not find evidence in our data that politicians align more with issue on the media agenda on which they have issue ownership. We consider this a hard robustness test since the operationalization of issue ownership differs substantially from the one use in our main analysis.

Table A12. Issue ownership is proxied by issue emphasis.

	(1)	(2)
(1) Post-poll (vs. pre-poll)	0.133*	0.041
	(0.068)	(0.049)
(2) ΔPoll	-0.095	-0.006
	(0.075)	(0.051)
1 x 2	-0.081	-0.121**
	(0.085)	(0.054)
(3) Issue ownership	0.025***	0.124**
	(0.009)	(0.058)
1 x 3	-0.022*	-0.079
	(0.012)	(0.075)
2 x 3	0.022*	0.094
	(0.012)	(0.071)
1 x 2 x 3	0.005	0.119
	(0.015)	(0.090)
Constant	-2.281***	-2.209***
	(0.127)	(0.115)
Issue ownership variable	Continuous	Dummy (by mean value)
Observations	3358	3358

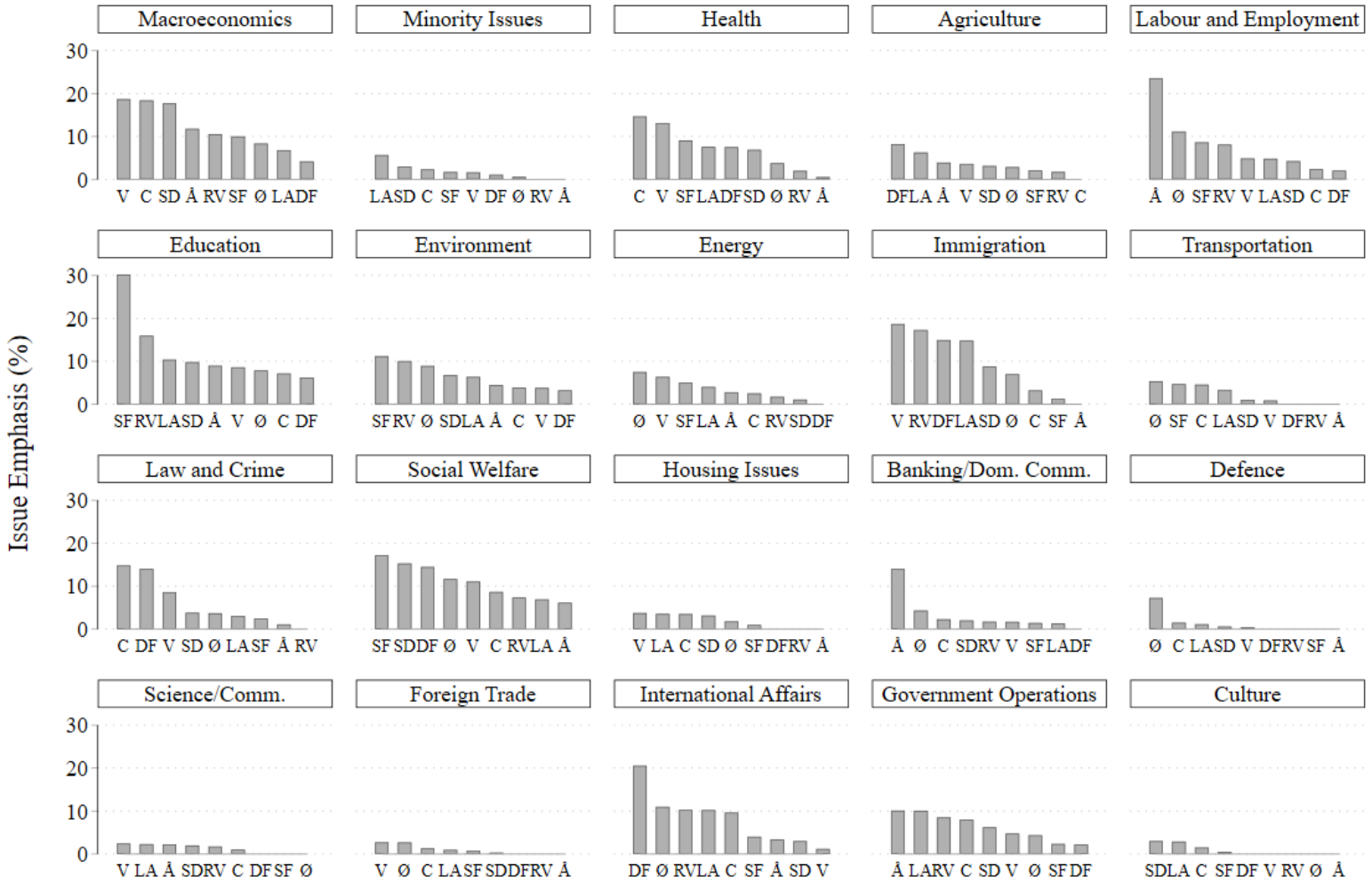
Standard errors in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Figure A5. Issue ownership scores for parties across issues in Denmark at the national election in 2015.



