Ecologies of Ideologies

Explaining Party Entry and Exit in West-European Parliaments, 1945-2013

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Online appendix

Section 1 presents additional information regarding the model specifications and descriptive statistics. These were excluded from the manuscript to save space. In turn, section 2 displays the results from several analyses that were carried out to test the robustness of our results. In the manuscript we find evidence for the "Within-Niche Competition Hypothesis" (H1) and "Adjacent Competition Hypothesis" (H2). According to H1, parties experience competition when the density within their niche increases. These competition effects are stronger than those between niches. H2, in turn, states that parties also experience competition from parties in adjacent niches. Further, these competition effects are stronger than those between non-adjacent niches. These hypotheses are only confirmed in our party exit models. We therefore conclude that density dependence works by causing exit among parties that compete for the same resources (voters, members and activists), rather than discouraging new parties from entering into competition.

First, we re-ran the party exit model controlling for cubic splines instead of a squared transformation of party age to capture time-dependency within parties. Second, we tested whether the findings hold against alternative indicators of party entry and exit. In this analysis we refrained from counting parties that either merged into a new party, divided into two or more parties, or joined a larger group without forming a new party as instances of party entry or exit. Third, we examined whether the results hold against an alternative operationalization of the boundaries of our three niches. Fourth, we tested whether the assumption of the density-dependence model that organizations exit rather than adapt also applies to political parties. Specifically, we examined if parties move to a different niche in response to increasing density in their niche. Finally, we carried out additional robustness checks in response to comments made by the anonymous reviewers.

Overall, these additional analyses continue to support our main conclusions. Below we address each of these robustness analyses in turn.

Section 1. Model specifications and descriptive statistics

1.1 Model specifications and predictions

[Figure A1 here]

1.2 Descriptive statistics party entry and exit

Figure A2 displays how many parties, on average, entered or exited in each election. It is apparent that the risk of exit does not differ between niches; yet, the likelihood of entry is higher on the flanks than in the centre.

[Figure A2 here]

Section 2. Robustness checks

2.1 Modelling the hazard rate of party exit by means of cubic splines

[Table A1 and A2 here]

Our dataset on party exit can be seen as a pooled time series dataset in which party/election combinations (a party adds an observation for each election in which it runs) are nested within parties. We are well aware that standard errors in a logistic regression are underestimated if there is time-dependence, which is exactly the reason why we cluster standard errors at the level of parties. But as this approach essentially deals with temporal dependence as a nuisance, we also add a square root transformation of age as an independent variable to control for the fact that the likelihood of exit decreases the more elections a party has contested.

To ensure that our results are not biased by the specification of the time trend, the square root transformation, we could model the hazard rate of party exit by adding dummy variables for each time period observed in the data (Rabe-Hesketh and Skrondal, 2008). Yet, since we focus on all post-war elections, this would dramatically decrease the available degrees of freedom. Beck, Katz and Tucker (1998) suggest cubic splines as a remedy to this problem. Cubic splines provide a smoothed ver-

sion of the information captured in the temporal dummies, but require very few parameters. Table A1 reports the results if we re-run the model with three equally spaced cubic splines instead of the square log transformation of party age. Note that including both splines and the square log transformation was not an option, since tests revealed that they suppress each other's effect, most likely because they explain the same variance.

The results continue to support H1. The positive, statistically significant odds ratios of left-wing density (odds=1.62, in model 1, table A1), centrist density (odds=2.24, model 4, Table A1) and right-wing density (odds=1.35, model 7, Table A1) demonstrate that increasing density in any of the three niches fuels party exit within that same niche. In line with the second part of H1, these within-niche competition effects are stronger than those between niches (i.e. 2.24>1.52, see model 4). We also find evidence for the second hypothesis (H2). Similar to the manuscript, increasing right-wing density (odds=1.52, model 4, Table A1) fosters exit among centrist parties. In line with the second part of H2, this effect is stronger than the statistically insignificant competition effects between non-adjacent niches. Finally, the splines (coefficients available from the author upon request) are mostly insignificant.

2.2 Alternative operationalizations of party exit and party entry

We tested whether the findings hold against alternative indicators of party entry and exit. In this analysis we refrained from counting parties as having entered or exited in case they: (1) merged into a new party, receiving the label "merged" in ParlGov (2) divided into two or more parties, labelled "division" in ParlGov (3) joined a larger group without forming a new party ("joined").

The Dutch green party 'GroenLinks' is an example of the first case. Being a merger of the parties PPR, PSP, CPN and EVP, it first ran in elections in 1989. Whereas in the original dataset the four predecessors exit in the preceding 1986 elections and GreenLeft is born in 1989, this robustness check does not code the predecessors as having exited (score on the dependent variable is changed from 1 "exited" to 0 "not exited" in 1986) and GreenLeft is not counted among the parties that enter in the 1989 elections. In turn, the Provisional Sinn Fein which entered in 1970 when Sinn Fein split into Sinn Fein The Workers Party and Provisional Sinn Fein (abstentionist) constitutes an example of a division. In this robustness analysis, Sinn Fein is neither coded as having exited in 1970

nor are Sinn Fein The Worker's Party or Provisional Sinn Fein (they first ran in the February 1982 elections) coded as newly entering parties. Third, there are not many instances of parties that joined a party without forming a new party; yet, one example is the Greek Political Spring which in 2004 joined New Democracy. In this case, Political Spring's score on exit is changed from 1 to 0 in the preceding 2000 elections.

