

ESS party linking

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2023-11-03

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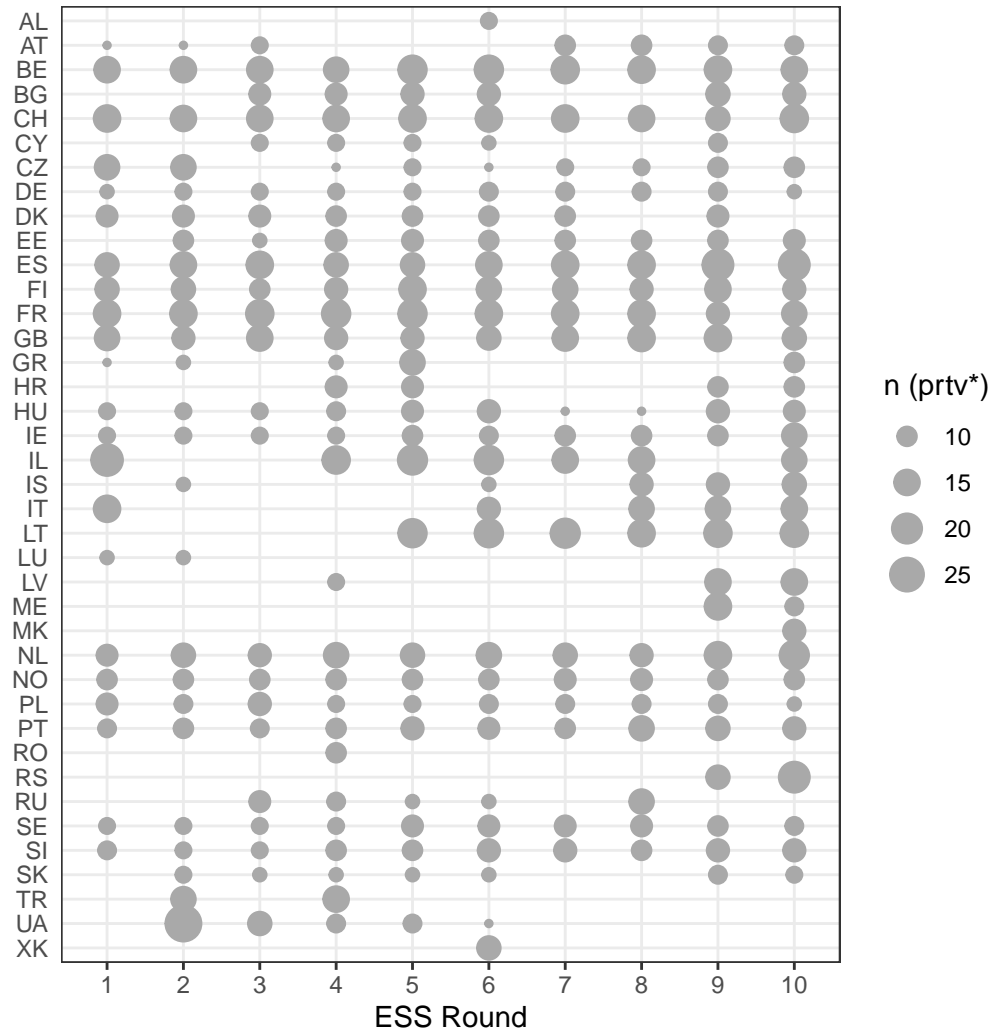
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ESS party linking

Supplementary information for:

- Bederke, P. and Döring, H. (2023) “Harmonizing and linking party information: The ESS as an example of complex data linking”. Zenodo (preprint). doi: [10.5281/zenodo.10061173](https://doi.org/10.5281/zenodo.10061173)
- Bederke, P. and Döring, H. (2023) “Linking European Social Survey (ESS) party information”. Zenodo (software). doi: [10.5281/zenodo.8421232](https://doi.org/10.5281/zenodo.8421232)

Note — pdf-version of notebook, see also html-version with Tidyverse-R code used to create content



1 ESS data sources

Information on ESS data sources used – see also section “ESS party data structure” in manuscript.

1.1 ESS data sources

ESS data sets from europeansocialsurvey.org/data

DOI references

- ESS Round 1 – https://doi.org/10.21338/ess1e06_6
- ESS Round 2 – https://doi.org/10.21338/ess2e03_6
- ESS Round 3 – https://doi.org/10.21338/ess3e03_7
- ESS Round 4 – https://doi.org/10.21338/ess4e04_5
- ESS Round 5 – https://doi.org/10.21338/ess5e03_4
- ESS Round 6 – https://doi.org/10.18712/ess6e02_5
- ESS Round 7 – https://doi.org/10.21338/ess7e02_2
- ESS Round 8 – https://doi.org/10.21338/ess8e02_2
- ESS Round 9 – https://doi.org/10.21338/ess9e03_1
- ESS Round 10 – https://doi.org/10.21338/ess10e03_1
- ESS Round 10 – https://doi.org/10.21338/ess10sce03_0 (self-completion)

Data files are imported into R with [readstata13](#)

Round	ESS_file	hash
1	ESS1e06_6.dta	c61f508eb0f5b60e038be2d5793a9fd
2	ESS2e03_6.dta	1ddea926b393d16417856e1135b29d67
3	ESS3e03_7.dta	f3922c40bf5f37d0d5f1f1553a180898
4	ESS4e04_5.dta	f9455c929ace50fd3ab71a9ec9fd51a4
5	ESS5e03_4.dta	88c340e6a63d88bd7b1e42a2ded830de
6	ESS6e02_5.dta	eb508dfaec9f896851db7cc0de1cc1e9
7	ESS7e02_2.dta	0d413a5724618ff7ec373a48edbf5f0e
8	ESS8e02_2.dta	b1ab85d0a22aa17306e908095269e4dd
9	ESS9e03_1.dta	536f541f23064fd0b46ed7fd8b1e932a
10	ESS10.dta	533b89b4ebda6f58d5aef181b2c42c9b

Round	ESS_file	hash
10	ESS10SC.dta	975db0389d844e25aa669c3d2da4f7ac

Note — The ESS-10 is released with two data files, one for the standard face-to-face interviews and another file for countries with self-completion mode due to the COVID-19 restrictions.

