

Appendix

Table A1. ANES items used to create political knowledge scale: 1992-2004. (Adapted from Dow 2009).

		1992	1996	2000	2004
Ideological	Self-placement	X	X	X	X
	Candidate placement	X*	X*	X*	X*
Objective knowledge	Party placement	X	X	X	X
	Vice president	X	X		X*
	Chief justice supreme court	X*	X*	X	X
	Russian President	X	X*		
	British PM			X*	X
	House of representatives speaker	X*	X		X*
	Senate majority leader			X*	
Issue placement	Attorney general			X	
	Services and spending—candidate	X*	X*	X*	X
	Services and spending—party	X	X	X	X*
	Defense spending—candidate	X	X*	X*	X*
	Defense spending—party	X*	X	X	X
	Jobs and Std of living—candidate	X	X*	X	X
	Jobs and Std of living—party	X		X	X
	Abortion—candidate	X*	X	X*	X*
Abortion—party		X		X	

* Used for six-item scale

Table A2. Model fit statistics for invariance tests.

Group Comparison	Year	Scale Items	Invariance Test χ^2	df
Age	2004	15	32.5*	13
0 = below median	2004	6	3.2	4
1 = at or above median	2000	14	48.4*	12
	2000	6	27.8*	4
	1996	14	34.4*	12
	1996	6	13.1*	4
	1992	14	69.7*	12
	1992	6	18.0*	4
College Degree	2004	15	46.2*	13
0 = no degree	2004	6	3	4
1 = degree	2000	14	48.6*	12
	2000	6	15.4*	4
	1996	14	36.8*	12
	1996	6	8.8	4
	1992	14	49.7*	12
	1992	6	1	4
Gender	2004	15	66.3*	28
0 = male	2004	6	9.4	4
1 = female	2000	14	80.1*	26
	2000	6	6.2	4
	1996	14	91.3*	26
	1996	6	8.3	4
	1992	14	75.9*	26
	1992	6	9.4	4
Income	2004	15	50.8*	13
0 = below median	2004	6	3.3	4
1 = at or above median	2000	14	27.2*	12
	2000	6	4.9	4
	1996	14	27.2*	12
	1996	6	17.4*	4
	1992	14	45.8*	12
	1992	6	4.1	4
Newspaper use	2004	15	35.1*	13
0 = Did not read news about the campaigns	2004	6	13.0*	4
1 = Did read	2000	14	34.6*	12
	2000	6	1.6	4

	1996	14	42.8*	12
	1996	6	8.6	4
	1992	14	47.5*	12
	1992	6	6.9	4
Participation	2004	15	27.9*	13
0 = did not participate	2004	6	8.5	4
1 = participated in 1 or more campaign activities	2000	14	27.5*	12
	2000	6	5.2	4
	1996	14	14.3	12
	1996	6	9	4
	1992	14	45.3*	12
	1992	6	5.7	4
Radio use	2004	15	10.9	13
0 = Did not listen to news about the campaigns	2004	6	6	4
1 = Did listen	2000	14	31.3*	12
	2000	6	8	4
	1996	14	23.9*	12
	1996	6	5.7	4
	1992	14	32.1*	12
	1992	6	4.8	4
TV use	2004	15	20.7	13
0 = Did not watch news about the campaigns	2004	6	4.7	4
1 = Did watch	2000	14	15.8	12
	2000	6	3.3	4
	1996	14	20	12
	1996	6	11.5*	4
	1992	14	21	12
	1992	6	5.2	4
TV frequency	2004	15	32.9*	13
0 = below median	2004	6	5.1	4
1 = at or above median	2000	14	32.1*	12
	2000	6	9.5*	4
	1996	14	25.3*	12
	1996	6	5.7	4
	1992	14	42.3*	12
	1992	6	23.9*	4

* $p < .05$. Scales with p-values $> .05$ are said to be invariant with respect to the associated grouping variable, while scales falling below this threshold are non-invariant.

Table A3. Average differential item functioning by grouping variable, 1992-2004.

