Supplementary material

to the article 'Political Ideology, Policy Attitudes and Public Support for European Integration' (*Politics & Governance 2025*)

Contents

Part I. GAM with alternative smooth terms

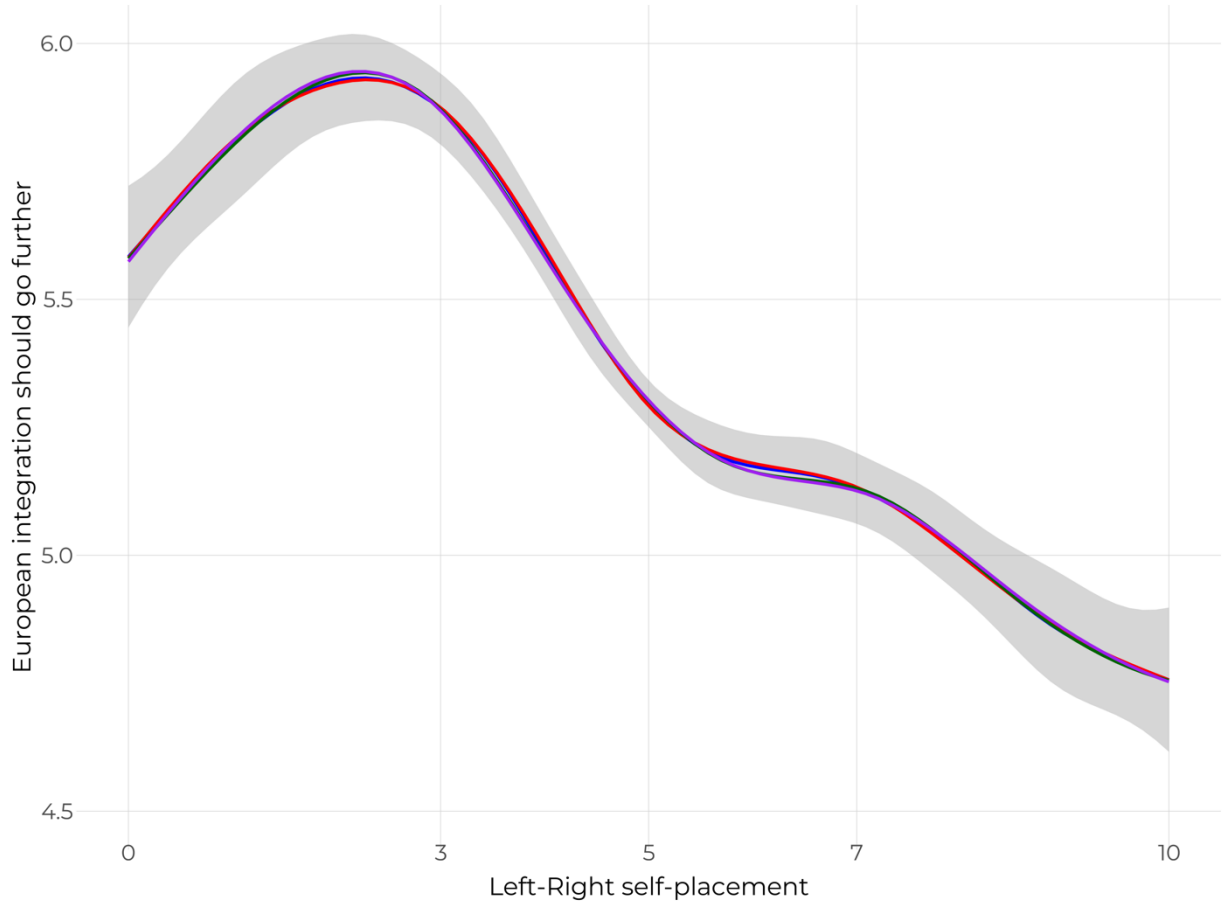

Figure A1. Support for further European integration as a function of left-right self-placement, based on GAMs with different smooth terms: a shrinkage version of cubic regression splines (blue) with confidence intervals indicated by the area shaded in grey; thin plate regression splines (red); P-splines (purple); B-splines (dark green). *Data: ESS Wave 9 (2018).*

Part II. Alternative indicators of EU attitudes

The two panels of Figure A2 show the relationship of left-right self-placement with trust in the European Parliament and feeling attached to Europe.

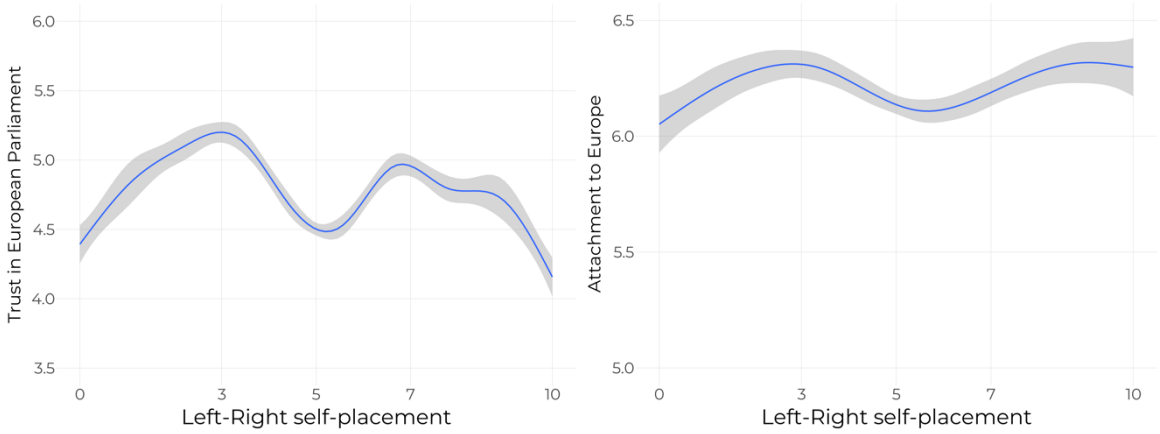

Figure A2. Trust in the European Parliament (left) and attachment to Europe (right) as functions of left-right self-placement, *Data: ESS Wave 1 (2023).*

When we examine the dependence of other aspects of EU support on left-right self-placement, we find different patterns. Looking at trust in the European Parliament (EP) (Figure A2, left panel), we would see a faint inverted U-curve, if it wasn't for the dip at the middle of the left-right scale. This dip is rather puzzling and could be due to inattentive respondents or 'fake' centrists (respondents with extreme political views who, however, choose the middle of the ideological self-placement scale). Trust in the EP is slightly lower at the extreme left than it is on the extreme right. The way attachment to Europe (European identity) varies with left-right self-placement reveals yet a different pattern (Figure A2, right panel). Attachment to Europe increases slightly as one moves from the extreme left towards the center. We observe the puzzling dip at the midpoint of the scale, but otherwise the level of attachment remains stable until the very end of the left-right scale, when it drops somewhat. Yet, average attachment to Europe is still slightly higher at the extreme right than it is at the extreme left. The variation across spectrum is, however, miniscule so we should not overinterpret this pattern.