1.2 ESS rounds

Summary of ESS rounds

- **n** – number of responses
- **n_countries** – number of countries in ESS round
- **inw_first** and **inw_last** – first and last interview

essround	n	n_countries	inw_first	inw_last
1	42359	22	2002	2003
2	47537	25	2004	2006
3	43000	23	2006	2007
4	56752	29	2008	2010
5	52458	27	2010	2012
6	54673	29	2012	2013
7	40185	21	2014	2015
8	44387	23	2016	2017
9	49519	29	2018	2020
10	58810	30	2020	2022

1.3 Countries

essround	n	countries
1	22	AT, BE, CH, CZ, DE, DK, ES, FI, FR, GB, GR, HU, IE, IL, IT, LU, NL, NO, PL, PT, SE, SI
2	25	AT, BE, CH, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, LU, NL, NO, PL, PT, SE, SI, SK, TR, UA
3	23	AT, BE, BG, CH, CY, DE, DK, EE, ES, FI, FR, GB, HU, IE, NL, NO, PL, PT, RU, SE, SI, SK, UA
4	29	BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IL, LV, NL, NO, PL, PT, RO, RU, SE, SI, SK, TR, UA

essround	n	countries
5	27	BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IL, LT, NL, NO, PL, PT, RU, SE, SI, SK, UA
6	29	AL, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, HU, IE, IL, IS, IT, LT, NL, NO, PL, PT, RU, SE, SI, SK, UA, XK
7	21	AT, BE, CH, CZ, DE, DK, EE, ES, FI, FR, GB, HU, IE, IL, LT, NL, NO, PL, PT, SE, SI
8	23	AT, BE, CH, CZ, DE, EE, ES, FI, FR, GB, HU, IE, IL, IS, IT, LT, NL, NO, PL, PT, RU, SE, SI
9	29	AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, HR, HU, IE, IS, IT, LT, LV, ME, NL, NO, PL, PT, RS, SE, SI, SK
10	30	AT, BE, BG, CH, CZ, DE, EE, ES, FI, FR, GB, GR, HR, HU, IE, IL, IS, IT, LT, LV, ME, MK, NL, NO, PL, PT, RS, SE, SI, SK

2 prt* party variables

Information on ESS party IDs from “party-voted-for” (prtc*) and “party-close-to” (prtc*) questions – see also section “ESS party data structure” in manuscript.

2.1 prt* variables

All ESS rounds include two types of survey questions with party information.

- **prtv*** — “Party voted for in last national election, [country]?”
- **prtc*** — “Which party feel closer to, [country]?”

essround	n	n_countries	n_prtv	n_prtc
1	42359	22	251	248
2	47537	25	281	274
3	43000	23	248	251
4	56752	29	309	296
5	52458	27	321	302
6	54673	29	331	331
7	40185	21	258	252
8	44387	23	283	271
9	49519	29	363	374
10	58810	30	380	390

2.2 ESS-9 example

We use the ESS-9 integrated file to describe the structure of the *prt** variables in ESS data files.

Each ESS round uses country level variables for the **prt*** variables (e.g. *prtvcat* — party-voted-for Austria ESS-9).

These **prt*** variables include the following elements:

- starting with **prt**

- indicating the type of *pvt* variable
 - **v** — “party-voted-for”
 - **c** — “party-close-to”
- two character **country** code
- electoral tier number for Germany and Lithuania (*pvt** only)

ESS-9 **pvt*** variables by country

Examples for the first four countries in ESS-9

cntry	n	variables
AT	2	prtclcat, prtvtcat
BE	2	prtcldbe, prtvtdbe
BG	2	prtcldbg, prtvtdbg
CH	2	prtclgch, prtvtgch
CY	2	prtclbcy, prtvtbcy

Germany and Lithuania include multiple *pvt** variables asking for voting decisions in each electoral tier. These variables include a number for the tier in the variable name.

We use the national tier (“*prtvede2*”, “*prtvblt1*”) as the primary “party-voted-for” variable.

cntry	variable
DE	prtvede1
DE	prtvede2
LT	prtvblt1
LT	prtvblt2
LT	prtvblt3

2.3 *pvt** ID differences

ESS may use different IDs across ESS rounds

e.g. Netherlands *pvt** rounds 1–10

essround	id_4	id_5	id_6
1	List Pim Fortuyn	Democrats '66	Green Left
2	List Pim Fortuyn	Democrats '66	Green Left
3	List Pim Fortuyn	Democrats '66	Green Left

essround	id_4	id_5	id_6
	4	List Pim Fortuyn	Democrats '66
	5	Christian Democratic Appeal	Green Left
	6	Christian Democratic Appeal	Democrats '66
	7	Socialist Party	Democrats '66
	8	Socialist Party	Christian Democratic Appeal
	9	Socialist Party	Christian Democratic Appeal
	10	Socialist Party	Christian Democratic Appeal

2.4 prt看*/prt看* ID differences

ESS party IDs may differ between the *prt看** and *prt看** variables.

