

Online Appendix to
“It is all about value: How domestic party brands
influence voting patterns in the European
Parliament”

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Governance. Forthcoming.

Contents

A	Descriptive Statistics	1
B	Models using Domestic Party-Level Institutionalization Data	3
C	Models on Both W-NOMINATE Dimensions	6
D	Models Using Last Domestic Elections (pre-2004)	8
E	Model using Party System Type	11
F	OLS and Fixed Effects Models	13
G	Models with All Members of European Parliament	14
H	Models Excluding Members of the European Parliament from Netherlands	16
I	Models using Alternative Independent Variables (New Members, New Democracies, and Post-Communist States)	18
J	Models Estimating the Effect of Party System Development on MEP Careerism	21
K	Models Estimating the Effect of Party System Development on Individual Distance from EPG by Year, Sixth European Parliament	23
L	Voting Behavior in the Seventh European Parliament	31

A Descriptive Statistics

Table 1 shows descriptive statistics for the numeric independent variables used in the analyses included in the paper.

Table 1: Descriptive Statistics for Quantitative Variables.

Statistic	N	Mean	St. Dev.	Min	Max
W-NOMINATE score (dim. 1)	904	0.04	0.20	-0.99	1.00
W-NOMINATE score (dim. 2)	904	-0.21	0.57	-1.00	1.00
Distance from party W-NOMINATE (dim. 1)	904	0.04	0.11	0.0001	1.51
Distance from party W-NOMINATE (dim. 2)	904	0.18	0.20	0.0001	1.20
Distance from party W-NOMINATE (combined)	904	0.11	0.13	0.001	0.90
Eff. number of parl. parties, last election	906	3.66	1.27	1.99	7.03
Mean eff. number of parl. parties, 1990-2004	906	3.96	1.47	1.99	8.13
Party system volatility, last election	906	13.09	6.93	0.55	30.76
Mean party system volatility, 1990-2004	906	12.16	6.12	2.59	24.08
Domestic party seat share, last election	710	0.26	0.18	0.00	0.63
Domestic party seat share, 1990-2004	710	0.25	0.16	0.00	0.62
Domestic party volatility, last election	540	4.49	4.90	0.01	30.97
Domestic party volatility, 1990-2004	548	5.08	3.46	0.04	30.97
GDP per capita, 2004 (PPP, in thousands)	906	25.58	8.95	8.86	65.21
European party size (as prop.)	906	0.25	0.12	0.03	0.36
European party fractionalization	906	0.93	0.03	0.81	0.96
Number of intergroups	906	1.50	1.74	0	9

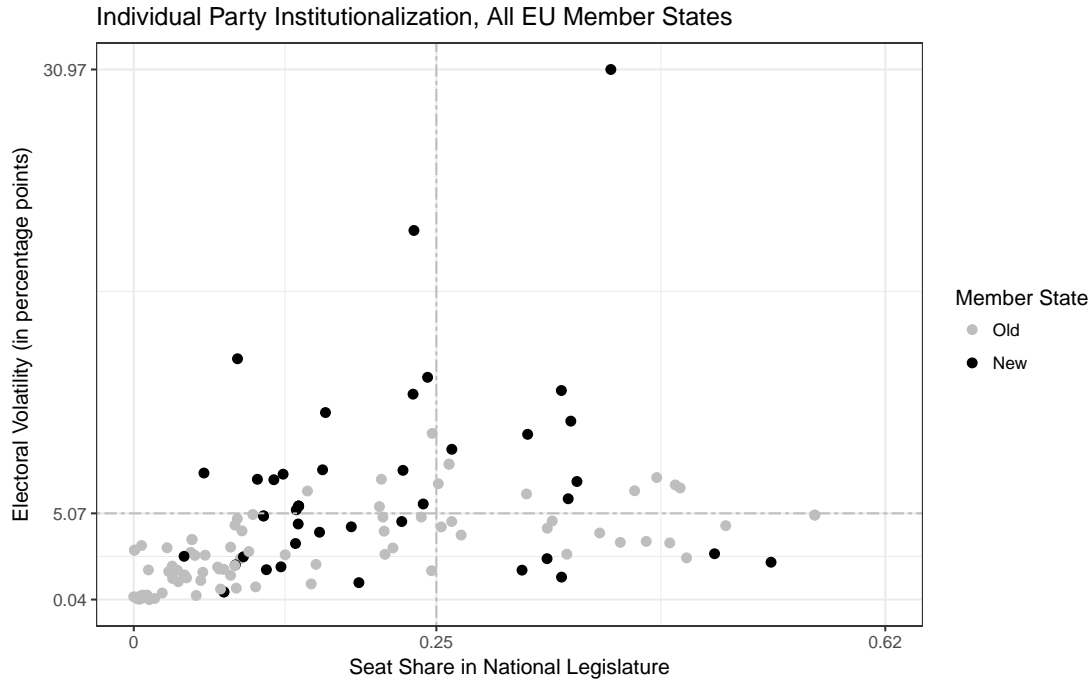
B Models using Domestic Party-Level Institutionalization Data

To extend the analysis to the individual domestic party level, I construct a measure of party institutionalization for each individual domestic party represented in the sixth European Parliament. According to Huntington (1968), party institutionalization requires that a party both create ties of loyalty between its members, voters, and other societal groups, and that it develops organizational capacity. While electoral volatility (defined as the change in a party's vote share across consecutive elections) speaks to the links between the party and society, party seat share in the domestic legislature proxies as a measure of the party's organizational capacity.

Using data from the ParlGov dataset (Döring & Manow 2015), I calculate the mean electoral volatility and seat share in the national legislature for individual domestic parties in all EU member states between 1990 and 2004. I then use these measures to create a binary classification of parties as either institutionalized or low institutionalization. A party is classified as low institutionalization if, between 1990 and 2004, its mean electoral volatility is above the mean of all parties in its country and its mean seat share in the legislature is below the mean of all parties in the country during the same time period. On the other hand, a party with an average electoral volatility below the mean and average seat share above the mean in its county is classified as institutionalized. Figure 1 shows the level of institutionalization for each domestic political party that was represented in the sixth European Parliament.

I use this measure of party institutionalization to re-estimate the main regressions from Table 2 of the manuscript; the results of these models can be found in Table 2. In Models 1-3 in Table 2, the coefficients for the various individual domestic party-level variables regarding institutionalization are not statistically significant at the 0.05 level. However, the coefficients are in the direction predicted by my theory. More importantly, Models 4-6, which include both party

Figure 1: The figure shows mean electoral volatility and seat shares in the national legislature (1990–2004) for individual parties in EU member states. Parties from new member states are indicated by black points, while those from old member states (pre-2004 enlargement) are shown in grey. Parties located in the upper left quadrant exhibit high levels of electoral volatility and below average seat shares in their legislature, or, low institutionalization.



and party system-level measures of institutionalization, produce results consistent with my main argument and findings that MEPs from less institutionalized systems vote more with their European parties. These results also support the notion that it is the entire domestic party system, rather than individual parties, that matter for European voting, since the political behavior of parties and politicians is often in response to the behavior of others within the same system.

Table 2: Results shown are from mixed effects models of individual distance from average European party W-NOMINATE scores on the second dimension only (liberal-conservative), using party-level and party system-level predictors.