Part III. EU support, left-right and policy attitudes: adding party positions

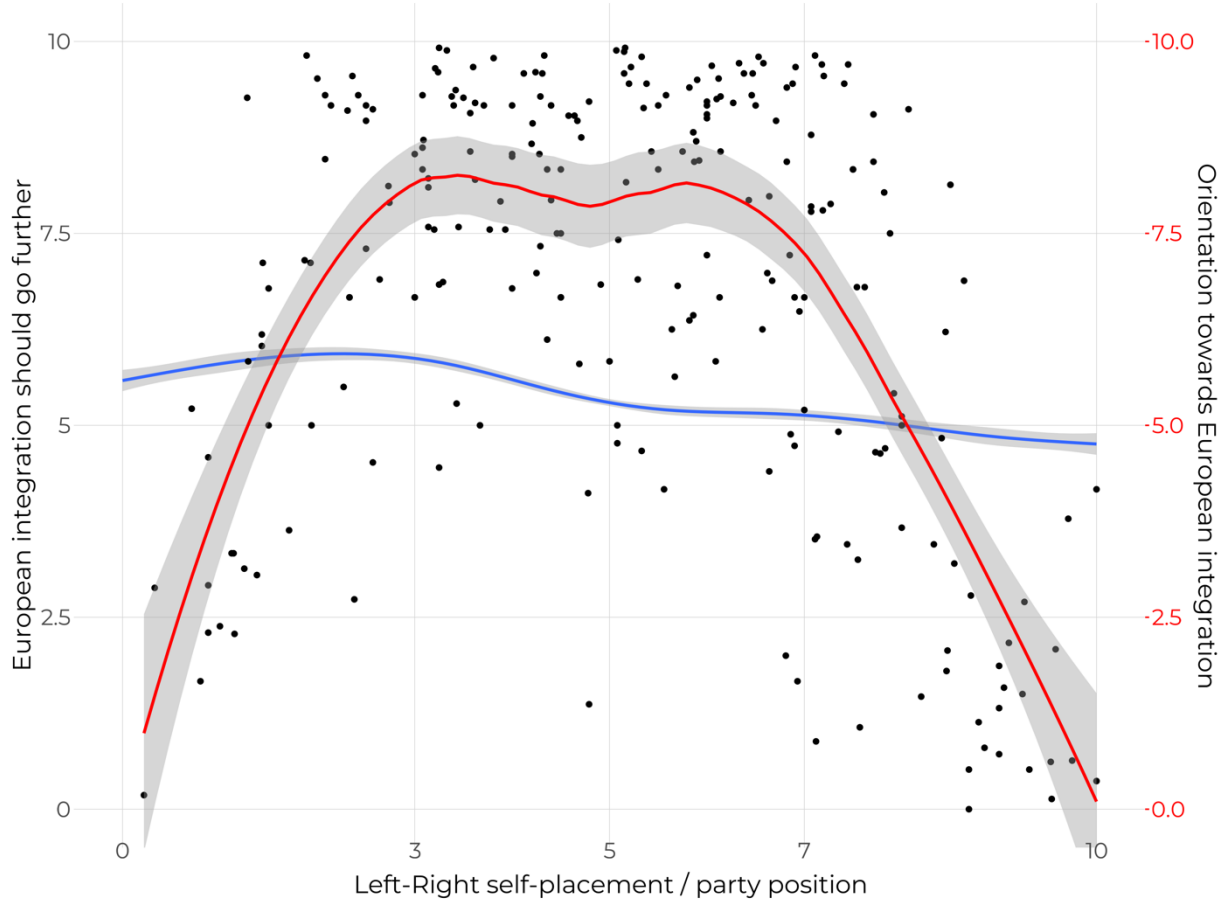

Figure A3. Average support for further European integration of citizens (blue line, based on GAM with cubic regression splines) and positive orientation towards European integration of political parties (black dots and red line, based on a local polynomial regression) as functions of left-right self-placement of the citizens and general left-right party positions as estimated by experts. Originally, party positions on European integration are scored on a 1-to-7 scale, which has been rescaled from 0 to 10 to match the public opinion data. *Data: ESS Wave 11 (2023), CHES (2024).*

Part IV. Country-level links between EU attitudes, left-right self-placement and policy attitudes

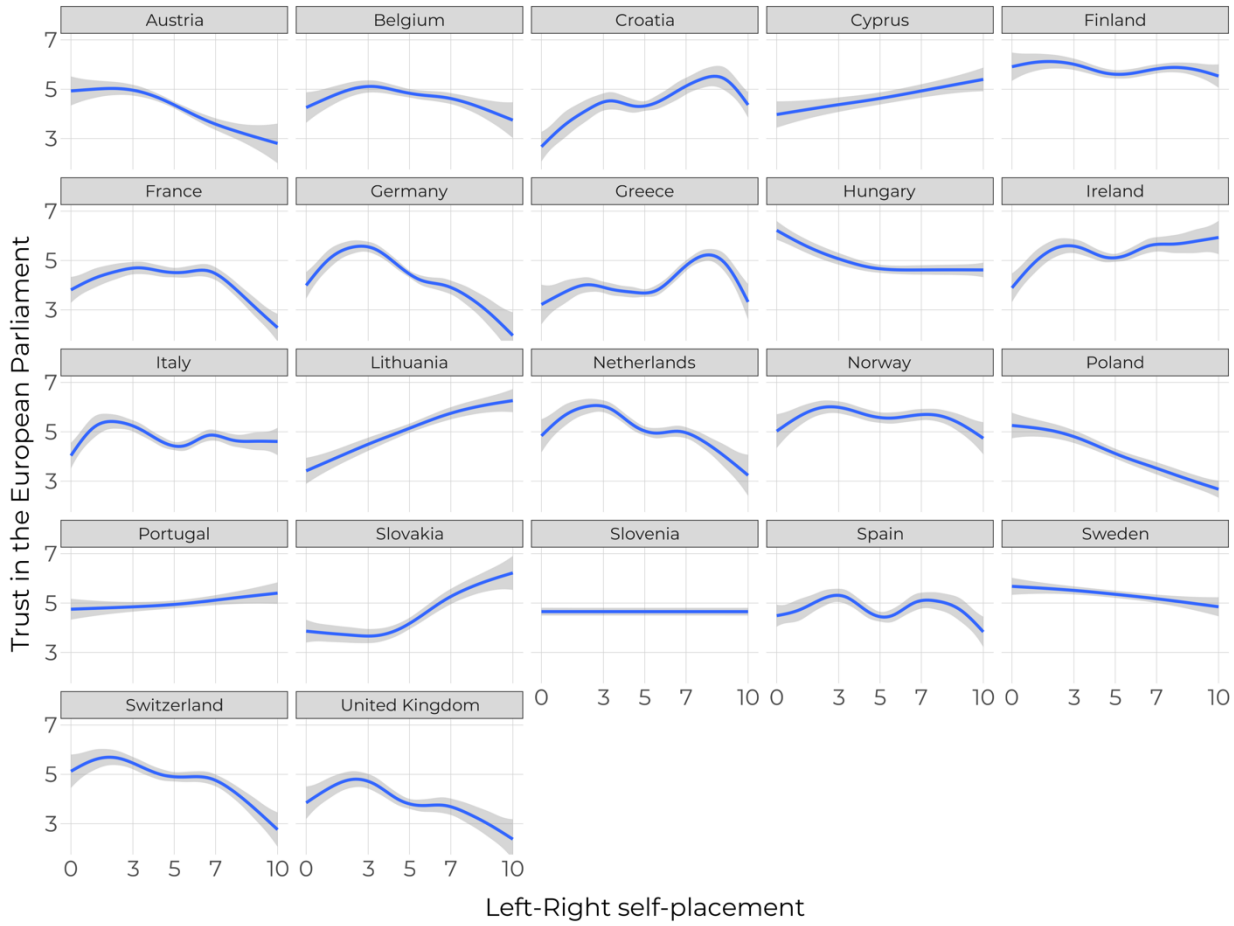

Figure A4. Trust in the European Parliament as a function of left-right self-placement per country, *Data: ESS Wave 11(2023).*

