

Appendix

Citizens' Preferences for Representation Styles: Exploring the Mandate-Independence Controversy in Eight European Countries

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Sample characteristic

Table A1: Population and sample socio-demographics

	Population	REDIRECT Sample
<i>Belgium</i>		
Male	47.83	48.80
Female	52.26	51.20
18–24	8.87	10.00
25–34	16.48	16.30
35–44	16.83	16.40
45–54	17.22	17.00
55+	40.70	40.30
Low education	21.30	21.70
Medium education	38.26	38.00
High education	40.52	40.20
<i>France</i>		
Male	43.40	47.60
Female	51.30	52.40
18–24	4.92	10.20
25–34	14.03	14.70
35–44	15.80	15.70
45–54	17.02	16.90
55+	42.94	42.41
Low education	14.92	20.70
Medium education	43.70	43.30
High education	36.09	36.00
<i>Germany</i>		
Male	49.04	48.75
Female	52.06	51.25
18–24	7.89	8.60
25–34	15.14	14.85
35–44	15.60	15.35
45–54	16.10	15.88
55+	46.38	45.32
Low education	18.35	17.60
Medium education	54.86	54.60
High education	27.89	27.80
<i>Hungary</i>		
Male	48.34	46.90
Female	51.88	53.10
18–24	8.17	9.10
25–34	17.69	15.40
35–44	22.66	18.90
45–54	19.61	16.80
55+	32.10	39.70
Low education	22.58	17.70
Medium education	48.78	59.50
High education	28.86	22.80
<i>Italy</i>		
Male	49.29	48.30
Female	53.56	51.70
18–24	7.02	8.20
25–34	13.16	12.50

35–44	15.47	14.60
45–54	19.69	18.90
55+	47.51	45.90
Low education	40.09	41.00
Medium education	44.36	42.00
High education	18.40	17.00
<i>Poland</i>		
Male	46.70	47.73
Female	54.55	52.27
18–24	9.06	9.44
25–34	18.54	18.47
35–44	21.03	19.24
45–54	16.39	15.06
55+	36.22	37.79
Low education	4.89	10.80
Medium education	65.19	61.50
High education	31.16	27.70
<i>Norway</i>		
Male	47.23	50.12
Female	54.11	49.88
18–34	20.71	27.79
35–54	38.39	33.43
55+	42.23	38.78
Low education	8.30	19.20
Medium education	47.59	41.30
High education	45.45	39.50
<i>United Kingdom</i>		
Male	49.67	48.50
Female	50.43	51.50
18–24	10.85	11.1
25–39	26.43	25.40
40–49	15.78	16.50
50–65	23.90	23.90
65+	23.24	23.10
Low education	28.87	28.00
Medium education	38.26	39.00
High education	33.05	33.00

Note: Population statistics were provided by YouGov Italy with the following instructions. Belgium and Hungary relied on US Census Bureau (2019), GeoHive regional estimates (2013), and Internet World Stats internet penetration data (2017), with quota frames updated in 2020. France used INSEE data (2020), Germany relied on Destatis population statistics based on the 2011 Census and updated in 2024, Italy used ISTAT data (2022), Norway relied on Statistics Norway (SSB) data updated in 2024, Poland used Statistics Poland data with frames updated in 2020, and the United Kingdom relied on Office for National Statistics (ONS) population estimates from 2021.

Question wording and measures

Gender

Are you...

1. Male
2. Female

Left-Right placement

Where would you place yourself on a scale from 0 to 10, where 0 means the “Left” and 10 means the “Right”? You can choose any value between 0 and 10 to define your position.

- 0 Left
- 10 Right
- 96 Not able to locate on this scale
- 98 Don’t know
- 99 I prefer not to answer

Political interest

In Belgium, France, Germany, Hungary, Italy, Poland and Norway

To what extent are you interested in politics?

1. Very interested
2. Rather interested
3. Not really interested
4. Not interested at all
97. Response denied
98. I don't know
99. No answer

In the United Kingdom

How much attention do you generally pay to politics?