Variable	Group	Mean	N	Std. Deviation	Std. Error of Mean
Total	Age	0.21	57	0.19	0.026
	College Degree	1.21	57	0.40	0.053
	Gender	0.47	57	0.33	0.044
	Income	0.73	57	0.27	0.035
	Newspaper use	0.77	57	0.40	0.053
	Participation	0.65	57	0.17	0.023
	Radio use	0.67	57	0.20	0.026
	TV frequency	0.27	57	0.21	0.028
	TV use	0.59	57	0.22	0.029
	Total	0.62	513	0.39	0.017
Abortion—candidate	Age	0.11	4	0.09	0.043
	College Degree	1.14	4	0.24	0.118
	Gender	0.13	4	0.21	0.105
	Income	0.52	4	0.23	0.117
	Newspaper use	0.78	4	0.27	0.137
	Participation	0.77	4	0.19	0.097
	Radio use	0.64	4	0.22	0.108
	TV frequency	0.30	4	0.21	0.105
	TV use	0.69	4	0.34	0.172
	Total	0.56	36	0.38	0.064
Abortion—party	Age	0.27	2	0.11	0.077
	College Degree	0.95	2	0.02	0.017
	Gender	0.09	2	0.01	0.010
	Income	0.48	2	0.10	0.069
	Newspaper use	0.52	2	0.19	0.138
	Participation	0.65	2	0.14	0.101
	Radio use	0.62	2	0.18	0.125
	TV frequency	0.13	2	0.03	0.021
	TV use	0.50	2	0.26	0.183
	Total	0.47	18	0.28	0.066
Attorney general	Age	0.33	1	.	.
	College Degree	1.24	1	.	.
	Gender	0.94	1	.	.
	Income	1.26	1	.	.
	Newspaper use	0.97	1	.	.

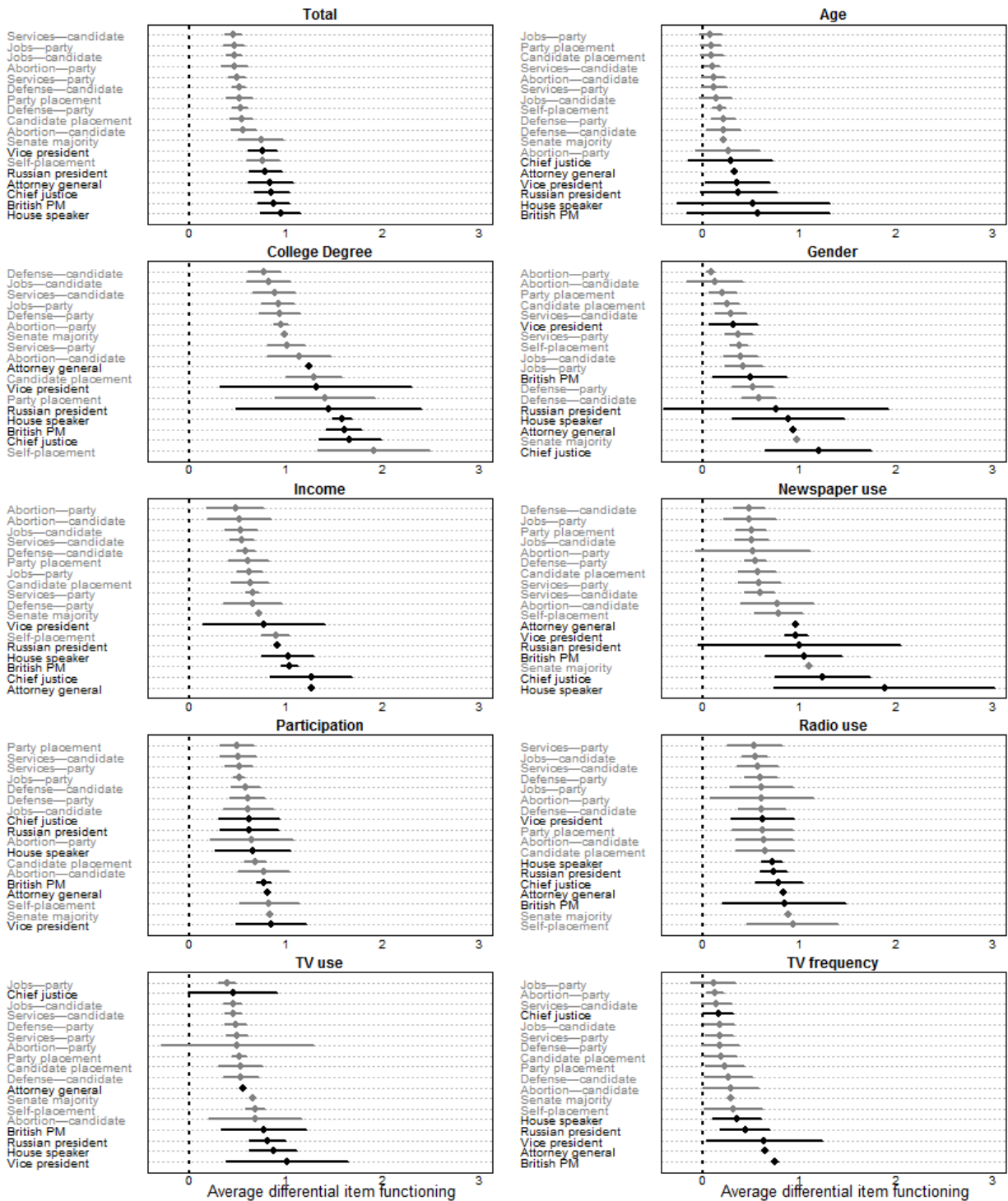
	Participation	0.81	1	.	.
	Radio use	0.83	1	.	.
	TV frequency	0.65	1	.	.
	TV use	0.56	1	.	.
	Total	0.84	9	0.31	0.102
British PM	Age	0.58	2	0.24	0.173
	College Degree	1.60	2	0.06	0.042
	Gender	0.49	2	0.13	0.090
	Income	1.04	2	0.03	0.020
	Newspaper use	1.05	2	0.13	0.093
	Participation	0.78	2	0.02	0.017
	Radio use	0.85	2	0.21	0.148
	TV frequency	0.75	2	0.01	0.008
	TV use	0.78	2	0.14	0.103
	Total	0.88	18	0.33	0.078
Candidate placement	Age	0.10	4	0.09	0.043
	College Degree	1.29	4	0.21	0.104
	Gender	0.25	4	0.09	0.047
	Income	0.63	4	0.14	0.070
	Newspaper use	0.57	4	0.14	0.070
	Participation	0.69	4	0.08	0.039
	Radio use	0.65	4	0.22	0.109
	TV frequency	0.19	4	0.12	0.061
	TV use	0.54	4	0.16	0.081
	Total	0.54	36	0.36	0.061
Chief justice	Age	0.29	4	0.32	0.158
	College Degree	1.67	4	0.23	0.117
	Gender	1.20	4	0.40	0.198
	Income	1.26	4	0.30	0.151
	Newspaper use	1.24	4	0.35	0.177
	Participation	0.62	4	0.23	0.114
	Radio use	0.79	4	0.18	0.089
	TV frequency	0.16	4	0.11	0.057
	TV use	0.46	4	0.33	0.167
	Total	0.85	36	0.55	0.092
Defense—candidate	Age	0.22	4	0.13	0.063
	College Degree	0.78	4	0.12	0.060
	Gender	0.59	4	0.13	0.064
	Income	0.59	4	0.07	0.034

