Supplementary Materials for

SOLIDARISTIC UNIONISM AND SUPPORT FOR REDISTRIBUTION IN CONTEMPORARY EUROPE

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Table 1. Country-years included in analysis

Country	Year						
	2002	2004	2006	2008	2010	2012	2014
Austria	x	x	x	.	.	.	x
Belgium	x	x	x	x	x	x	x
Czech Republic	x	x	.	x	x	x	x
Denmark	x	x	x	x	x	x	x
Finland	x	x	x	x	x	x	x
France	.	x	x	x	x	x	x
Germany	x	x	x	x	x	x	x
Great Britain	x	x	x	x	x	x	x
Greece	x	x	.	x	x	.	.
Hungary	.	.	.	x	x	x	x
Ireland	.	x	x	x	x	x	x
Italy	x	x	.	.	.	x	.
Netherlands	x	x	x	x	x	x	x
Norway	x	x	x	x	x	x	x
Poland	x	x	x	x	x	x	x
Portugal	x	x	x	x	.	x	x
Slovakia	.	x	x	.	x	x	.
Slovenia	x	x	x	x	x	x	x
Spain	x	x	x	x	x	.	x
Sweden	x	x	x	x	x	x	x
Switzerland	x	x	x	x	x	x	x

Table 2. Descriptive Statistics

Variable	N	MEAN	S.D	MODUS	MEDIAN
Country	86'116	-	-	Germany	-
Country-Year	86'116	-	-	Germany 2014	-
Respondent	86'116	-	-	-	-
Redistribution Support	86'116	-	-	Agree	-
Ghent	86'116	-	-	Non-Ghent	-
Income Taxation	86'116	9.670	4.763	-	8.997
Gini	86'116	27.696	3.601	-	26.965
Low-income Inclusiveness	86'116	.975	.207	-	.977
Union Density	86'116	36.029	22.279	-	26.300
Employment Protection	86'116	2.542	.428	-	2.580
Union Membership	86'116	-	-	Non-member	-
Income	86'116	5.378	2.842	3rd decile	5th decile
Age	86'116	42.337	11.262	-	43
Gender	86'116	-	-	Male	-
Education	86'116	13.747	3.682	-	13
Relative Skill Specificity	86'116	1.141	.647	-	.860
Fixed-Term Employment	86'116	-	-	Permanent Employment	-
Public-Sector Employment	49'060	-	-	Private Sector	-
Establishment Size	86'116	2.627	1.380	-	3
Religiosity	86'116	4.204	2.902	-	5
Left-Right Self-Placement	86'116	5.068	2.057	-	5

Table 3. Macro variables per country (average values)

Country	N	Redistribution Support %	Low-income inclusiveness	Union Density	Ghent	Employment Protection	Income Taxes	Gini coefficient (disposable income)
Austria	2'517	66.92	.93	32.97	No	2.70	9.59	27.31
Belgium	5'163	66.20	1.36	54.84	Yes	2.84	12.65	25.74
Czech Republic	3'714	54.07	.99	17.69	No	2.82	3.85	24.54
Denmark	4'989	36.46	1.02	69.24	Yes	2.45	24.72	23.63
Finland	6'555	71.99	1.01	70.93	Yes	2.07	12.85	25.81
France	4'905	75.86	.75	7.69	No	2.70	7.52	29.09
Germany	7'162	63.39	.87	20.24	No	2.95	8.86	28.27
Great Britain	5'585	57.92	.88	27.48	No	1.70	9.82	34.94
Greece	2'168	89.02	.67	24.05	No	2.93	4.52	32.94
Hungary	1'881	84.85	.75	12.28	No	2.34	6.19	27.65
Ireland	3'431	70.91	.83	33.44	No	1.89	8.64	29.77
Italy	857	80.05	1.15	34.44	No	3.15	10.38	33.00
Netherlands	5'538	51.75	1.08	20.00	No	2.91	6.91	26.11
Norway	6'413	58.85	.97	53.82	No	2.38	9.86	24.46
Poland	3'798	73.46	1.09	15.45	No	2.45	4.46	30.17
Portugal	2'165	87.81	.51	20.55	No	3.75	5.68	35.34
Slovakia	1'821	72.60	.98	19.40	No	2.69	2.93	26.41
Slovenia	2'408	80.48	1.35	32.31	No	2.83	5.53	23.21
Spain	3'404	79.88	.98	16.14	No	2.70	6.76	32.22
Sweden	6'688	64.52	1.01	72.83	Yes	2.58	13.63	23.75
Switzerland	4'954	63.54	1.04	18.39	No	2.18	8.57	29.48
Total	*86'116*	*65.77*	*.98*	*36.03*	*-*	*2.54*	*9.67*	*27.70*

Table 4. Variance inflation factor to test for multicollinearity in models 1 and 2 in appendix 3

