

Online Appendix

Stability and Change in Political Trust: Evidence and implications from six panel studies

Daniel Devine

Career Development Fellow, St Hilda's College, University of Oxford

daniel.devine@st-hildas.ox.ac.uk

Viktor Orri Valgarsson

Leverhulme Early Career Fellow, University of Southampton

v.o.valgardsson@soton.ac.uk

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1 Summary statistics (BES, LISS, SHP)

1.1 Basic summary statistics

Table A1: Summary statistics: BES

	Unique (#)	Missing (%)	Mean	SD	Min	Median	Max
Trust	8	38	3.0	1.5	1.0	3.0	7.0
Age	91	0	52.0	16.3	16.0	54.0	119.0
Education	4	15	2.3	0.7	1.0	2.0	3.0
Work status	5	0	2.1	1.2	1.0	1.0	4.0
Income	9	24	5.1	3.1	1.0	4.0	10.0
Left-Right	12	25	5.0	2.4	0.0	5.0	10.0
Political interest	4	22	2.3	0.7	1.0	2.0	3.0
Sex	3	0	1.5	0.5	1.0	2.0	2.0

Table A2: Summary statistics: LISS

	Unique (#)	Missing (%)	Mean	SD	Min	Median	Max
Trust	11	0	4.8	2.0	0.0	5.0	10.0
Age	87	0	49.8	17.5	16.0	51.0	102.0
Education	4	0	2.0	0.4	1.0	2.0	3.0
Work status	5	0	2.1	1.2	1.0	1.0	4.0
Income	11	41	3.7	2.6	1.0	3.0	10.0
Left-Right	12	14	5.2	2.2	0.0	5.0	10.0
Political interest	3	0	2.0	0.6	1.0	2.0	3.0
Sex	3	0	1.5	0.5	1.0	2.0	2.0

Table A3: Summary statistics: SHP

	Unique (#)	Missing (%)	Mean	SD	Min	Median	Max
Trust	12	62	5.7	2.1	0.0	6.0	10.0
Age	103	0	40.2	22.4	0.0	42.0	101.0
Education	4	7	1.9	0.8	1.0	2.0	3.0
Work status	5	22	1.9	1.0	1.0	2.0	4.0
Income	11	47	5.5	2.9	1.0	5.0	10.0
Left-Right	12	47	4.8	2.1	0.0	5.0	10.0
Political interest	4	39	2.0	0.7	1.0	2.0	3.0
Sex	2	0	1.5	0.5	1.0	2.0	2.0

1.2 Within-between variation of chosen variables

1.2.1 Variation in trust

variable	variation	mean	std	min	max	obs
LISS	overall	4.8	2.03	0.00	10.00	N = 68814
	between		1.78	0.00	10.00	n = 14239
	within		1.12	-1.80	12.40	T-bar = 7.78
BES	overall	3.03	1.53	1.00	7.00	N = 394628
	between		1.33	1.00	7.00	n = 90714
	within		0.83	-1.88	8.63	T-bar = 6.77
SHP	overall	5.7	2.15	0.00	10.00	N = 95475
	between		1.96	0.00	10.00	n = 19584
	within		1.26	-2.63	13.60	T-bar = 8.52

1.2.2 Variation in explanatory variables

variable	variation	mean	std	min	max	obs
LISS	overall	2.01	0.43	1.00	3.00	N = 68566
	between		0.44	1.00	3.00	n = 14200
	within		0.14	0.34	3.51	T-bar = 7.77
BES	overall	2.32	0.68	1.00	3.00	N = 540411
	between		0.65	1.00	3.00	n = 91314
	within		0.18	0.43	4.18	T-bar = 10.05
SHP	overall	1.95	0.76	1.00	3.00	N = 235369
	between		0.73	1.00	3.00	n = 33463
	within		0.23	0.05	3.85	T-bar = 11.83

variable	variation	mean	std	min	max	obs
LISS	overall	3.73	2.61	1.00	10.00	N = 40524
	between		1.49	1.00	9.00	n = 9308
	within		2.19	-2.27	9.43	T-bar = 7.14
BES	overall	5.09	3.07	1.00	10.00	N = 482608
	between		2.97	1.00	10.00	n = 81220
	within		1.10	-3.27	13.59	T-bar = 10.05
SHP	overall	5.49	2.88	1.00	10.00	N = 135636
	between		2.72	1.00	10.00	n = 21677
	within		1.25	-2.88	13.12	T-bar = 11.04