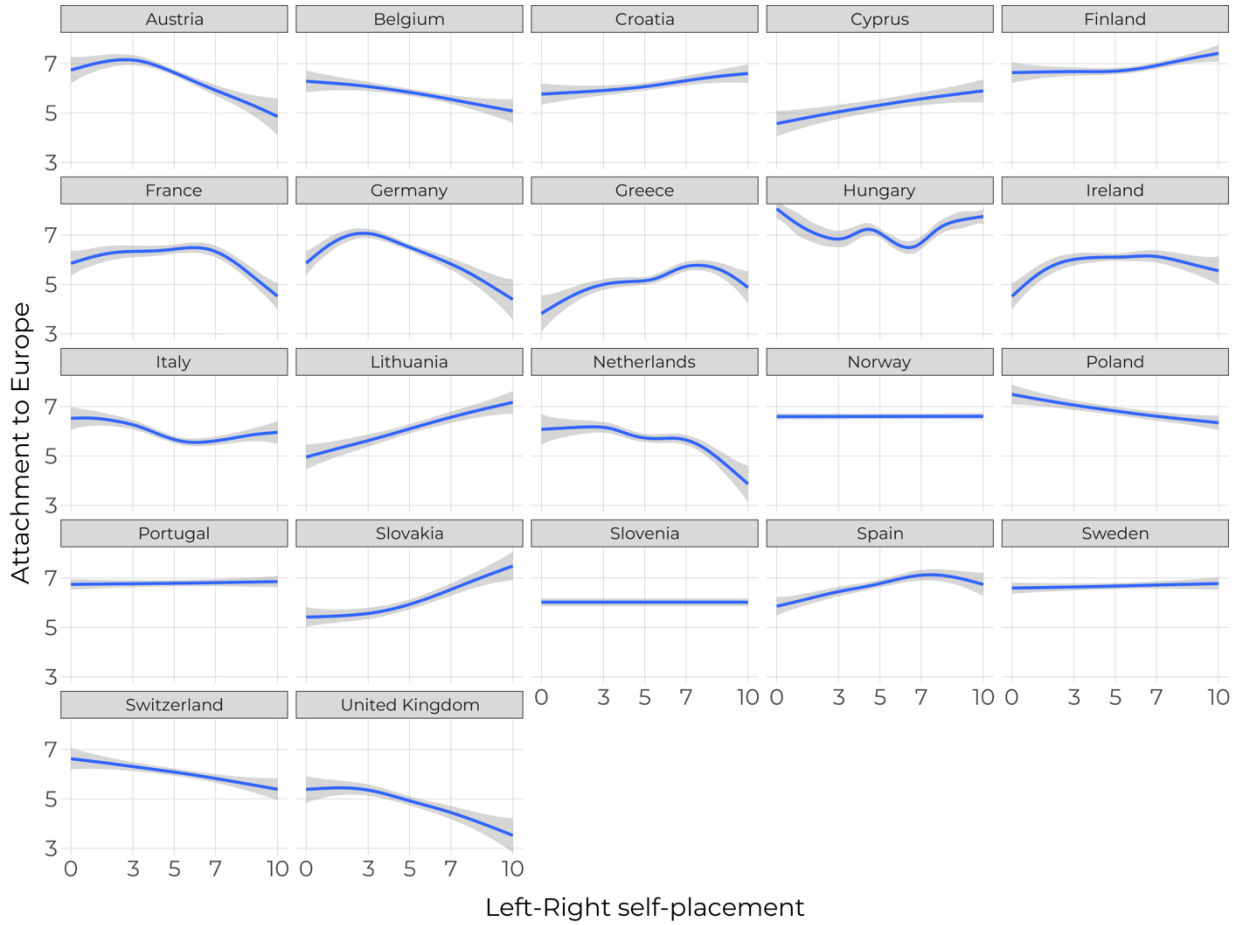

Figure A5. Attachment to Europe as a function of left-right self-placement per country, *Data: ESS Wave 11 (2023).*

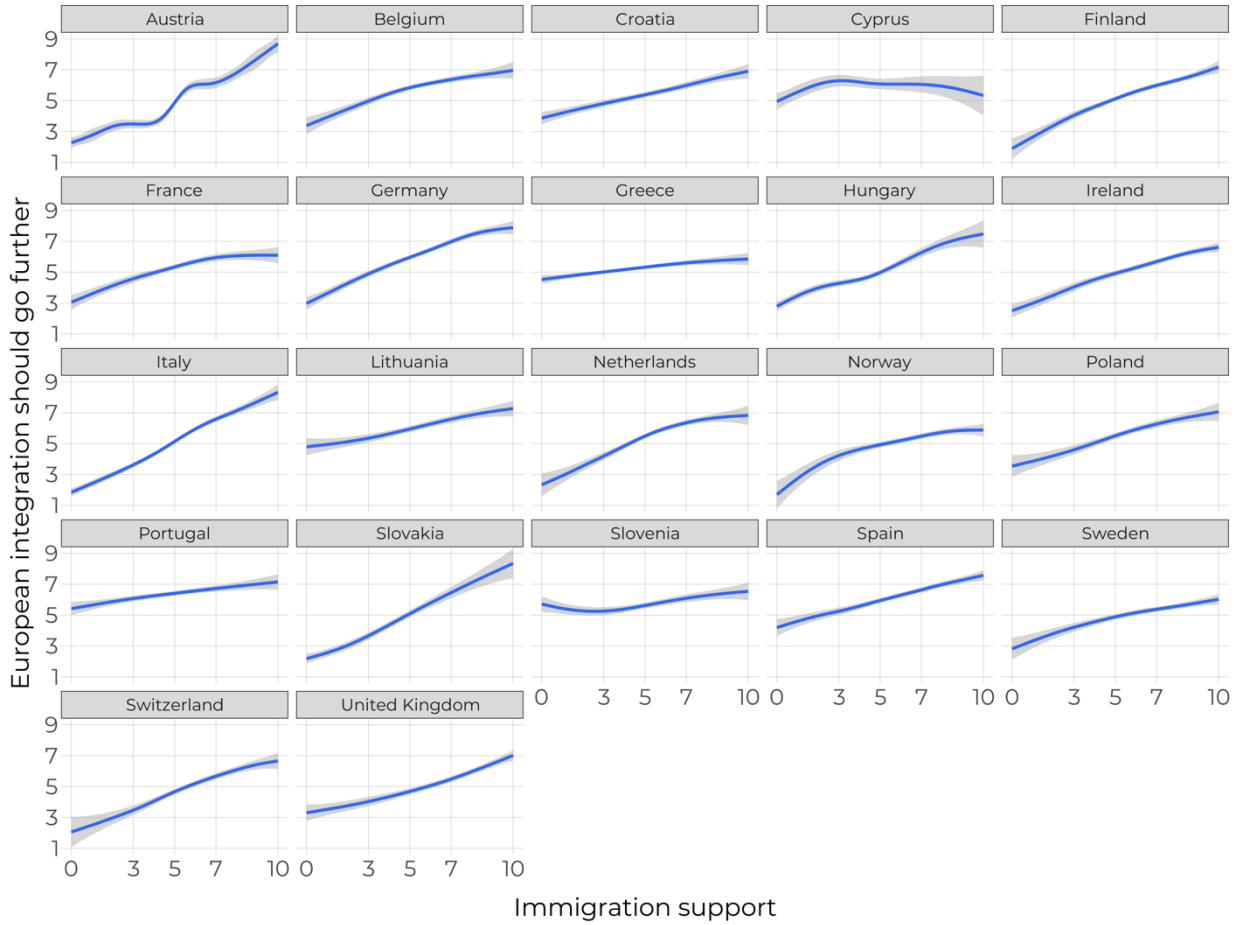

Figure A6. Support for further integration as a function of immigration support per country, *Data: ESS Wave 11 (2023).*

