

Issue Diversification: Can niche parties succeed electorally by broadening their agenda?
Online Appendix

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A.1. Issue Categories (Bischof 2017)

Table 2. Niche segments and their defining criteria.

Party family	Defining criteria	MARPOR codes
Ecology	- main focus on environmentalism - sustainability as a generalizable aim	Per501 (Environmental Protection) Per416 (Anti-Growth Economy: Positive)+ Per410 (Productivity: Positive)
Agrarian	- pacifism - agriculture - urban versus rural	Per106 (Peace: Positive) Per703 (Farmers)
Regional	- regionalism, autonomism or separatism of region of origin - focused on issues affecting the region of origin	Per301 (Decentralization)+ Per302 (Centralization) Per706 (Non-economic Demographic Groups)
Extreme Right	- nationalism: congruence between state and nation - "mono-culturalism": homogenization of nation and xenophobia - belief in law and order	Per601 (National Way of Life: Positive)+ Per602 (National Way of Life: Negative) Per607 (Multiculturalism: Positive)+ Per608 (Multiculturalism: Negative) Per605 (Law and Order)
Euroscptic	- opposition to EU - protectionism of own market	Per406 (Protectionism: Positive)+ Per407 (Protectionism: Negative) Per108 (European Community/Union: Positive)+ Per110 (European Community/Union: Negative)

Source: Author's own.

A.2. Formula for Specialization (Bischof 2017)

$$\begin{aligned}
 SEs &= - \sum_{i=1}^5 x_{ip} \ln(x_{ip}) = - \sum_{i=1}^5 \ln(x_{ip}^{x_{ip}}) = - \ln \prod_{i=1}^5 (x_{ip}^{x_{ip}}) \\
 &= (-1) \ln \prod_{i=1}^5 (x_{ip}^{x_{ip}}) = \ln \left(\prod_{i=1}^5 (x_{ip}^{x_{ip}}) \right)^{-1} = \ln \left(\frac{1}{\prod_{i=1}^5 x_{ip}^{x_{ip}}} \right)
 \end{aligned}$$

A3. Classification of Green and Nationalist Parties with Election Year, 1970-2013

County	Nationalist Party	Year	Green Party	Year
Australia	<i>Katter's Australian Party</i>	2013	Australian Greens	2004, 2007, 2010, 2013
Austria	Alliance for Future of Austria Freedom Party	2006, 2008 1970, 1971, 1975, 1979, 1983, 1986, 1990, 1994, 1995, 1999, 2002, 2006, 2008	The Greens (Die Grünen)	1986, 1990, 1994, 1995, 1999, 2002, 2006, 2008
Belgium	Vlaams Blok/Belang	1978, 1981, 1985, 1987, 1991, 1995, 1999, 2003, 2007, 2010	Agalev/Growen Ecolo	1981, 1985, 1987, 1991, 1995, 1999, 2003, 2007, 2010 1981, 1985, 1987, 1991, 1995, 1999, 2003, 2007, 2010
,Canada			Green Party	2008, 2011
Cyprus	Democratic Coalition	1996, 2001, 2006, 2011	Ecological and Environmental Movement	2006, 2011
Denmark	Progress/People's Party	1973, 1975, 1977, 1979, 1981, 1984, 1987, 1988, 1990, 1994, 1998, 2001, 2005, 2007, 2011		