2 Correlations across waves (all panels)

2.1 Correlations of trust over time

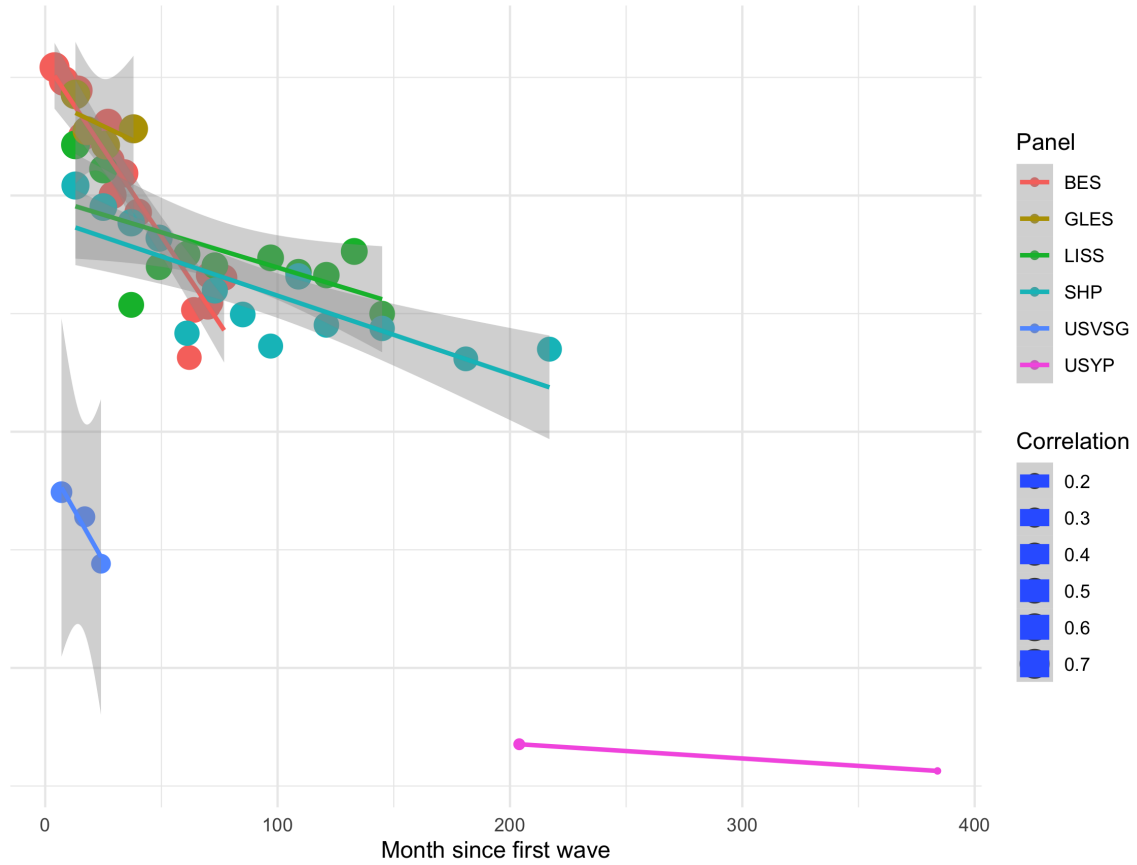


Figure A1: Correlation between first and subsequent waves in 6 panel studies, 1965 – 2020

Table A4: Correlations across waves: BES

	1	4	8	14	15	16	27	28	29	34	39	40	41	52	62
1	1.00	0.71	0.70	0.69	NA	0.65	0.66	0.63	0.60	0.62	NA	0.59	NA	NA	0.46
4	0.71	1.00	0.70	0.70	NA	0.65	0.66	0.64	0.61	0.62	NA	0.59	NA	NA	0.50
8	0.70	0.70	1.00	0.71	NA	0.66	0.67	0.62	0.62	0.63	NA	0.61	NA	NA	0.49
14	0.69	0.70	0.71	1.00	NA	0.70	0.67	0.63	0.63	0.65	NA	0.63	NA	NA	0.48
15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
16	0.65	0.65	0.66	0.70	NA	1.00	0.68	0.64	0.63	0.66	NA	0.65	NA	NA	0.48
27	0.66	0.66	0.67	0.67	NA	0.68	1.00	0.72	0.68	0.69	NA	0.65	NA	NA	0.57
28	0.63	0.64	0.62	0.63	NA	0.64	0.72	1.00	0.74	0.67	NA	0.59	NA	NA	0.52
29	0.60	0.61	0.62	0.63	NA	0.63	0.68	0.74	1.00	0.69	NA	0.66	NA	NA	0.55
34	0.62	0.62	0.63	0.65	NA	0.66	0.69	0.67	0.69	1.00	NA	0.71	NA	NA	0.57
39	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
40	0.59	0.59	0.61	0.63	NA	0.65	0.65	0.59	0.66	0.71	NA	1.00	NA	NA	0.53
41	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
52	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
62	0.46	0.50	0.49	0.48	NA	0.48	0.57	0.52	0.55	0.57	NA	0.53	NA	NA	1.00
64	0.50	0.53	0.55	0.54	NA	0.54	0.58	0.58	0.59	0.58	NA	0.57	NA	NA	0.68
70	0.51	0.51	0.51	0.51	NA	0.49	0.55	0.58	0.53	0.55	NA	0.54	NA	NA	0.62
70.5	0.53	0.56	0.54	0.56	NA	0.55	0.57	0.59	0.59	0.60	NA	0.60	NA	NA	0.63
71	0.51	0.52	0.53	0.54	NA	0.58	0.57	0.54	0.60	0.63	NA	0.63	NA	NA	0.54
77	0.53	0.52	0.53	0.54	NA	0.56	0.57	0.50	0.59	0.61	NA	0.60	NA	NA	0.51

Table A5: Correlations across waves: SHP

	1	13	25	37	49	61	73	85	97	109	121	133	145	157	169
1	1.00	0.61	0.59	0.58	0.56	0.48	0.52	0.50	0.47	0.53	0.49	NA	0.49	NA	NA
13	0.61	1.00	0.64	0.61	0.58	0.54	0.56	0.54	0.49	0.54	0.51	NA	0.52	NA	NA
25	0.59	0.64	1.00	0.64	0.61	0.54	0.56	0.54	0.51	0.55	0.52	NA	0.51	NA	NA
37	0.58	0.61	0.64	1.00	0.66	0.59	0.60	0.57	0.55	0.59	0.56	NA	0.55	NA	NA
49	0.56	0.58	0.61	0.66	1.00	0.62	0.63	0.59	0.57	0.60	0.57	NA	0.56	NA	NA
61	0.48	0.54	0.54	0.59	0.62	1.00	0.64	0.62	0.59	0.55	0.55	NA	0.52	NA	NA
73	0.52	0.56	0.56	0.60	0.63	0.64	1.00	0.67	0.63	0.61	0.59	NA	0.58	NA	NA
85	0.50	0.54	0.54	0.57	0.59	0.62	0.67	1.00	0.66	0.59	0.60	NA	0.58	NA	NA
97	0.47	0.49	0.51	0.55	0.57	0.59	0.63	0.66	1.00	0.61	0.59	NA	0.57	NA	NA
109	0.53	0.54	0.55	0.59	0.60	0.55	0.61	0.59	0.61	1.00	0.66	NA	0.62	NA	NA
121	0.49	0.51	0.52	0.56	0.57	0.55	0.59	0.60	0.59	0.66	1.00	NA	0.65	NA	NA
133	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
145	0.49	0.52	0.51	0.55	0.56	0.52	0.58	0.58	0.57	0.62	0.65	NA	1.00	NA	NA
157	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
169	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
181	0.46	0.49	0.49	0.53	0.54	0.51	0.56	0.54	0.53	0.60	0.61	NA	0.65	NA	NA
193	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
205	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
217	0.47	0.48	0.50	0.51	0.52	0.48	0.55	0.52	0.52	0.56	0.57	NA	0.62	NA	NA
229	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table A6: Correlations across waves: LISS