Variables	Model 6 VIF	Model 6 1/VIF	Model 7 VIF	Model 7 1/VIF
Level 1				
Union membership	1.69	.592	1.69	.593
Income	1.65	.606	1.65	.606
Age	1.10	.913	1.09	.914
Gender (ref. female)	1.09	.918	1.09	.918
Education	1.21	.827	1.21	.828
Relative skill specificity	1.17	.858	1.17	.858
Fixed term employment	1.06	.948	1.06	.948
Establishment size	1.10	.908	1.10	.908
Religiosity	1.07	.933	1.07	.935
Left-Right self-placement	1.06	.948	1.06	.948
Level 1 interaction				
Income * union membership	1.58	.633	1.58	.633
Level 2				
Union density	3.37	.297	3.34	.299
Low-income inclusiveness	1.76	.567	1.74	.574
Income taxation			2.51	.399
Gini			1.77	.566
Level 2 interaction				
Union density * low-income inclusiveness	1.43	.697	1.43	.697
Level 3				
Income taxation	2.52	.397		
Gini	1.82	.551		
Cross-Level Interactions				
Union density * union membership	1.34	.748	1.34	.748
Union density * income	1.52	.656	1.52	.656
Union density * union membership * income	1.57	.638	1.57	.638
Low-income inclusiveness * union membership	1.34	.744	1.34	.744
Low-income inclusiveness * income	1.52	.656	1.52	.656
Low-income inclusiveness * union membership * income	1.36	.735	1.36	.735
Union density * low-income inclusiveness * union membership	1.54	.648	1.52	.658
Union density * low-income inclusiveness * income	1.64	.609	1.64	.609
Union density * low-income inclusiveness * union membership * income	1.82	.551	1.82	.551
Mean VIF	*1.52*		*1.52*	

Table 5. Determinants of redistribution support at the individual level, three-level random intercept logit models

Variables	Model 0	Model 1	Model 2	Model 3	Model 4	Model 5
FIXED EFFECTS						
Level 1						
Constant	2.427***	2.202***	2.654***	2.706***	2.660***	2.711***
	(.341)	(.343)	(.407)	(.403)	(.408)	(.404)
Union membership		1.490***	1.445***	1.324***	1.435***	1.313***
		(.027)	(.027)	(.026)	(.027)	(.026)
Income		.891***	.906***	.916***	.899***	.908***
		(.002)	(.003)	(.003)	(.003)	(.003)
Age			1.010***	1.009***	1.010***	1.009***
			(.001)	(.001)	(.001)	(.001)
Gender (ref. female)			.699***	.749***	.700***	.750***
			(.011)	(.012)	(.011)	(.012)
Education			.960***	.950***	.960***	.950***
			(.002)	(.002)	(.002)	(.002)
Relative skill specificity			1.143***	1.131***	1.143***	1.130***
			(.015)	(.015)	(.015)	(.015)
Fixed term employment			1.249***	1.201***	1.246***	1.198***
			(.033)	(.032)	(.033)	(.032)
Establishment size			.992	.987*	.993	.987*
			(.006)	(.006)	(.006)	(.006)
Religiosity			.985***	1.006*	.985***	1.006*
			(.003)	(.003)	(.003)	(.003)
Left-Right self-placement				.797***		.797***
				(.003)		(.003)
Level 1 interactions						
Income * union membership					1.024***	1.024***
					(.006)	(.006)
RANDOM EFFECTS						
Variance (Country)	.406	.499	.481	.453	.481	.453
	(.128)	(.157)	(.152)	(.143)	(.152)	(.143)
Variance (Country-Years)	.041	.043	.044	.048	.044	.048
	(.007)	(.007)	(.007)	(.008)	(.007)	(.008)
Log likelihood	-52'475	-51'311	-50'704	-49'069	-50'696	-49'076
ICC country	.109	.130	.126	.120	.126	.120
ICC country-years|country	.120	.141	.138	.132	.138	.132
N Level 3	21	21	21	21	21	21
N Level 2	126	126	126	126	126	126
N Level 1	86'116	86'116	86'116	86'116	86'116	86'116

Log odds ratios, standard errors in parentheses. - *** significant at .01%, ** significant at 1%, * significant at 5%, † significant at 10% - continuous variables centered at their sample mean. Maximum likelihood estimation using adaptive Gaussian quadrature. European Social Survey 2002-14.