- 0 Pay no attention
- 10 Pay a great deal of attention
- 98. I don't know
- 99. No answer

Scales have been reversed such that larger scores stand for higher political interest. The scores have been standardised and rescaled from 0 to 1.

Satisfaction with democracy

On the whole, on a scale from 0 to 10, where 0 indicates “Extremely dissatisfied” and 10 indicates “Extremely satisfied”, how satisfied are you with the way democracy works in [Country]?

- 0 Extremely dissatisfied
- 10 Extremely satisfied
- 98 Don't know
- 99 I prefer not to answer

Delegate-Trustee

How should a Member of Parliament vote in parliament, if his/her own opinion on an issue does not correspond with the opinion of her/his party voters?

Please choose your position using a scale from 0 to 10, where 0 means that the Member of Parliament should "Follow her/his party voters" and 10 means "Follow own judgement".

- 0 Follow her/his party voters
- 10 Follow own judgement
- 98 Don't know
- 99 I prefer not to answer

Recoded for descriptive and robustness purposes: Delegate 0-4; Politico 5; Trustee 6-10

Vote next elections

If parliamentary elections were tomorrow in your [Country], which party will vote for?

[COUNTRY LIST]

- 93 Other _____[SPECIFY]
- 94 Blank or spoilt vote
- 95 I will not vote in the next elections
- 97 I have not decided yet
- 98 Don't know
- 99 I prefer not to answer

Year of birth

In what year were you born?

[Number]

We first computed age and then recoded in class.

Table A2: Classification of voters

Country	Populists	Mainstream
Belgium	MR (gov), N-VA (gov), Vlaams Belang,	CD&V (gov), DéFI, ECOLO, Les Engagés (gov), Groen, Open VLD, PS, PTB, PVDA Vooruit (gov)
France	France Unbowed, National Rally, Reconquest	Democratic Movement (gov), Europe Ecology - The Greens, Socialist Party, Renaissance (gov), The Republicans (gov),
Germany	Alternative for Germany, The Left	Alliance 90 / Greens (gov), Christian Democratic (Social) Union (CDU/CSU), Free Democratic Party (gov), Social Democratic Party of Germany (gov), BSW - Alliance Sahra Wagenknecht
Hungary	Fidesz - Hungarian Civic Alliance (gov)	Democratic Coalition, Dialogue - The Greens' Party, Hungarian Two-Tailed Dog Party, Hungarian Socialist Party, Momentum Movement, Our Homeland Movement, Respect and Freedom Party
Italy	Brothers of Italy (gov), Five Star Movement, Go Italy! (gov), League (gov)	Action, Alliance Greens and Left, Democratic Party, Italy Alive
Poland	Kukiz' 15, Law and Justice	Confederation, Civic Platform (gov), Left Together (gov), Poland 2050 (gov), Polish People's Party (gov), The New Left (gov)
Norway	Progress Party, Red Party	Centre Party (gov), Conservative Party, Green Party, Labour Party (gov), Liberal Party, Socialist Left Party
United Kingdom	Reform	GPEW, Tories, Lib Dems, Labour (gov), Plaid, SNP, WPB

Note: the abbreviation 'gov' stands for parties that were in government at the time of the survey.

Analysis

Table A3: Percentages of citizens leaning towards a “Delegate”, “Politico” and “Trustee” model in eight European countries.

Country	Delegate	Politico	Trustee	Total
Belgium	51.56	14.35	34.09	100.00
France	48.33	15.37	36.30	100.00
Germany	42.10	17.27	40.63	100.00
Hungary	34.16	16.57	49.27	100.00
Italy	34.61	14.25	51.14	100.00
Poland	45.28	14.95	39.77	100.00
Norway	49.20	15.22	35.58	100.00
United Kingdom	32.03	11.68	56.29	100.00
Total	41.70	14.92	43.38	100.00