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Domestic party-level						
Low institutionalization domestic party	-0.03 (0.08)			-0.00 (0.08)		
Domestic party seat share		-0.15 (0.21)	-0.02 (0.32)		-0.51** (0.24)	-0.06 (0.33)
Domestic party volatility		-0.01 (0.01)	0.00 (0.02)		-0.02*** (0.01)	-0.00 (0.02)
Dom. seat share × Dom. vol.			-0.06 (0.06)			-0.09 (0.06)
Country-level						
Low institutionalization party system				-0.31*** (0.07)		
System fragmentation					-0.78*** (0.16)	0.01 (0.26)
System volatility					0.39*** (0.11)	0.89*** (0.17)
System frag. × System vol.						-1.96*** (0.50)
New member state	-0.10 (0.09)	0.00 (0.10)	-0.01 (0.10)	0.02 (0.09)	-0.12 (0.10)	-0.13 (0.10)
Open list	-0.31*** (0.06)	-0.35*** (0.08)	-0.35*** (0.08)	-0.32*** (0.06)	-0.11 (0.09)	-0.14 (0.09)
Ordered list	0.02 (0.06)	-0.03 (0.07)	-0.03 (0.07)	0.04 (0.06)	0.17** (0.07)	0.22** (0.07)
GDP per capita	0.02*** (0.00)	0.01*** (0.01)	0.01** (0.01)	0.01*** (0.00)	0.01* (0.01)	0.01 (0.01)
European party-level						
Party size	10.00 (8.63)	12.57 (8.38)	12.66 (8.32)	10.93 (9.33)	12.55 (8.75)	13.13 (8.88)
Party size ²	-2.05 (9.60)	-1.46 (9.29)	-1.39 (9.22)	-3.27 (10.37)	-1.86 (9.70)	-2.41 (9.86)
Party fractionalization	-1.38 (1.26)	-1.45 (1.22)	-1.47 (1.21)	-1.78 (1.35)	-1.37 (1.27)	-1.64 (1.28)
MEP-level						
Party official	-0.06 (0.09)	-0.03 (0.10)	-0.03 (0.10)	-0.07 (0.09)	-0.04 (0.10)	-0.04 (0.09)
Intergroups	-0.03** (0.01)	-0.03* (0.01)	-0.03 (0.06)	-0.03** (0.01)	-0.03** (0.01)	-0.03* (0.01)
AIC	1102.21	927.92	933.55	1085.70	902.53	894.50
BIC	1160.40	988.13	998.06	1148.36	971.34	971.91
Log. lik.	-538.11	-449.96	-451.77	-528.85	-435.26	-429.25
Num. obs.	649	545	545	649	545	545
Num. parties	7	7	7	7	7	7
Variance: European parties	0.32	0.30	0.29	0.37	0.32	0.33
Variance: residual	0.29	0.28	0.28	0.28	0.27	0.26

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

C Models on Both W-NOMINATE Dimensions

Most of the variation in individual W-NOMINATE scores happens along the horizontal axis, which seems to correspond to the liberal–conservative divide in the European Parliament. As a robustness check, I run my main models on the average distance between individual MEPs and their European parties on both dimensions. For this, I calculate the centroid of a given European party by taking the mean W-NOMINATE scores for all members of that party on both dimensions. Then, for each dimension, I find the absolute difference between the European party position and the individual scores for each MEP in that party. I average these two distances to find a single value for each MEP—the distance between that individual and their European party’s central position. The results are shown in Table 3. The relationship between this outcome and the main predictors is significant and in the expected direction: MEPs from low institutionalization domestic party systems are closer to their European parties than their counterparts from institutionalized systems.

Table 3: Results shown are from mixed effects models of individual distance from average European party W-NOMINATE scores on the two estimated dimensions (liberal-conservative and pro-anti EU).

	Model 1	Model 2	Model 3
Country-level			
Low institutionalization party system	-0.16** (0.06)		
Fragmentation		-0.44*** (0.11)	-0.02 (0.18)
Volatility		0.25*** (0.09)	0.60*** (0.15)
Frag. × Vol.			-1.17*** (0.40)
New member state	-0.02 (0.10)	-0.22** (0.10)	-0.16 (0.10)
Open list	-0.24*** (0.06)	-0.03 (0.07)	-0.09 (0.07)
Ordered list	0.02 (0.06)	0.15** (0.06)	0.16** (0.06)
GDP per capita	0.01** (0.00)	0.01 (0.00)	0.01 (0.00)
EPG-level			
European party size	12.02 (10.91)	11.71 (10.95)	11.62 (10.87)
Party size ²	-1.57 (12.19)	-0.96 (12.24)	-0.86 (12.15)
Party fractionalization	-2.17 (1.49)	-2.07 (1.50)	-2.05 (1.48)
MEP-level			
Party official	0.02 (0.08)	0.00 (0.08)	-0.00 (0.08)
Intergroups	-0.02* (0.01)	-0.03** (0.01)	-0.03** (0.01)
AIC	1725.11	1710.10	1703.60
BIC	1787.60	1777.39	1775.70
Log. lik.	-849.56	-841.05	-836.80
Num. obs.	904	904	904
Num. parties	7	7	7
Variance: parties	0.52	0.52	0.51
Variance: residual	0.37	0.36	0.36

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

D Models Using Last Domestic Elections (pre-2004)

In the paper, I detailed how I calculated the average effective number of legislative parties and levels of electoral volatility for domestic elections between 1990 and 2004, the beginning of the sixth European Parliament (2004–2009). I use these two variables as the main inputs and combine them in different ways in the main regression models. I argued that using data on all elections from 1990 to 2004 matched the theoretical construct of domestic party system institutionalization, a process that takes time and occurs over multiple elections.

Here, I look only at the last domestic elections before 2004 to build the fragmentation and volatility variables and the indicator for low institutionalization party systems. This yields a slightly different classification of countries (Figure 2). In Table 4, I re-estimate the main models using these data on the last domestic elections and find that the main results still hold.

Figure 2: The figure shows electoral volatility and effective number of legislative parties for all EU member states in the last domestic election before 2004. New member states are shown in black text, while old member states (pre-2004 enlargement) are shown in grey. Countries in the upper right quadrant exhibit high levels of volatility and fragmentation, or low institutionalization. Six of these eight states are new EU members.

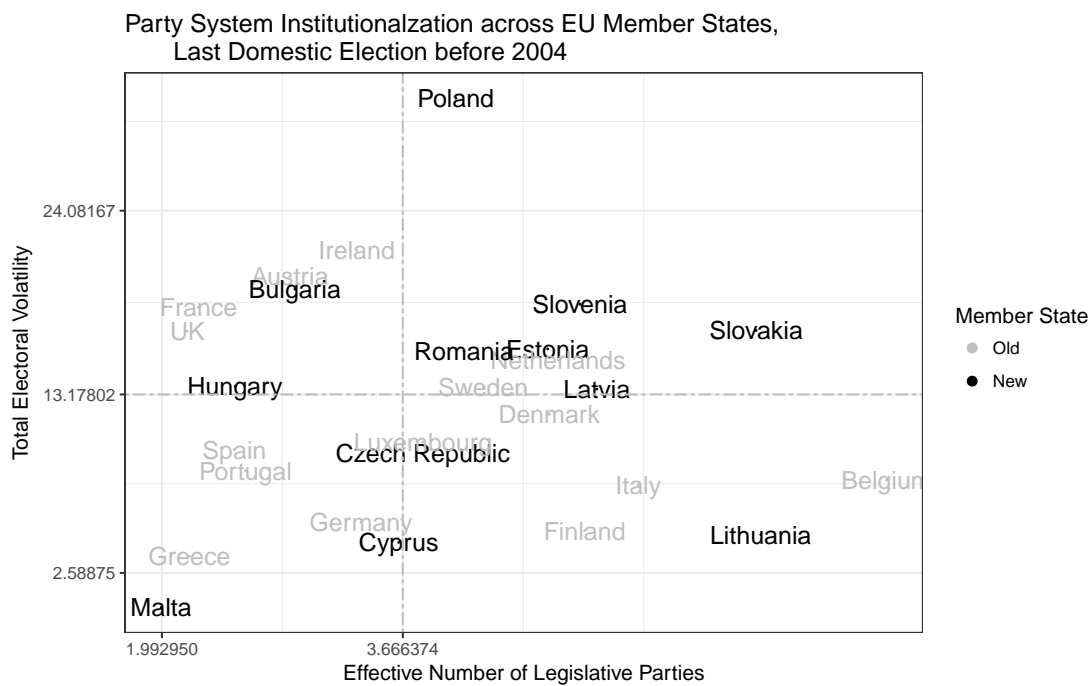


Table 4: Results shown are from mixed effects models of individual distance from average European party W-NOMINATE scores on the second dimension only (liberal-conservative and pro-anti EU), using only the last pre-2004 domestic electoral data to measure party system institutionalization.