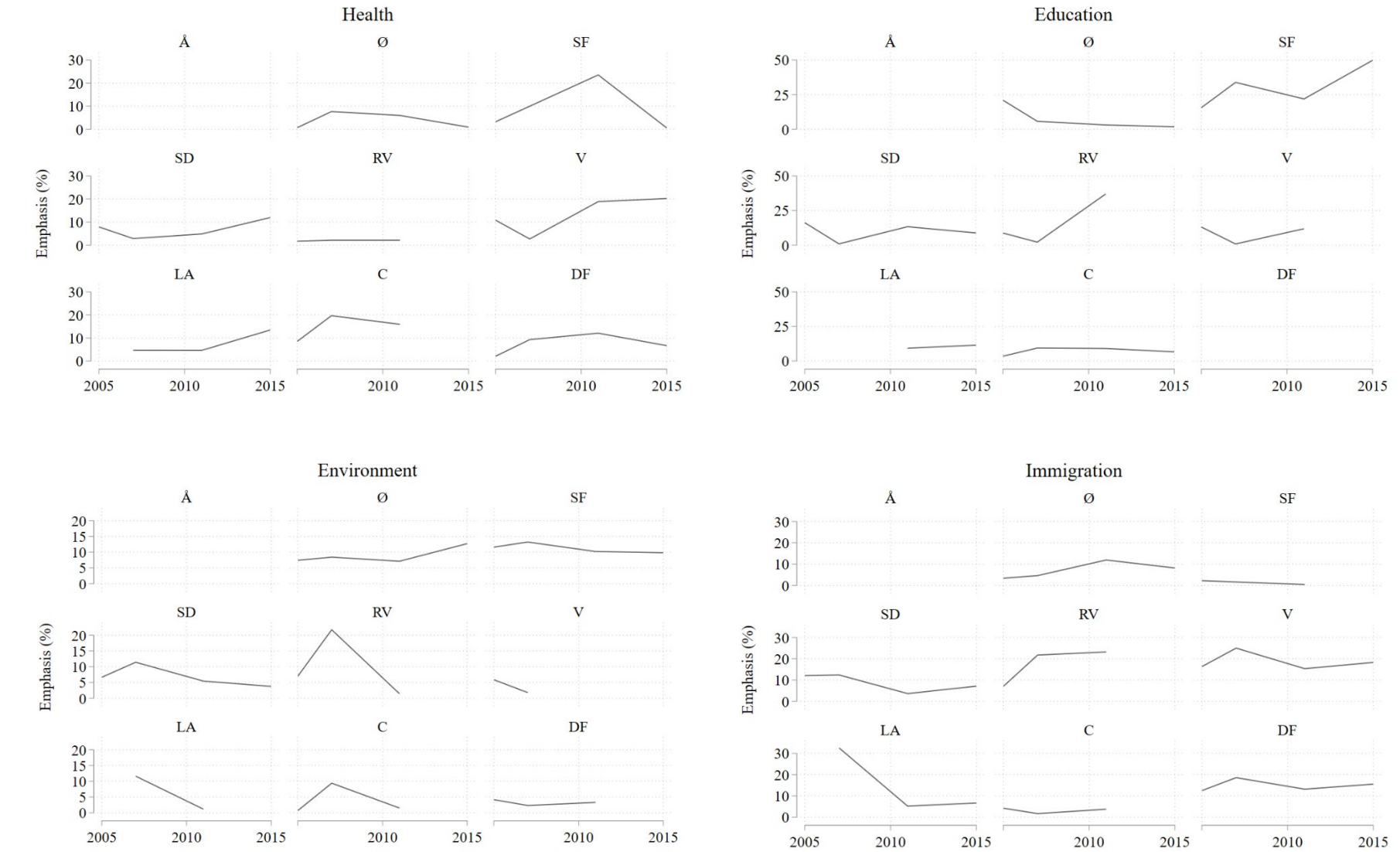
Source: Data from 2015 DNES. Note: Figures with scores only for the Social democrats (SD) and the Conservatives (C) are based on data only for at centre-left government (SD) vs a centre-right government (C). “V” is the Liberals, “C” is the Conservatives, “SD” is the Social democrats, “Å” is the Alternatives, “RV” is the Social liberals, “SF” is the Socialist People’s Party, “Ø” is the Red-Green Alliance, “LA” is the Liberal Alliance, “DF” is the Danish People’s Party.

Figure A6 Parties' average issue emphasis across issues in Danish election manifestos from 2005, 2007, 2011, 2015.



Source: Party manifestos for Danish national political parties in 2005, 2007, 2011, 2015. For presentation purposes in this Figure, we excluded the issue category "Public lands" which no party emphasized. "V" is the Liberals, "C" is the Conservatives, "SD" is the Social democrats, "Å" is the Alternatives, "RV" is the Social liberals, "SF" is the Socialist People's Party, "Ø" is the Red-Green Alliance, "LA" is the Liberal Alliance, "DF" is the Danish People's Party.

Figure A7. Parties' issue emphasis across issues in Danish election manifestos.



Source: Party manifestos for Danish national political parties in 2005, 2007, 2011, 2015. We excluded the issue category "Public lands" which no party emphasized. "V" is the Liberals, "C" is the Conservatives, "SD" is the Social democrats, "Å" is the Alternatives, "RV" is the Social liberals, "SF" is the Socialist People's Party, "Ø" is the Red-Green Alliance, "LA" is the Liberal Alliance, "DF" is the Danish People's Party.

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