	Newspaper use	0.49	4	0.12	0.060
	Participation	0.58	4	0.11	0.054
	Radio use	0.62	4	0.17	0.087
	TV frequency	0.27	4	0.19	0.093
	TV use	0.54	4	0.13	0.065
	Total	0.52	36	0.20	0.034
Defense—party	Age	0.22	4	0.09	0.045
	College Degree	0.94	4	0.15	0.077
	Gender	0.53	4	0.15	0.077
	Income	0.66	4	0.22	0.109
	Newspaper use	0.55	4	0.08	0.040
	Participation	0.61	4	0.13	0.066
	Radio use	0.60	4	0.12	0.061
	TV frequency	0.19	4	0.14	0.072
	TV use	0.49	4	0.08	0.041
	Total	0.53	36	0.25	0.041
House speaker	Age	0.53	3	0.43	0.248
	College Degree	1.58	3	0.06	0.033
	Gender	0.89	3	0.32	0.183
	Income	1.02	3	0.15	0.085
	Newspaper use	1.88	3	0.62	0.360
	Participation	0.66	3	0.21	0.123
	Radio use	0.72	3	0.06	0.034
	TV frequency	0.36	3	0.14	0.078
	TV use	0.87	3	0.13	0.077
	Total	0.95	27	0.53	0.103
Jobs—candidate	Age	0.14	4	0.12	0.061
	College Degree	0.82	4	0.17	0.083
	Gender	0.40	4	0.13	0.065
	Income	0.54	4	0.12	0.062
	Newspaper use	0.51	4	0.13	0.065
	Participation	0.62	4	0.18	0.092
	Radio use	0.54	4	0.10	0.048
	TV frequency	0.18	4	0.11	0.057
	TV use	0.46	4	0.07	0.035
	Total	0.47	36	0.23	0.039
Jobs—party	Age	0.08	3	0.07	0.039
	College Degree	0.92	3	0.09	0.055
	Gender	0.43	3	0.11	0.062