As can be seen from Table A1, there is again considerable support for H1. Exit among left-wing (odds=1.7 model 2), centrist (odds=1.92, model 5) and right-wing parties (odds=1.33, model 8) is explained by the density within their own niche. In line with the second part of H1, these within-niche competition effects are stronger than those between niches (i.e. 1.92>1.45, see model 5). As for H2, model 5 again provides evidence that right-wing parties feed off the centre (odds=1.45), which confirms H2. Such dynamics are absent between the non-adjacent left and right-wing niches, which conforms to the second part of H2. Regarding party entry, similar to the manuscript we find no evidence that increasing density inhibits party entry within a niche (see model 1, model 3 and model 5, Table A2).

2.3 Alternative cut-off criteria for determining niche membership

We examined whether our findings hold if we use different cut-off criteria to define the niches. As we explain in the manuscript, parties with an average z-score lower than -0.5 were assigned to the left-wing niche, those with a z-score between -0.5 and 0.5 to the centrist niche and those with a z-score higher than 0.5 to the right-wing niche. We believe that this classification approach performs quite well in terms of face validity (see figure 1 in the manuscript). Nonetheless we also asserted that the findings hold when we would use the criterion that all parties within 1 z-score of the mean qualify as centrist parties, those with a z-score lower than -1 as left-wing and those with a z-score higher than 1 as right-wing. Compared to the distribution of party families across niches depicted in the manuscript, Figure A3 below shows that there would hardly be any Social Democratic parties left in the left-wing niche if a -1 z-score cut-off criterion would be employed. Also the share of Christian democratic parties in the right-wing niche would become quite marginal. Therefore, we believe that the classification approach in the manuscript is superior in terms of face validity. Moreover, in the manuscript, parties are more or less

equally spread out over the three niches in terms of numbers (997 left-wing, 779 centrist, 985 right-wing), whereas the alternative classification approach would yield 1866 party/election combinations in the centrist niche (and only 388 and 507 in the right-wing and left-wing niches, respectively). Still, we carried out this robustness analysis to examine how alternative cut-off criteria affect the results.

[Figure A3 here]

Table A1 demonstrates that we also find convincing evidence in favour of H1 with this alternative classification approach. Higher density in the left-wing (odds=1.32, model 3, p=.118), centrist (odds=1.45, model 6) and right-wing (odds=2.42, model 9) niches increases the odds of party death within these niches (H1). In line with the second part of H1, these within-niche competition effects are stronger than those between niches. As for H2 we find that rather than the right feeding off the centre, centrist density now increases the odds of right-wing parties exit (odds=1.52, model 9). In line with H1, this competition effect is smaller than the within-niche competition effect (i.e. 2.42>1.52, see model 9). Notwithstanding that the centre now feeds off the right instead of the other way around, H2 is still confirmed. Recall that H2 simply proposes that competition takes place between adjacent niches. Hence, the direction of competition is irrelevant. The effect from the centre on the right is also larger than the statistically insignificant competition effects between non-adjacent niches, which is in line with the second part of H2. Regarding party entry, similar to the manuscript we find no evidence that increasing density inhibits party entry within a niche (see model 2, model 4 and model 6, Table A2).

Why has the feeding effect from the right on the centre changed direction? This can be understood form the fact that due to the alternative classification approach, the centrist niche has dramatically expanded compared to the manuscript. As such, the right-wing parties that were located close to the centrist parties and fed off them have now become part of the centrist niche, which explains why the competition effect from the right on the centre disappears in model 6. By the same token, the appearance of a competition effect from the centre on the right (model 9) can be understood from the fact that the expanded centrist niche now consists of formerly right-wing parties that compete with the

right-wing parties that are still located in the right-wing niche. Altogether, this suggests that the feeding effect from the right on the centre was driven by right-wing parties located close to the centrist parties (that became part of the centrist niche in the robustness analysis). While according to the directional theory of voting, centrist parties should mainly suffer from parties located further towards the flanks. Also neither in this analysis nor in the manuscript do we find evidence that centrist parties are confronted with competition from the left, whereas the directional theory proposes that this should also be the case. Hence, we accept H1 and H2, but reject the directional competition hypothesis (H3).

2.4 Examining whether parties adapt to increasing density within their niche

Density dependence theory assumes that change in an organizational population occurs through the competitive replacement of less successful organizations with more successful ones rather than through an organization changing its structure or goals. Hence, this model assumes that organizations display a considerable degree of inertia. There exists an important body of literature, however, showing that parties change their platform in response to various stimuli (Somer-Topcu, 2009; Ezrow et al., 2010; Adams and Somer-Topcu, 2009; Schumacher et al., 2015). We should therefore make sure that parties sufficiently live up to the assumption of inertia. In other words, instead of dying out, do parties simply switch to a proximate niche when their own becomes too crowded?

[Table A3 here]

In the manuscript we use average left-right z-scores to assign parties to niche, which makes niche membership time invariant. We opted for this solution for reasons of data-availability, as for many parties (37%) we simply lack dynamic data on left-right positions. Yet, to test to what extent parties adapt, we compiled a new version of the dataset in which parties were allowed to switch niche if dynamic data was available. Specifically, for each party/election combination we calculated the parties' mean left-right position over its Comparative Manifesto (CMP) and expert survey left-right z-score. Note that in most party/election combinations we only had CMP data, so in these cases the "average" only consists of one CMP left-right estimate. To somewhat increase the availability of expert

survey data, we made use of linear imputations. Still the ratio of CMP/expert survey data was about 3 to 1 (1925 versus 606 observations). In case there was no expert survey or CMP data for a particular party/election combination we imputed the party's mean expert survey position. If this information was not available either, we imputed the party's mean CMP position. Allowing missing data was not an option since we need to know the left-right position of all the parties participating in an election to estimate our key independent variables: the density in the different niches.