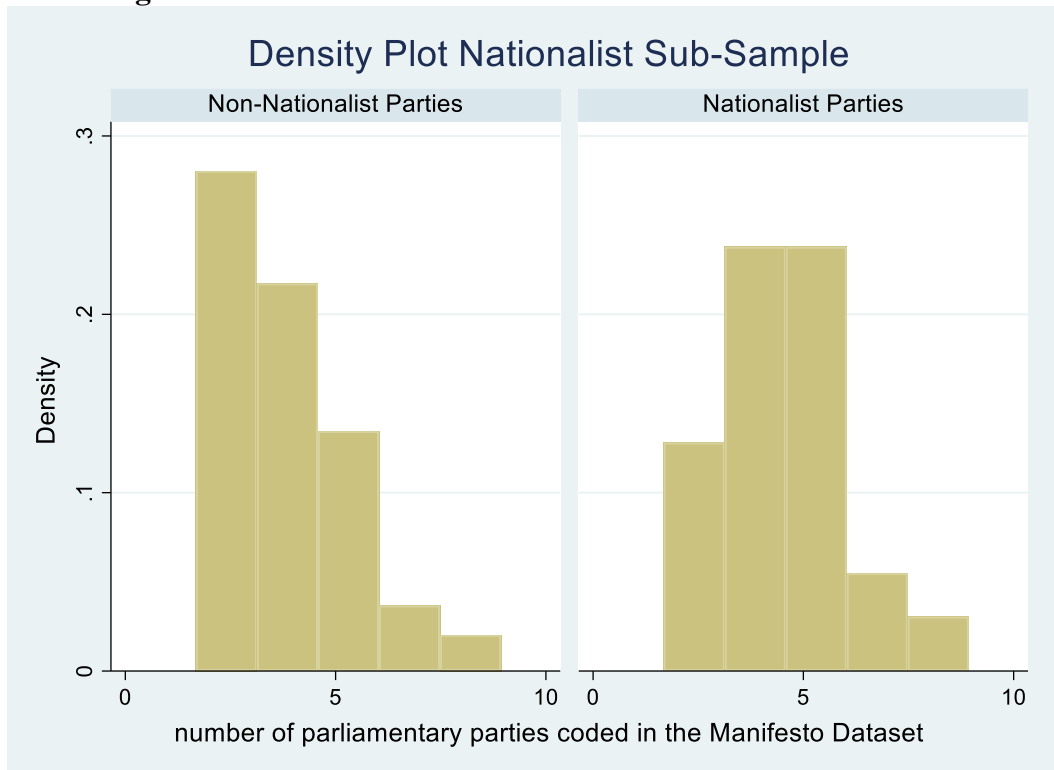
Finland	Rural Party/True Finns	1970, 1972, 1975, 1979, 1983, 1987, 1991, 1995, 1999, 2003, 2007, 2011	Green Union	1983, 1987, 1991, 1995, 1999, 2003, 2007, 2011
France	<i>National Front</i>	1986, 1988, 1993, 1997, 2002, 2007, 2012	Ecology Generation The Greens (Les Verts)	1997 1993, 1997, 2002, 2007, 2012
Germany			The Greens/ Alliance 90	1983, 1987, 1990, 1994, 1998, 2002, 2005, 2009, 2013
Greece	Popular Orthodox Rally Golden Dawn ANAL	2007, 2009, 2012 2012, 2012 2012, 2012		
Iceland			Left Green Movement	2011, 1999, 2003, 2007, 2009, 2013
Ireland			Green Party	1989, 1992, 1997, 2002, 2007, 2011
Italy	National Alliance/Italian Social Movement Northern League	1972, 1976, 1979, 1983, 1987, 1992, 1994, 1996, 2001, 2006, 2008, 2013 1992, 1994, 1996, 2001, 2006, 2008, 2013	Green Federation	1987, 1992, 1994, 1996, 2001, 2006

Luxembourg			Green Left Ecological Initiative	1989
			The Greens	1984, 1989, 1994, 1999, 2004, 2009, 2013
Netherlands	List Pim Fortuyn	2002, 2003	Green Left	1989, 1994, 1998, 2002, 2003, 2006, 2010, 2012
	Party of Freedom	2006, 2010, 2012		
New Zealand	NZ First	1993,1996,1999 2002, 2011	Green Party of Aotearoa New Zealand	1999, 2002, 2005, 2008, 2011
Norway	Progress Party	1973, 1977, 1981, 1985, 1989, 1993, 1997, 2001, 2005, 2009		
Portugal	Popular Monarchist Party	1976, 1979, 1980, 1983	The Greens (Os Verdes)	1983, 1985, 1987, 2002, 2005, 2009, 2011
Sweden	Sweden Democrats	2010	Greens	1988, 1991, 1994, 1998, 2002, 2006, 2010

A.4 Summary Statistics

<u>variable</u>	<u>N</u>	<u>mean</u>	<u>sd</u>	<u>p10</u>	<u>p25</u>	<u>p50</u>	<u>p75</u>	<u>p90</u>
pervote	1819	14.536	13.492	1.498	4.030	9.160	23.000	37.268
incumbent	1819	0.314	0.464	0.000	0.000	0.000	1.000	1.000
natpty	1819	0.062	0.241	0.000	0.000	0.000	0.000	0.000
ecopty	1819	0.060	0.237	0.000	0.000	0.000	0.000	0.000
GDPgrowth	1724	2.538	2.556	-0.224	0.904	2.507	4.161	5.490
ENPP	1819	3.927	1.523	2.322	2.648	3.545	5.041	5.702
diversity	1810	1.350	0.302	0.972	1.288	1.469	1.550	1.579
diversity (single year)	1808	1.283	0.369	0.686	1.100	1.415	1.546	1.575
ENMI	1793	12.997	4.924	6.496	9.442	13.057	16.454	19.463
nicheness	1817	0.441	3.047	-2.791	-1.388	0.000	1.699	4.257