	1	13	25	37	49	61	73	97	109	121	133	145
1	1.00	0.66	0.65	0.53	0.55	0.59	0.57	0.56	0.57	0.56	0.58	0.52
13	0.66	1.00	0.71	0.59	0.57	0.60	0.58	0.60	0.59	0.58	0.60	0.57
25	0.65	0.71	1.00	0.60	0.61	0.65	0.64	0.65	0.64	0.61	0.64	0.59
37	0.53	0.59	0.60	1.00	0.66	0.58	0.59	0.58	0.57	0.58	0.59	0.52
49	0.55	0.57	0.61	0.66	1.00	0.64	0.67	0.64	0.64	0.64	0.66	0.61
61	0.59	0.60	0.65	0.58	0.64	1.00	0.75	0.71	0.71	0.69	0.70	0.65
73	0.57	0.58	0.64	0.59	0.67	0.75	1.00	0.77	0.74	0.73	0.72	0.69
97	0.56	0.60	0.65	0.58	0.64	0.71	0.77	1.00	0.77	0.75	0.75	0.73
109	0.57	0.59	0.64	0.57	0.64	0.71	0.74	0.77	1.00	0.76	0.76	0.75
121	0.56	0.58	0.61	0.58	0.64	0.69	0.73	0.75	0.76	1.00	0.80	0.76
133	0.58	0.60	0.64	0.59	0.66	0.70	0.72	0.75	0.76	0.80	1.00	0.80
145	0.52	0.57	0.59	0.52	0.61	0.65	0.69	0.73	0.75	0.76	0.80	1.00

Table A7: Correlations across waves: GLES

	1	5	8	10	10.5	11	12	12.5	13	18	26	32	38	43	48
1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
5	NA	1.00	NA	NA	NA	NA	NA	NA	0.70	0.68	0.66	NA	0.68	NA	NA
8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
10.5	NA	NA	NA	NA	1.00	NA	NA	NA	0.69	0.65	0.64	NA	0.66	NA	NA
11	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
12.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
13	NA	0.70	NA	NA	0.69	NA	NA	NA	1.00	0.70	0.70	NA	0.70	NA	NA
18	NA	0.68	NA	NA	0.65	NA	NA	NA	0.70	1.00	0.69	NA	0.70	NA	NA
26	NA	0.66	NA	NA	0.64	NA	NA	NA	0.70	0.69	1.00	NA	0.72	NA	NA
32	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
38	NA	0.68	NA	NA	0.66	NA	NA	NA	0.70	0.70	0.72	NA	1.00	NA	NA
43	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
48	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table A8: Correlations across waves: USVSG

	trustgovt_2016	trustgovt_2017	trustgovt_2018	trustgovt_2019
trustgovt_2016	1.00	0.35	0.33	0.29
trustgovt_2017	0.35	1.00	0.45	0.43
trustgovt_2018	0.33	0.45	1.00	0.48
trustgovt_2019	0.29	0.43	0.48	1.00

Table A9: Correlations across waves: USYP

	trust65	trust82	trust97
trust65	1.00	0.14	0.11
trust82	0.14	1.00	0.25
trust97	0.11	0.25	1.00

2.2 Correlations of political interest over time

Table A10: Political interest correlations across waves: LISS

	1	13	25	37	49	61	73	97	109	121	133	145
1	1.00	0.62	0.61	0.60	0.58	0.57	0.57	0.58	0.57	0.57	0.57	0.53
13	0.62	1.00	0.64	0.64	0.61	0.59	0.59	0.58	0.59	0.57	0.56	0.53
25	0.61	0.64	1.00	0.65	0.64	0.62	0.62	0.59	0.62	0.60	0.59	0.54
37	0.60	0.64	0.65	1.00	0.69	0.66	0.66	0.64	0.65	0.64	0.62	0.58
49	0.58	0.61	0.64	0.69	1.00	0.68	0.66	0.63	0.63	0.65	0.59	0.58
61	0.57	0.59	0.62	0.66	0.68	1.00	0.68	0.64	0.65	0.65	0.61	0.58
73	0.57	0.59	0.62	0.66	0.66	0.68	1.00	0.65	0.66	0.66	0.62	0.59
97	0.58	0.58	0.59	0.64	0.63	0.64	0.65	1.00	0.66	0.67	0.65	0.62
109	0.57	0.59	0.62	0.65	0.63	0.65	0.66	0.66	1.00	0.70	0.66	0.63
121	0.57	0.57	0.60	0.64	0.65	0.65	0.66	0.67	0.70	1.00	0.69	0.64
133	0.57	0.56	0.59	0.62	0.59	0.61	0.62	0.65	0.66	0.69	1.00	0.65
145	0.53	0.53	0.54	0.58	0.58	0.58	0.59	0.62	0.63	0.64	0.65	1.00

Table A11: Political interest correlations across waves: BES

	1	4	8	14	15	16	27	28	29	34	39	40	41	52	62	64	70	70.5	71	77
1	1.00	0.72	0.72	0.69	NA	0.67	0.67	0.66	NA	0.66	0.65	NA	0.64	0.64	0.61	0.62	0.61	NA	0.62	0.61
4	0.72	1.00	0.74	0.71	NA	0.70	0.69	0.68	NA	0.68	0.67	NA	0.66	0.65	0.63	0.64	0.62	NA	0.63	0.62
8	0.72	0.74	1.00	0.71	NA	0.71	0.70	0.69	NA	0.68	0.67	NA	0.66	0.66	0.63	0.65	0.62	NA	0.65	0.62
14	0.69	0.71	0.71	1.00	NA	0.71	0.70	0.69	NA	0.69	0.69	NA	0.67	0.67	0.64	0.64	0.63	NA	0.65	0.62
15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
16	0.67	0.70	0.71	0.71	NA	1.00	0.70	0.70	NA	0.69	0.70	NA	0.70	0.68	0.65	0.66	0.65	NA	0.67	0.63
27	0.67	0.69	0.70	0.70	NA	0.70	1.00	0.76	NA	0.72	0.72	NA	0.70	0.69	0.67	0.69	0.66	NA	0.68	0.64
28	0.66	0.68	0.69	0.69	NA	0.70	0.76	1.00	NA	0.73	0.73	NA	0.72	0.70	0.68	0.68	0.67	NA	0.69	0.64
29	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
34	0.66	0.68	0.68	0.69	NA	0.69	0.72	0.73	NA	1.00	0.75	NA	0.72	0.71	0.68	0.69	0.68	NA	0.69	0.65
39	0.65	0.67	0.67	0.69	NA	0.70	0.72	0.73	NA	0.75	1.00	NA	0.75	0.72	0.70	0.70	0.71	NA	0.71	0.68
40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
41	0.64	0.66	0.66	0.67	NA	0.70	0.70	0.72	NA	0.72	0.75	NA	1.00	0.72	0.70	0.70	0.70	NA	0.73	0.68
52	0.64	0.65	0.66	0.67	NA	0.68	0.69	0.70	NA	0.71	0.72	NA	0.72	1.00	0.72	0.72	0.70	NA	0.72	0.69
62	0.61	0.63	0.63	0.64	NA	0.65	0.67	0.68	NA	0.68	0.70	NA	0.70	0.72	1.00	0.75	0.73	NA	0.73	0.71
64	0.62	0.64	0.65	0.64	NA	0.66	0.69	0.68	NA	0.69	0.70	NA	0.70	0.72	0.75	1.00	0.72	NA	0.74	0.71
70	0.61	0.62	0.62	0.63	NA	0.65	0.66	0.67	NA	0.68	0.71	NA	0.70	0.70	0.73	0.72	1.00	NA	0.75	0.71
70.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
71	0.62	0.63	0.65	0.65	NA	0.67	0.68	0.69	NA	0.69	0.71	NA	0.73	0.72	0.73	0.74	0.75	NA	1.00	0.73
77	0.61	0.62	0.62	0.62	NA	0.63	0.64	0.64	NA	0.65	0.68	NA	0.68	0.69	0.71	0.71	0.71	NA	0.73	1.00