Test of collinearity

Variance Inflation Factor (VIF) diagnostics were conducted to assess potential multicollinearity among the independent variables. The results indicate no evidence of problematic collinearity. All VIF values remain well below conventional thresholds of concern (typically $VIF > 5$ or $VIF > 10$), with a mean VIF of 1.58 and a maximum observed VIF of 2.19. These results suggest limited overlap among predictors and indicate that multicollinearity is unlikely to bias coefficient estimates or inflate standard errors in a substantial way. Additional country-specific VIF diagnostics largely confirmed the pooled analysis. Across national subsamples, VIF values generally remained low, with mean VIFs ranging between 1.4 and 2.5. Aside from somewhat higher values for education categories in one country case, no evidence of problematic multicollinearity emerged. Overall, the diagnostics suggest that collinearity is unlikely to substantially affect coefficient estimates or standard errors in either the pooled or country-specific models.

Table A4: Variance Inflation Factor Diagnostics.

Country	Mean VIF	Max VIF	Highest Variable
Pooled model	1.58	2.19	High education
Belgium	1.51	2.22	Ideology: right
France	1.96	2.94	Voter: populists
Germany	1.49	2.13	High education
Hungary	1.51	2.03	Age: 55+
Italy	1.90	3.39	Voter: Gov voter
Norway	1.96	4.80	High education
Poland	2.45	8.20	High education
United Kingdom	1.42	1.98	Ideology: left

Figure A1 reports the pairwise correlations among the main independent variables included in the analysis. The matrix includes both continuous variables and dummy-coded categorical predictors; therefore, the matrix includes standard Pearson correlations as well as point-biserial correlations for associations involving binary variables. Overall, the correlations remain generally modest and do not indicate problematic overlap among predictors. As expected, some negative associations emerge among mutually exclusive ideological categories due to the dummy-coding structure of the variables.

Figure A1: Correlation matrix among main explanatory variables (pooled data).