A.5 Histogram of ENPP Distribution



A.6: Regression Replication with Single-Year Diversity, ENMI Greene (2016), and Nicheness (Meyer and Miller 2015)

As mentioned in footnotes 3 & 4, other measures of issue diversity have recently been introduced. Our measure of issue diversity is based off Bischof's (2017) *specialization* measure. This specifically captures party attention to niche issues as coded by the Comparative Manifesto Project in the first table of this appendix. The measure averages two election years as it has been demonstrated that voters update their views on parties with the previous election in mind (Adams and Somer-Topcu 2009). Our first replication of issue diversity removes this lagged average and captures a single year niche diversity measure.

Greene (2016) develops a broader measure that uses all issue categories contained in the Comparative Manifesto dataset. Using the same Shannon's entropy manipulation on the 42 issue categories, an Effective Number of Manifesto issues ENMI is calculated using single year election manifestos. Green parties and regional parties score lowest on the ENMI measure. Since both niche and mainstream issues are included in the measure, we would expect that this measure to have similar effects as our issue diversity measure.

Meyer and Miller (2015) also use the Comparative Manifesto Project to code the salience of issues typically associated with government ministries: economic topics, foreign policy, defense, interior, justice, education, agriculture, environment, and social affairs. They then sum the squared difference of a party's emphasis on the issue from the average emphasis placed on that issue from other parties in the system weighted by party size and normalize the result. Higher values thus mean that a party emphasizes one of the standard ministry issues more than the average in the party system: green parties, for example, focused on the environmental ministry score receive the highest average score.

Results for these replications are presented below. A few things are of note. First in looking at the single-year replication, many of the crucial variables match the expectations of our issue diversity measure. Incumbents are more prone to losing votes as are larger parties. Crucially the interaction of nationalist parties, change in issue diversity, and ENPP is statistically significant in all models. The paper's conclusion that nationalist parties can gain votes through issue diversification in larger party systems still holds. The same coefficients on green parties are also significant with this operationalization. However, as demonstrated in the main paper, significant interaction coefficients suggest scores of 0 for the constituent terms. These do not result in statistically significant results when the marginal effects are graphed.

Greene's ENMI measure largely confirms our results for nationalist parties. Only these parties show a significant effect and crucially the interaction of nationalist parties, issue diversity, and ENPP is statistically significant. There are no vote affecting effects of altering an issue profile for Green parties or mainstream parties. We have reproduced the marginal plots for nationalist parties below, the findings of which supports our paper's conclusion. Nationalist parties presenting a highly specialized programs can gain votes in large party systems. Parties competing in majoritarian systems, like those studied previously, are penalized when they broaden their agenda.

The Meyer, Miller, and Wagner nicheness measure produces no systematic results. While some coefficients are statistically significant, on our range of data, none of the marginal effects are statistically significant. That said, the relationship of our crucial interaction between nicheness, nationalist parties, and ENPP is here negative, which suggests that nationalist parties in large systems lose vote when they present a more niche profile, or conversely, like our conclusion, gain votes when presenting less niche profile.