Table A12: Political interest correlations across waves: SHP

	1	13	25	37	49	61	73	85	97	109	121	133	145	157	169	181	193	205	217	229
1	1.00	0.68	0.65	0.66	0.64	0.63	0.61	0.63	0.61	0.61	0.59	0.61	0.62	0.60	0.60	0.60	0.58	0.59	0.60	0.57
13	0.68	1.00	0.68	0.67	0.66	0.64	0.63	0.63	0.63	0.62	0.60	0.59	0.60	0.59	0.60	0.60	0.60	0.59	0.59	0.57
25	0.65	0.68	1.00	0.68	0.68	0.64	0.63	0.64	0.62	0.61	0.61	0.60	0.59	0.58	0.59	0.58	0.59	0.59	0.58	0.57
37	0.66	0.67	0.68	1.00	0.70	0.68	0.66	0.66	0.65	0.62	0.62	0.63	0.61	0.61	0.60	0.61	0.61	0.61	0.61	0.58
49	0.64	0.66	0.68	0.70	1.00	0.70	0.67	0.69	0.67	0.65	0.66	0.65	0.65	0.64	0.64	0.64	0.63	0.64	0.63	0.60
61	0.63	0.64	0.64	0.68	0.70	1.00	0.71	0.70	0.67	0.66	0.65	0.65	0.64	0.62	0.62	0.62	0.63	0.62	0.62	0.61
73	0.61	0.63	0.63	0.66	0.67	0.71	1.00	0.72	0.68	0.67	0.65	0.65	0.65	0.64	0.63	0.63	0.63	0.63	0.62	0.62
85	0.63	0.63	0.64	0.66	0.69	0.70	0.72	1.00	0.72	0.69	0.68	0.67	0.67	0.66	0.66	0.64	0.66	0.65	0.64	0.63
97	0.61	0.63	0.62	0.65	0.67	0.67	0.68	0.72	1.00	0.70	0.68	0.68	0.68	0.67	0.67	0.66	0.66	0.65	0.65	0.63
109	0.61	0.62	0.61	0.62	0.65	0.66	0.67	0.69	0.70	1.00	0.71	0.69	0.68	0.67	0.67	0.66	0.66	0.67	0.65	0.64
121	0.59	0.60	0.61	0.62	0.66	0.65	0.65	0.68	0.68	0.71	1.00	0.72	0.71	0.70	0.69	0.68	0.68	0.68	0.66	0.65
133	0.61	0.59	0.60	0.63	0.65	0.65	0.65	0.67	0.68	0.69	0.72	1.00	0.72	0.71	0.71	0.69	0.69	0.70	0.69	0.69
145	0.62	0.60	0.59	0.61	0.65	0.64	0.65	0.67	0.68	0.68	0.71	0.72	1.00	0.74	0.73	0.73	0.70	0.70	0.70	0.69
157	0.60	0.59	0.58	0.61	0.64	0.62	0.64	0.66	0.67	0.67	0.70	0.71	0.74	1.00	0.75	0.72	0.72	0.73	0.70	0.71
169	0.60	0.60	0.59	0.60	0.64	0.62	0.63	0.66	0.67	0.67	0.69	0.71	0.73	0.75	1.00	0.75	0.74	0.73	0.72	0.71
181	0.60	0.60	0.58	0.61	0.64	0.62	0.63	0.64	0.66	0.66	0.68	0.69	0.73	0.72	0.75	1.00	0.72	0.72	0.72	0.71
193	0.58	0.60	0.59	0.61	0.63	0.63	0.63	0.66	0.66	0.66	0.68	0.69	0.70	0.72	0.74	0.72	1.00	0.75	0.72	0.73
205	0.59	0.59	0.59	0.61	0.64	0.62	0.63	0.65	0.65	0.67	0.68	0.70	0.70	0.73	0.73	0.72	0.75	1.00	0.74	0.74
217	0.60	0.59	0.58	0.61	0.63	0.62	0.62	0.64	0.65	0.65	0.66	0.69	0.70	0.70	0.72	0.72	0.72	0.74	1.00	0.75
229	0.57	0.57	0.57	0.58	0.60	0.61	0.62	0.63	0.63	0.64	0.65	0.69	0.69	0.71	0.71	0.71	0.73	0.74	0.75	1.00

2.3 Mean changes across waves for different measures of trust (LISS)

Figure A2 shows mean absolute changes in trust responses across waves for five different measures of trust. Whilst trust in government changes slightly more in the first part of the period, the difference is small and dissipates over time. Similarly, trust in parliament is perhaps most stable overall whereas trust in the European Parliament is overall least stable, but the differences are of a magnitude of only about 0.02 (representing a mean change of about 0.2 on the original 0-10 scale). This supports the idea of relative stability, even across trust objects, although

