Received: 20 December 2018 | Revised: 8 May 2019 | Accepted: 20 June 2019

DOI: 10.1111/gove.12434

SPECIAL ISSUE

Governance WILEY

Regional spillover into third-order European elections

Arjan H. Schakel

University of Bergen

Correspondence
Arjan H. Schakel, Department of Comparative Politics, Faculty of Social Sciences, University of Bergen.
Email: arjan.schakel@uib.no

Abstract

Second-order election research clearly reveals that national incumbency impacts on European election outcomes but despite the increasing importance of regions few studies explore the impact of regional politics. I theorize that governmental status at the regional level, regional authority, and the relative timing of the regional election affects vote share swings between European and previously held national elections. Based on an analysis including 12,545 vote share swings for 468 parties that compete elections held in 209 regions in 11 European Union member states since 1979, I find strong evidence for prospective regional voting, that is, voters rewarding parties in government at the regional level. First, parties that are in national opposition and in regional government incur larger vote share gains than parties that are in opposition at both levels. Second, these vote share gains become larger when regional authority increases and, third, when a regional election has preceded a European election.

1 | INTRODUCTION

The process of European integration includes a development toward multilevel electoral democracy. The territorial scope of European elections has steadily grown from 6 member states in 1979 to 28 in 2014 and the number of eligible voters in European elections has increased from 178.4 to 394.3 million over the same time span (European Commission, 2014). What is often less noticed is that the proliferation of electoral democracy in Europe has been more pronounced at the regional level.[1] In 1979, 95.4 million people could vote in regional elections and this number increased to 327.6 million

This is an open access article under the terms of the Creative Commons Attribution-NonCommercial-NoDerivs License, which permits use and distribution in any medium, provided the original work is properly cited, the use is non-commercial and no modifications or adaptations are made.
© 2019 The Author. *Governance* published by Wiley Periodicals, LLC.

people in 2014 (Dandoy & Schakel, 2013; Schakel, 2017). In 1979, about half of the people (53%) who could vote in European elections could also vote in regional elections. In 2014, 19 out of 28 European Union (EU) member states held regional elections and 83% of the total European electorate could vote in European and regional elections. The nine EU member states that do not hold regional elections are small countries with 5 million people or less except for Bulgaria which has around 7.4 million citizens.[2] Out of 19 EU member states that hold regional elections, regional authority has increased in 13, it remained constant in 4, and in only 2 countries did regional authority decrease (Hooghe et al., 2016). These developments over the past four decades point toward the development of a European multilevel electoral system whereby representative institutions and important decision-making powers are allocated across regional, national, and European governments.

Despite the tremendous growth in the number and importance of electoral arenas at multiple territorial scales, there is little scholarship that explores the extent to which party and voter behavior in one electoral arena affects what is going on in another electoral arena (see also Gschwend, 2008). As Golder et al. (2017, p. 3) note, "Multilevel governance, then, should matter for our understanding of electoral politics. Only if electoral arenas are independent can a researcher safely ignore the impact of multiple arenas." Research on spillover between national and European elections and between national and regional elections clearly shows that electoral arenas cannot be studied in isolation. Both literatures often take the second-order election model as their starting point whereby scholars set out to see in how far party governmental status at the national level impacts vote shares in European and regional elections (Hix & Marsh, 2007, 2011; Hough & Jeffery, 2006). The second-order model election assumes that voters and parties conceive national elections to be first order compared to second-order regional and European elections because it is national government that makes the important decisions. Voters are not bothered to turn out in second-order elections and those who do tend to punish parties governing at the national level and to reward parties in national opposition or small and new parties (Marsh & Mikhaylov, 2010; Reif & Schmitt, 1980). There is ample of evidence that second-order election effects are observable in both regional and European elections. What has been much less explored is in how far factors arising from regional electoral arenas impact European election results. Given the increasing territorial scope and importance of regional elections one may expect that regional politics have become more important than European and, at least for some voters, also national politics (Henderson & McEwen, 2015; Schakel & Dandoy, 2014).

In this article, I hypothesize that party governmental status at the regional level, regional authority, and electoral timing of the regional election affect vote share swings between European and previously held national elections. The empirical analysis provides strong support that all three variables matter. First, a party tends to incur vote share gains in European elections when it is in opposition at both the regional and national levels or when the party is in national opposition and in government at the regional level. Second, these vote share gains are larger when regional authority increases and, third, when a regional election has preceded a European election. Collectively, these findings provide strong evidence for regional spillover into the European electoral arena. Thereby, this article demonstrates that the combined processes of European integration and subnational decentralization have led to the development of a European multilevel electoral system whereby European election outcomes are not only affected by factors arising from national but also from regional electoral arenas. The results also strongly suggest that voters tend to perceive national elections as first order, regional elections as second order, and European elections as third order.