As can be seen from Table A3, there is no evidence that parties switch to a different niche if the number of parties in their niche increases. That is, all within-niche density effects are statistically insignificant. As our analyses have shown that within-niche density is the most important driver of party exit, this robustness analysis demonstrates that the assumption of inertia is justified when studying the effect of density on parties' critical rates.

2.5 Controlling for government status and GDP growth

[Table A4 and A5 here]

Entry and exit decisions could be related to whether parties - or other party(ies) in their ideological niche - are currently in government. Governing parties benefit from many advantages including disproportionate media coverage and the selective benefits associated with being in the cabinet. These factors plausibly enhance governing parties' survival prospects, and may also deter new parties from entering in the governing party's ideological niche. In our party exit model we therefore examined whether government parties are less likely to exit. In our party entry model we controlled for the number of government parties in the previous elections in each of the ideological niches. Incumbency status was derived from the Parlgov database (Döring and Manow 2015). Additionally, poor economic conditions could prompt the exit of existing parties and entry of new ones. Analogous to Tavits (2006) we measure economic conditions by GDP growth.

Table A4 demonstrates that we also find convincing evidence in favour of H1 if we include these controls. Higher density in the left-wing (odds=1.84, model 1), centrist (odds=3.33, model 3) and right-wing (odds=3.84, model 5) niches increases the odds of party death within these niches. In

line with the second part of H1, these within-niche competition effects are stronger than those between niches (3.33>1.93 in model 3 and 3.84>2.10 in model 5, Table A4). In line with H2 we also find evidence of competition effects between adjacent niches, as centrist and right-wing parties feed off each other (odds=1.93 in model 3 and odds=2.10 in model 5, Table A4), but not between non-adjacent niches. Regarding party entry, we find that increasing left-wing density in the previous elections inhibits entry within the left-wing niche (irr=0.70, model 1, Table A5), while in the manuscript there is no evidence whatsoever that entry rates respond to niche density. Still, given that centrist and right-wing entry rates fail to respond to density (see model 3 and model 5, Table A5), there is too little evidence to accept that increasing density inhibits party entry within a niche.

As for the controls, we find evidence that government parties are less likely to exit (model 3 and model 5, Table A4), but not that the number of government parties in a niche deters parties from entering that same niche. GDP growth, in turn, exerts no effect on party exit and a positive effect on party entry (model 1 and model 5, Table A5).

Section 3. Mapping parties and voters in a common space

3.1 Can parties and voters be mapped in the same space?

Controlling for the percentage of the electorate falling into each of the three niches (left, center, right) involves making the assumption that parties and voters can be mapped in a common left-right space. We have empirical and theoretical reason to believe that this is a valid assumption.

Theoretically, voter-party interaction requires a common frame of reference in which, as noted by Schattschneider (1960: 136), the public 'on its own initiative, is not much more than a locomotive without rails', i.e. citizens heavily depend on the contours of the political space created by political parties. Even studies that identify incongruence in the nature of party and voter spaces suggest that this tends to be temporarily (Van der Brug and Van Spanje, 2009), as unattended groups of voters constitute a strong incentive for parties to reposition themselves (for a similar discussion see García-Díaz et al., 2012).

Empirically, previous research has revealed high correlations between the CMP and expert left-

right placements of parties on the one hand and Eurobarometer left-right self-placements of party supporters on the other (Bakker and Hobolt, 2013). This suggests that voters share the parties' and experts' definition of what is left and right and that they vote on the basis of this dimension. Respondents' self-placements could be biased in certain elections, as shown, for instance by Benoit and Laver (2005); yet, solving these issues lies beyond the scope of this article due to the high number of countries and elections included.

We empirically assessed the consequences of making the assumption that parties and voters can be mapped along the same left-right dimension. As explained in the manuscript, parties and voters are assigned to niches on the basis of their left-right z-scores (left <-0.5, centrist >=-0.5 & <=0.5, right >0.5). Yet, this would become problematic, for example, if left wing parties tend to take more extreme positions than voters. The -0.5 z-score cut-off would then be at a different point in the policy space for parties and voters. To assert that the positional spectrum of voter preferences is comparable to the party spectrum, we can simply calculate the absolute distance between the mean party left-right position in each election to the mean voter position. In order to make comparisons, we first needed to recalibrate the CMP and expert survey placements left-right positions to a 1-10 scale, so that the average of the two becomes comparable to the survey questions in which respondents need to place themselves on a 1 (left) to 10 (right) scale. Figure A4 shows that large distances are very rare.

3.2 Assigning parties and voters to niches based on absolute left-right positions

Additionally, we asserted that our findings hold when parties and voters are assigned to niches based on their absolute left-right positions rather than their z-scores. In the manuscript, we opt for z-scores instead of absolute party positions to take into account that the distribution of left-right positions may not be comparable across party systems. What constitutes a right-wing position in terms of a party's absolute position in country X may be a centrist position in country Y if the left-right spectrum of Y leans much more to the right. Hence, if we would rely on absolute scores, parties that are centrist in terms of the distribution of party positions in Y would turn up in the right-wing niche of Y. In case of expert surveys, we can expect that respondents place the parties relatively to one another, which accounts for the prob-

lem of unequal left-right spectra. Yet, the CMP left-right scale subtracts the percentage of positive and negative quasi-sentences on a large range of issues, meaning that country differences in leftness or rightness will be reflected in the estimates. In that sense, standardized positions are superior.