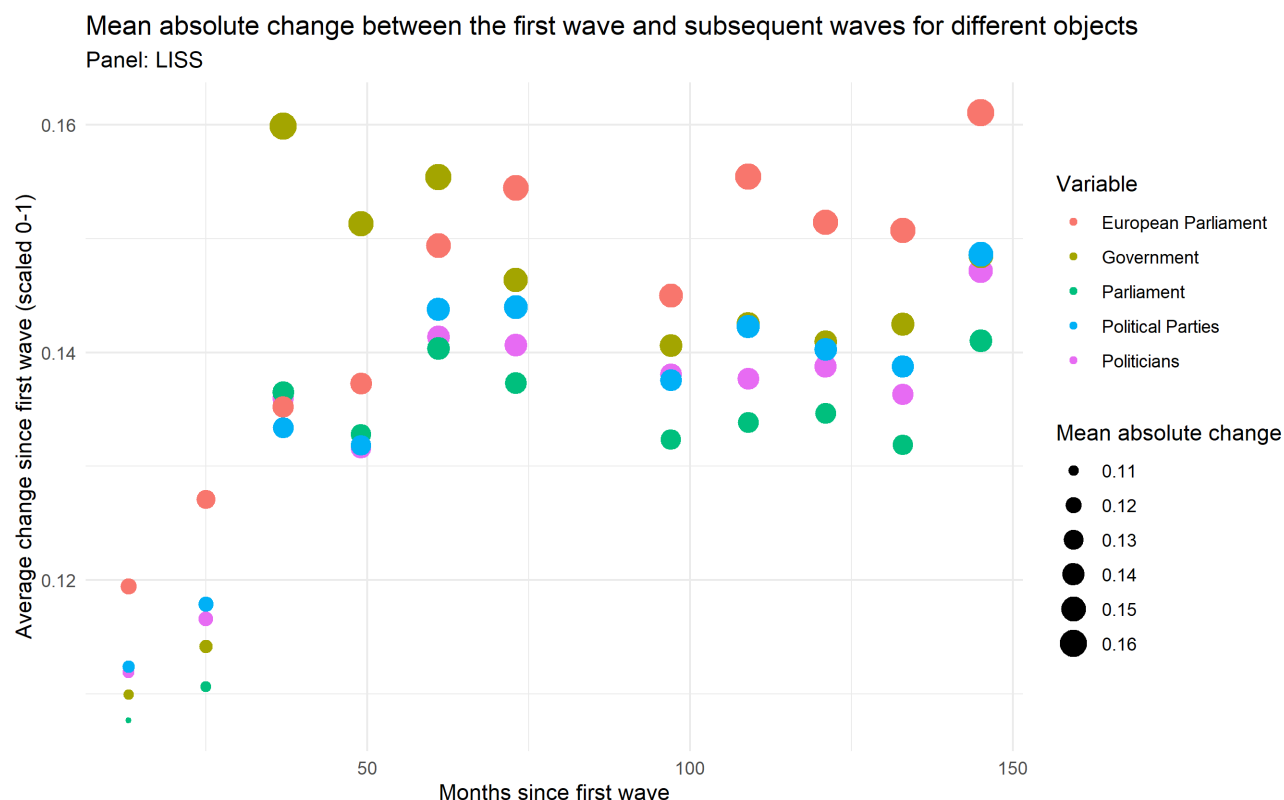


Figure A2: Mean change between first and subsequent waves for different confidence variables in LISS

3 Mean change by age in the SHP

In the main analysis, we saw that the US Youth Panel was an outlier (figures ?? and ??). We suggested this was likely primarily due to the first wave being conducted amongst teenagers and those attitudes are less stable than amongst adults. To explore this, we repeated the mean change analysis separating by age at the first wave in the SHP (Switzerland). We chose the SHP because it is the longest panel that also interviewed teenagers.

The results are in figure A3. This shows three comparisons: between those under and over 16, under and over 20, and under and over 25. What we see is far more volatility, increasing over time, when the respondent was interviewed in their youth, and this is particularly large for those under 16.

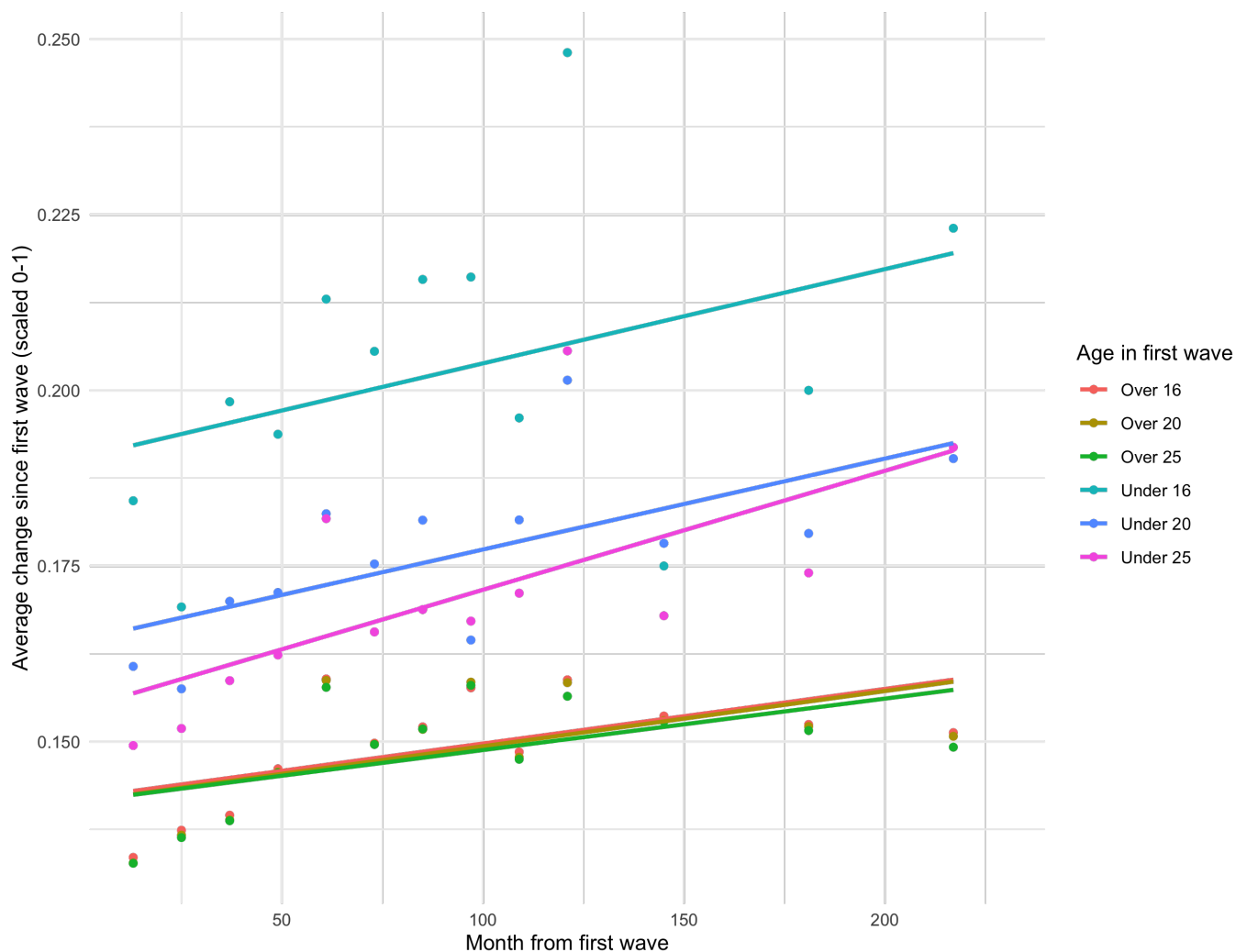


Figure A3: Mean change over time by age in first survey (SHP)

These results give us confidence that the volatility in the USYP is likely due to the age of inclusion, even if that is exacerbated by the genuine collapse in trust in the US from the 1960s. More importantly, this provides strong evidence in favour of the

socialisation effect for trust formation.