VARIABLES	(5)	(6)	(7)	(8)	(9)	(10)
	Single Year Green	Single Year Nat	Single Year All Party	le Year Mainstr	ENMI All Parties	Nicheness All Parties
Incumbent	-2.074*** (0.298)	-2.045*** (0.295)	-2.051*** (0.303)	-2.496*** (0.372)	-2.021*** (0.297)	-2.043*** (0.305)
Party Size (Δ -1)	-0.0422*** (0.00951)	-0.0423*** (0.00925)	-0.0429*** (0.00944)	-0.0638*** (0.0115)	-0.0441*** (0.00986)	-0.0456*** (0.00963)
GDP Growth	0.0210 (0.0282)	0.0217 (0.0292)	0.0237 (0.0293)	0.0274 (0.0401)	0.0289 (0.0285)	0.0135 (0.0277)
Δ -Diversity	2.339 (1.993)	4.815*** (1.752)	4.517** (1.808)	4.815** (2.117)	-0.0317 (0.204)	-0.193 (0.138)
ENPP	-0.106 (0.355)	0.130 (0.343)	0.0530 (0.364)	-0.0685 (0.463)	0.0243 (0.270)	-0.102 (0.0834)
ENPP* Δ -Diversity	-0.541 (0.465)	-1.239*** (0.410)	-1.163*** (0.426)	-1.149** (0.501)	0.0196 (0.0483)	0.0445 (0.0287)
Diversity (Δ -1)	-0.00786 (1.114)	0.540 (1.078)	0.348 (1.142)	0.916 (1.478)	0.0759 (0.0837)	-0.355** (0.147)
Δ -Diversity*Diversity(Δ -1)	-2.232 (1.639)	-4.019** (1.622)	-3.777** (1.688)	-2.975 (1.891)	0.00964 (0.0153)	-0.0287 (0.0234)
ENPP*Diversity(Δ -1)	0.0561 (0.258)	-0.123 (0.250)	-0.0718 (0.269)	-0.116 (0.340)	-0.0100 (0.0189)	0.0682** (0.0288)
Δ -Diversity*ENPP*Diversity(Δ -1)	0.673* (0.369)	1.195*** (0.396)	1.127*** (0.417)	0.941** (0.457)	-0.00270 (0.00363)	0.00554 (0.00540)
Green Party	-7.794* (4.267)		-7.363* (4.330)	-8.998* (4.799)	-1.908 (1.839)	0.0100 (1.133)
Green Party* Δ -Diversity	18.68* (10.59)		16.59 (10.57)	16.46 (10.88)	-0.383 (0.558)	0.0239 (0.276)
Green Party*ENPP	1.928** (0.883)		1.769* (0.901)	2.081** (0.999)	0.529 (0.385)	0.0290 (0.205)
Green Party* Δ -Diversity*ENPP	-4.605** (2.265)		-4.000* (2.264)	-4.063* (2.323)	0.0233 (0.110)	-0.0361 (0.0525)
Green Party*Diversity (Δ -1)	5.083* (2.979)		4.727 (3.040)	4.808 (3.367)	0.128 (0.129)	0.118 (0.224)
Green Party* Δ -Diversity*Diversity (Δ -1)	-12.98 (9.061)		-11.52 (9.083)	-11.82 (9.286)	0.0491 (0.0403)	0.0316 (0.0379)
Green Party*ENPP*Diversity (Δ -1)	-1.291** (0.620)		-1.163* (0.638)	-1.257* (0.709)	-0.0328 (0.0243)	-0.0267 (0.0429)
Green Party* Δ -Diversity*ENPP*Diversity (Δ -1)	3.302* (1.843)		2.864 (1.859)	2.947 (1.877)	-0.00580 (0.00699)	-0.00224 (0.00784)
Nationalist Party		-5.302 (9.377)	-5.666 (9.439)	-7.189 (9.441)	4.281 (6.196)	-1.745 (1.527)
Nat Party* Δ -Diversity		-10.23 (7.043)	-9.906 (7.095)	-9.739 (7.145)	-1.837*** (0.510)	1.220** (0.480)
Nat Party*ENPP		-0.0274 (2.024)	0.0606 (2.036)	0.335 (2.042)	-1.103 (1.089)	0.369 (0.285)
Nat Party* Δ -Diversity*ENPP		3.231** (1.584)	3.148* (1.596)	3.031* (1.631)	0.413*** (0.103)	-0.256** (0.100)
Nat Party*Diversity (Δ -1)		2.895 (6.932)	3.125 (6.978)	3.174 (6.973)	-0.293 (0.507)	-0.276 (0.550)
Nat Party* Δ -Diversity*Diversity (Δ -1)		3.677 (10.06)	3.390 (10.09)	2.186 (10.26)	0.0765* (0.0437)	-0.0400 (0.0459)
Nat Party*ENPP*Diversity (Δ -1)		0.215 (1.441)	0.156 (1.451)	0.0866 (1.458)	0.0846 (0.0841)	0.0883 (0.114)
Nat Party* Δ -Diversity*ENPP*Diversity (Δ -1)		-1.568 (2.349)	-1.490 (2.357)	-1.205 (2.403)	-0.0138 (0.00879)	0.00772 (0.01000)
Constant	1.260 (1.597)	0.515 (1.527)	0.823 (1.615)	1.745 (2.115)	0.482 (1.172)	1.538*** (0.414)
Observations	1,400	1,400	1,400	1,033	1,409	1,412
Δ -squared	0.085	0.091	0.092	0.118	0.093	0.094
	Robust standard errors in parentheses					
	*** p<0.01, ** p<0.05, * p<0.1					

A.7: Marginal Effects of Nationalist parties and ENMI