	Model 1	Model 2	Model 3
Country-level			
Low institutionalization party system	-0.06 (0.05)		
Fragmentation		-0.07*** (0.02)	0.05 (0.04)
Volatility		-0.00 (0.00)	0.03*** (0.01)
Frag. × Vol.			-0.01*** (0.00)
New member state	-0.04 (0.08)	-0.07 (0.08)	-0.01 (0.09)
Open list	-0.24*** (0.05)	-0.08 (0.07)	-0.14** (0.07)
Ordered list	0.03 (0.05)	0.14** (0.06)	0.12** (0.06)
GDP per capita	0.01** (0.00)	0.01 (0.00)	0.01* (0.00)
EPG-level			
European party size	10.18 (7.51)	10.01 (7.55)	9.99 (7.71)
Party size ²	-1.72 (8.39)	-1.66 (8.43)	-1.40 (8.61)
Party fractionalization	-1.31 (1.03)	-1.28 (1.03)	-1.27 (1.06)
MEP-level			
Party official	-0.01 (0.07)	-0.01 (0.07)	-0.02 (0.07)
Intergroups	-0.02* (0.01)	-0.02* (0.01)	-0.02** (0.01)
AIC	1458.99	1461.55	1462.27
BIC	1521.48	1528.85	1534.37
Log. lik.	-716.50	-716.78	-716.13
Num. obs.	904	904	904
Num. parties	7	7	7
Variance: parties	0.24	0.25	0.26
Variance: residual	0.27	0.27	0.27

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

E Model using Party System Type

In addition to party fragmentation and electoral volatility in domestic party systems, an indicator variable for low institutionalization party systems (with above-average fragmentation and volatility), and the multiplicative interaction term of those two variables, I code an additional categorical variable to identify each of the four types of party systems identified and measured in the paper: low institutionalization (high fragmentation, high volatility), institutionalized (low–low) and mixed domestic party systems (high–low and low–high). The hierarchical model in Table 5 explores how these four types of domestic party systems are associated with the distances of individual legislators from their parties (the same dependent variable in the main statistical models). This allows me to explore a different angle of the relationship between domestic fragmentation and volatility, and the ways in which they are jointly associated with voting behavior in the European Parliament.

In general, the results confirm the analyses: MEPs from low institutionalization party systems exhibit smaller ideological distances from the mean of their European parties when compared to the baseline category (institutionalized party systems with low fragmentation and low volatility). This is also the case for legislators from countries with high fragmentation, but low volatility, where there are many, but relatively stable, parties. However, the strongest result is that the distance from the European party increases—relative to the baseline—among legislators whose domestic party systems are highly volatile despite a low number of legislative parties.

Table 5: Results shown are from mixed effects models of individual distance from average European party W-NOMINATE scores on the second dimension only (liberal–conservative), using party system type (four categories) as the main predictor. The baseline category is institutionalized party systems with below EU-average levels of fragmentation and volatility.

	Model 1
Country-level	
Low institutionalization party system	−0.07 (0.06)
Mixed party system (high frag.–low vol.)	−0.11 (0.07)
Mixed party system (low frag.–high vol.)	0.15*** (0.05)
New EU Member State	−0.12 (0.09)
Open list	−0.10 (0.07)
Ordered list	0.09* (0.06)
GDP per capita	0.00 (0.00)
EPG-level	
European party size	9.97 (7.48)
Party size ²	−1.36 (8.35)
Party fractionalization	−1.25 (1.02)
MEP-level	
Party official	−0.01 (0.07)
Intergroups	−0.02** (0.01)
AIC	1451.48
BIC	1523.59
Log. Lik.	−710.74
Num. obs.	904
Num. groups (EPG)	7
Variance: EPG	0.24
Variance: Residual	0.27

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

F OLS and Fixed Effects Models

As discussed in the paper, I re-estimate the main regression models using standard OLS as well as models with fixed effects for European party groups. I find that the central results hold. Table 6 reports the results of these models. I only include full models for OLS (Models 1-3), since there is not enough within-group variation in some of the European parties to estimate full fixed effects models.

Table 6: Results shown are from OLS and fixed effects (by EPG) models of individual distance from average European party W-NOMINATE scores on the second dimension only (liberal–conservative).

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Country-level:						
Low institutionalization party system	-0.10 (0.06)			-0.19*** (0.04)		
Fragmentation		-0.27*** (0.10)	0.13 (0.16)		-0.42*** (0.08)	-0.04 (0.13)
Volatility		0.22** (0.08)	0.55*** (0.14)		0.03 (0.06)	0.45*** (0.13)
Frag. × vol.			-1.12*** (0.37)			-1.13*** (0.31)
New member state	0.04 (0.09)	-0.11 (0.09)	-0.05 (0.09)			
Open list	-0.16*** (0.05)	-0.01 (0.06)	-0.07 (0.07)			
Ordered list	-0.00 (0.05)	0.09 (0.06)	0.09 (0.06)			
GDP per capita	0.01* (0.00)	0.00 (0.00)	0.01 (0.00)			
European party-level:						
Party size	10.31*** (0.80)	10.27*** (0.80)	10.26*** (0.79)			
Party size ²	-1.59** (0.69)	-1.32* (0.69)	-1.31* (0.69)			
Party fractionalization	-1.32*** (0.14)	-1.29*** (0.14)	-1.29*** (0.14)			
Party official	0.00 (0.08)	-0.01 (0.08)	-0.01 (0.07)			
Intergroups	-0.03*** (0.01)	-0.03*** (0.01)	-0.03*** (0.01)			
R ²	0.21	0.22	0.23	0.28	0.29	0.30
Adj. R ²	0.20	0.21	0.22	0.27	0.28	0.29
Num. obs.	904	904	904	904	904	904
RMSE	0.55	0.55	0.55	0.53	0.52	0.52

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

G Models with All Members of European Parliament

The sampling strategy for the main results included dropping MEPs from either independent European parties (the “non-attached and Independents” grouping) or domestic independent parties (according to Hix, Noury & Roland’s (2007) coding), since the theory would not apply to them. Nevertheless, I re-estimate the main statistical models now including these legislators to test the robustness of the results. Table 7 shows that low institutionalization party systems are still associated with smaller distances between individual MEPs and their European parties.

Table 7: Regression models on all MEPs. Results shown are from mixed effects models of distance from European party mean W-NOMINATE.