Examples from six countries in ESS-9

cntry	essround	party_id	prt看_party	prt看_party
BG	9	2	Balgarska sotsialisticheska partiya (BSP)	Dvizhenie za prava i svobodi (DPS)
FI	9	10	Green League	Independence Party
LT	9	2	Homeland Union - Lithuanian Christian Democrats (TS-LKD)	Lithuanian Peasant and Greens Union (LVZS)
PL	9	3	Nowoczesna	Platforma Obywatelska
PT	9	17	Votou em branco/ nulo	CDS-PP
SK	9	5	LS Naše Slovensko	Christian Democratic Movement (KDH)

3 Party Facts harmonization

Information on Party Facts ESS party IDs harmonization – see also sections “Linking data sets with Party Facts” and “ESS party data structure” in manuscript.

3.1 ESS party IDs

Party Facts (PF) harmonizes ESS party IDs by creating a unique ESS party id (*“first_ess_id”*) for all ESS rounds. — see [PF GitHub](#) // *essprtv*

pvt_variable	n_ess_parties	n_harmonized
pvtv	3304	961
pvtc	2979	864

3.2 Parties per country

Number of ESS party IDs and harmonized IDs in ESS rounds by country (*pvtv* and *pvtc*)

cntry	n_essrounds	n_ess_parties	n_harmonized
AL	1	17	17
AT	7	114	26
BE	10	305	48
BG	6	149	74
CH	10	302	55
CY	5	77	21
CZ	9	169	44
DE	10	245	31
DK	8	167	26
EE	9	172	45
ES	10	307	77
FI	10	258	48
FR	10	303	61
GB	10	274	42

centry	n_essrounds	n_ess_parties	n_harmonized
GR	5	86	41
HR	4	101	52
HU	10	197	53
IE	10	185	37
IL	7	234	80
IS	5	97	36
IT	5	141	84
LT	6	412	151
LU	2	28	14
LV	3	74	43
ME	2	55	37
MK	1	26	26
NL	10	269	49
NO	10	202	24
PL	10	197	65
PT	10	208	51
RO	1	19	19
RS	2	80	60
RU	5	107	50
SE	10	189	23
SI	10	202	38
SK	7	106	34
TR	2	55	38
UA	5	128	79
XK	1	26	26

4 CHES left-right validation

ESS linking example – see also sections “Expert survey validation” and “Performance of Party Facts linking” in manuscript.

4.1 CHES information

[Chapel Hill Expert Survey](#) (CHES) series

year	countries	parties
1999	14	142
2002	23	171
2006	24	188
2010	24	203
2014	28	245
2019	28	247

4.2 CHES and ESS

Number of countries and parties that are included in ESS and CHES for an ESS round.

essround	year	countries_n	parties_n	ches_year	ches_parties_n
1	2002	18	196	2002	131
2	2004	18	190	2002	128
3	2006	18	191	2006	132
4	2008	21	215	2006	143
5	2010	20	241	2010	157
6	2012	20	239	2010	151
7	2014	18	216	2014	138
8	2016	18	216	2014	133
9	2018	24	299	2014	184
10	2020	23	284	2019	169

Overview country coverage ESS and CHES trend file

- **ess_cntry** — number of countries in ESS round
- **ches_cntry** — number of ESS round countries in CHES
- **ches_missing** — names of ESS round countries not in CHES

essround	ess_cntry	ches_cntry	ches_missing
1	22	18	CH, IL, LU, NO
2	25	18	CH, EE, IS, LU, NO, TR, UA
3	23	18	CH, CY, NO, RU, UA
4	29	21	CH, CY, HR, IL, NO, RU, TR, UA
5	27	20	CH, CY, HR, IL, NO, RU, UA
6	29	20	AL, CH, CY, IL, IS, NO, RU, UA, XK
7	21	18	CH, IL, NO
8	23	18	CH, IL, IS, NO, RU
9	29	24	CH, IS, ME, NO, RS
10	30	23	CH, IL, IS, ME, MK, NO, RS

4.3 Country-year correlation

Country-year correlations for ESS and CHES left-right positions in each ESS round with at least 3 parties and 10 responses per party in a country.

ESS left-right party positions are calculated as mean values of **lrscale** variables for respondents that voted for the party (**prtv***).

- **lrscale** — self-placement on left right scale // ESS rounds
 - **prtv*** — “party-voted-for” in last national election // ESS rounds
 - **ches_lr** — left-right party position // CHES trend file
- **lrgen** — “position of the party in YEAR in terms of its overall ideological stance.”
// CHES trendfile

The table summarizes the country-year correlations by providing 0%, 10%, 25%, 50%, 75%, and 100% quantiles. The results are visualized in Figure 4.1.

ess_year	p0	p10	p25	p50	p75	p100
2002	0.82	0.87	0.94	0.95	0.99	1.00
2004	0.77	0.83	0.87	0.91	0.99	1.00
2006	0.63	0.86	0.89	0.93	0.98	1.00
2008	-0.35	0.79	0.90	0.94	0.98	1.00

ess_year	p0	p10	p25	p50	p75	p100
2010	0.45	0.78	0.91	0.96	0.97	0.99
2012	0.55	0.76	0.92	0.96	0.99	1.00
2014	0.73	0.83	0.88	0.91	0.95	0.98
2016	0.77	0.87	0.90	0.92	0.95	1.00
2018	0.26	0.81	0.90	0.93	0.98	1.00
2020	0.35	0.56	0.82	0.93	0.98	0.99