Yet, as argued by one of the reviewers, standardized scores make it problematic to link parties to voters. What if, for instance, left wing parties tend to take more extreme positions than voters? The 0.5 z-score cut-off would then be at a different point in the policy space for parties and voters. Notwithstanding that Figure A4 shows that this is generally not the case, we ran a robustness test in which parties and voters were assigned to niches on the basis of their absolute left-right positions. Voter left-right self-placements are measured on a scale ranging from 1 to 10. Therefore, we first recalibrated the parties' left-right positions to a 1-10 scale. Parties and voters with a position ranging between 1 and 3 were assigned to the left-wing niche; those with a score ranging between 4 and 7 to the centrist niche; finally those with a score equal or higher than 8 were coded as right.

Table A4 demonstrates that this robustness check produces very similar findings. In line with H1 higher density in the left-wing (odds=1.94, model 2), centrist (odds=5.20, model 4) and right-wing (odds=3.77, model 6) niches increases the odds of party death within these niches (H1). In line with the second part of H1, these within-niche competition effects are stronger than those between niches (5.19>2.06 in model 4, Table A4). In line with H2 we also find evidence of competition effects between adjacent niches, as right-wing parties feed off the centre (odds=2.06 in model 4, Table A4), but not between non-adjacent niches. Regarding party entry, again there is no evidence in favour of H1 (see Table A5).[1] We only find evidence that centrist parties are less likely to exit when voter density increases (odds=0.91), which is too little evidence to conclude that voter density is important.

[Figure A4 here]

[1] It is peculiar that the effect of registration costs increases to 1042.82 in model 6. I carefully checked whether the model converges correctly and whether there are no coding mistakes; yet, nothing unusual could be found. So this is likely a statistical artefact. Note, however, that this carries no relevance whatsoever for the conclusions in the manuscript. It is just a control variable obtained from Tavits (2006). The fact that this coefficient is positive still runs counter to the idea of strategic entry, which we also refute in the manuscript. In case of strategic entry, parties should be less rather than more likely to enter when registration costs increase.

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Tables and figures

Definitions					
$PL_{it}/(1-PL_{it})$ = Odds of exit left-wing party *i* in election *t*					
$PC_{it}/(1-PC_{it})$ = Odds of exit centrist party *i* in election *t*					
$PR_{it}/(1-PR_{it})$ = Odds of exit right-wing party *i* in election *t*					
EL_t = Number of newly entered left-wing parties in election *t*					
EC_t = Number of newly entered centrist parties in election *t*					
ER_t = Number of newly entered right-wing parties in election *t*					
Model specifications					
(1) $PL_{it}/(1-PL_{it}) = \alpha_t + \beta_1(\text{left density}_t) + \beta_2(\text{centrist density}_t) + \beta_3(\text{right density}_t) + \textit{Controls}$					
(2) $PC_{it}/(1-PC_{it}) = \alpha_t + \beta_1(\text{left density}_t) + \beta_2(\text{centrist density}_t) + \beta_3(\text{right density}_t) + \textit{Controls}$					
(3) $PR_{it}/(1-PR_{it}) = \alpha_t + \beta_1(\text{left density}_t) + \beta_2(\text{centrist density}_t) + \beta_3(\text{right density}_t) + \textit{Controls}$					
(4) $EL_t = \exp(\beta_1\text{left density}_{t-1} + \beta_2\text{centrist density}_{t-1} + \beta_3\text{right density}_{t-1} + \textit{Controls})$					
(5) $EC_t = \exp(\beta_1\text{left density}_{t-1} + \beta_2\text{centrist density}_{t-1} + \beta_3\text{right density}_{t-1} + \textit{Controls})$					
(6) $ER_t = \exp(\beta_1\text{left density}_{t-1} + \beta_2\text{centrist density}_{t-1} + \beta_3\text{right density}_{t-1} + \textit{Controls})$					
Predictions					
H1a	**H1b**	**H2a**	**H2b**	**H3a**	**H3b**
β_1 Eq.1 > 1	β_1 Eq.1 > β_2 Eq.1 & β_1 Eq.1 > β_3 Eq.1	β_2 Eq.1 > 1	β_2 Eq.1 > β_3Eq.1	β_1Eq.2 > 1 & β_3Eq.2 >1	β_1Eq.2 > β_2Eq.1 &
β_2 Eq.2 > 1	β_2 Eq.2 > β_1 Eq.2 & β_2 Eq.2 > β_3 Eq.2	β_1 Eq.2 > 1 & β_3 Eq.2 > 1	β_2 Eq.3 > β_1Eq.3	β_1Eq.5 < 1 & β_3Eq.5 <1	β_3Eq.2 > β_2Eq.3
β_3 Eq.3 > 1	β_3 Eq.3 > β_1 Eq.3 & β_3 Eq.3 > β_2 Eq.3	β_2 Eq.3 > 1	β_2 Eq.4 < β_3Eq.4		β_1Eq.5 < β_2Eq.1 &
β_1 Eq.4 < 1	β_1 Eq.4 < β_2 Eq.4 & β_1 Eq.4 < β_3 Eq.4	β_2 Eq.4 < 1	β_2 Eq.6 < β_1Eq.6		β_3Eq.5 < β_2Eq.6
β_2 Eq.5 < 1	β_2 Eq.5 < β_1 Eq.5 & β_2 Eq.5 < β_3 Eq.5	β_1 Eq.5 < 1 & β_3 Eq.5 < 1			
β_3 Eq.6 < 1	β_3 Eq.6 < β_1 Eq.6 & β_3 Eq.6 < β_2 Eq.6	β_2 Eq.6 < 1			