Section 2 develops four hypotheses on how governmental status at the regional level may affect European election outcomes. Data and methods are discussed in Section 3 and the results are presented in Section 4. Finally, Section 5 concludes and discusses the implications of the results.

2 | THEORIZING REGIONAL SPILLOVER INTO EUROPEAN ELECTIONS

The development toward multilevel electoral democracy in Europe has not gone unnoticed by election scholars. An often-used theoretical starting point by scholars focusing on European and regional elections is the second-order election model. The premise of this model is that voters in European and regional elections are mainly driven by factors arising out of the national electoral arena. Second-order voters tend to use European and regional elections as a means to signal their discontent with parties in national government by voting for parties in national opposition and small and new parties (Hix & Marsh, 2007, 2011; Hough & Jeffery, 2006). This voting behavior arises because voters tend to conceive European and regional elections to be less important than national elections as statewide government makes the important decisions regarding important policies such as taxes, welfare state and economic policy, and foreign relations (Marsh & Mikhaylov, 2010; Reif & Schmitt, 1980). Voters who are discontent with national government are more likely to turnout in less important elections and they tend to use them to express their dissatisfaction (Lau, 1985; Schakel & Dandoy, 2014).

There is a substantial number of studies which goes beyond the second-order election model and provide other explanations for European and regional election outcomes. However, what has not been explored often, to the best of my knowledge, is whether European elections are affected by factors arising out of the regional electoral arena (but see Schakel, 2018). Studies on regional elections clearly show that regional government is important for a significant group of voters and for some voters, regional elections may be more salient than national or European contests (Dandoy & Schakel, 2013; Liñeira, 2011; Schakel, 2017). One may expect that the vote choice of these voters in European elections is based on factors arising from the regional electoral arena separate from or alongside considerations based on national or European politics. In this article, I explore the validity of four hypotheses on the ways in which regional politics may impact European electoral outcomes. Following Golder et al. (2017, pp. 18–23) and Gschwend (2008), I differentiate between types of voters to develop hypotheses on multilevel electoral behavior. *National voters* tend to care less about regional or European politics and base their vote choice in European elections on a party's performance at the national level. I use the label *regional voters* for those voters who cast their European vote on the basis of factors arising out of the regional instead of or alongside factors arising from the national or European electoral arena. Similarly, *European voters* base their European vote choice on the basis of factors arising out of the European instead of or alongside factors arising from the national or regional electoral arenas.

Drawing on the second-order election model, we may assume that national voters are chiefly motivated to cast a vote in European elections by their dissatisfaction with a party's performance at the national level. These voters conceive European elections to be less important than first-order national elections and they are less motivated to turn out in European elections except for discontented voters who use the European election as a "referendum" or "poll" to express their dissatisfaction with parties in national government. As a result, parties in national government tend to lose vote share whereas parties in national opposition (and small and new parties) gain vote share in European elections.

European voters look at the European electoral arena when they make up their minds regarding their vote in European elections. They see the European election as an important contest in its own right and they consider the European electoral arena in isolation of the national and regional electoral arenas (Golder et al., 2017, p. 20). A common assumption is that European voters are relatively rare because most voters treat European elections as second-order to national elections (Hix & Marsh,

2011; Marsh & Mikhaylov, 2010). Recently, scholars have looked the possibility that some voters could be motivated to vote based on European-level issues (de Vries, van der Brug, van Egmond, & van der Eijk, 2011; Golder et al., 2017; Hobolt & de Vries, 2016; Hobolt & Tilley, 2014). The focus of this article is on regional spillover into the European electoral arena rather than establishing the impact of European voting on aggregate election outcomes. However, in the models below I include controls for European voting to isolate the impact of regional voting.

Regional voters deem European elections to be less important than regional (and national) elections and they use European elections as an opportunity to voice their opinion about regional politics. Regional voters consider regional elections to be first order, national elections to be second order, and European elections to be third order elections (see also Golder et al., 2017: 69–73). In contrast to national voters who predominantly use European elections to electorally punish parties in national government, regional voters may have two different motivations to voice their opinion about regional politics in European elections.