Lowest country-year correlation (-0.35) for ESS Romania 2008.

cntry	year	prtv	prtv_party	lr_n	lr_mean	ches_year	ches_lr
RO	2008	RO-4-1-v	PD-L	517	6.95	2006	NA
RO	2008	RO-4-12-v	Other: PIN	14	5.25	2006	NA
RO	2008	RO-4-2-v	Alianta PSD-PC	449	3.52	2006	NA
RO	2008	RO-4-3-v	PNL	165	7.06	2006	6.7
RO	2008	RO-4-4-v	PRM	31	4.54	2006	7.0
RO	2008	RO-4-5-v	UDMR	67	5.94	2006	6.0
RO	2008	RO-4-6-v	PNG-CD	15	6.75	2006	NA
RO	2008	RO-4-9-v	PNTCD	32	5.62	2006	NA

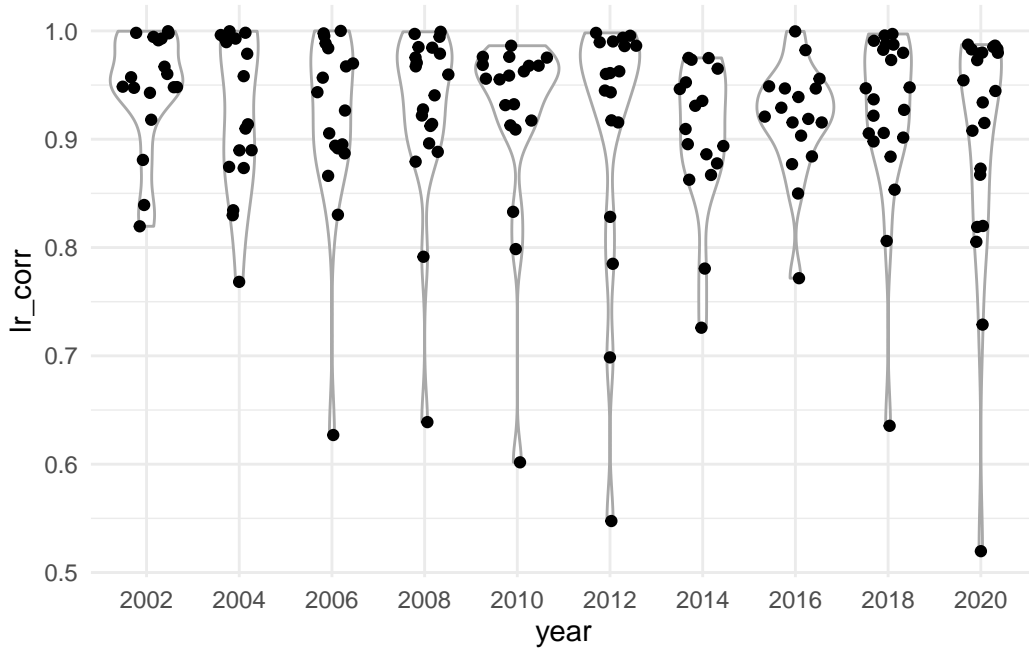


Figure 4.1: Violin plot for country wise correlations (< 0.5 removed)

4.4 Share covered

We calculate the share of matches for the “party-voted-for” (*prtv*) question. Excluded from the calculation are instances of *other*, *independent*, and *technical* (see [Party Facts codebook](#)).

The table summarizes the share of party matches across all countries and ESS rounds.

quantile	share_match
0%	11.4
10%	54.6
25%	87.7
50%	98.4
75%	99.9
100%	100.0

The share of matched parties is weighted by the number of “party-voted-for” responses and is calculated for each country in every ESS round.

The next table summarizes the country level share of party matches for ESS rounds with data set matches.

cntry	min	median	max	ess_rounds
HR	11.4	28.8	46.1	2
HU	13.8	48.3	99.3	10
RO	20.4	20.4	20.4	1
BG	34.0	61.5	99.1	6
BE	44.0	92.7	97.7	10
PL	45.8	93.1	99.5	10
LV	50.6	53.9	93.1	3
DE	51.0	56.8	71.1	10
PT	57.9	98.4	99.9	10
FR	66.8	87.8	93.8	10
LT	71.9	93.2	97.0	6
EE	75.3	99.4	99.9	8
CZ	76.3	100.0	100.0	9
IT	76.7	94.1	95.8	5
ES	77.5	99.0	100.0	10
AT	90.8	96.6	100.0	7
SI	91.3	97.3	100.0	10
NL	92.1	99.7	100.0	10
GR	96.0	99.2	100.0	5
SK	97.2	100.0	100.0	7

centry	min	median	max	ess_rounds
GB	98.0	98.6	99.5	10
IE	98.3	99.8	100.0	10
FI	98.4	99.3	99.7	10
SE	100.0	100.0	100.0	10
DK	100.0	100.0	100.0	8
CY	100.0	100.0	100.0	1

5 ParlGov losers' consent

ESS linking example – see also sections “Party-voted-for in government” and “Performance of Party Facts linking” in manuscript.