	Income	0.63	3	0.07	0.041
	Newspaper use	0.49	3	0.15	0.086
	Participation	0.52	3	0.03	0.017
	Radio use	0.61	3	0.18	0.105
	TV frequency	0.11	3	0.13	0.074
	TV use	0.40	3	0.05	0.028
	Total	0.47	27	0.26	0.051
Party placement	Age	0.09	4	0.08	0.038
	College Degree	1.41	4	0.37	0.186
	Gender	0.21	4	0.11	0.053
	Income	0.62	4	0.15	0.076
	Newspaper use	0.50	4	0.11	0.057
	Participation	0.49	4	0.13	0.063
	Radio use	0.63	4	0.23	0.114
	TV frequency	0.23	4	0.15	0.074
	TV use	0.53	4	0.06	0.028
	Total	0.52	36	0.40	0.066
Russian president	Age	0.38	2	0.13	0.092
	College Degree	1.44	2	0.32	0.224
	Gender	0.76	2	0.38	0.272
	Income	0.92	2	0.00	0.002
	Newspaper use	1.00	2	0.34	0.244
	Participation	0.63	2	0.10	0.071
	Radio use	0.74	2	0.04	0.032
	TV frequency	0.44	2	0.08	0.060
	TV use	0.82	2	0.06	0.044
	Total	0.79	18	0.35	0.081
Self-placement	Age	0.18	4	0.05	0.025
	College Degree	1.91	4	0.42	0.209
	Gender	0.38	4	0.07	0.033
	Income	0.90	4	0.10	0.052
	Newspaper use	0.79	4	0.18	0.092
	Participation	0.83	4	0.22	0.111
	Radio use	0.94	4	0.34	0.170
	TV frequency	0.32	4	0.22	0.108
	TV use	0.68	4	0.07	0.036
	Total	0.77	36	0.52	0.087
Senate majority	Age	0.22	1	.	.
	College Degree	1.00	1	.	.

	Gender	0.98	1	.	.
	Income	0.72	1	.	.
	Newspaper use	1.10	1	.	.
	Participation	0.84	1	.	.
	Radio use	0.89	1	.	.
	TV frequency	0.30	1	.	.
	TV use	0.67	1	.	.
	Total	0.75	9	0.31	0.102
Services—candidate	Age	0.10	4	0.06	0.029
	College Degree	0.88	4	0.16	0.081
	Gender	0.30	4	0.12	0.060
	Income	0.55	4	0.09	0.046
	Newspaper use	0.59	4	0.11	0.055
	Participation	0.51	4	0.14	0.069
	Radio use	0.58	4	0.16	0.078
	TV frequency	0.15	4	0.12	0.058
	TV use	0.46	4	0.07	0.033
	Total	0.46	36	0.25	0.042
Services—party	Age	0.12	4	0.10	0.049
	College Degree	1.01	4	0.14	0.070
	Gender	0.38	4	0.10	0.052
	Income	0.66	4	0.05	0.025
	Newspaper use	0.59	4	0.16	0.079
	Participation	0.52	4	0.11	0.053
	Radio use	0.54	4	0.20	0.102
	TV frequency	0.18	4	0.11	0.053
	TV use	0.50	4	0.08	0.041
	Total	0.50	36	0.27	0.046
Vice president	Age	0.36	3	0.18	0.105
	College Degree	1.31	3	0.54	0.312
	Gender	0.32	3	0.14	0.080
	Income	0.78	3	0.34	0.198
	Newspaper use	0.97	3	0.07	0.038
	Participation	0.85	3	0.20	0.115
	Radio use	0.62	3	0.18	0.104
	TV frequency	0.64	3	0.33	0.188
	TV use	1.01	3	0.34	0.198
	Total	0.76	27	0.39	0.075

Figure A1. Average differential item functioning by grouping variable, 1992-2004.



Note: Open-ended objective knowledge items are shaded black. *Total* panel averages across all grouping variables and all years. Source: Table A3.