A first motivation may be based on an evaluation of a party's performance at the regional level. The second-order election model may also apply to the relation between regional and European elections and regional voters deem European elections to be subordinate to regional elections. In this scenario, regional voters use the European election to signal their discontent with parties in regional government and, as a result, these parties lose vote share whereas parties in regional opposition (and small and new parties) gain vote share. There is ample of (recent) evidence that some voters conceive regional elections equally or more important than national elections (e.g., Bechtel, 2012; Golder et al., 2017; Schakel & Romanova, 2018; Scully, 2013) and a number of authors have found that turnout in regional contests is often higher than for European elections (e.g., Henderson & McEwen, 2015; Rallings & Trasher, 2005; Schakel & Dandoy, 2014). Therefore, it can be expected that many voters think that regional elections are more important than European elections. Applying the logic of the second-order model to the relationship between regional and European elections leads to the expectation that voters may use their European vote to send a signal of discontent to the parties in their regional governments:

> *H1: Parties in regional government lose vote share and parties in regional opposition win vote share because of retrospective regional voting in European elections.*

A second motivation underlying a regional voters' European vote choice is to use their European vote expressively rather than retrospectively. In this scenario, regional voters vote for a party that they think will be effective or helpful in voicing or expressing regional interests at the national or European level. Regions in Austria, Belgium, Germany, Italy, the Netherlands, Spain and the United Kingdom—7 out of the 11 EU member states included in the empirical analysis—exercise shared rule in addition to self-rule. Shared rule is the authority exercised by regions in the country as a whole through an upper chamber of parliament and/or through intergovernmental meetings between national and regional governments (Hooghe et al., 2016). Voting for a regional party that is in government at the regional level may strengthen the position of the region at the national level by sending a signal to national and regional politicians and parties. Just as a national voter, this kind of regional voter uses a European election to send a signal to the national electoral arena but instead of punishing parties in national government a regional voter rewards a party in regional government to strengthen the latter's position domestically.

Many regions that exercise shared rule within the member state can also significantly impact European policy. Regional ministers in Austria, Belgium, Germany, and the United Kingdom can replace federal ministers during meetings of the Council of Ministers when

policies are discussed that fall within regional competences. Regional governments in Italy and Spain meet with their central governments to prediscuss the national position to be taken up during meetings of the Council of Ministers. Most of these regions have access to the Council's working groups and representatives from many of these regions are included in the permanent delegations in Brussels (Keating, Hooghe, & Tatham, 2015; Tatham, 2008, 2011). Hence, voting for a regional party that is in government at the regional level may strengthen the position of the region at the European level by sending a signal to European, national, and regional politicians and parties.

Voters from regions that do not have direct access to the Council of Ministers or its working groups, that is, regions in Denmark, France, Greece, the Netherlands, and Sweden—5 out of 11 of the EU member states included in the empirical analysis—may still have an incentive to use their European vote to strengthen the position of a party in regional government within the European multilevel governance system. Regional governments are directly involved in the decision-making process of allocating EU structural and cohesion funds through the formulation and implementation of operational programs (Bachtler & Mendez, 2007; Bodenstein & Kemmerling, 2012; Piattoni, 2016). The EU issues detailed regulations on displaying EU symbols and texts alongside images or texts from regional, national, or private funders on construction signs as well with emblems on finished projects (European Commission, 2000, 2006; Osterloh, 2011). Therefore, regional voters may be well aware of the EU transfers their regions receive and that EU-funded projects are co-funded by regional and national governments (Chalmers & Dellmuth, 2015).

It may be a strong assumption that many voters are aware of the importance of the role their regional governments play in the European system of multilevel governance (but see Henceroth & Oganesyan, 2019). Nevertheless, this role is probably known by regional parties and politicians and therefore provide strong incentives to mobilize voters in European elections to vote for them (Dellmuth & Stoffel, 2012; Shikano & Nyhuis, 2019). On top of the above-mentioned reasons, we may add that many regional governments elect representatives in the Committee of the Regions which has to be asked for advice on all EU policy with a territorial dimension such as regional development but also agriculture, culture, education, transport, and tourism (Piattoni & Schönlau, 2015). In addition, regional government plays an important role in the decision-making and implementation of EU policy and a recent estimate found that nearly 70% of EU legislation is implemented by local and regional authorities (Committee of the Regions, 2009: 3). In sum, parties in regional government that would like to attract EU funding to their region or would like to have an influence on EU policy have strong incentives to mobilize regional voters in European elections for their cause (Hepburn, 2016). This leads to the second hypothesis:

> *H2: Parties in regional government win vote share and parties in regional opposition lose vote share because of expressive (prospective) regional voting in European elections.*

At the aggregate level, the impact of European, national, and regional voting on European election outcomes is dependent on the ratios between European, national, and regional voters. I hypothesize that the relative share of regional voters is affected by two regional-level variables. First, the authority exercised by regional government impacts the extent to which voters perceive regional politics to be important. When regional government makes important decisions about tax rates and socioeconomic and educational policy and is likely to be involved in deciding and implementing national and EU policy one may expect the share of regional voters to increase and one may expect that

regional voters will be more inclined to vote either retrospectively or expressively in European elections, that is, to punish or reward parties in regional government.