5.1 Losers' consent models

Satisfaction with democracy by those that voted for parties in government vs. opposition. For a book length discussion and empirical assessment of European democracies see Anderson et.al. (2005) – esp. model page 104. A replication and extension to other regions is provided by Farrer and Zingher (2019, 525)

- Anderson, Christopher, ed. 2005. Losers' Consent: Elections and Democratic Legitimacy. Oxford; New York: Oxford University Press.
- Farrer, Benjamin, and Joshua N Zingher. 2019. “A Global Analysis of How Losing an Election Affects Voter Satisfaction with Democracy.” *International Political Science Review* 40(4): 518–34. — doi: [10.1093/poq/nfad003](https://doi.org/10.1093/poq/nfad003)

5.2 Variables

Variables used in **losers' consent** models and context information

- **stfdem** — How satisfied with the way democracy works in country?
 - 0 // Extremely dissatisfied — 10 // Extremely satisfied
- **cabinet** — “party-voted-for” (*prtv*) in government after election
 - ParlGov based calculation
 - excluding caretaker governments
- **lrscale** — Placement on left right scale
 - 0 // Left — 10 // Right
- **gndr** — Gender
- **agea** — Age of respondent, calculated

Table 5.1: Data summary

Name	select(ess_lm, -idno)
Number of rows	433599
Number of columns	14
Column type frequency:	
character	3
Date	1
factor	4
numeric	6
Group variables	
	None

- **eduyrs** — Years of full-time education completed
- *ESS identifiers*
 - cntry — Country
 - essround — ESS round
 - pspwght — Post-stratification weight // see [ESS survey weights](#)
 - inw_date — Date of interview // various ESS inw* variables
- *Party information*
 - prtv — Party voted for in last national election // aggregated ESS IDs
 - prtv_name — Party voted for in last national election // party name
 - first_ess_id — unique ESS party ID used in Party Facts

5.3 Summary statistics

Variable type: character

skim_variable	n_missing	complete_rate	min	max	empty	n_unique	whitespace
cntry	0	1.00	2	2	0	32	0
prtv	171780	0.60	8	14	0	2704	0
prtc	240202	0.45	8	10	0	2642	0

Variable type: Date

skim_variable	n_missing	complete_rate	min	max	median	n_unique
inw_date	912	1.00	2002-01-14	2022-09-02	2011-06-03	4827

Variable type: factor

skim_variable	n_missing	complete_rate	ordered	n_unique	top_counts
gndr	331	1.00	FALSE	2	Fem: 231527, Mal: 201741, No : 0
prtv_party	171780	0.60	FALSE	888	Lab: 6580, Con: 6077, Chr: 5660, Soc: 4
prtc_party	240202	0.45	FALSE	900	Lab: 4949, Con: 4578, Chr: 4290, Soc: 3
cabinet	209306	0.52	FALSE	2	Yes: 121092, No: 103201

Variable type: numeric

skim_variable	n_missing	complete_rate	mean	sd	p0	p25	p50	p75	p100	hist
essround	0	1.00	5.39	2.80	1	3.0	5.00	8.00	10.00	
pspwght	0	1.00	1.01	0.52	0	0.7	0.93	1.18	6.85	
agea	2155	1.00	48.49	18.62	13	33.0	48.00	63.00	123.00	
eduyrs	5075	0.99	12.43	4.13	0	10.0	12.00	15.00	65.00	
lrscale	55413	0.87	5.13	2.23	0	4.0	5.00	7.00	10.00	
stfdem	15516	0.96	5.28	2.51	0	4.0	5.00	7.00	10.00	

5.4 Multi-level models (ML)

Model variables preparation

- removing outliers *age* (99% quantile)
- selecting only variables used in models
- removing incomplete observations
- centering of continuous variables (*age*, *education*, *left-right*)

5.4.1 Three ML models

Multi-level models with quadric terms and interactions. Structure of models:

- Model 1 (ML-1) — ESS-Round/country and country
- Model 2 (ML-2) — ESS-Round and country
- Model 3 (ML-3) — country

Visualization of results in Figure 5.1 and Figure 5.2 – see variable information in Section 5.3

	ML-1	ML-2	ML-3
(Intercept)	5.782 (0.169)	5.790 (0.184)	5.775 (0.172)
gndrFemale	-0.182 (0.009)	-0.178 (0.010)	-0.179 (0.010)
cabinetNo	-0.637 (0.010)	-0.645 (0.010)	-0.640 (0.010)

	ML-1	ML-2	ML-3
eduyrs_c	0.048 (0.002)	0.045 (0.002)	0.048 (0.002)
poly(agea_c, 2)1	23.624 (3.151)	21.075 (3.192)	25.719 (3.189)
poly(agea_c, 2)2	30.470 (2.913)	30.403 (2.957)	31.438 (2.967)
poly(lrscale_c, 2)1	103.697 (3.333)	105.407 (3.204)	108.606 (3.208)
poly(lrscale_c, 2)2	35.905 (3.116)	39.358 (3.149)	40.284 (3.160)
cabinetNo \times eduyrs_c	0.013 (0.003)	0.014 (0.003)	0.015 (0.003)
cabinetNo \times poly(agea_c, 2)1	-4.329 (4.620)	-2.065 (4.675)	-3.641 (4.691)
cabinetNo \times poly(agea_c, 2)2	13.465 (4.284)	14.204 (4.350)	13.904 (4.366)
cabinetNo \times poly(lrscale_c, 2)1	-22.081 (4.862)	-23.826 (4.494)	-26.594 (4.496)
cabinetNo \times poly(lrscale_c, 2)2	-108.724 (4.367)	-113.550 (4.397)	-113.758 (4.413)
SD (Intercept cntry)	0.931	0.965	0.970
SD (Observations)	2.106	2.142	2.150
SD (Intercept essround_cntrycntry)	0.500		
SD (Intercept essround)		0.219	
Num.Obs.	205611	205611	205611
R2 Marg.	0.040	0.040	0.041
R2 Cond.	0.233	0.209	0.203
AIC	918254.1	924409.6	925869.4
BIC	918417.9	924573.3	926022.9
ICC	0.2	0.2	0.2
RMSE	2.13	2.16	2.17