	Model 1	Model 2	Model 3
Country-level			
Low institutionalization party system	-0.15** (0.06)		
Fragmentation		-0.43*** (0.11)	0.00 (0.18)
Volatility		0.25*** (0.09)	0.62*** (0.15)
Frag. × Vol.			-1.20*** (0.40)
New member state	-0.04 (0.10)	-0.24** (0.10)	-0.17* (0.10)
Open list	-0.23*** (0.06)	-0.01 (0.07)	-0.08 (0.07)
Ordered list	0.00 (0.06)	0.14** (0.06)	0.14** (0.06)
GDP per capita	0.01* (0.00)	0.01 (0.00)	0.01 (0.00)
EPG-level			
European party size	6.72 (11.15)	6.47 (11.10)	6.59 (10.90)
Party size ²	6.23 (11.59)	6.71 (11.54)	6.52 (11.34)
Party fractionalization	-1.18 (1.33)	-1.10 (1.33)	-1.12 (1.30)
MEP-level			
Party official	0.02 (0.08)	0.00 (0.08)	-0.00 (0.08)
Intergroups	-0.02* (0.01)	-0.03** (0.01)	-0.03** (0.01)
AIC	1806.66	1790.74	1783.82
BIC	1869.61	1858.54	1856.46
Log. lik.	-890.33	-881.37	-876.91
Num. obs.	937	937	937
Num. parties	8	8	8
Variance: parties	0.59	0.58	0.56
Variance: residual	0.37	0.36	0.36

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

H Models Excluding Members of the European Parliament from Netherlands

The Netherlands is the only old EU member state that has a party system classified as low institutionalization from 1990 to 2004. To rule out the possibility that the inclusion of MEPs from the Netherlands are driving the results, I estimate the main regression models on a subset of the data not including MEPs from this member state and found nearly identical results. The results of these models can be found in Table 8.

Table 8: Results shown are from mixed effects models of distance from European party mean W-NOMINATE on the second dimension only (liberal–conservative), excluding all MEPs from the Netherlands.

	Model 1	Model 2	Model 3
Country-level			
Low institutionalization party system	-0.13** (0.06)		
Fragmentation		-0.32*** (0.09)	0.07 (0.15)
Volatility		0.22*** (0.08)	0.55*** (0.13)
Frag. × Vol.			-1.10*** (0.35)
New member state	-0.02 (0.08)	-0.19** (0.09)	-0.13 (0.09)
Open list	-0.21*** (0.05)	-0.04 (0.06)	-0.10 (0.06)
Ordered list	0.01 (0.05)	0.12** (0.05)	0.12** (0.05)
GDP per capita	0.01* (0.00)	0.00 (0.00)	0.00 (0.00)
EPG-level			
European party size	5.97 (8.12)	5.78 (8.13)	5.89 (7.96)
Party size ²	4.41 (8.44)	4.83 (8.45)	4.66 (8.27)
Party fractionalization	-0.53 (0.97)	-0.46 (0.97)	-0.48 (0.95)
MEP-level			
Party official	-0.01 (0.07)	-0.02 (0.07)	-0.02 (0.07)
Intergroups	-0.02 (0.01)	-0.02* (0.01)	-0.02* (0.01)
AIC	1521.48	1509.13	1501.35
BIC	1584.43	1576.93	1573.99
Log. lik.	-747.74	-740.56	-735.68
Num. obs.	937	937	937
Num. parties	8	8	8
Variance: parties	0.31	0.31	0.30
Variance: residual	0.27	0.27	0.27

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

I Models using Alternative Independent Variables (New Members, New Democracies, and Post-Communist States)

As an alternative to the low institutionalization party system indicator variable, I code several indicator variables for new (third wave) democracies, new EU member states, and post-communist states. With these, I attempt to capture possible alternative explanations for the observed changes in voting patterns in the European Parliament after EU enlargement. I define new democracies in the European Union as those countries that transitioned to democracy after 1974 (the Carnation Revolution in Portugal). I find whether a country democratized in this period using data from the Polity IV project (Marshall, Jaggers & Gurr 2011): countries that went from below a 6 (not democratic) on the 20-point `polity2` scale to a 6 or above (democratic) are considered to have democratized (Kapstein & Converse 2008). Meanwhile, post-communist countries have particular political histories that make them likely to have all the characteristics associated with weakly institutionalized party systems (as discussed previously). Furthermore, there might be lasting Soviet legacies that are expressed at the international level and foment Euro-skepticism in MEPs from former communist countries or those that were under the Soviet Union's direct sphere of influence.

Table 9 shows the differences between the four classifications (low institutionalization, new EU member, new democracy, and post-communist); despite the overlap, there are key differences. In this paper, I focus on the category of low institutionalization party systems, rather than focusing on approaches that stress new membership status as the potential cause for differences in the voting behavior of MEPs.

I re-estimate the main models in the paper using these indicator variables. I report the results of these models in Table 10. I interpret these as providing support for my claim that it is the type of domestic party system that matters for

how MEPs vote, and not the fact that they are new EU members, new democracies, or post-communist states.

Table 10: Results shown are from mixed effects models of individual distance from average European party W-NOMINATE scores on the second dimension only (liberal-conservative), using dummy variables for new EU membership, new democracy, and post-Communist states as main predictors.

	Model 1	Model 2	Model 3
Country-level			
New member state	-0.07 (0.08)		
New democracy		-0.00 (0.07)	
Post-communist			-0.05 (0.08)
Open list	-0.23*** (0.05)	-0.24*** (0.05)	-0.23*** (0.05)
Ordered list	0.02 (0.05)	0.01 (0.05)	0.02 (0.05)
GDP per capita	0.01** (0.00)	0.01*** (0.00)	0.01** (0.00)
EPG-level			
European party size	10.19 (7.46)	10.18 (7.42)	10.19 (7.45)
Party size ²	-1.68 (8.33)	-1.69 (8.29)	-1.70 (8.32)
Party fractionalization	-1.30 (1.02)	-1.29 (1.02)	-1.30 (1.02)
MEP-level			
Party official	-0.01 (0.07)	-0.01 (0.07)	-0.00 (0.07)
Intergroups	-0.02* (0.01)	-0.02* (0.01)	-0.02* (0.01)
AIC	1454.10	1455.02	1454.37
BIC	1511.78	1512.70	1512.06
Log. lik.	-715.05	-715.51	-715.19
Num. obs.	904	904	904
Num. parties	7	7	7
Variance: parties	0.24	0.24	0.24
Variance: residual	0.27	0.27	0.27

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Table 9: Low institutionalization party systems, new democracies, new member states and post-communities states in the EU.

Low institution- alization	New EU Member	New Democracy	Post- Communist
Estonia, Latvia, Lithuania, Netherlands, Poland, Romania, Slovenia	Bulgaria, Cyprus, Czech Rep., Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Romania, Slovakia, Slovenia	Bulgaria, Czech Rep., Estonia, Greece, Hungary, Latvia, Lithuania, Lithuania, Poland, Portugal, Romania, Slovakia, Slovenia, Spain	Bulgaria, Czech Rep., Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovakia, Slovenia

J Models Estimating the Effect of Party System Development on MEP Careerism

I use Daniel's (2015) data to test the impact of domestic party system institutionalization on an individual MEP's probability of seeking re-election to the EP. Unlike Daniel (2015), I limit my sample to the elections between the sixth and seventh EP, since this is the first election where MEPs from the 2004 and 2007 EU expansion states are represented. The dependent variable in these models is a binary variable that indicates whether an MEP sought re-election to the EP. I estimate two logistic regression models. Model 1 simply regresses Daniel's (2015) dependent variable on my main independent variable (an indicator variable for whether an MEP comes from an institutionalized or low institutionalization domestic party system). Model 2 then adds the control variables that Daniel (2015, 50) includes in his model, excluding his main independent variables (MEP salary and EP wave). These controls are: the number of terms an MEP has served ("Terms served"); an indicator for if an MEP completed their full term ("Dropout"); age; gender; if their national party was in government at home ("National govt."); if the MEP held an administrative leadership position ("EP leader") or a committee leadership position ("Committee leader"); if the MEP is from a new member state (New member); and a measure of the extent of an MEP's home country's subnational governing presence ("Local elections").

The results of these models, as well as the above description of the data, can be found in Table 11. The variable measuring domestic party system institutionalization (low institutionalization party system) is statistically significant at the 0.10 level in the bivariate model; however, once controls are added, this variable loses statistical significance. Nevertheless, the sign on this variable is in the direction my theory predicts in both models: MEPs from states with low institutionalization party systems are more likely to seek re-election, and thus attempt to pursue careers, in the EP. This suggests that MEPs from less mature domestic party systems do in fact view the EP as a venue for career advancement.