Figure A1. Definitions, model specification and predicted coefficients

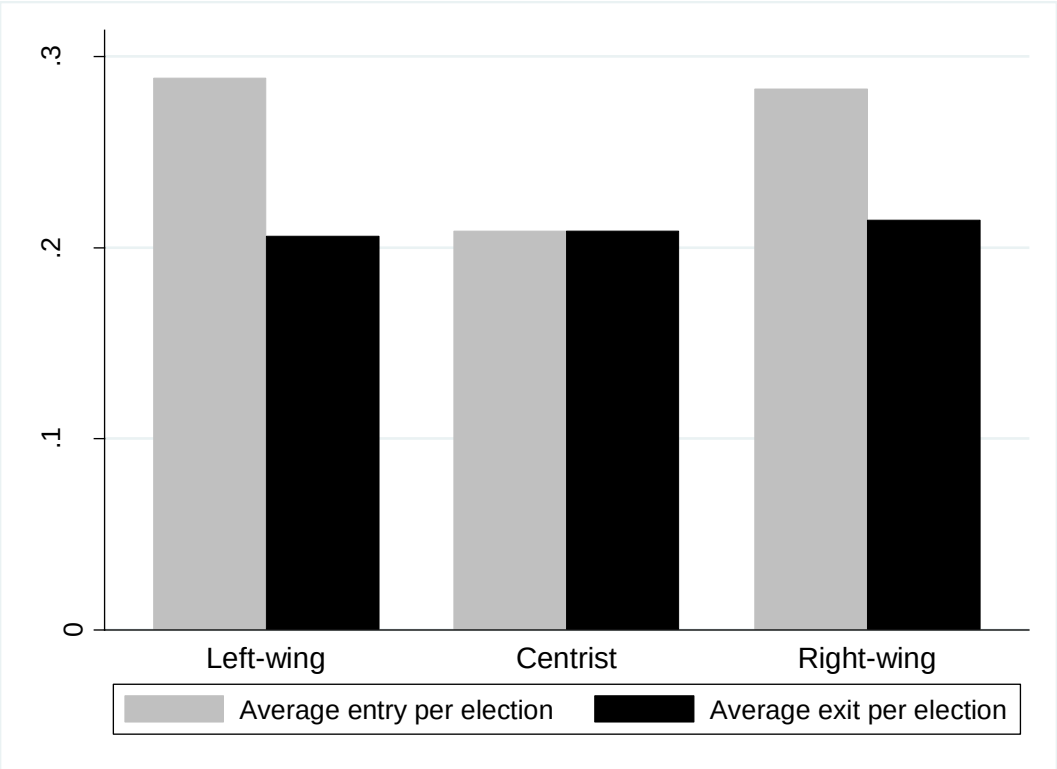

Figure A2. Descriptive statistics: party entry and exit

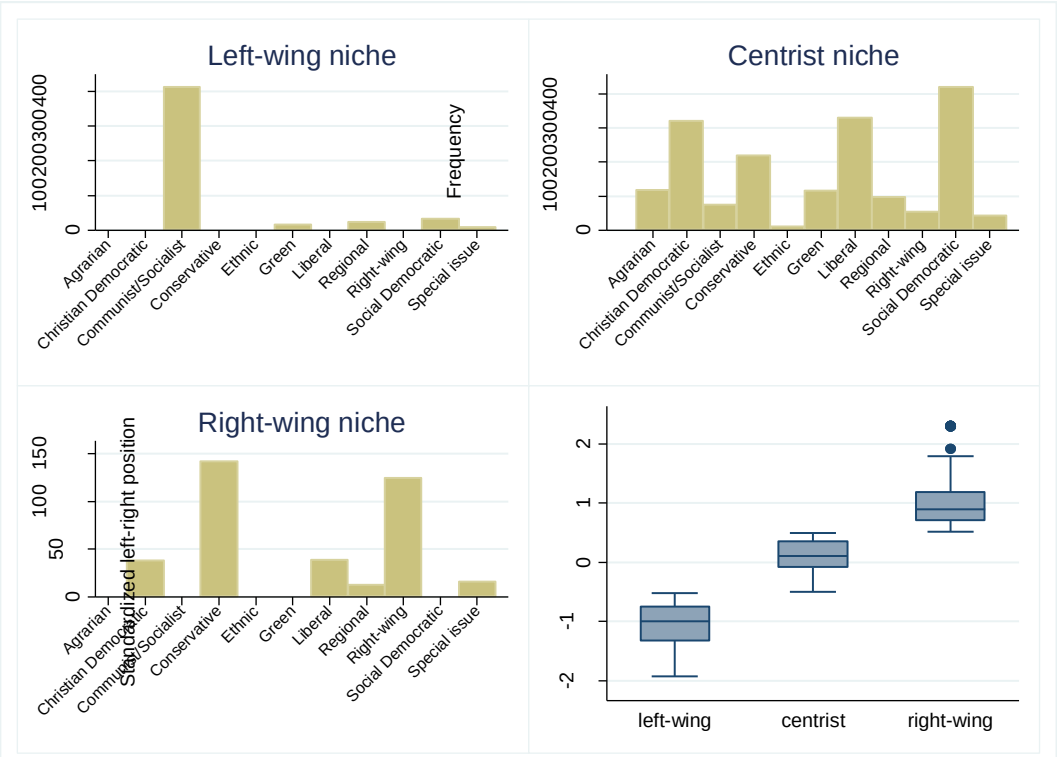

Figure A3. Descriptive statistics: distribution of party families per niche alternative classification approach