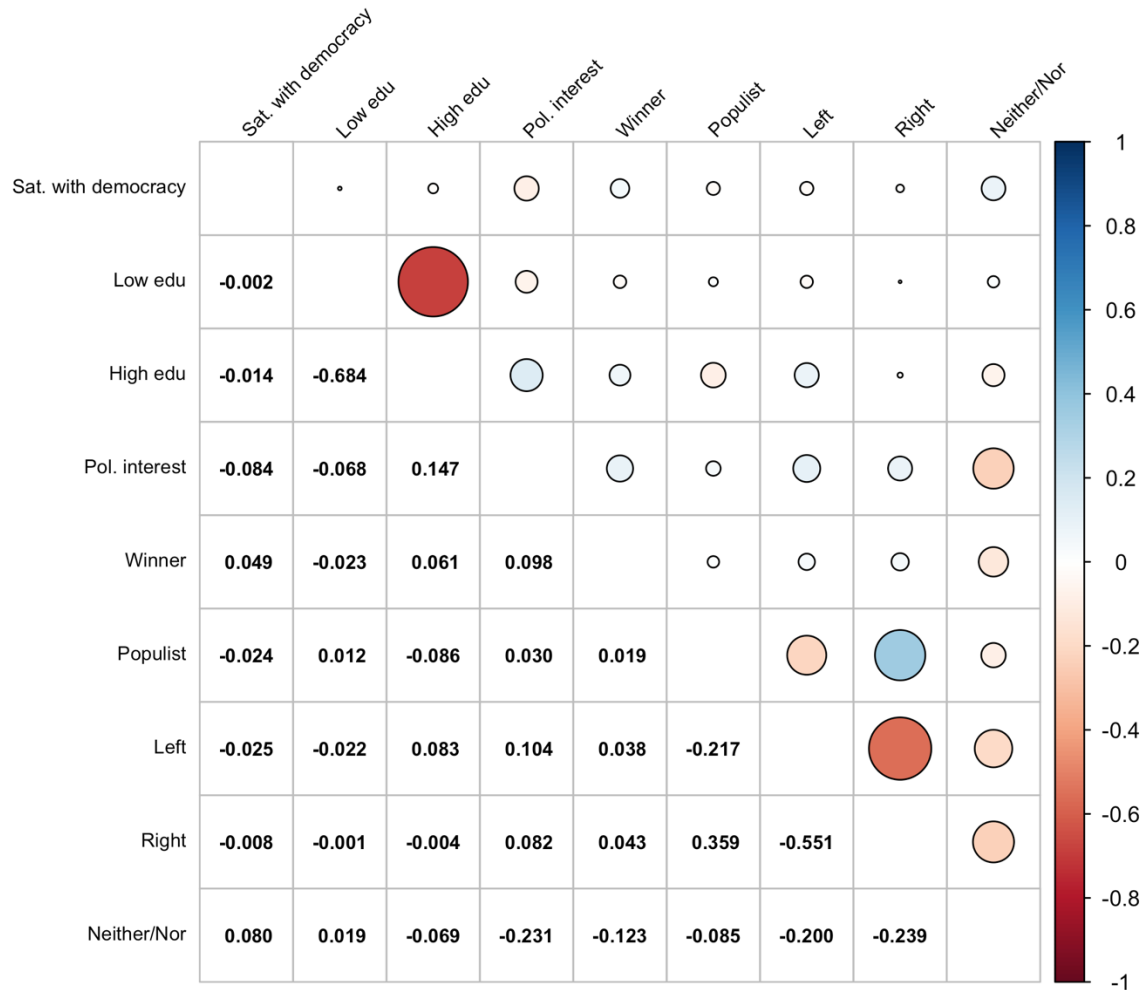


Table A5: Multiple linear regression models (OLS estimates on pooled and country-by-country fashion).

	Pooled	Belgium	France	Germany	Hungary	Italy	Norway	Poland	United Kingdom
Sat. dem.	1.050*** (0.120)	2.057*** (0.327)	2.103*** (0.320)	1.232*** (0.328)	-0.053 (0.355)	1.413*** (0.343)	0.427 (0.526)	1.116** (0.356)	0.069 (0.363)
<i>Voter (Ref: Opp.)</i>									
Gov. voter	-0.119 (0.078)	0.085 (0.187)	0.405 (0.334)	0.0643 (0.225)	-0.566 (0.299)	-0.509 (0.339)	-0.164 (0.368)	0.108 (0.308)	0.023 (0.235)
<i>Voter (Ref: Mainstream)</i>									
Populist voter	-0.600*** (0.082)	-1.005*** (0.217)	-0.273 (0.287)	-0.652** (0.240)	- (0.299)	0.072 (0.287)	-0.614* (0.295)	0.146 (0.312)	-0.567* (0.277)
Other	-0.389 (0.200)	-0.565 (0.606)	0.410 (0.481)	-0.429 (0.472)	0.968 (0.813)	-0.673 (0.561)	-0.398 (0.487)	-0.801 (0.898)	-0.188 (0.600)
Spoilt ballot	-0.165 (0.211)	0.374 (0.504)	0.630 (0.416)	-0.527 (0.987)	0.016 (0.845)	-0.355 (0.463)	1.319 (0.922)	-0.839 (1.003)	-1.337 (0.917)
Abstention	-0.399* (0.167)	-0.003 (0.423)	0.794 (0.447)	-0.867 (0.532)	-0.372 (0.516)	-0.483 (0.397)	0.445 (0.893)	-0.622 (0.528)	-0.256 (0.504)
Undecided	-0.102 (0.099)	-0.235 (0.251)	0.564 (0.324)	-0.192 (0.298)	-0.328 (0.251)	0.144 (0.288)	-0.459 (0.385)	0.374 (0.348)	-0.025 (0.282)
<i>Ideology (Ref: Centre)</i>									
Left	-0.029 (0.088)	-0.658** (0.243)	-0.361 (0.286)	0.459* (0.210)	0.120 (0.242)	0.655* (0.287)	0.507 (0.360)	-0.289 (0.245)	-0.365 (0.247)
Right	0.176* (0.087)	-0.0218 (0.232)	-0.054 (0.262)	0.050 (0.205)	-0.084 (0.241)	0.441 (0.308)	0.210 (0.350)	0.436 (0.254)	0.433 (0.243)
Neither/Nor	0.296* (0.137)	-0.073 (0.350)	-0.086 (0.329)	0.548 (0.640)	0.794* (0.324)	0.518 (0.360)	0.183 (0.622)	-0.014 (0.397)	-0.010 (0.804)
Political interest	0.380** (0.117)	1.036*** (0.280)	0.574* (0.292)	0.413 (0.322)	0.309 (0.328)	-0.402 (0.299)	-0.036 (0.491)	0.371 (0.330)	0.214 (0.457)
<i>Education (Ref: Low)</i>									
Medium edu	0.079 (0.088)	0.292 (0.226)	-0.204 (0.269)	0.0505 (0.223)	-0.039 (0.229)	0.308 (0.193)	-0.362 (0.477)	0.894 (0.510)	-0.134 (0.227)
High edu	0.197* (0.094)	0.477* (0.227)	-0.193 (0.283)	0.385 (0.253)	0.382 (0.247)	0.629* (0.257)	-1.137* (0.487)	0.821 (0.523)	0.027 (0.236)
<i>Gender (Ref: Male)</i>									
Female	-0.153* (0.078)	0.170 (0.187)	0.0694 (0.334)	-0.535** (0.225)	-0.352* (0.299)	-0.313 (0.339)	0.060 (0.368)	0.316 (0.308)	-0.510** (0.235)