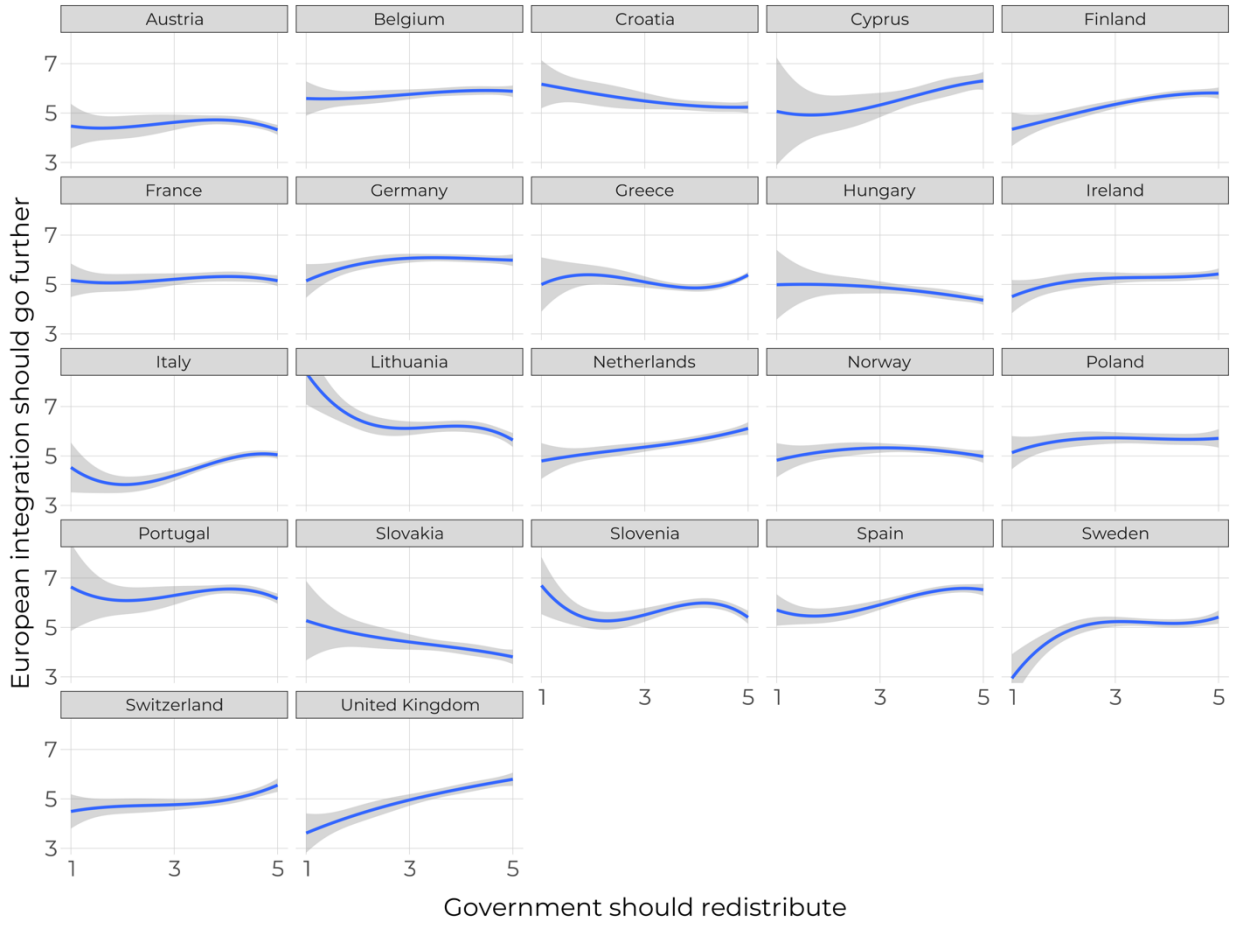

Figure A7. Support for further integration as a function of support for government redistribution per country, *Data: ESS Wave 11 (2023).*

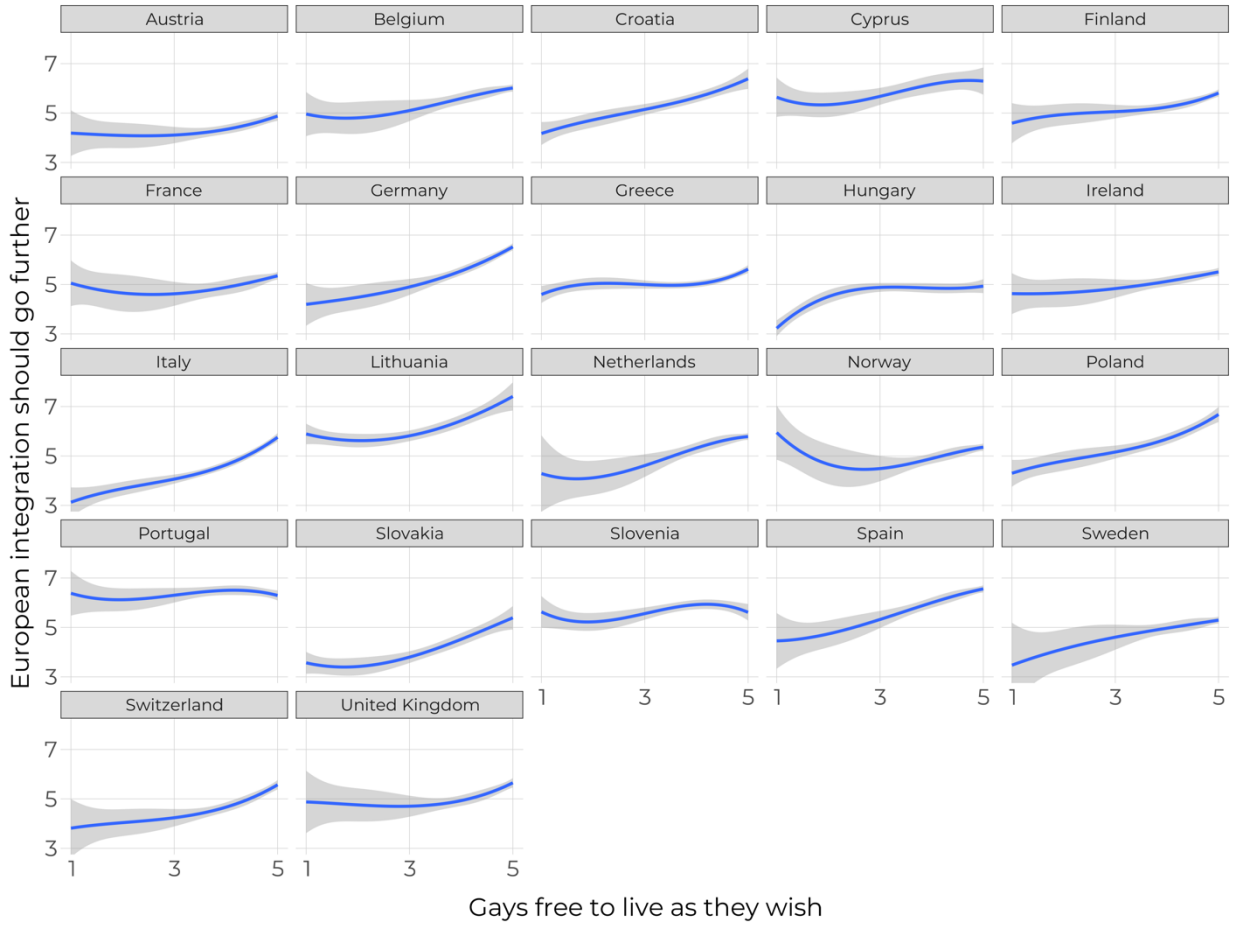

Figure A8. Support for further integration as a function of support for gay rights per country, *Data: ESS Wave 11 (2023).*

Part V. Left-right and support for further European integration over time in individual countries

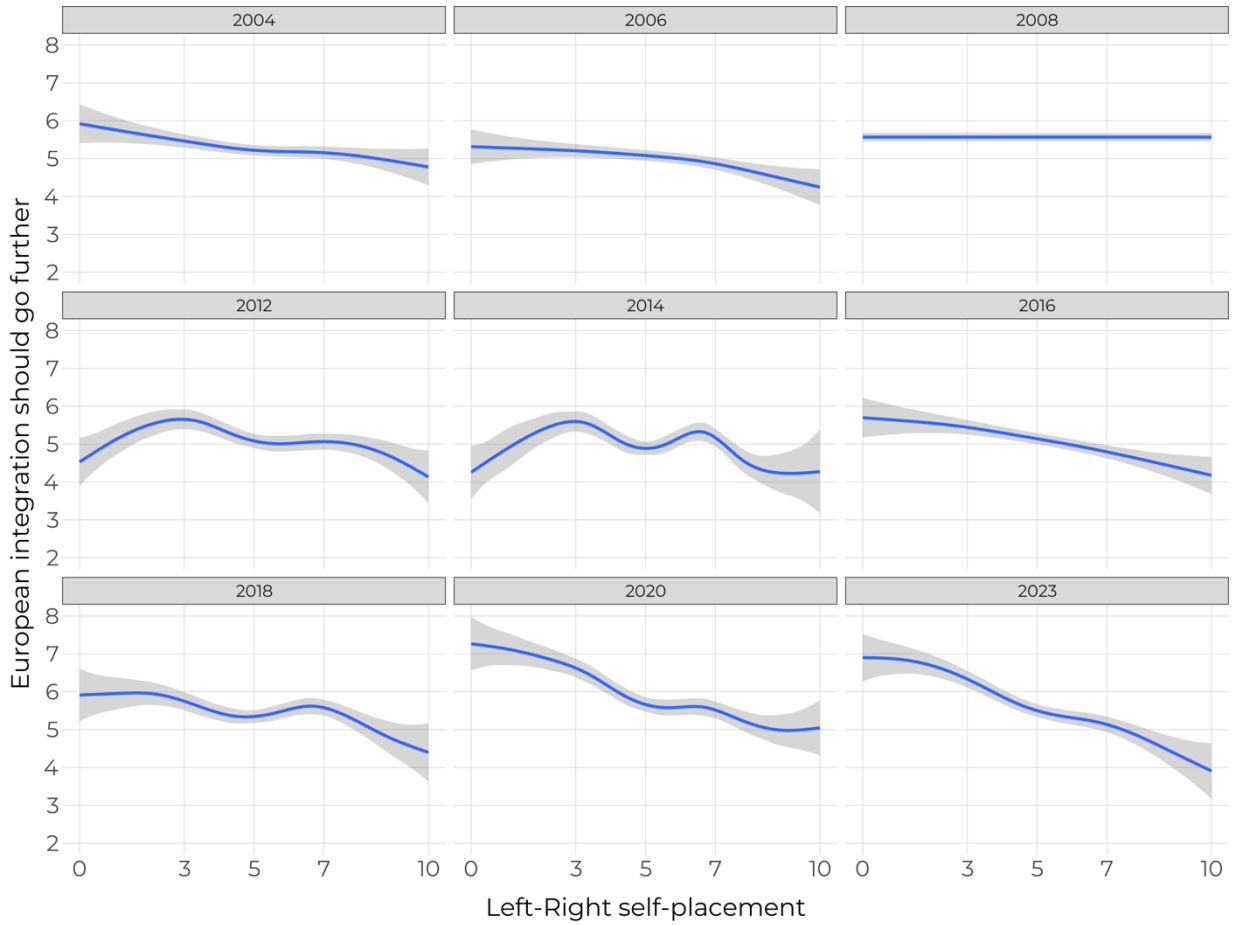

Figure A9. Support for further integration as a function of left-right self-placement in the Netherlands over time, *Data: ESS Wave 2 (2004) to Wave 11 (2023).*