Table 6. Conditioning of the union membership effect on redistribution support by union movement characteristics, two-level logistic and linear probability models with random intercepts

Variables	Model 1	Model 2
FIXED EFFECTS		
Level 1		
Constant	2.157***	.654***
	(.107)	(.009)
Union membership	1.323***	.060***
	(.028)	(.004)
Income	.913***	-.019***
	(.004)	(.001)
Age	1.009***	.002***
	(.001)	(.000)
Gender (ref. female)	.752***	-.057***
	(.012)	(.003)
Education	.950***	-.009***
	(.002)	(.000)
Relative skill specificity	1.128***	.022***
	(.015)	(.003)
Fixed term employment	1.199***	.033***
	(.032)	(.005)
Establishment size	.986*	-.003**
	(.006)	(.001)
Religiosity	1.006*	.001*
	(.003)	(.001)
Left-Right self-placement	.796***	-.044***
	(.003)	(.001)
Level 1 Interaction		
Union membership * income	1.016*	.005***
	(.007)	(.001)
Level 2		
Union density	1.012***	.002***
	(.004)	(.001)
Low-income inclusiveness	1.058	.040
	(.261)	(.044)
Income taxation	.900***	-.023***
	(.013)	(.003)
Gini	1.064***	.011***
	(.016)	(.003)
Level 2 Interaction		
Union density * low-income inclusiveness	1.058***	.011***
	(.015)	(.003)
Cross-Level Interactions		
Union density * union membership	1.003***	.001***
	(.001)	(.000)
Union density * income	1.001***	.000***
	(.000)	(.000)
Union density * union membership * Income	.999**	-.000*
	(.000)	(.000)
Low-income inclusiveness * union membership	1.095	.008
	(.116)	(.019)
Low-income inclusiveness * income	.942**	-.015***
	(.019)	(.004)
Low-income inclusiveness * union membership * Income	1.036	.011
	(.039)	(.007)
Union density * low-income inclusiveness * union membership	.981**	-.004***
	(.006)	(.001)
Union density * low-income inclusiveness * income	1.001	.000*
	(.001)	(.000)
Union density * low-income inclusiveness * union membership * income	1.001	-.000
	(.002)	(.000)
RANDOM EFFECTS		
Variance (Country-Years)	.222	.007
	(.030)	(.000)
Variance (Individual)	-	.194
		(.001)
Log likelihood	-49'061	-51'704
ICC country-years	.063	.036
N Level 2	126	126
N Level 1	86'116	86'116

Standard errors in parentheses - *** significant at .01%, ** significant at 1%, * significant at 5%, † significant at 10% - grand-mean centering of continuous variables. European Social Survey 2002 – 14.
Model 1: logistic model, adaptive Gaussian quadrature with 7 integration points (odds ratios reported)
Model 2: linear probability model.

Table 7. Predicted probabilities of support for redistribution among respondents in countries with different national union movements, controlling for ideological self-placement

type of unionism		income 2nd decile		9th decile		diff
comprehensive	union member	.837*** (.021)	union member	.761*** (.028)		.076***
	non union member	.769*** (.027)	non union member	.696*** (.033)		.073***
diff		*.068***		*.065***		*.003*
low-wage	union member	.700*** (.023)	union member	.556*** (.026)		.144***
	non union member	.652*** (.021)	non union member	.445*** (.022)		.207***
diff		*.048**		*.111***		*.063*
high-wage	union member	.712*** (.019)	union member	.606*** (.020)		.106***
	non union member	.687*** (.017)	non union member	.547*** (.019)		.140***
diff		*.025†*		*.059***		*.034†*

Standard errors in parentheses - *** significant at .01%, ** significant at 1%, * significant at 5%, † significant at 10% - t test of equality hypothesis for differences. Based on Model 1 in Table 6.

Comprehensive unionism corresponds to low-income inclusiveness of 1.00 and union density of 75.
Low-wage unionism corresponds to low-income inclusiveness of 1.25 and union density of 25.
High-wage unionism corresponds to low-income inclusiveness of .75 and union density of 25.

Table 8. Predicted probabilities of support for redistribution among respondents in countries with different national union movements, controlling for ideological self-placement

type of unionism		2nd decile	income	9th decile	diff
comprehensive	union member	.832*** (.028)	union member	.733*** (.028)	.099***
	non union member	.746*** (.028)	non union member	.648*** (.028)	.098***
diff		*.086****		*.085****	*.001*
low-wage	union member	.676*** (.019)	union member	.559*** (.019)	.117***
	non union member	.642*** (.017)	non union member	.460*** (.016)	.182***
diff		*.034***		*.099****	*.065****
high-wage	union member	.674*** (.016)	union member	.588*** (.016)	.086***
	non union member	.646*** (.014)	non union member	.535*** (.014)	.111***
diff		*.028***		*.053****	*.025†*

Standard errors in parentheses - *** significant at .01%, ** significant at 1%, * significant at 5%, † significant at 10% - t test of equality hypothesis for differences. Based on Model 2 in Table 6.

Comprehensive unionism corresponds to low-income inclusiveness of 1.00 and union density of 75.
Low-wage unionism corresponds to low-income inclusiveness of 1.25 and union density of 25.
High-wage unionism corresponds to low-income inclusiveness of .75 and union density of 25.