Table 11: Results shown are from logistic regression models of whether an MEP seeks re-election to the European Parliament between the sixth (2004–2009) and seventh (2009–2014) European Parliaments.

	Model 1	Model 2
Low institutionalization party system	0.30*	0.16
	(0.18)	(0.30)
Terms served		-0.01
		(0.09)
Dropout		-4.34***
		(0.53)
Age		-0.05***
		(0.01)
Gender		0.31
		(0.19)
National govt.		0.12
		(0.18)
EP leader		-0.02
		(0.27)
Committee leader		0.42*
		(0.24)
New member		0.83***
		(0.27)
Local elections		0.46***
		(0.14)
AIC	1037.53	818.82
BIC	1046.77	869.67
Log Likelihood	-516.76	-398.41
Deviance	1033.53	796.82
Num. obs.	752	752

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

K Models Estimating the Effect of Party System Development on Individual Distance from EPG by Year, Sixth European Parliament

To test if the effect of domestic party system institutionalization has a temporal component, I re-estimate Model 1 from the main results table (Table 2) of the manuscript for each of the six years in the sixth EP (2004–2009). Do MEPs from new member states learn how to vote over time and, as a result, become less dependent on their EPG? The results of these models can be found in Table 12. The indicator variable measuring whether an MEP comes from a low institutionalization party system is not statistically significant at conventional levels in any of the six yearly models, nor is the indicator variable measuring whether an MEP is from a new member state. Furthermore, the coefficient on the main independent variable is in the expected direction in 2004, 2006, and 2009, but in the opposite for 2005, 2007, and 2008.

To further address the question of whether there are shifts over time, I estimate additional models that include random effects for both European Party Group, following the main results reported in the manuscript, and for the main independent variable (low institutionalization party system) by year. I plot the random effects of the independent variable by year in Figure 3. Also, following Lindstädt, Slapin & Wielen (2012), I re-estimate the same model, excluding MEPs from Bulgaria and Romania, to ensure that their late entry into the sixth EP (2007) is not driving the results. Excluding these MEPs does not significantly change the results. Figure 4 shows the random effects of the binary indicator for low institutionalization party system by year with data on all MEPs except those from Bulgaria and Romania. The full results of these models can be found in Table 13.

Although the results of the models in Table 13 are not significant, the effect of party system institutionalization does not seem to be invariant across the course of the sixth EP. In fact, if anything, the random effects plots suggest that MEPs from low institutionalization party systems began to vote more closely to their

EPG in the second half of the session, rather than at the beginning due to inexperience. This suggests that the main results of the manuscript (that MEPs from low institutionalization party systems are more likely to vote with their EPG) are not driven solely by the earlier years of the sixth EP. Furthermore, even as MEPs from low institutionalization party systems, most of whom were also new to the EP in 2004, became accustomed to how the EP works over time, they shifted away from their domestic parties and closer to their EPGs. This type of behavior would fit with my argument that MEPs from low institutionalization systems will favor their EPGs over their domestic party since the former is better able to advance their political careers within the EP.

Table 12: Results shown are from mixed effects models of distance from European party mean W-NOMINATE on the second dimension by year, regressed on a binary measure of party system institutionalization.

	2004	2005	2006	2007	2008	2009
Country-level						
Low institutionalization party system	-0.04 (0.09)	0.05 (0.07)	-0.00 (0.08)	0.01 (0.05)	0.03 (0.04)	-0.02 (0.07)
New member state	0.17 (0.14)	0.04 (0.10)	0.12 (0.13)	0.03 (0.08)	0.00 (0.05)	0.08 (0.10)
Open list	-0.01 (0.08)	-0.12** (0.06)	-0.13* (0.07)	-0.07 (0.05)	-0.02 (0.03)	-0.06 (0.06)
Ordered list	-0.01 (0.08)	-0.07 (0.06)	-0.03 (0.08)	-0.05 (0.05)	0.02 (0.03)	0.01 (0.06)
GDP per capita	0.01 (0.01)	0.00 (0.00)	0.00 (0.01)	0.00 (0.00)	0.00 (0.00)	0.00 (0.01)
EPG-level						
European party size	0.17 (1.14)	-0.73 (0.82)	-0.73 (1.06)	-0.47 (0.82)	0.32 (0.71)	0.18 (0.83)
Party size ²	-0.75 (0.95)	0.26 (0.69)	1.01 (0.88)	1.15 (0.78)	0.17 (0.74)	0.97 (0.72)
Party fractionalization	0.03 (0.24)	-0.12 (0.17)	-0.05 (0.21)	0.04 (0.15)	0.02 (0.12)	-0.08 (0.16)
MEP-level						
Party official	0.01 (0.13)	-0.05 (0.09)	-0.01 (0.12)	-0.01 (0.07)	-0.05 (0.05)	-0.00 (0.09)
Intergroups	0.00 (0.02)	0.02 (0.01)	0.02 (0.02)	0.01 (0.01)	0.00 (0.01)	0.00 (0.01)
AIC	1689.77	1264.42	1603.17	1108.32	433.89	1363.02
BIC	1748.95	1323.86	1662.63	1168.96	494.38	1423.06
Log. lik.	-831.88	-619.21	-788.58	-541.16	-203.95	-668.51
Num. obs.	701	715	716	784	775	749
Num. parties	7	7	7	7	7	7
Variance: parties	0.00	0.00	0.00	0.00	0.00	0.00
Variance: residual	0.61	0.32	0.51	0.22	0.09	0.34

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Table 13: Results shown are from mixed effects models of distance from European party mean W-NOMINATE on the second dimension, with random effects for both European Party Group and low institutionalization party system by year. Model 1 includes all MEPs, while model 2 excludes MEPs from Bulgaria and Romania.

	Model 1	Model 2
Country-level		
New member state	0.07 (0.04)	0.08* (0.04)
Open list	-0.07** (0.02)	-0.07** (0.02)
Ordered list	-0.02 (0.02)	-0.03 (0.02)
GDP per capita	0.00 (0.00)	0.00* (0.00)
EPG-level		
European party size	-0.48 (0.84)	1.11 (1.83)
Party size ²	1.16 (0.72)	-0.89 (1.87)
Party fractionalization	-0.03 (0.07)	-0.15 (0.11)
MEP-level		
Party official	-0.02 (0.04)	-0.01 (0.04)
Intergroups	0.01 (0.01)	0.01 (0.01)
AIC	7910.25	8186.57
BIC	8006.23	8283.08
Log. lik.	-3940.13	-4078.28
Num. obs.	4440	4603
Num. parties	7	8
Num. years	6	6
Variance: parties	0.00	0.00
Variance: year	0.08	0.08
Variance: low institutionalization system by year	0.00	0.00
Variance: residual	0.34	0.34

*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$

Figure 3: The effect of domestic party system institutionalization on MEPs' ideological distance from their EPG varies from year to year within the sixth European Parliament.