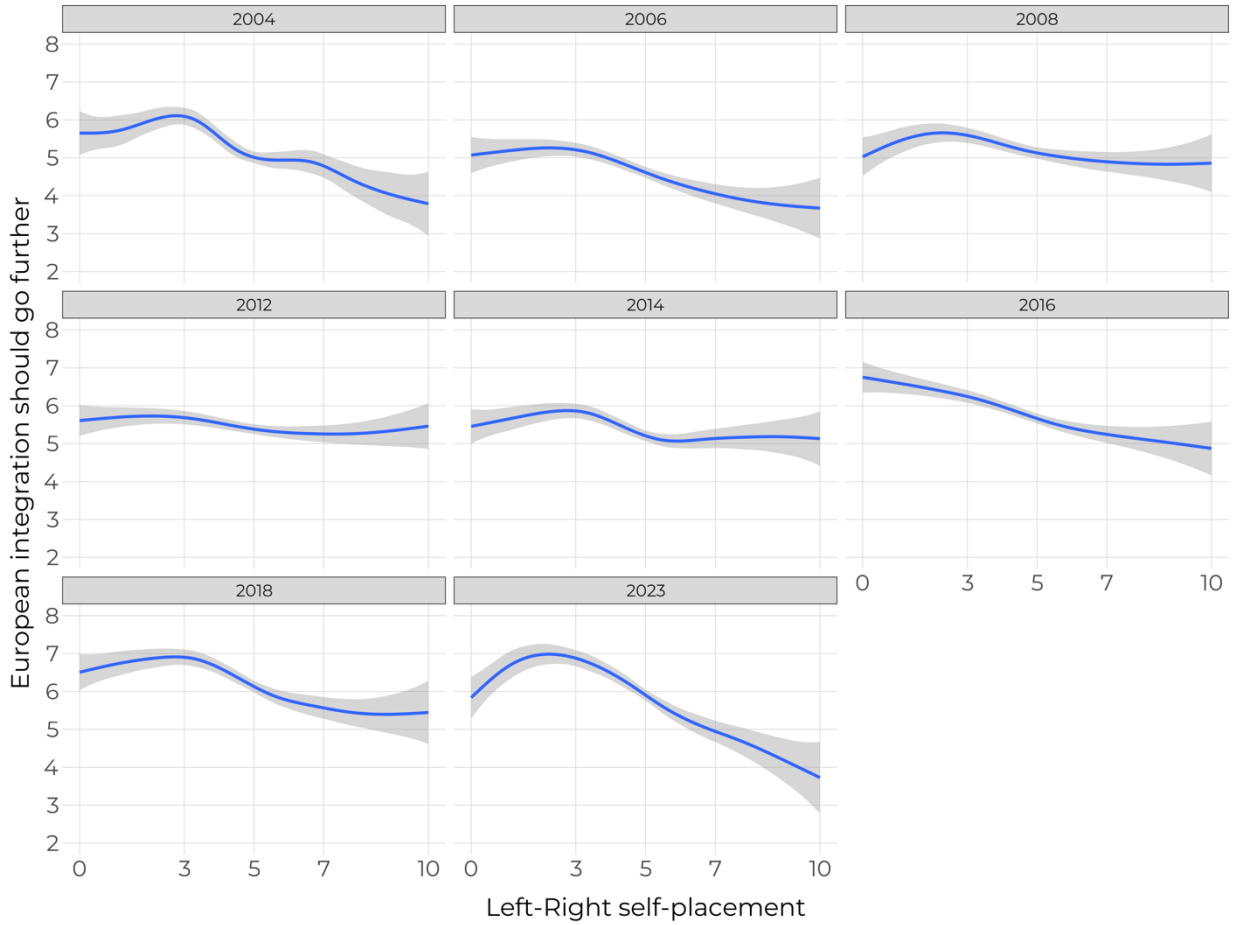

Figure A10. Support for further integration as a function of left-right self-placement in Germany over time, *Data: ESS Wave 2 (2004) to Wave 11 (2023).*

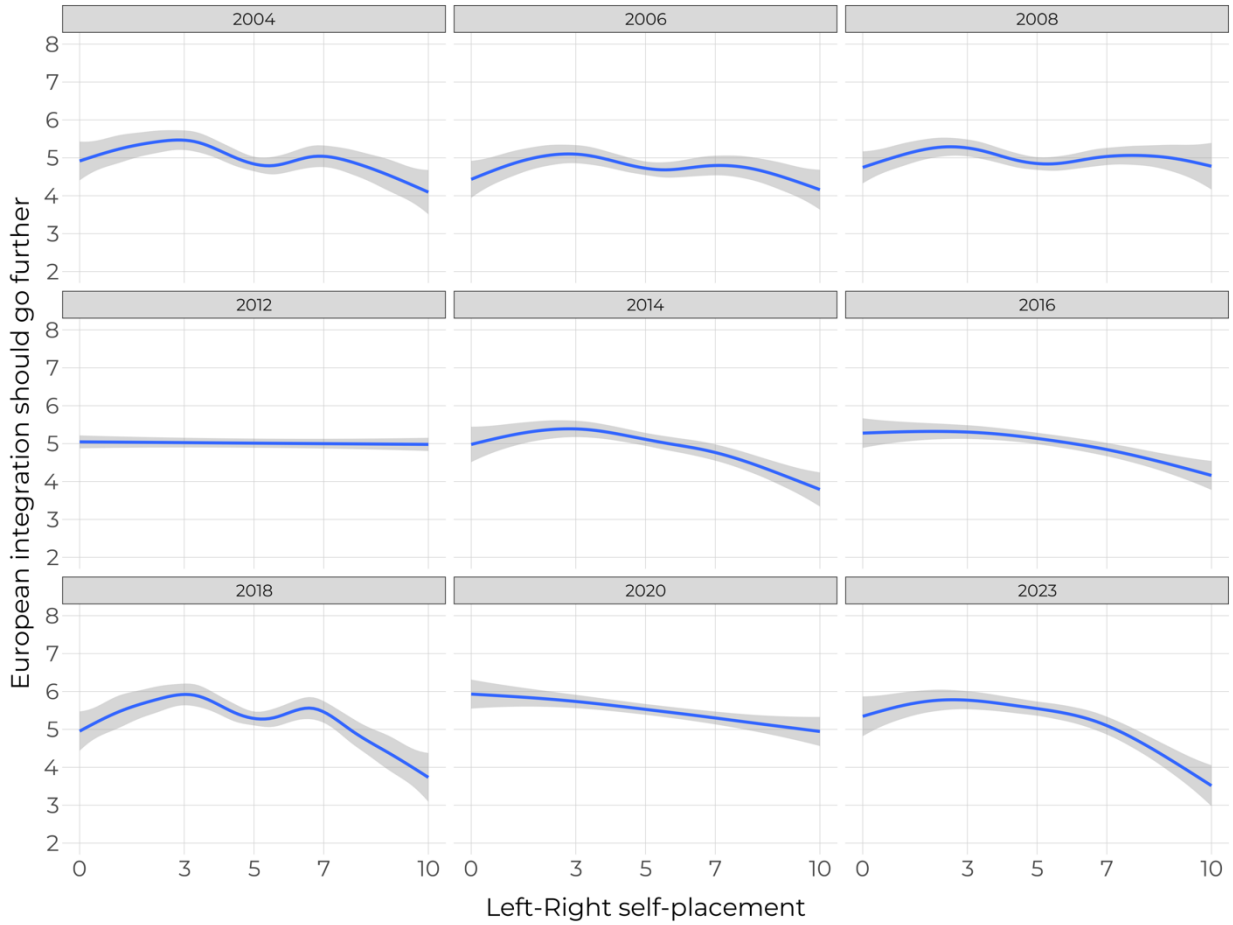

Figure A11. Support for further integration as a function of left-right self-placement in France over time, *Data: ESS Wave 2 (2004) to Wave 11 (2023).*