H3: The impact of party governmental status at the regional level on retrospective and expressive regional voting increases when regional governments have more authority.

Second, electoral timing of the regional election vis-à-vis national and European elections may impact the ratio between national and regional voters. One important hypothesized outcome of the second-order model is that turnout is low(er) in European than for national elections because voters perceive European elections to be less important than first-order national elections and therefore voters do not bother to go to the ballot box. This second-order election effect may be stronger when a European election is held after a regional election because of voting fatigue among European and especially national voters who are not bothered to cast a vote in another and even less important election (Dandoy & Schakel, 2013; Schakel, 2018). Only regional voters who think that European elections are a useful tool to signal their (dis)content with a party's performance at the regional level or who use European elections to voice territorial interests in the European electoral arena or to send a territorial signal to the national electoral arena are inclined to turn out and cast a vote.

H4: The impact of regional authority and party governmental status at the regional level on retrospective and expressive regional voting increases when a regional election has been held in between a European and a previously held national election.

An implicit assumption underlying the hypotheses is that at the aggregate level there are more national than regional voters and that there are more regional than European voters. In other words, voters tend to rank national elections first, regional elections second, and European elections third regarding the importance they attach to these contests. This also means that national spillover into the European electoral arena is expected to be larger in magnitude than regional spillover. In the empirical analysis presented below, I take the vote share swing between a European and a previously held national election as the dependent variable to test the four hypotheses. Analyzing this vote share swing—instead of a vote share swing between a European and a previously held regional election—enables me to observe under which conditions the magnitude of national spillover becomes smaller because of an increasing significance of regional spillover. In addition, choosing this type of swing constitutes a stronger empirical test for my hypotheses because it will be more difficult to detect regional spillover. Furthermore, in order to isolate and assess the additive impact of regional spillover I need to take account of national spillover. In the supplementary material S1 (available online), I display the results for models that take a party vote share swing between a European and a previously held regional election as a dependent variable[3] and these results are shortly discussed at the end of the results section.

In sum, I will explore three factors arising out from the regional electoral arena that may impact European election outcomes. First and foremost, I hypothesize that party governmental status at the regional level impacts the European vote, either through *retrospective* voting that leads parties in regional government to lose and parties in regional opposition to win vote share (Hypothesis 1), or through *expressive* voting which has the opposite effect, that is, parties in regional government win and parties in regional opposition lose vote share (Hypothesis 2). The impact of governmental status at the regional level is, in turn, dependent on regional authority and on the electoral timing of the regional election vis-à-vis the national and European election. My third hypothesis is that the impact of governmental status at the regional level increases with regional authority. My fourth hypothesis is that the impacts of governmental status and regional

TABLE 1 Included European Union member states, parties, regions, and elections

European Union member state	Parties	Regions		European elections		National elections		Regional elections	
				First	Last	First	Last	First	Last
Austria	21	Länder	9	1999	2014	1999	2013	1995	2013
Belgium	37	Communities and regions	4	1999	2014	1999	2014	1999	2014
Denmark	19	Amter	15	1979	2004	1977	2001	1978	2001
		Regions	5	2009	2014	2007	2011	2005	2013
France	36	Régions	22	1989	2014	1988	2012	1986	2010
Germany	28	Länder (West)	10	1979	2014	1976	2013	1975	2013
		Länder (East)	6	1994	2014	1990	2013	1990	2011
Greece	36	Nomoi	48	1999	2009	1996	2007	1998	2006
		Peripheria	13	2014	2014	2012	2012	2014	2014
Italy	109	Regioni ordinare	15	1979	2014	1979	2013	1975	2014
		Regioni speciale	4	1979	2014	1979	2013	1974	2014
		Provincia speciale	2	1979	2014	1979	2013	1978	2013
Netherlands	38	Provincies	12	1979	2014	1977	2012	1978	2011
Spain	82	Comunidades (nonhistoric)	14	1989	2014	1986	2011	1987	2011
		Comunidades (historic)	3	1989	2014	1986	2011	1984	2012
		Ciudiades	2	1989	2014	1986	2011	1987	2011
Sweden	22	Landstinge	21	1999	2014	1998	2010	1998	2011
United Kingdom	40	Devolved entities	4	1999	2014	1997	2010	1998	2012

authority are larger when a regional election has been held in between a European and a previously held national election.