Analysis of variance (ANOVA) models and refitting with Maximum Likelihood instead of Restricted Maximum Likelihood.

term	npar	AIC	BIC	logLik	deviance	statistic	df	p.value
ml1	16	918249.0	918412.7	-459108.5	918217.0	7617.436	1	0
ml2	16	924404.7	924568.4	-462186.3	924372.7	0.000	0	
ml3	15	925864.4	926017.9	-462917.2	925834.4			

5.4.2 Effects plot ML-1

Effects plot Multi-Level Model 1 (ML-1, see Section 5.4.1)

see Figure 5.1 and Figure 5.2

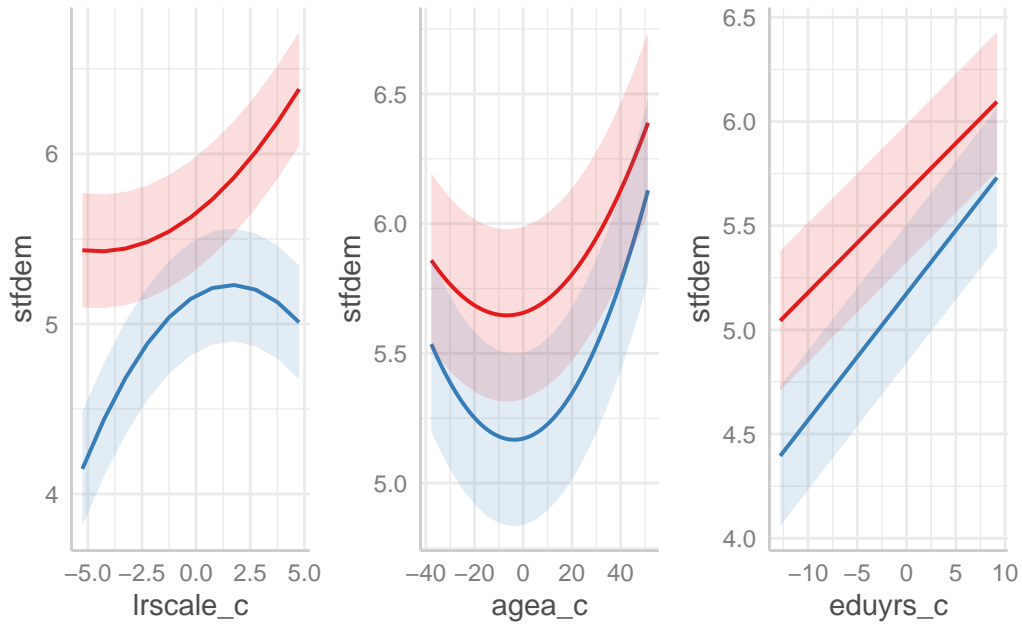


Figure 5.1: Effects plot (95% CIs) — Satisfaction with democracy

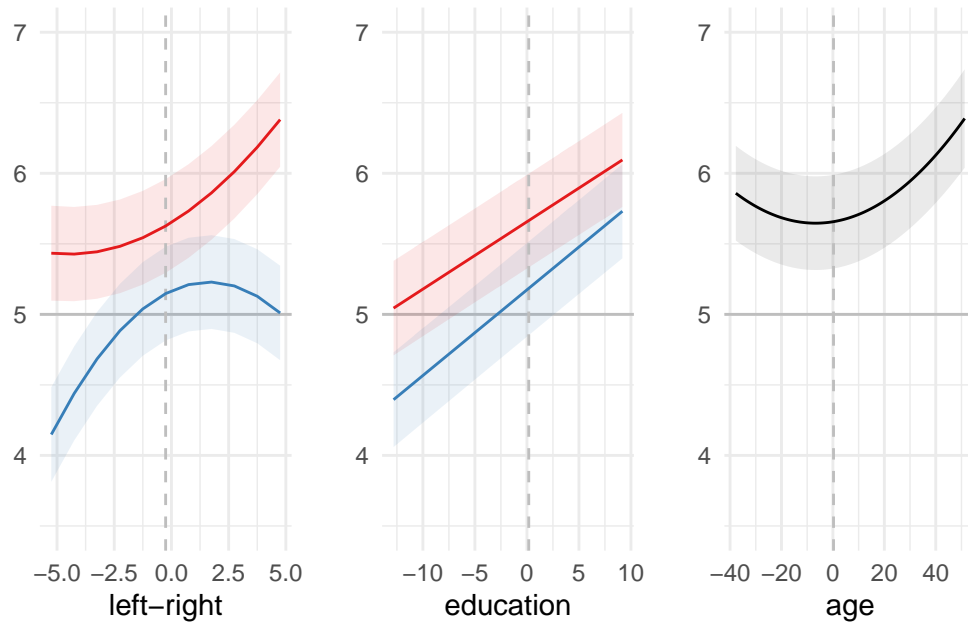


Figure 5.2: Effects plot (95% CIs) — Satisfaction with democracy // Article version

5.5 Linear effects (ML)

Multi-level model with linear terms and no interactions.