	(0.062)	(0.161)	(0.172)	(0.166)	(0.177)	(0.172)	(0.234)	(0.181)	(0.177)
<i>Age class (Ref: 18–34)</i>									
35–54	-0.050 (0.087)	0.0362 (0.215)	-0.273 (0.245)	-0.0896 (0.234)	0.434 (0.241)	-0.072 (0.260)	-0.122 (0.350)	-0.593* (0.240)	0.379 (0.241)
55+	-0.170* (0.084)	-0.268 (0.209)	-0.700** (0.237)	0.0588 (0.219)	0.481 (0.252)	0.200 (0.249)	-0.448 (0.338)	-1.003*** (0.237)	0.194 (0.233)
Country FE	YES	-	-	-	-	-	-	-	-
Constant	3.783*** (0.169)	2.923*** (0.387)	3.853*** (0.515)	4.163*** (0.419)	5.262*** (0.376)	4.493*** (0.459)	5.138*** (0.736)	3.329*** (0.633)	5.884*** (0.504)
R-squared	0.044	0.065	0.059	0.056	0.021	0.028	0.034	0.032	0.019
Adj. R-squared	0.043	0.056	0.050	0.047	0.012	0.018	0.014	0.022	0.009
N	12310	1700	1684	1659	1660	1583	789	1607	1628

Note: Standard errors in parentheses, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$. In the case of Hungary, all populist parties are also in government, making the two variables “Gov. voter” and “Populist voter” perfectly collinear.

Table A6: Multiple linear regression models (OLS estimates on pooled, speeders included).

Sat. dem.	1.321*** (0.111)
<i>Voter (Ref: Opp.)</i>	
Gov. voter	-0.134 (0.072)
<i>Voter (Ref: Mainstream)</i>	
Populist voter	-0.557*** (0.076)
Other	-0.403* (0.190)
Spoilt ballot	-0.111 (0.198)
Abstention	-0.361* (0.158)
Undecided	-0.092 (0.093)
<i>Ideology (Ref: Centre)</i>	
Left	-0.0617 (0.082)
Right	0.252** (0.080)
Neither/Nor	0.294* (0.130)
Political interest	0.466*** (0.107)
<i>Education (Ref: Low)</i>	
Medium edu	0.040 (0.081)
High edu	0.148 (0.087)
<i>Gender (Ref: Male)</i>	
Female	-0.135* (0.058)
<i>Age class (Ref: 18–34)</i>	
35–54	-0.044 (0.078)
55+	-0.244** (0.076)
Country FE	
Constant	3.729*** (0.155)
R-squared	0.047
Adj. R-squared	0.045
N	13505

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

Table A7: Multiple linear regression models (OLS estimates on pooled, weighted data).