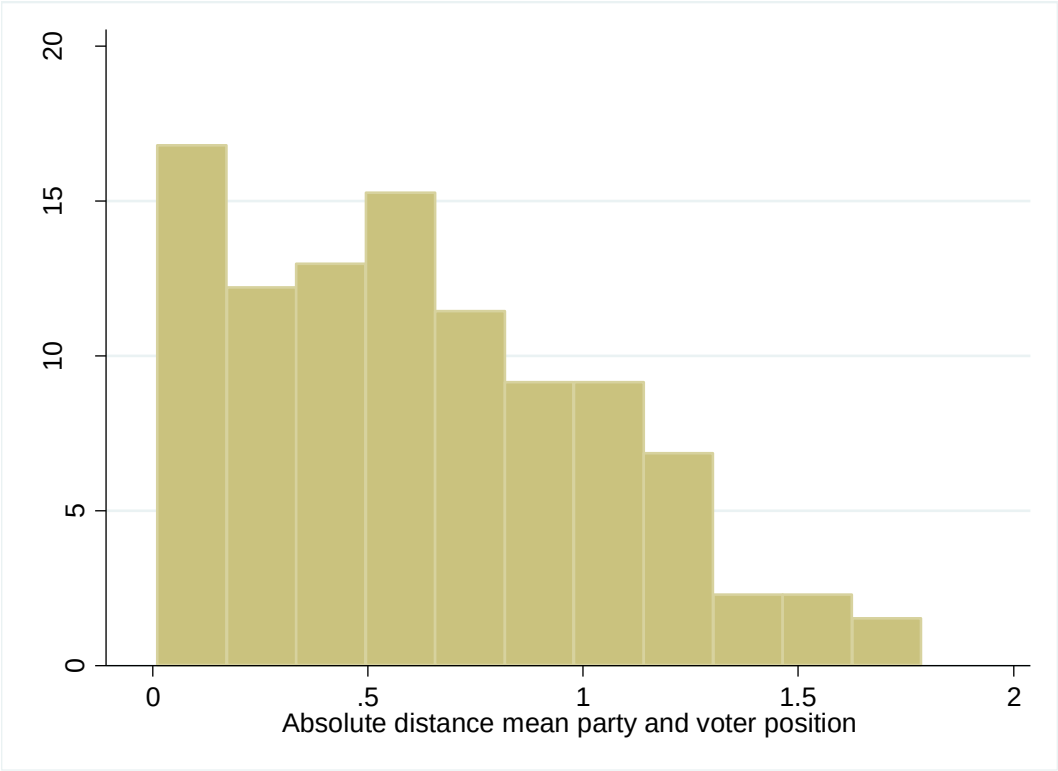

Figure A4. Absolute distance mean left-right position voters and parties

Table A1. Robustness tests party exit

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9
					Effect on party exit by niche				
	Left-wing Odds ratio/se	Left-wing Odds ratio/se	Left-wing Odds ratio/se	Centrist Odds ratio/se	Centrist Odds ratio/se	Centrist Odds ratio/se	Right-wing Odds ratio/se	Right-wing Odds ratio/se	Right-wing Odds ratio/se
Left-wing density	1.624***	1.695***	1.315	0.814	0.987	1.003	0.978	0.968	0.844
	(0.225)	(0.299)	(0.231)	(0.128)	(0.171)	(0.095)	(0.131)	(0.134)	(0.163)
Centrist density	0.954	0.926	0.931	2.241***	1.920***	1.446***	1.155	1.110	1.523*
	(0.112)	(0.134)	(0.117)	(0.384)	(0.337)	(0.089)	(0.133)	(0.132)	(0.347)
Right-wing density	1.004	0.878	1.095	1.515***	1.445**	0.845	1.352*	1.333*	2.422*
	(0.141)	(0.153)	(0.182)	(0.206)	(0.223)	(0.119)	(0.209)	(0.213)	(1.201)
Age (square root)		0.776***	0.847**		0.821***	0.824***		0.788***	1.003
		(0.049)	(0.069)		(0.056)	(0.034)		(0.041)	(0.097)
Effective number	4.162*	2.435	0.064***	2.475	1.703	9.740*	0.154*	0.092*	0.054
of party families	(3.166)	(2.384)	(0.054)	(2.179)	(1.871)	(12.807)	(0.155)	(0.115)	(0.103)
Effective number	1.007	0.977	1.003	0.982	0.953*	0.977	0.994	0.999	1.001
of issues	(0.008)	(0.024)	(0.007)	(0.022)	(0.028)	(0.015)	(0.007)	(0.006)	(0.003)
Ethnic heteroge-	0.733	1.394	0.240***	0.728	0.885	0.505**	0.516**	0.381**	0.144***
neity	(0.246)	(0.493)	(0.113)	(0.320)	(0.402)	(0.148)	(0.168)	(0.145)	(0.105)
Disproportionality	1.017	1.059	1.049	1.150***	1.079*	1.076***	1.091***	1.090***	0.941
	(0.035)	(0.039)	(0.032)	(0.039)	(0.043)	(0.023)	(0.028)	(0.031)	(0.049)
Constant	0.012***	0.015***	4.972	0.002***	0.007***	0.026***	0.096**	0.327	0.163
	(0.011)	(0.018)	(7.877)	(0.003)	(0.009)	(0.019)	(0.092)	(0.349)	(0.377)
Pseudo R^2	0.095	0.135	.119	0.191	0.222	0.180	0.112	0.134	0.153
N	815	815	349	638	638	1525	813	813	217