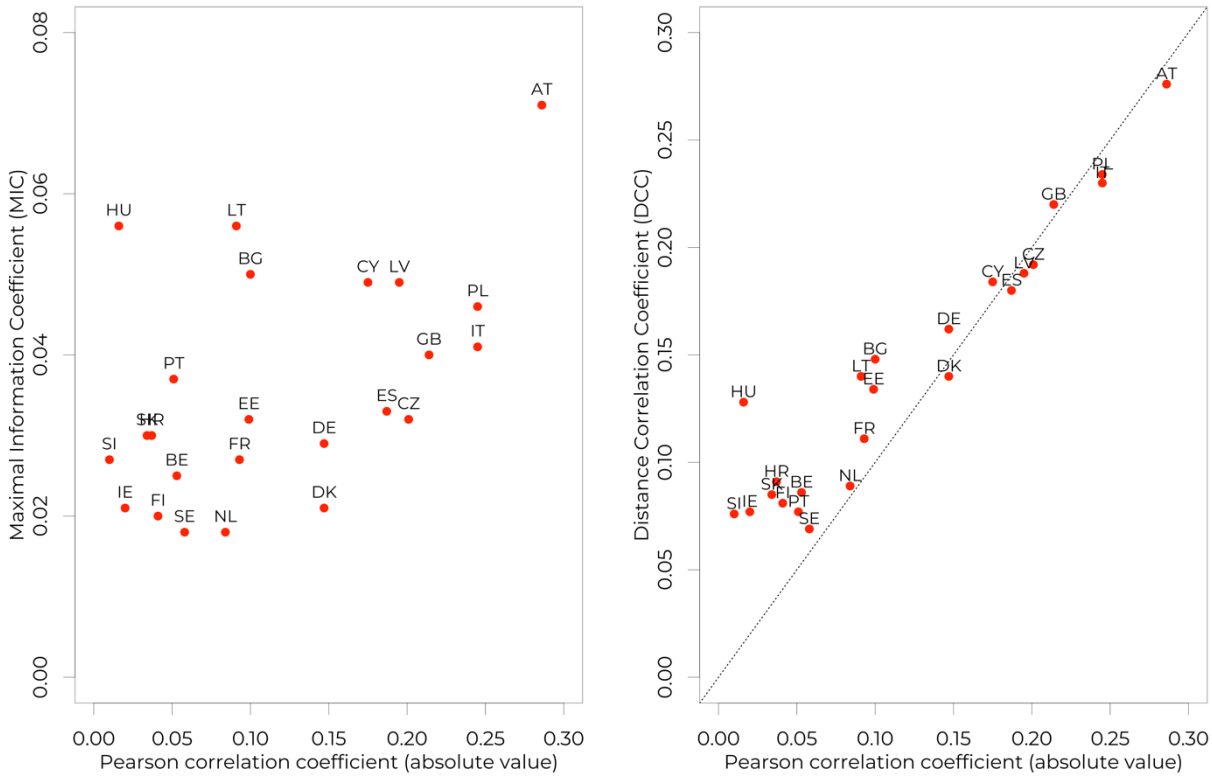

Figure A12. Comparison of correlation measures of the association between the country-level averages of left-right self-placement and support for further European integration, *Data: ESS Wave 9 (2018).*

Figure A12 provides a comparison of two alternative measures of dependence against the absolute values of the Pearson's correlation coefficient (on the x-axis) for the relationship between support for further European integration and left-right self-placement per country (plotted in Figure 3). All three measures agree that the link between the two variables is strongest in Austria (AT). But both the MIC and dCor elevate the strength of the link in Hungary (HU) in comparison to the Pearson's correlation, which is appropriate given the fact that the two variables are related in this country, only not linearly so (cf. Figure 3). The scores for other countries with non-linear dependence, such as Lithuania and Bulgaria are significantly higher when the dCor is used as well.

Part VII. dCor for public opinion data per country over time

Table A1. Distance Correlation Coefficients (dCor) for support for further European integration with **left-right self-placement** per country over time *Data: ESS Wave 2 (2004) to Wave 11 (2023).*

Country	**2023**	**2020**	**2018**	**2016**	**2014**	**2012**	**2008**	**2006**	**2004**
AT	0.25		0.28	0.24	0.13			0.22	0.13
BE	0.09		0.09	0.06	0.07	0.07	0.05	0.07	0.09
BG		0.15	0.15			0.12	0.13	0.06	
CY	0.12		0.18			0.12	0.07	0.07	
CZ		0.23	0.19	0.15	0.18	0.27	0.17		0.18
DE	0.22		0.16	0.15	0.10	0.07	0.08	0.14	0.17
DK			0.14		0.14	0.05	0.06	0.05	0.07
EE		0.10	0.13	0.19	0.23	0.13	0.18	0.10	0.13
ES	0.17		0.18	0.11	0.12	0.06	0.13	0.15	0.12
EU-ave	***0.18***	***0.15***	***0.14***	***0.14***	***0.12***	***0.11***	***0.11***	***0.11***	***0.10***
FI	0.13	0.11	0.08	0.07	0.09	0.11	0.11	0.10	0.07
FR	0.17	0.11	0.11	0.11	0.13	0.06	0.06	0.06	0.09
GB	0.27		0.22	0.22	0.19	0.12	0.16	0.17	0.13
GR	0.18	0.16					0.13		0.05
HR	0.08	0.08	0.09				0.08		
HU	0.18	0.14	0.13	0.34	0.12	0.08	0.13	0.09	0.06
IE	0.06		0.08	0.09	0.07	0.11	0.11	0.10	0.07
IT	0.35	0.15	0.23	0.28		0.20			
LT	0.21	0.24	0.14	0.07	0.10	0.10			
LU									0.09
LV			0.19				0.17		
NL	0.24	0.24	0.09	0.13	0.09	0.08	0.05	0.09	0.09
PL	0.26		0.23	0.13	0.12	0.09	0.07	0.05	0.07
PT	0.08	0.06	0.08	0.11	0.12	0.10	0.05	0.07	0.07
RO							0.19		
SE	0.16		0.07	0.06	0.12	0.16	0.16	0.20	0.18
SI	0.09	0.13	0.08	0.09	0.08	0.07	0.07	0.08	0.08
SK	0.20	0.25	0.08			0.13	0.12	0.14	0.15

Table A2. Distance Correlation Coefficients (dCor) for support for further European integration with **support for redistribution** per country over time *Data: ESS Wave 2 (2004) to Wave 11 (2023).*

Country	**2023**	**2020**	**2018**	**2016**	**2014**	**2012**	**2008**	**2006**	**2004**
AT	0.06		0.08	0.08	0.21			0.07	0.07
BE	0.06		0.06	0.06	0.05	0.09	0.04	0.08	0.05
BG		0.06	0.15			0.07	0.07	0.07	
CY	0.12		0.15			0.08	0.04	0.08	
CZ		0.12	0.17	0.11	0.16	0.20	0.15		0.12
DE	0.05		0.07	0.06	0.09	0.08	0.09	0.06	0.05
DK			0.06		0.08	0.04	0.07	0.07	0.09
EE		0.11	0.10	0.11	0.15	0.15	0.10	0.05	0.07
ES	0.16		0.08	0.09	0.08	0.10	0.09	0.08	0.08
EU-ave	***0.10***	***0.10***	***0.09***	***0.08***	***0.10***	***0.11***	***0.09***	***0.07***	***0.08***
FI	0.15	0.06	0.10	0.08	0.11	0.14	0.13	0.11	0.12
FR	0.06	0.06	0.08	0.05	0.05	0.09	0.06	0.07	0.06
GB	0.18		0.13	0.11	0.11	0.13	0.08	0.06	0.10
GR	0.13	0.22					0.05		0.11
HR	0.08	0.05	0.08				0.13		
HU	0.10	0.06	0.11	0.11	0.17	0.16	0.09	0.10	0.08
IE	0.06		0.04	0.06	0.11	0.09	0.07	0.04	0.04
IT	0.13	0.14	0.08	0.06		0.10			
LT	0.11	0.08	0.08	0.12	0.09	0.09			
LU									0.05
LV			0.05				0.12		
NL	0.15	0.14	0.05	0.06	0.06	0.06	0.08	0.04	0.06
PL	0.05		0.10	0.06	0.09	0.07	0.06	0.05	0.08
PT	0.08	0.06	0.05	0.04	0.07	0.11	0.10	0.04	0.11
RO							0.11		
SE	0.08		0.05	0.07	0.10	0.14	0.13	0.16	0.15
SI	0.10	0.10	0.10	0.09	0.05	0.07	0.11	0.09	0.08
SK	0.10	0.09	0.09			0.21	0.11	0.07	0.10