Sat. dem.	1.107*** (0.136)
<i>Voter (Ref: Opp.)</i>	
Gov. voter	-0.138 (0.079)
<i>Voter (Ref: Mainstream)</i>	
Populist voter	-0.596*** (0.086)
Other	-0.339 (0.216)
Spoilt ballot	-0.163 (0.225)
Abstention	-0.361 (0.187)
Undecided	-0.067 (0.100)
<i>Ideology (Ref: Centre)</i>	
Left	-0.010 (0.089)
Right	0.198* (0.089)
Neither/Nor	0.261 (0.151)
Political interest	0.422*** (0.124)
<i>Education (Ref: Low)</i>	
Medium edu	0.0588 (0.094)
High edu	0.164 (0.010)
<i>Gender (Ref: Male)</i>	
Female	-0.135* (0.064)
<i>Age class (Ref: 18–34)</i>	
35–54	-0.0657 (0.086)
55+	-0.198* (0.085)
Country FE	YES
Constant	3.740*** (0.174)
R-squared	0.043
Adj. R-squared	0.041
N	12310

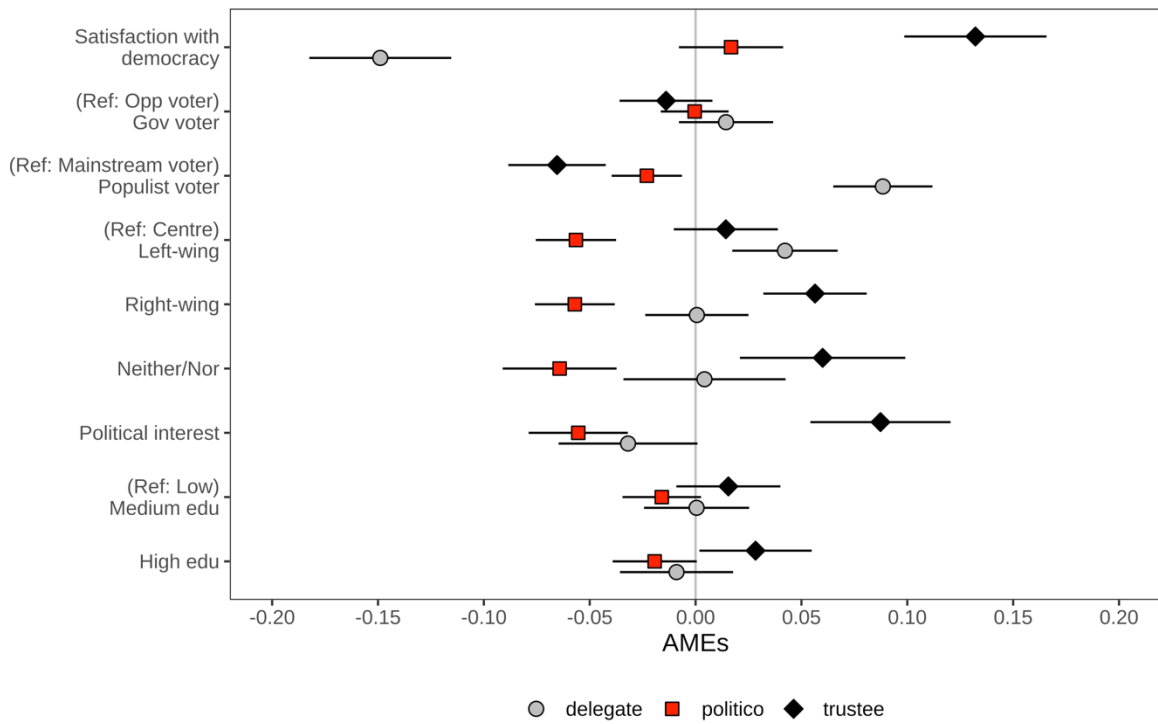
Note: Standard errors in parentheses, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