Notes: ***p<.01 **p<.05 *p<.1 (two-tailed). Logistic regression explaining party exit by ideological niche. The coefficients are odds ratios. Standard errors in parentheses.

Table A2. Robustness tests party entry

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
			Effect on party entry by niche			
	Left-wing	Left-wing	Centrist	Centrist	Right-wing	Right-wing
	IRR/se	IRR/se	IRR/se	IRR/se	IRR/se	IRR/se
Left-wing density t-1	0.959	1.292	1.112	1.062	1.035	0.879
	(0.125)	(0.204)	(0.161)	(0.113)	(0.124)	(0.182)
Centrist density t-1	1.050	1.069	1.284	1.058	1.152	1.066
	(0.106)	(0.116)	(0.221)	(0.061)	(0.115)	(0.119)
Right-wing density t-1	1.245*	0.920	0.944	0.834	1.045	1.221
	(0.142)	(0.164)	(0.144)	(0.097)	(0.155)	(0.573)
Effective number of	2.809	3.203	2.677	0.481	0.752	2.319
party families t-1	(1.910)	(3.579)	(2.046)	(0.690)	(0.544)	(3.898)
Effective number of	0.986	0.984	0.986	0.990	1.004	0.978
issues t-1	(0.015)	(0.021)	(0.022)	(0.014)	(0.005)	(0.028)
Disproportionality t-1	1.064**	1.064**	1.089**	1.053**	1.059**	1.082**
	(0.029)	(0.033)	(0.039)	(0.026)	(0.026)	(0.042)
Ethnic heterogeneity	1.003	1.114	0.838	1.040	0.935	0.786
	(0.347)	(0.661)	(0.407)	(0.428)	(0.310)	(0.455)
Constant	0.068***	0.027	0.05**	3.15	0.12***	0.068
	(0.065)	(0.058)	(0.064)	(4.106)	(0.089)	0.137
Wald chi^2	10.40	7.89	10.68	10.30	9.67	5.12
N	263	167	229	263	263	126

Notes: ***p<.01 **p<.05 *p<.1 (two-tailed). Poisson and panel negative binominal regressions explaining party entry by ideological niche. The coefficients are incidence rate ratios. Standard errors in parentheses.

Table A3. Logistic regression explaining niche switching

	Model 1	Model 2	Model 3
	Effect on niche switching by niche		
	Left-wing	Centrist	Right-wing
Left-wing density	0.943	0.922	0.939
	(0.075)	(0.083)	(0.069)
Centrist density	0.961	1.115	1.037
	(0.079)	(0.087)	(0.077)
Right-wing density	0.866	0.941	0.856
	(0.084)	(0.078)	(0.103)
Age (square root)	1.049	0.961	1.035
	(0.047)	(0.034)	(0.042)
Disproportionality	0.987	1.019	0.972
	(0.025)	(0.029)	(0.031)
Ethnic heterogeneity	0.761	0.995	1.096
	(0.264)	(0.234)	(0.356)
Effective number of party families	0.339*	0.925	0.509
	(0.206)	(0.440)	(0.278)
Effective number of issues	1.005	1.013**	1.007
	(0.008)	(0.006)	(0.011)
Constant	0.733	0.645	0.481
	(0.587)	(0.410)	(0.348)
Pseudo R^2	0.02	0.02	0.01
N	732	594	706

Notes: *p<.1, **p<.05, ***p<.01 (two-tailed). Logistic regression explaining niche switching by ideological niche. Standard errors in parentheses.