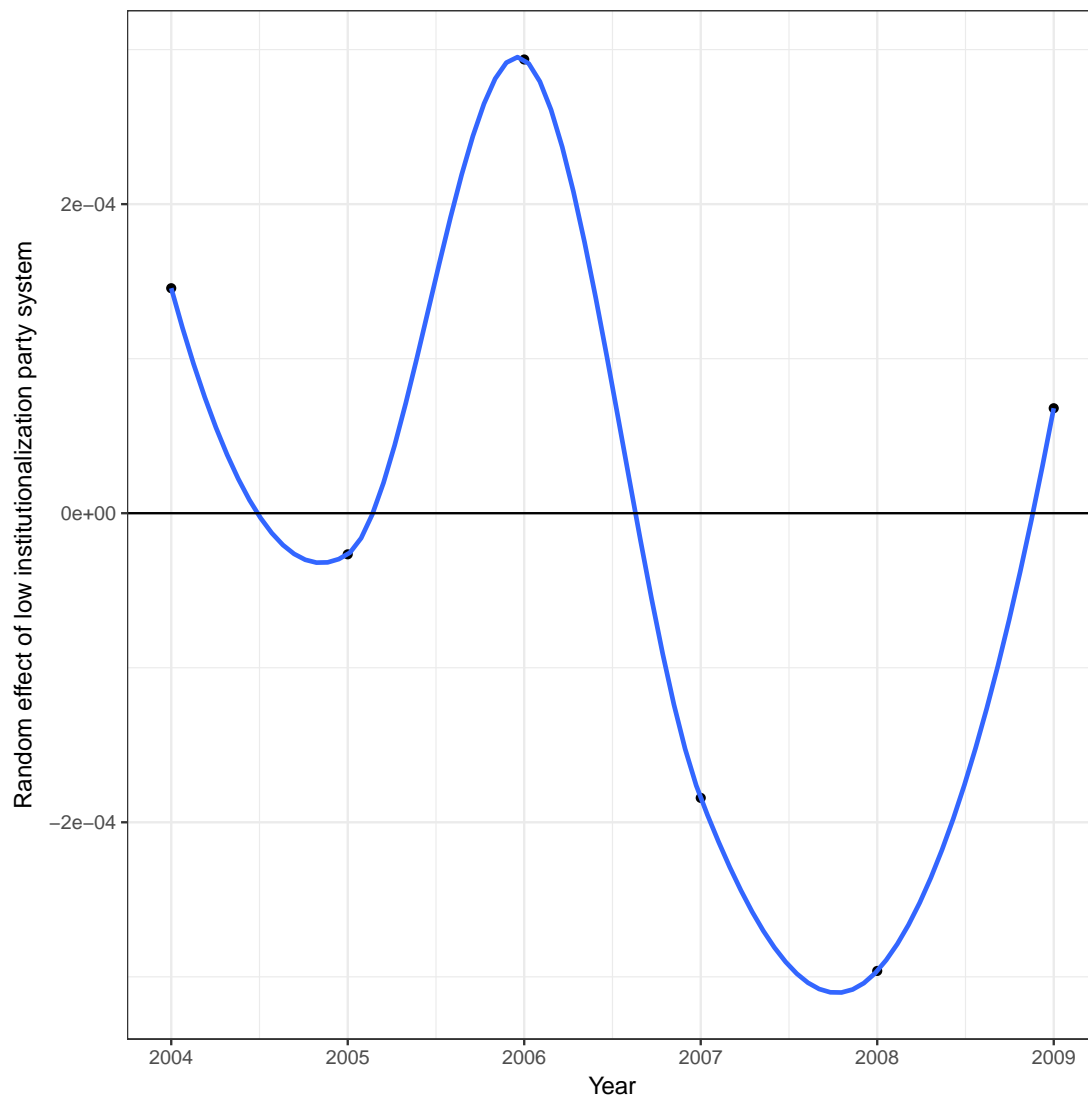
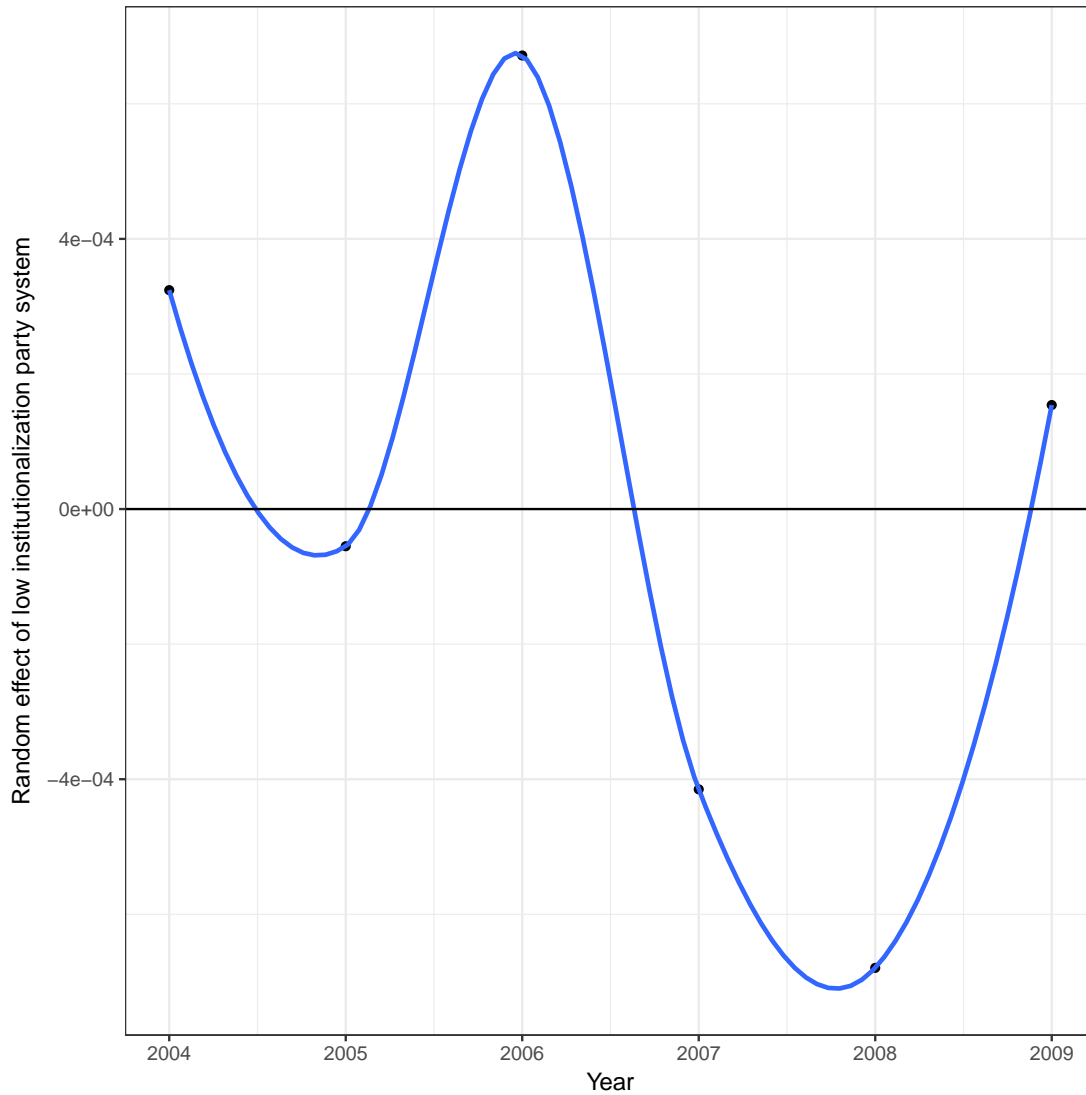


Figure 4: Excluding Bulgarian and Romanian MEPs, who did not enter the European Parliament until 2007, does not change the results of the random effects model.



To further test if there is a learning mechanism operating over the course of the sixth European Parliament, I follow Lindstädt et al. (2012) and estimate a generalized estimating equation (GEE) population-averaged model using annual data from the sixth European Parliament discussed above. GEE models are designed to deal with correlated data structures; in my case, an individual MEP's voting behavior later in the legislative session is likely correlated with its earlier voting behavior. Using this annual data, I re-estimate the main models from Table 2 of the article. The results of these GEE models are not substantively different

from those of the random effects models presented in Table 13: the sign of the coefficient for low institutionalization party systems is in the expected direction (negative), but is not statistically significant.