4 Latent growth models

Latent growth models (LGMs) allow us to parsimoniously quantify how much trust changes for each individual over time and compare it with variation between individuals. Given the requirement of relatively long panels, both in time and number of waves, we restrict this analysis to the LISS, BES and SHP panels.

As an indication of the variation between and within individuals within these panels, we decompose the variance into overall, between and within variation in table A13. There is greater variation between individuals than within them; around one third higher in each case.

Table A13: Decomposed variation of trust variables in three panels

panel	variation	mean	std	min	max	obs
LISS	overall	4.8	2.03	0.00	10.00	N = 68814
	between		1.78	0.00	10.00	n = 14239
	within		1.12	-1.80	12.40	T-bar = 7.78
BES	overall	3.03	1.53	1.00	7.00	N = 394628
	between		1.33	1.00	7.00	n = 90714
	within		0.83	-1.88	8.63	T-bar = 6.77
SHP	overall	5.7	2.15	0.00	10.00	N = 95475
	between		1.96	0.00	10.00	n = 19584
	within		1.26	-2.63	13.60	T-bar = 8.52

We present the relevant results of the latent growth models in figure A4. This figure shows the change in trust for all individuals in each sample in grey, with the red line indicating the mean change. Along the X axis is the number of waves, and on the Y axis the levels of trust on their respective original scales. Note that for the BES, we have kept only 10 waves as few respondents completed all waves, and the observations drop substantially after 10 completed waves.

Within all three countries, individuals *change* at similar rates. The variation in the rates of change is low (between 0.005 and 0.014), albeit statistically significant. However, individuals have very different *starting points*: the variation here is between 1.8 and 2.4. Individuals differ remarkably in their baseline levels of trust, but change minimally and very similarly over time.

Over time, individuals are likely to provide consistent answers to questions about how much they trust political institutions or actors. Even over very long periods of time, people are likely to provide much the same answer today as they did when they were first asked long ago. Moreover, there is minimal variation in individuals' rates of change, suggesting that most people change in similar ways. Overall, whilst there are clearly those who *do* change trust judgements substantially, the majority of respondents display consistent and stable responses.

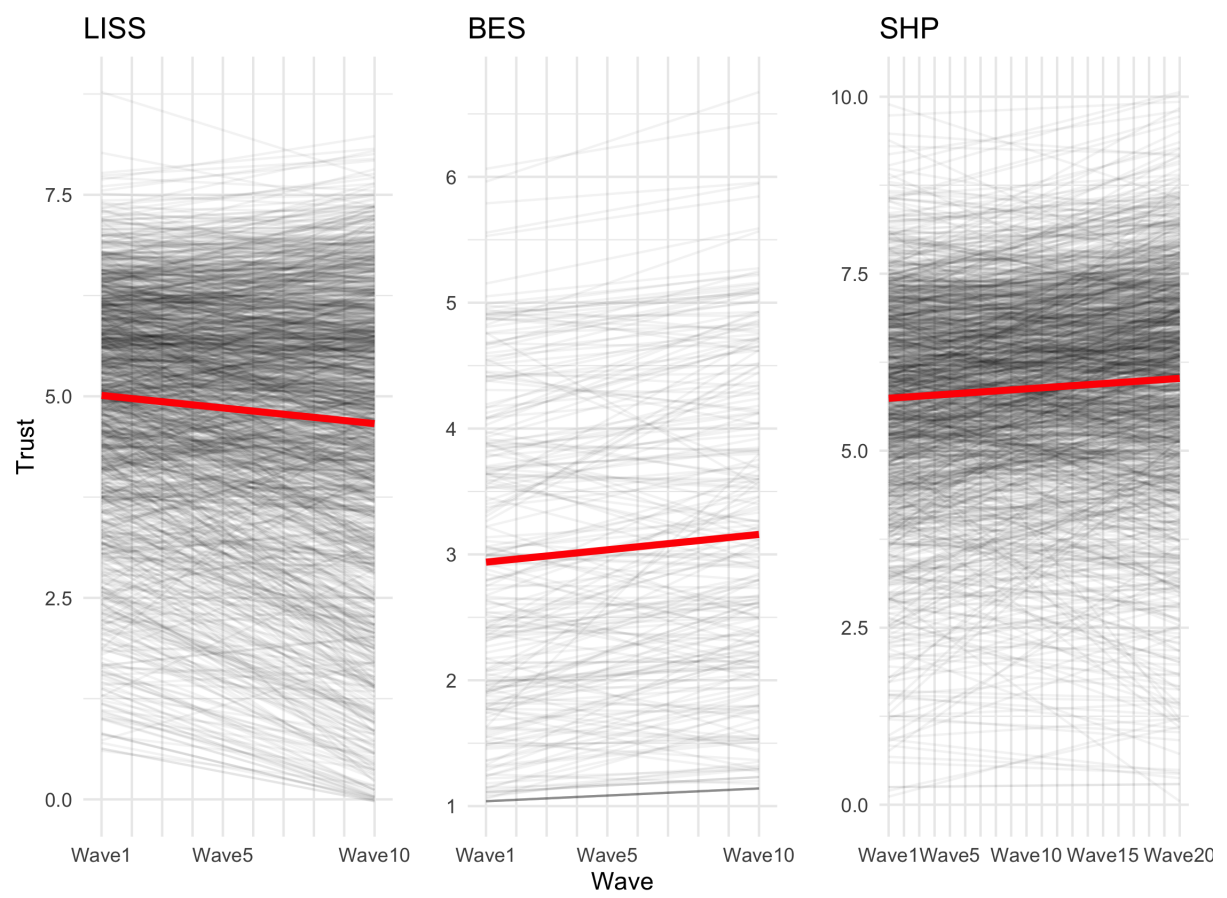


Figure A4: The rate of change in three panel studies

5 Robustness tests for within-between models

Alternative models

Table A14 presents models pooling the within-between effects with standard errors clustered by individual (and household for the SHP) and with fixed effects (for individual and individual and house for the SHP). There are multiple potential reasons why the fixed effects differ from those that are presented. The ones presented had random instead of fixed effects and, importantly, take into account individuals changing differently over time (i.e., a random slope on time). In addition, the below models do not include wave (time) as a fixed effect, but as standard errors. Still, the results do not substantially alter our conclusions. For instance, gaining University education in the BES is associated with a 0.043 increase on a 0-1 scale, or 4%; the coefficient for the pooled model is 0.07 (7%), which is similar to the between-effect in the models presented in the main text. As such, our broader conclusions remain even if the point estimate changes between estimation strategies.