Table A4. Logistic regression explaining party exit within ideological niches

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
			Effect on party exit by niche			
	Left-wing Odds ratio/se	Left-wing Odds ratio/se	Centrist Odds ratio/se	Centrist Odds ratio/se	Right-wing Odds ratio/se	Right-wing Odds ratio/se
Left-wing density	1.841**	1.943*	0.715	0.413**	0.293***	0.370**
	(0.510)	(0.664)	(0.210)	(0.175)	(0.106)	(0.184)
Centrist density	0.987	0.957	3.331***	5.197***	2.101***	1.608
	(0.227)	(0.187)	(1.470)	(2.392)	(0.500)	(0.498)
Right-wing density	0.619	0.787	1.926**	2.055*	3.843***	3.772**
	(0.221)	(0.307)	(0.633)	(0.807)	(1.366)	(2.366)
Age (square root)	0.921	0.949	0.892	0.832*	0.887	0.927
	(0.060)	(0.062)	(0.076)	(0.091)	(0.071)	(0.094)
Effective number	0.294	0.210	2.116	901.611**	0.001*	0.384
of party families	(0.390)	(0.489)	(5.683)	(2963.319)	(0.003)	(0.820)
Effective number	1.003	0.999	1.010	1.012	0.899*	0.880*
of issues	(0.008)	(0.012)	(0.032)	(0.035)	(0.049)	(0.062)
Voter density	1.027	1.034	1.031	0.905*	1.039	0.809
	(0.048)	(0.052)	(0.055)	(0.052)	(0.081)	(0.125)
Disproportionality	0.951	0.968	1.118*	1.110	0.975	0.944
	(0.095)	(0.121)	(0.068)	(0.082)	(0.087)	(0.097)
Duration of democracy	0.940	0.859	1.131	1.179	0.951	0.867
	(0.092)	(0.157)	(0.164)	(0.176)	(0.095)	(0.175)
Ethnic heteroge-	0.164*	1.227	0.516	0.010*	2.979	0.007*
neity	(0.174)	(1.514)	(0.597)	(0.024)	(4.700)	(0.020)
Registration cost	0.000	0.000	2.249	13.910	0.292	0.164
	(0.000)	(0.000)	(3.896)	(33.254)	(0.347)	(0.366)
Party financing	1.003	2.392	1.077	0.033	0.068***	0.003**
	(0.759)	(2.914)	(1.196)	(0.072)	(0.065)	(0.008)
Petition (logged)	1.389	0.925	1.197	0.963	0.465**	0.800
	(0.350)	(0.328)	(0.330)	(0.423)	(0.161)	(0.270)
Integration	0.834	1.851	0.491	0.525	0.919	1.434
	(0.445)	(1.114)	(0.297)	(0.393)	(0.657)	(1.458)
In government	0.355		0.363*		0.314*	
	(0.372)		(0.202)		(0.214)	
GDP growth	0.848		1.106		1.168	
	(0.116)		(0.197)		(0.163)	
Constant	2.942	0.018	0.000**	6.695	3.768	524180.836
	(8.949)	(0.073)	(0.001)	(35.201)	(12.375)	(4754431.894)
Pseudo R^2	0.125	0.123	0.35	0.39	0.223	0.178
N	317	241	235	338	296	189

Notes: ***p<.01 **p<.05 *p<.1 (two-tailed). Logistic regression explaining party exit by ideological niche. The coefficients are odds ratios. Standard errors in parentheses.

Table A5. Poisson and panel negative binominal regressions explaining party entry within ideological niches

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
			Effect on party entry by niche			
	Left-wing IRR/se	Left-wing IRR/se	Centrist IRR/se	Centrist IRR/se	Right-wing IRR/se	Right-wing IRR/se
Left-wing density t-1	0.695*	1.090	0.667	0.501**	0.820	0.954
	(0.151)	(0.324)	(0.268)	(0.163)	(0.201)	(0.305)
Centrist density t-1	1.123	1.083	1.480	1.710***	1.303*	1.511*
	(0.161)	(0.159)	(0.518)	(0.301)	(0.186)	(0.331)
Right-wing density t-1	1.607*	0.794	1.799	1.859**	1.373	0.468
	(0.431)	(0.186)	(0.776)	(0.544)	(0.352)	(0.228)
Effective number of	1.638	1.014	19.456	60.325**	9.798*	0.368
party families t-1	(1.889)	(1.226)	(37.688)	(96.451)	(12.340)	(0.757)
Effective number of	0.992	0.999	1.020	0.980	0.987	0.968
issues t-1	(0.026)	(0.035)	(0.036)	(0.025)	(0.021)	(0.036)
Voter density	0.978	1.052	1.049	1.008	0.911**	1.085
	(0.036)	(0.043)	(0.053)	(0.056)	(0.041)	(0.067)
Disproportionality t-1	1.066	1.033	1.192**	1.141***	1.162***	1.172**
	(0.063)	(0.054)	(0.093)	(0.053)	(0.061)	(0.090)
Ethnic heterogeneity	0.550	0.504	0.733	0.010***	0.081***	0.100
	(0.347)	(0.440)	(0.764)	(0.013)	(0.069)	(0.157)
Duration of democracy	0.966	1.018	0.882	0.864	0.983	1.056
	(0.081)	(0.079)	(0.119)	(0.093)	(0.098)	(0.134)
Registration cost	0.455	1.576	0.000	0.000	5.459	1042.816***
	(0.813)	(2.993)	(0.000)	(0.000)	(6.624)	(2513.993)
Party financing	0.451	0.674	0.642	0.044***	0.457	0.407
	(0.221)	(0.583)	(0.463)	(0.050)	(0.236)	(0.553)
Petition (logged)	1.280	1.059	0.598	2.183**	1.528**	1.529
	(0.236)	(0.210)	(0.218)	(0.665)	(0.312)	(0.436)
Integration	1.281	1.047	2.114	0.919	1.451	0.887
	(0.508)	(0.454)	(1.119)	(0.361)	(0.601)	(0.632)
Number of government parties in niche t-1	0.612		1.698*		0.901	
	(0.183)		(0.536)		(0.227)	
Economic growth	1.235**		1.018		1.176*	
	(0.107)		(0.128)		(0.114)	
Constant	0.424	0.196	0.000	87.987	2.071	0.942
	(1.087)	(0.392)	(0.001)	(359.664)	(4.031)	(3.030)
Wald chi^2	14.83	8.39	16.05	36.64	22.75	16.00
N	88	80	77	80	88	75

Notes: ***p<.01 **p<.05 *p<.1 (two-tailed). Poisson and panel negative binominal regressions explaining party entry by ideological niche. The coefficients are incidence rate ratios. Standard errors in parentheses.