Given how the dependent variable is constructed, there is reason to believe that disaggregating the dependent variable by year may be problematic. W-NOMINATE scores are calculated using data on roll call votes; however, the number of roll call votes in each year in the sixth European Parliament varies, sometimes significantly. In 2004, there were only 208 roll call votes; in 2005, 1,062; in 2006, 1,015; in 2007, 1,314; in 2008, 1,559; and in 2009, there were 1,041. Since this is the case, it is somewhat unsurprising that the main results disappear when I estimate the main model on the annual data. Future research that uses a different method for measure the distance between MEPs and their European party may be better able to test the learning hypothesis.

Table 14: Results shown are from generalized estimating equations population-averaged models of distance from European party mean W-NOMINATE on the second dimension for each year in the sixth European Parliament.

	Model 1	Model 2	Model 3
Country-level			
Low institutionalization party system	-0.00 (0.04)		
Fragmentation		0.00 (0.08)	-0.02 (0.13)
Volatility		0.07 (0.06)	0.06 (0.10)
Frag. × Vol.			0.06 (0.28)
New member state	0.07 (0.07)	0.03 (0.07)	0.03 (0.07)
Open list	-0.07* (0.04)	-0.05 (0.05)	-0.05 (0.05)
Ordered list	-0.02 (0.04)	-0.01 (0.04)	-0.01 (0.04)
GDP per capita	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)
EPG-level			
European party size	-0.61 (1.35)	-0.55 (1.35)	-0.55 (1.35)
Party size ²	1.23 (1.16)	1.37 (1.17)	1.38 (1.17)
Party fractionalization	-0.02 (0.11)	-0.01 (0.11)	-0.01 (0.11)
MEP-level			
Party official	-0.01 (0.06)	-0.01 (0.06)	-0.01 (0.06)
Intergroups	0.01 (0.01)	0.01 (0.01)	0.01 (0.01)
Dispersion	0.41	0.41	0.41
Num. obs.	4440	4440	4440

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

L Voting Behavior in the Seventh European Parliament

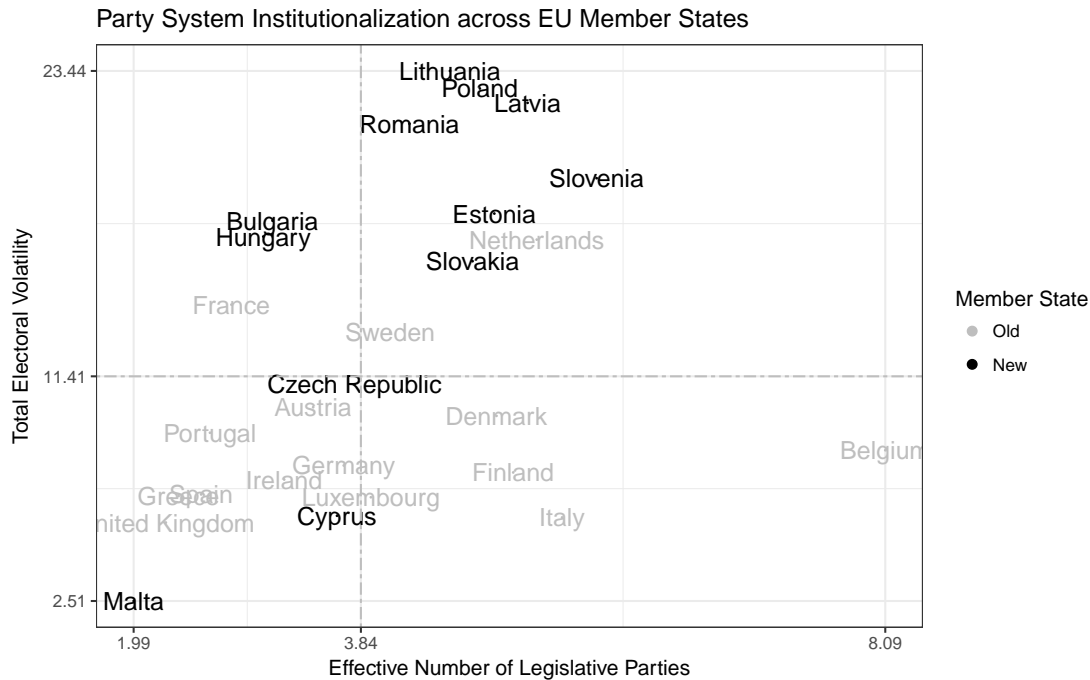
Unfortunately, the data necessary to expand the analysis to the entire seventh European Parliament is not readily available. However, Hix, Noury & Roland (2014) have data on roll call votes for the first 18 months of the seventh European Parliament, which has also been used elsewhere to study the seventh EP (Yordanova & Muhlbock 2015). Thus, I use this data as a preliminary extension of the analysis presented in the manuscript.

First, I re-calculate levels of domestic party system institutionalization for all states represented in the seventh European Parliament (2009-2014); since Croatia does not become a member of the EU until more than 18 months after the beginning of the seventh EP (2012), it is excluded from this analysis. Figure 5 shows the level of institutionalization for each EU member state represented in the seventh European Parliament. I use the same method to calculate this as discussed in the manuscript with respect to the sixth European Parliament, simply extending the relevant time period to 2009 (the start of the seventh European Parliament). Overall, states' party system institutionalization remained consistent from the sixth to the seventh EP; the one exception is Slovakia, which was categorized as a mixed system in the sixth EP, but a low institutionalization one in the seventh.

Next, I re-estimate W-NOMINATE scores using roll call voting data from the first 18 months of the seventh European Parliament. As with the sixth European Parliament, I estimate these scores along two-dimensions, following Hix, Noury & Roland (2006), who find that the two ideological axes in the EP are the liberal-conservative divide and the pro-anti EU one. Figure 6 shows W-NOMINATE scores for all MEPs present for the first 18 months of the seventh European Parliament.

There are several notable differences between the W-NOMINATE results from the sixth European Parliament when compared to those from the seventh. First,

Figure 5: The figure shows mean electoral volatility and effective number of legislative parties (1990–2009) for all EU member states represented in the seventh European Parliament. New members are shown in black text, while pre-2004 ones are shown in grey. Countries in the upper right quadrant exhibit high levels of volatility and fragmentation (i.e. low institutionalization party systems).



party cohesion has increased notably in the seventh EP. This is likely due to the June 2009 change to the Rules of the Procedure of the European Parliament, which made it so that all final legislation now requires a roll call vote; previously, roll call votes were only taken when requested by a group of MEPs. Yordanova & Muhlbock (2015) find that this rule change led to increased party cohesion among European party groups when compared to the sixth EP. They attribute this change in part to the fact that the new rule requires that votes be taken on all issues, with the result that there are mandatory votes on many non-contentious issues, for which no vote would have been called prior to the rule change. Another notable change between the two sessions is that there seems to be more variation along the pro-anti EU ideological dimension in the first 18 months of the seventh EP when compared to the entire sixth EP.

I use these data from the first 18 months of the seventh EP to estimate models similar to those found in Table 2 of the manuscript, with a few differences. First, I do not have data on individual national political parties (i.e. whether a national party is classified as independent) or on the role of individual MEPs in the seventh EP (i.e. if they were in any intergroups, or if they served as an EPG party official). However, the other independent variables are the same, as is the dependent variable: it is a measure of an individual MEP's distance from their average European party W-NOMINATE scores on the second dimension only (liberal–conservative). As with the models from the sixth European Parliament, this dependent variable is transformed using a one-parameter Box-Cox transformation to induce normality. The results of these models can be found in Table 15. Although the effect of low institutionalization party systems on individual distance from their EPG is not statistically significant, the signs on this variable are in the expected direction.

As noted above, since there is more variation along the pro-anti EU dimension in this session than in the sixth European Parliament, I also estimate these same models using a dependent variable that averages across both dimensions of W-NOMINATE scores, rather than just along the liberal–conservative dimension. The results of these models can be found in Table 16. In a basic model, the low institutionalization party system indicator variable is statistically significant at the 0.1 level, and the sign is in the direction my theory predicts.