3 | DATA, METHOD, AND OPERATIONALIZATION

The empirical (and robustness) analysis includes European, national, and regional elections results in 11 Western EU member states (Table 1).[4] Nine EU member states are excluded because they do not hold regional elections that precludes the possibility of spillover from the regional to the European electoral arena. Finland and Portugal are excluded because they hold regional elections in very small subparts of the country, *Åland* in Finland, and *Açores* and Madeira in Portugal. Six Eastern European countries—Croatia, Czech Republic, Hungary, Poland, Romania, and Slovakia—are excluded because of a preponderance of electoral coalitions and high volatility which significantly complicates the comparison of vote shares across the type of election and across time (Schakel, 2015, 2017). The 11 EU member states included in the analysis represent 73% and 78% of the total electorate in the 28 EU member states for respectively European and regional elections.

The dataset includes 12,545 vote share swings for a total of 468 parties that compete in European, national, and/or regional elections held in 209 regions in 11 EU member states since 1979 or the first

year when a country held regional, national, and European elections (Table 1). A party is included when it receives at least 1 % vote share in a European or national election in at least one region. In order to make sure that governmental status at the regional level can have an impact on European election outcomes the dataset only includes European elections that are held once regional elections have been introduced in an EU member state.

The focus of the empirical analysis is on aggregate electoral outcomes simply because European election surveys are not suitable to explore regional spillover in European elections. First, these surveys do not include questions that ask for a vote choice for a previously held regional election. Analyzing vote share swings (or vote switching probabilities) is crucial to test the hypotheses. Second, European election surveys often do not contain a region identifier for respondents and when they do then region samples cannot be usefully employed for a region-level analysis because they are too small or not representative for the region. I hypothesize that two regional-level variables (regional authority and timing of the regional election) impact on the balance between regional and national (and European) voters and therefore I need to know in which region an individual has cast her vote.

The second-order election model predicts that national voting leads parties in national government to lose vote share whereas parties in national opposition (and small and new parties) should win vote share in the less important European election (Hix & Marsh, 2007, 2011; Reif & Schmitt, 1980). When *retrospective* regional voting occurs alongside national (retrospective or second-order) voting then I may expect parties in national and regional government to lose more vote share than parties that are in national or in regional government. Similarly, parties in national and regional opposition should win more vote share than parties that are in national or in regional opposition. When *expressive* regional voting occurs alongside national (second-order or retrospective) voting then I may expect parties in national opposition and regional government to win most vote share and parties in national government and regional opposition to lose most vote share.

The main independent variable is a nominal variable that indicates a party's governmental status at the national and regional levels that can take up five values: in government at both levels, in opposition at both levels, in government at the regional but in opposition at the national level, in government at the national but in opposition at the regional level, and an "other" category (e.g., parties that competed in an election but did not manage to win a seat). The focus of the empirical analysis is on the electoral success of the main parties in national and regional governments, that is, those government and opposition parties that have the largest vote share.[5] Robustness analysis 1 in S1 displays the results for all parties that are in government or in opposition at the national and regional levels. To account for (possible) European voting—that is, voting on the basis of the party governmental status at the European level—the models include a dummy variable that scores positive when a party delivers a European Commissioner.

I hypothesize that the impact of governmental status at the regional level on a party's electoral success in European elections depends on regional authority and electoral timing of the European, national, and regional elections. The models include interactions between governmental status, regional authority and electoral timing of the regional election vis-à-vis the European and national elections. The Regional Authority Index (RAI) measures regional authority according to two dimensions (self-rule and shared rule) which are each measured by five subdimensions (Hooghe et al., 2016).[6] Scores may range from 1—deconcentrated central state government—to a maximum of 30. A dummy variable indicates whether a regional election has been held in between a European election and a previously held national election. This dummy scores one when a national election is

followed by a regional and then a European election. When this dummy scores 0, a European election followed after a national election.