Visualization of results in Figure 5.3 (standardized coefficients) and Figure 5.4 (effects) – see variable information in Section 5.3

effect	group	term	estimate	std.error	statistic
fixed		(Intercept)	5.775	0.170	33.996
fixed		cabinetNo	-0.636	0.010	-64.341
fixed		gnrFemale	-0.178	0.009	-18.849
fixed		eduys_c	0.051	0.001	37.025
fixed		agea_c	0.002	0.000	6.679
fixed		lrscalc_c	0.094	0.002	44.172
ran_pars	essround_centry:centry	sd__(Intercept)	0.503		
ran_pars	centry	sd__(Intercept)	0.934		
ran_pars	Residual	sd__Observation	2.112		

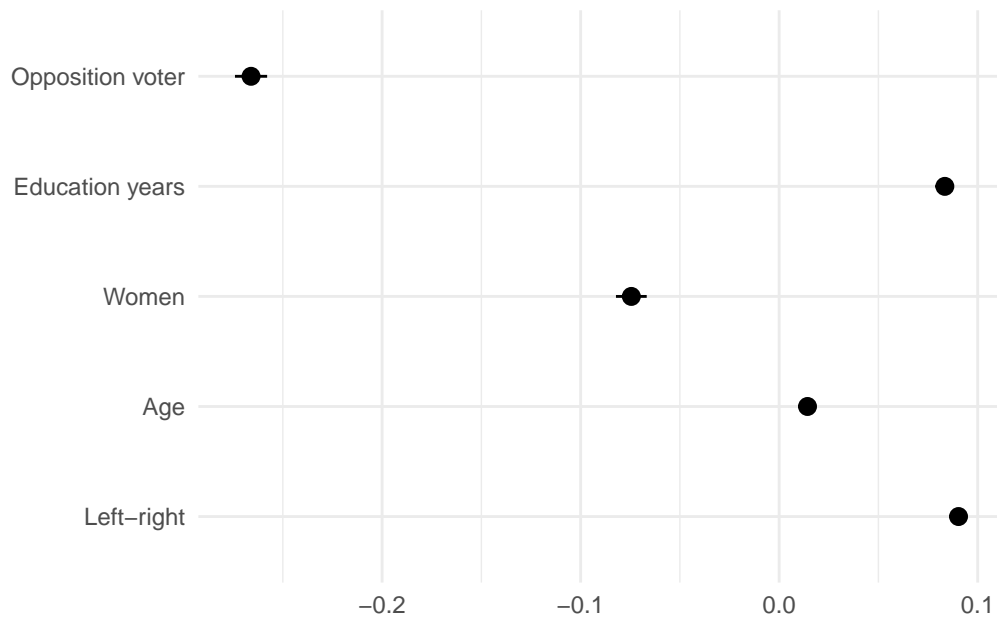


Figure 5.3: Standardized coefficients (95% CIs)– Linear effects model

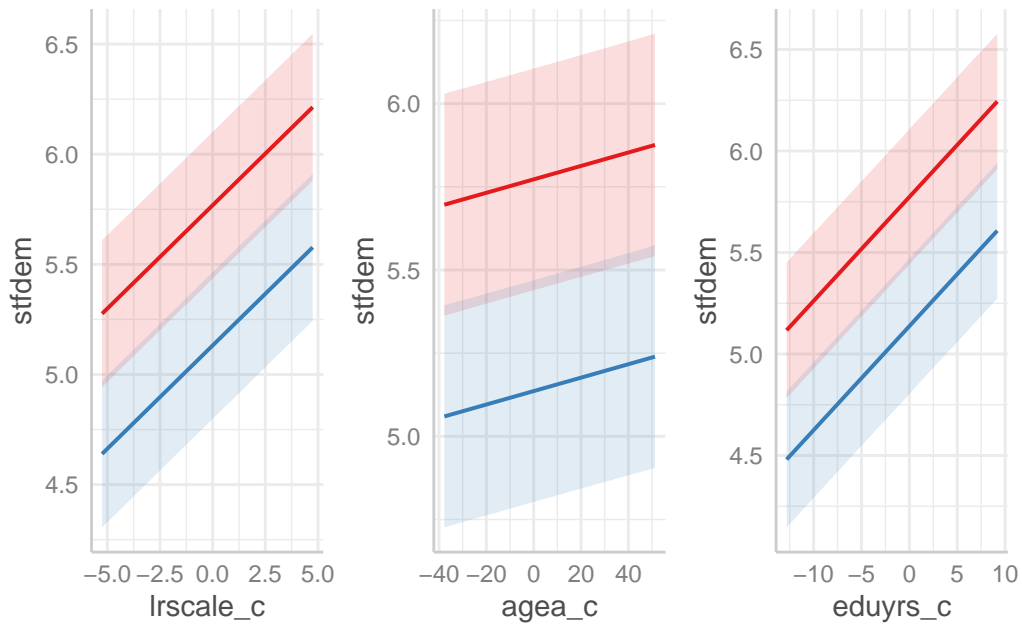


Figure 5.4: Linear effects plot (95% CIs) — Satisfaction with democracy

5.6 Fixed effects model

Fixed effects model with quadric terms and interactions.