Table A14: Pooled and fixed-effects OLS models predicting political trust

	Political trust					
	LISS	SHP	BES	LISS (FEs)	SHP (FEs)	BES (FEs)
	(1)	(2)	(3)	(4)	(5)	(6)
Age	-0.001*	-0.00005	-0.0003	-0.004***	0.001	-0.009*
	(0.001)	(0.0004)	(0.001)	(0.001)	(0.002)	(0.005)
Education: Medium	0.026	0.017*	0.027	0.008	-0.019***	0.016
	(0.022)	(0.009)	(0.019)	(0.020)	(0.007)	(0.015)
Education: University	0.088***	0.029***	0.072***	0.017	-0.027***	0.043**
	(0.028)	(0.010)	(0.021)	(0.019)	(0.008)	(0.019)
Work status: Student	-0.008	0.050***	-0.016	-0.0002	0.018**	0.019
	(0.020)	(0.014)	(0.053)	(0.015)	(0.009)	(0.028)
Work status: Retired	0.028**	0.037***	0.003	0.001	0.018***	0.006
	(0.014)	(0.009)	(0.014)	(0.007)	(0.003)	(0.009)
Work status: Unemployed/Other	-0.012	-0.003	-0.031*	0.001	0.008**	-0.001
	(0.014)	(0.009)	(0.016)	(0.008)	(0.004)	(0.012)
Income	-0.001	0.001	0.001	0.001	0.0002	-0.001
	(0.001)	(0.001)	(0.002)	(0.0005)	(0.001)	(0.001)
Left right	0.002	0.001	0.012***	0.005***	0.003***	0.009***
	(0.003)	(0.002)	(0.003)	(0.002)	(0.001)	(0.003)
Political interest: Fairly interested	0.053***	0.041***	0.126***	0.018***	0.017***	0.042***
	(0.012)	(0.007)	(0.023)	(0.004)	(0.004)	(0.012)
Political interest: Very interested	0.039**	0.056***	0.152***	0.009	0.028***	0.044***
	(0.016)	(0.010)	(0.024)	(0.007)	(0.006)	(0.013)
Female	0.021*	0.005	0.038***			
	(0.011)	(0.007)	(0.013)			
Constant	0.433***	0.502***	0.064			
	(0.044)	(0.029)	(0.050)			
Observations	9,733	30,931	8,426	9,733	30,931	8,426
R ²	0.023	0.017	0.049	0.687	0.618	0.634

Note:

*p<0.1; **p<0.05; ***p<0.01
Cols 1-3, Standard errors clustered by individual and wave; Cols 4-6 fixed effects

Table A15 presents results from models with a random slope for time (Cols 1-3) and those without (4-6). Cols 1-3 are the ones that are presented in the main text. ANOVA tests (included in the replication code) indicate that the simpler models are a better fit, however, for theoretical reasons (i.e., we do expect that individuals change differently

over time, particularly given the LGM results) we keep the more complex models. That said, table [A15](#) indicates our results do not change if we opt for the simpler model. The only result that changes meaningfully is the coefficient for 'University: Within' in the BES, which is significant and slightly stronger ($p = 0.1$, $\beta = 0.017$, rather than 0.014) in the simpler model. However, this change in coefficient is minimal and at a weak level of significance. All other results are consistent.

Model convergence

These complex models often pose convergence problems. This is the case for these models. To check that this does not pose issues for the results, the replication code checks for i) singularity ii) gradient and iii) variation across optimisers. There are no concerns raised by these robustness tests, and across most optimisers, convergence is achieved with identical results.

Table A15: Comparing models with a random slope for time and without

	Political trust					
	LISS	SHP	BES	LISS	SHP	BES
	(1)	(2)	(3)	(4)	(5)	(6)
Age: Within	0.008*	−0.007**	−0.052***	0.008*	−0.006*	−0.049***
	(0.004)	(0.003)	(0.004)	(0.005)	(0.003)	(0.004)
Age: Between	−0.001*	−0.0004	−0.0001	−0.001	−0.0004	−0.0001
	(0.001)	(0.0004)	(0.001)	(0.001)	(0.0004)	(0.001)
Income: Within	0.0004	−0.0002	0.001	0.001	0.0002	0.0002
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Income: Between	0.003	0.001	0.002	0.003	0.001	0.002
	(0.005)	(0.002)	(0.003)	(0.005)	(0.002)	(0.003)
Medium Educ: Within	0.011	−0.016**	−0.001	0.011	−0.013*	−0.003
	(0.022)	(0.008)	(0.008)	(0.020)	(0.008)	(0.008)
Medium Educ: Between	0.035	0.016*	0.022	0.041*	0.016*	0.022
	(0.024)	(0.009)	(0.017)	(0.025)	(0.009)	(0.017)
University: Within	0.015	−0.021**	0.017*	0.022	−0.017*	0.014
	(0.031)	(0.010)	(0.010)	(0.027)	(0.009)	(0.009)
University: Between	0.080***	0.029***	0.067***	0.100***	0.030***	0.065***
	(0.029)	(0.010)	(0.018)	(0.030)	(0.010)	(0.018)
Student: Within	−0.014	0.008	0.049*	−0.004	0.008	0.055**
	(0.019)	(0.008)	(0.027)	(0.017)	(0.008)	(0.025)
Student: Between	−0.019	0.057**	−0.154	−0.001	0.058***	−0.151
	(0.068)	(0.023)	(0.134)	(0.069)	(0.022)	(0.134)
Retired; Within	−0.006	0.019***	0.010	0.001	0.018***	0.010
	(0.008)	(0.004)	(0.009)	(0.007)	(0.004)	(0.008)
Retired: Between	0.044**	0.050***	0.011	0.037*	0.049***	0.010
	(0.021)	(0.016)	(0.019)	(0.021)	(0.016)	(0.019)
Unemployed; Within	−0.003	0.008**	0.007	0.0004	0.007*	0.005
	(0.007)	(0.004)	(0.009)	(0.007)	(0.004)	(0.009)
Unemployed: Between	−0.009	−0.002	−0.047*	−0.017	−0.001	−0.049**
	(0.017)	(0.015)	(0.025)	(0.018)	(0.015)	(0.024)
Left-right: Within	0.006***	0.003***	0.008***	0.005***	0.003***	0.008***
	(0.001)	(0.001)	(0.002)	(0.001)	(0.001)	(0.002)
Left-right: Between	0.004	0.0001	0.013***	0.002	0.0002	0.013***
	(0.003)	(0.002)	(0.003)	(0.003)	(0.002)	(0.003)
Fairly interested: Within	0.015***	0.015***	−0.021***	0.018***	0.016***	−0.020***
	(0.006)	(0.003)	(0.004)	(0.006)	(0.003)	(0.005)
Fairly Interested: Between	0.101***	0.082***	0.205***	0.101***	0.081***	0.208***
	(0.021)	(0.012)	(0.039)	(0.022)	(0.012)	(0.039)
Very interested: Within	0.008	0.024***	−0.026***	0.009	0.027***	−0.027***
	(0.007)	(0.004)	(0.004)	(0.007)	(0.004)	(0.004)
Very Interested: Between	0.083***	0.092***	0.256***	0.079***	0.092***	0.257***
	(0.024)	(0.012)	(0.036)	(0.024)	(0.012)	(0.036)
Sex	0.020*	0.010	0.030**	0.026**	0.010	0.030**
	(0.011)	(0.007)	(0.013)	(0.011)	(0.007)	(0.013)
Wave	−0.013***	0.008**	0.015***	−0.013***	0.007**	0.014***
	(0.005)	(0.003)	(0.001)	(0.005)	(0.003)	(0.001)
Constant	0.450***	0.414***	−0.132**	0.435***	0.421***	−0.123**
	(0.062)	(0.039)	(0.056)	(0.064)	(0.039)	(0.055)
Observations	9,736	30,938	12,087	9,736	30,938	12,087