Table A3. Distance Correlation Coefficients (dCor) for support for further European integration with **immigration evaluations** per country over time *Data: ESS Wave 2 (2004) to Wave 11 (2023).*

Country	**2023**	**2020**	**2018**	**2016**	**2014**	**2012**	**2008**	**2006**	**2004**
AT	0.46		0.48	0.45	0.47			0.48	0.44
BE	0.27		0.27	0.27	0.28	0.33	0.29	0.32	0.32
BG		0.20	0.31			0.27	0.18	0.19	
CY	0.18		0.17			0.16	0.06	0.12	
CZ		0.50	0.41	0.36	0.27	0.31	0.29		0.22
DE	0.41		0.36	0.41	0.44	0.37	0.37	0.44	0.43
DK			0.42		0.43	0.35	0.31	0.30	0.32
EE		0.36	0.32	0.36	0.22	0.24	0.25	0.22	0.30
ES	0.31		0.34	0.38	0.32	0.31	0.39	0.30	0.31
EU-ave	***0.32***	***0.31***	***0.33***	***0.33***	***0.30***	***0.29***	***0.23***	***0.27***	***0.28***
FI	0.42	0.37	0.40	0.36	0.34	0.33	0.27	0.31	0.29
FR	0.27	0.26	0.32	0.29	0.29	0.23	0.28	0.31	0.35
GB	0.37		0.40	0.32	0.38	0.31	0.32	0.35	0.27
GR	0.16	0.19					0.21		0.17
HR	0.27	0.23	0.28				0.21		
HU	0.36	0.30	0.33	0.39	0.20	0.30	0.15	0.21	0.22
IE	0.36		0.33	0.31	0.27	0.29	0.23	0.26	0.24
IT	0.58	0.53	0.57	0.55		0.49			
LT	0.25	0.30	0.32	0.27	0.32	0.31			
LU									0.28
LV			0.31				0.15		
NL	0.35	0.29	0.28	0.29	0.34	0.35	0.28	0.29	0.31
PL	0.28		0.26	0.22	0.27	0.25	0.17	0.26	0.17
PT	0.17	0.21	0.26	0.22	0.25	0.35	0.25	0.25	0.29
RO							0.19		
SE	0.26		0.28	0.27	0.24	0.15	0.22	0.24	0.23
SI	0.17	0.17	0.19	0.16	0.14	0.13	0.14	0.14	0.13
SK	0.46	0.43	0.38			0.30	0.17	0.18	0.23

Table A4. Distance Correlation Coefficients (dCor) for support for further European integration with **support for gay rights** per country over time *Data: ESS Wave 2 (2004) to Wave 11 (2023).*

Country	2023	2020	2018	2016	2014	2012	2008	2006	2004
AT	0.10		0.18	0.12	0.10			0.13	0.14
BE	0.12		0.07	0.07	0.11	0.11	0.10	0.13	0.14
BG		0.19	0.13			0.08	0.11	0.15	
CY	0.14		0.10			0.11	0.16	0.09	
CZ		0.16	0.19	0.10	0.09	0.07	0.07		0.10
DE	0.22		0.15	0.15	0.14	0.11	0.14	0.13	0.15
DK			0.08		0.12	0.08	0.12	0.12	0.09
EE		0.27	0.21	0.23	0.28	0.11	0.08	0.11	0.08
ES	0.17		0.15	0.17	0.14	0.14	0.14	0.15	0.13
EU-ave	***0.15***	***0.16***	***0.14***	***0.13***	***0.13***	***0.10***	***0.11***	***0.11***	***0.12***
FI	0.15	0.14	0.10	0.16	0.18	0.16	0.12	0.14	0.14
FR	0.09	0.11	0.09	0.07	0.14	0.09	0.07	0.10	0.18
GB	0.15		0.17	0.09	0.14	0.07	0.16	0.13	0.10
GR	0.13	0.12					0.05		0.08
HR	0.21	0.12	0.15				0.12		
HU	0.18	0.21	0.16	0.34	0.17	0.13	0.17	0.12	0.14
IE	0.10		0.14	0.06	0.09	0.05	0.05	0.09	0.10
IT	0.26	0.20	0.21	0.20		0.26			
LT	0.15	0.23	0.22	0.10	0.17	0.07			
LU									0.09
LV			0.18				0.10		
NL	0.13	0.11	0.04	0.06	0.07	0.10	0.07	0.07	0.09
PL	0.22		0.23	0.13	0.20	0.09	0.16	0.14	0.14
PT	0.04	0.05	0.09	0.07	0.09	0.12	0.17	0.07	0.15
RO							0.07		
SE	0.09		0.11	0.09	0.06	0.04	0.09	0.07	0.09
SI	0.08	0.14	0.16	0.07	0.09	0.10	0.09	0.09	0.05
SK	0.18	0.19	0.11			0.09	0.10	0.08	0.12

Part VIII. Replication of the public opinion analysis with Eurobarometer data

The analyses of ESS data provide a rather comprehensive picture of the patterns of covariation of different aspects of European integration support, left-right self-placement and policy preferences over time and across many European states. It is instructive to check, however, whether similar patterns are found using an alternative high-quality data source with different formulations of the survey items and complete coverage of all EU member states. Exploring data from Eurobarometer allows us to do that.

The Standard Eurobarometer survey is fielded in all EU member states twice a year. We focus on the 70.1, 81.4, 93.3, and 100.2 editions, with data collection in October-November 2008, May 2024, November 2018, and November 2023 respectively. Both editions feature several items relevant for measuring European integration support. The 'speed of integration' question asks respondents about their perceived current[1] and desired speed of 'building Europe'. In the analysis we use both the desired speed and the difference between the desired and perceived speed. In addition, there is a question about trust in the EU, with answer categories 'Tend to trust' and 'Tend not to trust', which we recode as 1 and 0, respectively ('Don't know' responses are recoded is missing). Finally, the 2018 edition includes a question on attachment to the EU (with four answer categories, recoded so that higher values mean higher attachment). The 2008 edition includes a question whether EU membership is perceived as a good thing (recoded as +1), neither good nor bad (0) or a bad thing (recoded as -1). This question is not asked in more recent years, unfortunately.

The 'left-right' question in the Standard Eurobarometer is similarly phrased to the ESS one ('*In political matters people talk of "the left" and "the right". How would you place your views on this scale?*'), but the scale ranges from 1 (left) to 10 (right), rather than 0-to-10 as in the ESS. This seemingly minor difference can be important, given that there is no clear midpoint in the 1-to-10 version. A major limitation of Eurobarometer as a data source for our purposes is the lack of questions on policy preferences. The only indirectly relevant item in the two surveys is a question in the 2018 edition asking respondents for their agreement with the statement that immigrants contribute a lot to their country (4-level agreement scale, recoded so that higher values mean more agreement).

Looking first at how the desired speed of European integration varies with left-right self-placement (Figure A13), we can see that in the pooled EU sample, the relationship is very weak (the variation is within 0.4 points on a 7-point scale), but to the extent to it exists, it is more U-shaped than inverted

[1] *'In your opinion, what is the current speed of building Europe? Please look at these figures. N°1 is standing still, N°7 is running as fast as possible. Choose the one which best corresponds with your opinion of the current speed of building Europe.'* Then, respondents are asked: '*And which corresponds best to the speed you would like?'*.

U-shaped, with both the extreme left and the extreme right wanting on average faster European integration. The overall mean has increased between 2008 and 2018, and the lines has flattened for those on the moderate left, but otherwise the pattern has remained similar.