The pooled multinomial logit model appears methodologically viable, as the available diagnostics provide no strong evidence against the Independence of Irrelevant Alternatives (IIA) assumption. In the pooled analysis ($N = 12,310$), standard Hausman tests are clearly non-significant (delegate: $\chi^2 = 12.29$, $p = .976$; trustee: $\chi^2 = 9.57$, $p = .996$), while Small-Hsiao tests also fail to reject IIA for all outcome comparisons (all $p > .20$). Although the more conservative suest-based Hausman tests return marginal p-values (between .061 and .095), they remain above conventional significance thresholds. Overall, the evidence suggests that the three outcome categories behave sufficiently independently to justify the use of a pooled multinomial specification.

Table A8: Average Marginal Effects (AMEs) on the probability of opting for one of the three representation styles. Multinomial Logistic Regression on pooled sample.

Value	SE	p-value	Lower CI	Upper CI	Variable	Outcome
-0.149	0.017	3.20e-18	-0.182	-0.115	Satisfaction with democracy	delegate
0.014	0.011	0.2051516	-0.008	0.037	(Ref: Opp voter) Gov voter	delegate
0.088	0.012	1.39e-13	0.065	0.112	(Ref: Mainstream voter) Populist voter	delegate
0.042	0.013	0.001	0.017	0.067	(Ref: Centre) Left-wing	delegate
0.001	0.012	0.961	-0.024	0.025	Right-wing	delegate
0.004	0.020	0.829	-0.034	0.042	Neither/Nor	delegate
-0.032	0.017	0.057	-0.065	0.001	Political interest	delegate
0.001	0.013	0.970	-0.024	0.025	(Ref: Low edu) Medium edu	delegate
-0.009	0.014	0.509	-0.036	0.018	High edu	delegate
0.017	0.013	0.182	-0.008	0.041	Satisfaction with democracy	politico
-0.001	0.008	0.958	-0.016	0.016	(Ref: Opp voter) Gov voter	politico
-0.023	0.008	0.007	-0.040	-0.006	(Ref: Mainstream voter) Populist voter	politico
-0.057	0.010	5.40e-09	-0.075	-0.038	(Ref: Centre) Left-wing	politico
-0.057	0.010	3.21e-09	-0.076	-0.038	Right-wing	politico
-0.064	0.014	2.91e-06	-0.091	-0.037	Neither/Nor	politico
-0.055	0.012	3.52e-06	-0.079	-0.032	Political interest	politico
-0.016	0.009	0.092	-0.035	0.003	(Ref: Low edu) Medium edu	politico
-0.019	0.010	0.057	-0.039	0.001	High edu	politico
0.132	0.017	1.26e-14	0.099	0.166	Satisfaction with democracy	trustee
-0.014	0.011	0.213	-0.036	0.008	(Ref: Opp voter) Gov voter	trustee
-0.065	0.012	2.53e-08	-0.088	-0.042	(Ref: Mainstream voter) Populist voter	trustee
0.014	0.013	.254	-0.010	0.039	(Ref: Centre) Left-wing	trustee
0.056	0.012	5.86e-06	0.032	0.080	Right-wing	trustee
0.060	0.020	0.003	0.021	0.099	Neither/Nor	trustee
0.087	0.017	2.32e-07	0.054	0.120	Political interest	trustee
0.015	0.013	0.217	-0.009	0.040	(Ref: Low edu) Medium edu	trustee
0.028	0.014	0.037	0.002	0.055	High edu	trustee

Figure A2: Average Marginal Effects (AMEs) on the probability of opting for one of the three representation styles. Multinomial Logistic Regression on pooled sample (Table A7).



Note: Lines across dots represents 95% confidence intervals. The graph shows only a selection of variables included in the model.