Note:

*p<0.1; **p<0.05; ***p<0.01

Cols 1-3, with time slope; Cols 4-6 without time slope

6 Brexit effect in Britain

Britain shows the most volatility of our three core panels, so we turn our focus to that case in figure A5. We separate the sample by reported (intended and recalled) ‘Leave’ and ‘Remain’ vote in the 2016 Brexit referendum, a principle if not fundamental divide in Britain during this period. We overlay three key events: the referendum, the 2017 General Election, and the 2019 General Election. Unfortunately, there is a gap in the time series where trust was not asked. Still, we can see that there is considerable volatility and change: the average trust levels of Leave voters increased approximately 2 points, from 1.25 to 3.25, between just 4 waves (March 2019 to December 2019). This period was marked by the failure of the Government’s European Union withdrawal bill in Parliament in March 2019, Boris Johnson’s Conservative Party’s election victory in December, and the guarantee of leaving the EU in the following January, followed by the onset of the Covid-19 pandemic. This indicates that political trust has responded to the political turmoil of this period in Britain, but it remains to be seen how permanent those effects may be - indeed, despite these group differences, the average trust levels at the beginning and end of the period are not dissimilar (around 3.1 and 3.0, respectively).

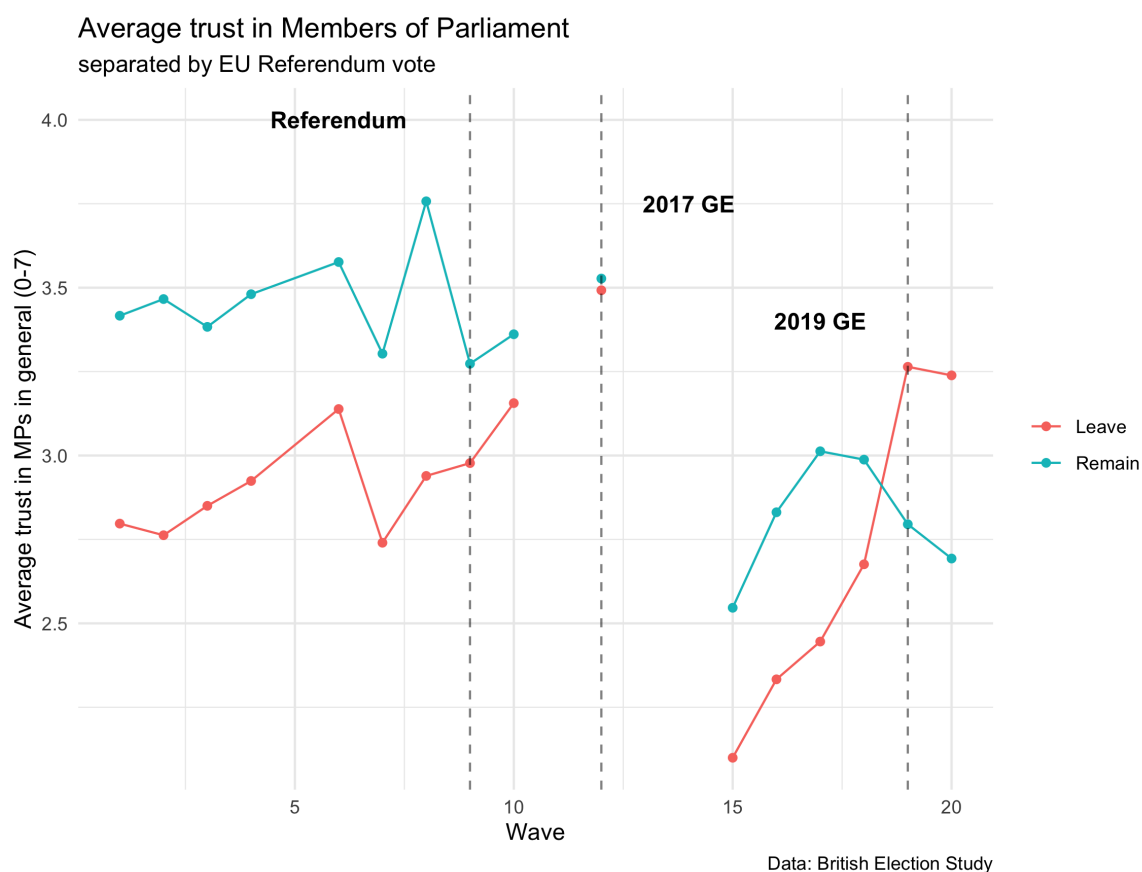


Figure A5: Impact of Brexit on political trust