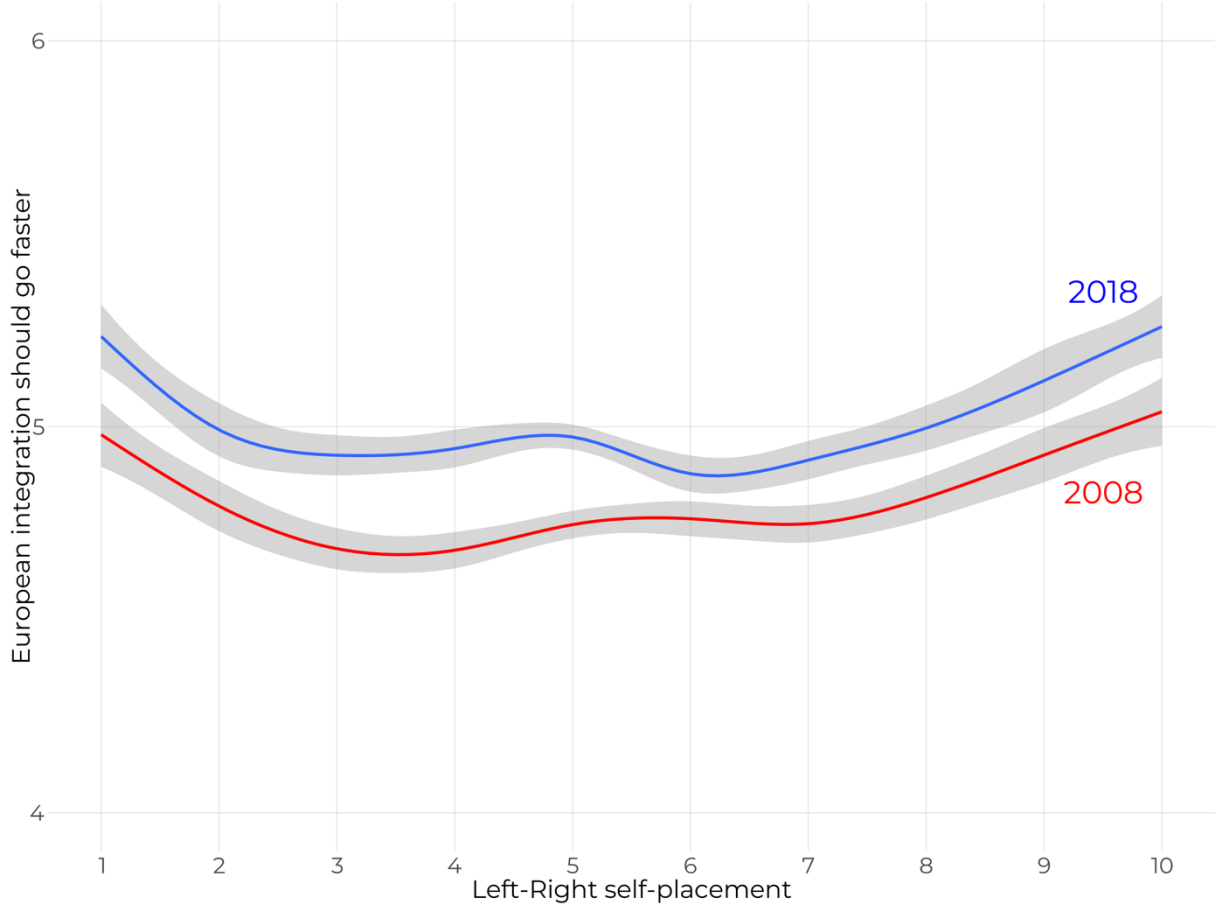

Figure A13. Support for faster European integration as a function of left-right self-placement, *Data: Eurobarometer (2008, 2018).*

The shapes are largely similar when we look into the *difference* between the desired and the perceived speed of integration. The picture looking at trust in the EU, however, is quite different (Figure A14, top left panel): in 2018, there *would* be an inverted U-curve if it was not for the familiar dip around the midpoint of the left-right scale; in 2008, however, trust in the EU has been much higher on the right than on the left, possibly due to a drop in trust in Eastern Europe. Attachment to the EU (Figure A14, top right panel) is mostly flat but relatively lower on the extreme left. There is a faint U-curve pattern when it comes to evaluations of EU membership (Figure A14, bottom left panel), which is obscured by the midpoint dip and is very weak right-of-center. Similarly to the results of the ESS data analysis, support for faster EU integration varies more strongly and linearly with assessments of immigration (bottom right panel of Figure A14).

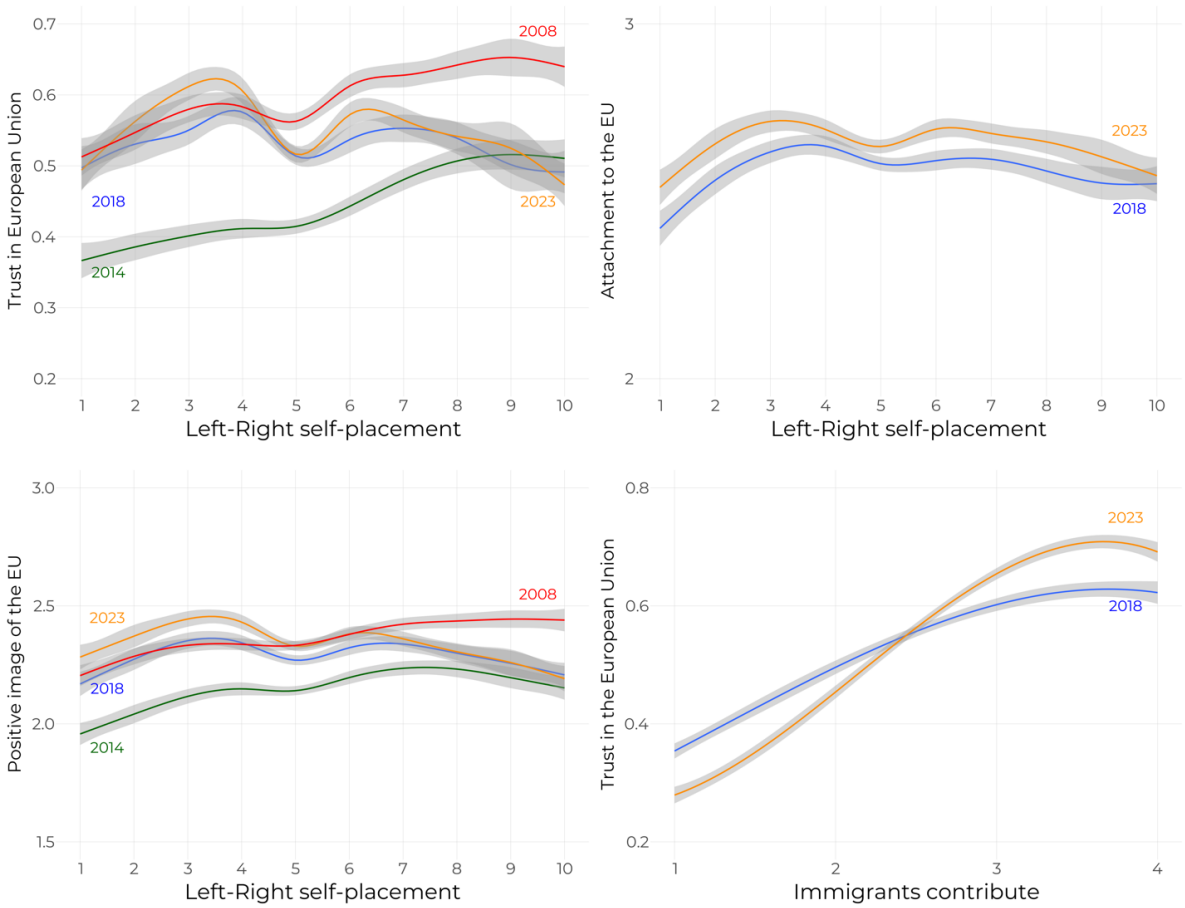

Figure 14. Trust in the EU (top left), attachment to the EU (top right) and positive evaluations of the EU image (bottom left) as a function of left-right self-placement, and trust in the EU as a function of positive evaluations of immigration (bottom right). Orange lines show 2023, blue lines show 2018, green lines show 2014, and red ones show 2008 data. *Data: Eurobarometer (2004, 2008, 2018, 2023).*