These results, while encouraging, should be treated with some caution since, as noted above, the data on the seventh EP is only for the first 18 months of the session, and thus may not provide an accurate portrayal of voting behavior across the entire session. Even so, these suggestive results hint at an interesting learning hypothesis, in that many of the MEPs from low institutionalization party systems in the seventh EP likely also participated in the sixth EP. Indeed, Daniel's (2015) findings would suggest that this is in fact the case. This might explain why the results for the partial data of the seventh EP are weaker than those from the full sixth EP. That is, it may be that domestic party system institutionalization

matters for MEPs who are new to the EP, but the effect diminishes over time, which, if true, is perfectly consistent with my argument. However, a full test of such a trend is a beyond the scope of the current paper.

Figure 6: Most party groups in the European Parliament have distinct mean positions, especially on the horizontal axis (liberal–conservative divide). Party positions on the vertical axis (pro–anti EU divide) also appear to be more salient in this time period when compared to the sixth European Parliament (see Figure 1 of the manuscript). The figure shows individual legislator W-NOMINATE scores for the first 18 months of the seventh European Parliament on two dimensions.

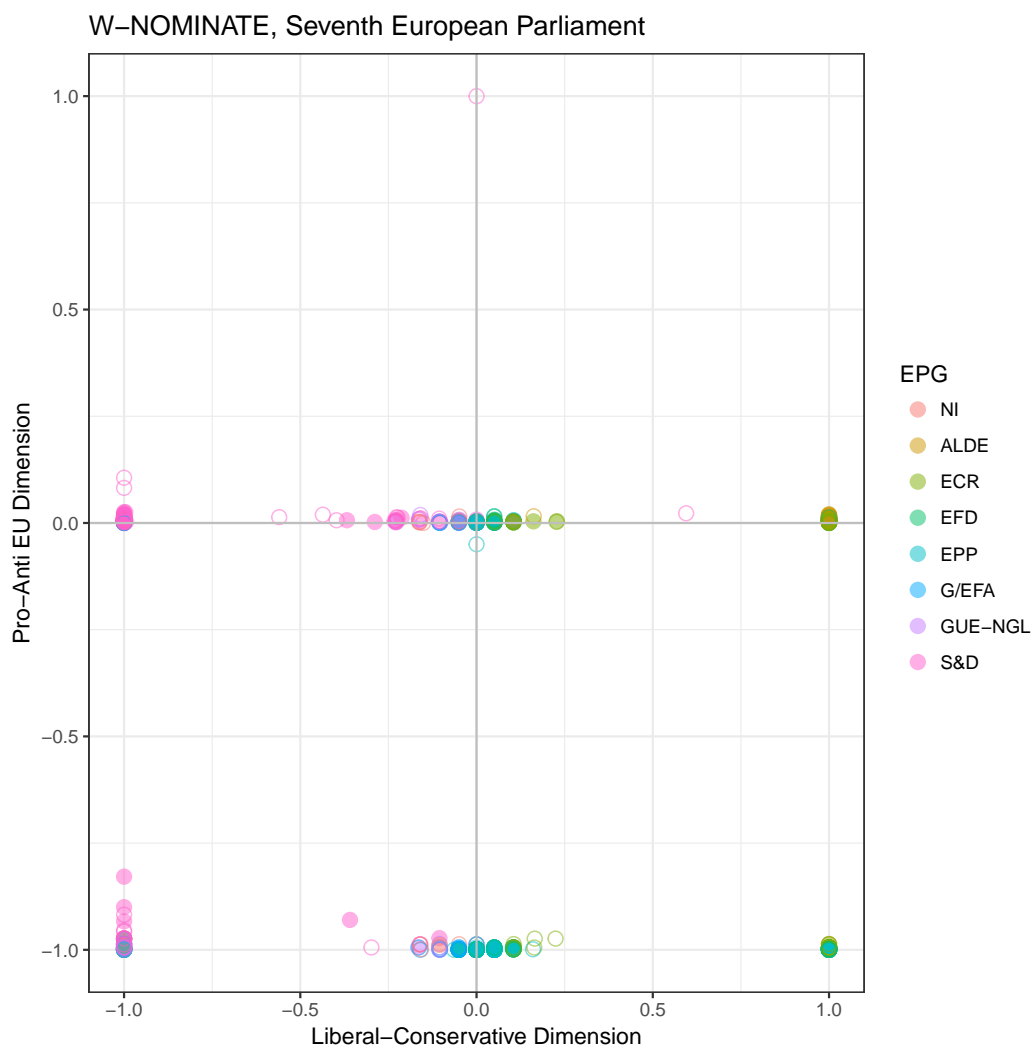


Table 15: Results shown are from mixed effects models of distance from European party mean W-NOMINATE on the second dimension for the first 18 months of the seventh European Parliament.

	Model 1	Model 2	Model 3	Model 4
Country-level				
Low institutionalization party system	-0.07 (0.05)	-0.04 (0.07)		
Fragmentation			0.04* (0.02)	0.05 (0.05)
Volatility			-0.01 (0.01)	-0.00 (0.02)
Frag. × Vol.				-0.00 (0.00)
New member state		0.07 (0.10)	0.12 (0.10)	0.12 (0.11)
Open list		-0.04 (0.06)	-0.12 (0.08)	-0.13 (0.08)
Ordered list		-0.16** (0.06)	-0.22*** (0.07)	-0.23*** (0.07)
GDP per capita		0.01 (0.00)	0.01 (0.00)	0.01 (0.00)
EPG-level				
European party size		-1.04 (0.90)	-1.02 (0.90)	-1.02 (0.90)
Party size ²		2.96 (8.94)	2.87 (9.02)	2.86 (9.02)
Party fractionalization		13.01* (7.64)	13.02* (7.70)	13.02* (7.70)
AIC	1493.55	1426.29	1435.72	1446.63
BIC	1512.29	1476.83	1490.85	1506.36
Log. lik.	-742.77	-702.15	-705.86	-710.32
Num. obs.	801	731	731	731
Num. parties	7	7	7	7
Variance: parties	0.60	0.38	0.38	0.38
Variance: residual	0.36	0.38	0.38	0.38

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Table 16: Results shown are from mixed effects models of individual distance from average European party W-NOMINATE scores on the two estimated dimensions (liberal–conservative and pro–anti EU) for the first 18 months of the seventh European Parliament.

	Model 1	Model 2	Model 3	Model 4
Country-level				
Low institutionalization party system	-0.05* (0.03)	-0.03 (0.04)		
Fragmentation			0.02 (0.01)	0.02 (0.03)
Volatility			-0.00 (0.00)	-0.00 (0.01)
Frag. × Vol.				0.00 (0.00)
New member state		0.02 (0.05)	0.04 (0.06)	0.04 (0.06)
Open list		0.03 (0.03)	-0.01 (0.04)	-0.01 (0.04)
Ordered list		-0.05 (0.03)	-0.09** (0.04)	-0.09** (0.04)
GDP per capita		0.00 (0.00)	0.00 (0.00)	0.00 (0.00)
EPG-level				
European party size		-0.54 (0.45)	-0.53 (0.45)	-0.53 (0.45)
Party size ²		1.66 (4.45)	1.62 (4.50)	1.62 (4.50)
Party fractionalization		7.19* (3.80)	7.20* (3.85)	7.20* (3.85)
AIC	522.24	531.42	543.16	555.39
BIC	540.99	581.96	598.29	615.12
Log. lik.	-257.12	-254.71	-259.58	-264.70
Num. obs.	801	731	731	731
Num. parties	7	7	7	7
Variance: parties	0.16	0.09	0.10	0.10
Variance: residual	0.11	0.11	0.11	0.11

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

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