Visualization of results in Figure 5.5 and variable information in Section 5.3

term	estimate	std.error	statistic	p.value	conf.low	conf.high
(Intercept)	6.407	0.037	173.718	0.000	6.335	6.479
gndrFemale	-0.178	0.011	-16.569	0.000	-0.199	-0.157
cabinetNo	-0.645	0.011	-58.835	0.000	-0.667	-0.624
eduyrs_c	0.045	0.002	21.591	0.000	0.041	0.050
agea_c	21.004	3.505	5.993	0.000	14.135	27.874
agea_c^2	30.381	3.306	9.190	0.000	23.901	36.860
lrscalc_c	105.418	3.903	27.011	0.000	97.769	113.068
lrscalc_c^2	39.400	4.134	9.531	0.000	31.297	47.502
cabinetNo:eduyrs_c	0.014	0.003	4.744	0.000	0.008	0.020
cabinetNo:agea_c	-2.033	5.236	-0.388	0.698	-12.295	8.229
cabinetNo:agea_c^2	14.216	4.958	2.867	0.004	4.499	23.933
cabinetNo:lrscalc_c	-23.832	5.585	-4.267	0.000	-34.779	-12.885
cabinetNo:lrscalc_c^2	-113.566	5.823	-19.502	0.000	-124.979	-102.153

Fixed effects for countries (“*cnty*”) and ESS rounds (“*essround*”) not shown.

r.squared	adj.r.squared	statistic	p.value	df.residual	nobs	se_type
0.18	0.18	756.54	0	205558	205611	HC2

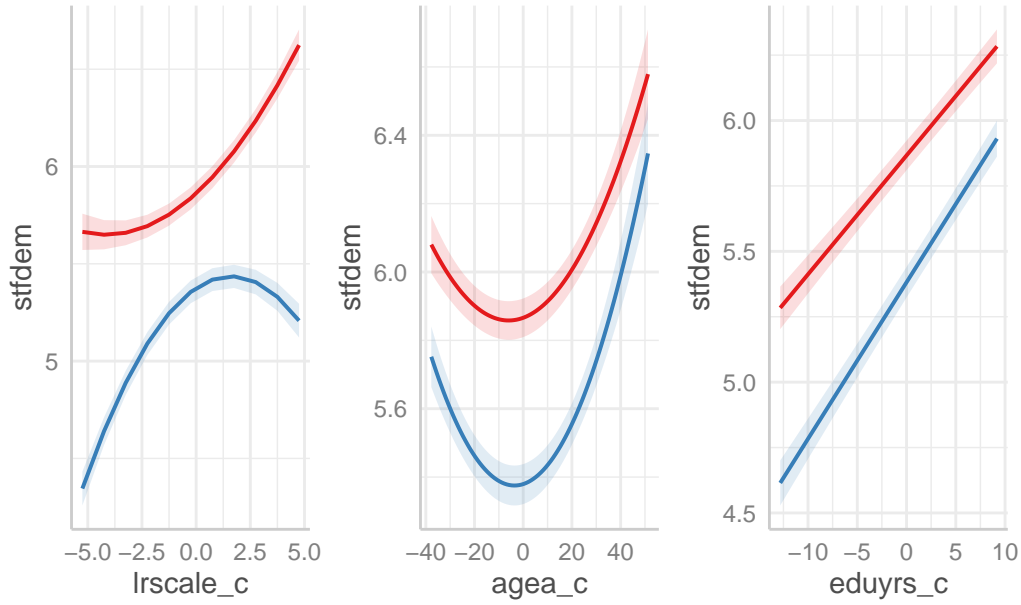


Figure 5.5: Fixed effects model (95% CIs) — Satisfaction with democracy

5.7 Share covered

We calculate the share of matches for the “party-voted-for” (*prtv*) question. Excluded from the calculation are instances of *other*, *independent*, and *technical* (see [Party Facts codebook](#)).

The table summarizes the share of party matches across all countries and ESS rounds.

quantile	share_match
0%	11.4
10%	65.4
25%	81.9
50%	95.8
75%	99.2
100%	100.0

The share of matched parties is weighted by the number of “party-voted-for” responses and is calculated for each country in every ESS round.

The next table summarizes the country level share of party matches for ESS rounds with data set matches.

cntry	min	median	max	ess_rounds
HR	11.4	73.0	100.0	4
HU	13.8	47.6	95.5	10
RO	18.0	18.0	18.0	1
BG	34.0	60.2	99.1	5
LV	37.1	68.6	100.0	2
PL	37.4	90.1	98.2	9
BE	46.8	80.1	92.0	10
PT	57.7	92.2	99.6	10
IL	58.7	71.8	78.7	6
FR	65.0	80.8	83.7	10
CH	74.3	91.0	99.9	10
CZ	74.3	100.0	100.0	9
TR	75.2	82.4	89.6	2
GB	76.5	81.9	90.8	10
IT	76.7	94.1	96.5	5
DE	77.5	89.2	92.4	9
EE	80.0	95.8	100.0	8
ES	80.1	98.3	99.7	9
LT	81.2	93.3	96.4	6
SI	85.9	95.8	100.0	10
AT	91.5	98.7	99.6	6
FI	91.8	93.0	94.5	10
NL	92.1	99.7	100.0	10
SK	94.7	100.0	100.0	7
GR	96.0	96.8	99.2	5
IS	96.0	98.7	100.0	5
NO	96.6	98.7	99.5	10
SE	96.7	99.8	100.0	9
IE	97.1	98.9	100.0	10
DK	97.6	98.8	99.4	8
CY	98.5	99.5	100.0	5
LU	99.1	99.6	100.0	2