The models include several control variables in order to make sure to isolate the effects of regional spillover. Second-order election effects depend on the timing of the European election in the national election cycle and parties in national government tend to lose most vote share—and small, new and opposition parties tend to win most vote share—when a European election is held midterm the national election cycle whereas losses and gains tend to level off the closer a European election is held to the previous or next national election (Hix & Marsh, 2007, 2011; Reif & Schmitt, 1980). The models include a cycle variable which varies between 0 and 1 and which indicates the time elapsed in a national election cycle which is 4 years in most cases, that is, a score of 1 indicates that a European election has been held 4 years after a national election. To tap into the parabolic function, a cycle-squared variable is also included. Second-order election effects increase with a deteriorating economy and therefore the models include regional Gross Domestic Product (GDP) relative to national GDP whereby scores above/below 100% indicate that regions are performing economically better/worse than the country average.

The control variables include six dummies. Two dummies indicate whether a European election has been held simultaneous with a national election and whether a national election has coincided with a regional election. Another set of two dummies indicate whether a different electoral system is used for European elections when compared to national or regional elections (0 = no; 1 = yes, i.e., a mixed or majoritarian electoral system). Two other dummies account for compulsory voting (0 = no; 1 = yes) and whether elections take place in a Rokkan region (0 = no; 1 = yes), that is, regions with strong regional identities. The Rokkan region dummy scores positive when a majority of people in a region speaks a different language from the main national language; when a region has a history of sovereign statehood for at least 30 years between 1,200 AD and 1950; and/or when a region is an island or archipelago and at least 30 km from the mainland (Hooghe & Marks, 2016). The size of parties is considered by including a party's *regional* vote share won in the previously held national election and the size of regions is taken into account by a ratio variable that varies between 0 and 1 and which is derived by dividing the regional electorate by the statewide electorate. Table 3 includes descriptive statistics for all dependent and independent variables.

Party vote shares are clustered within elections that are held within regions and in order to account for this clustering I run multilevel linear regression models whereby I include random effects for elections and regions. Regions are grouped within 11 EU member states and (most) European elections are held on the same date across the EU (Table 1). To account for this clustering of observations, the models include fixed effects for EU member states (Austria is the base category) and European elections (the first election of 1979 is the base category).[7]

4 | RESULTS: HOW A PARTY'S GOVERNMENTAL STATUS AT THE REGIONAL LEVEL AFFECTS ITS ELECTORAL SUCCESS IN EUROPEAN ELECTIONS

Table 2 displays the results of three models that include 12 control variables, 7 dummies for EU elections, and 10 dummies for EU member states. The first model includes the three main independent variables of interest, governmental status at the national and regional levels, RAI scores, and a dummy to indicate whether a regional election was held in between a European and a previously held national election. The second model includes an interaction between governmental

TABLE 2 Regression analysis of party vote share swings between European and previously held national elections

	Model 1			Model 2			Model 3		
Variable	***β***	***SE***	**sig.**	***β***	***SE***	**sig.**	***β***	***SE***	**sig.**
1 = gov nat–gov reg	−.86	0.27	*	−5.41	0.55	**	−5.12	0.63	**
2 = gov nat–opp reg	−1.83	0.29	**	−6.19	0.61	**	−6.66	0.76	**
3 = opp nat–gov reg	2.78	0.29	**	−5.38	0.61	**	−7.03	0.76	**
4 = opp nat–opp reg	1.83	0.25	**	−2.67	0.57	**	−3.18	0.64	**
Regional Authority Index (RAI) score	.01	0.02		−.04	0.02		−.03	0.02	
1 × RAI				.30	0.03	**	.21	0.04	**
2 × RAI				.31	0.04	**	.30	0.05	**
3 × RAI				.57	0.04	**	.64	0.05	**
4 × RAI				.31	0.03	**	.37	0.04	**
Dummy regional election held in between	.03	0.11		.01	0.11		−.02	0.29	
1 × dummy							.43	1.22	
2 × dummy							1.48	1.19	
3 × dummy							4.89	1.23	**
4 × dummy							1.35	1.33	
Dummy × RAI							−.01	0.02	
1 × RAI × dummy							.22	0.07	**
2 × RAI × dummy							.00	0.07	
3 × RAI × dummy							−.21	0.08	**
4 × RAI × dummy							−.22	0.08	**
EU commissioner	.98	0.17	**	.93	0.16	**	.97	0.16	**
Cycle	−.34	0.17	*	−.53	0.17	**	−.57	0.17	**
Cycle^2	.05	0.04		.11	0.04	**	.12	0.04	**
Simultaneous EU national	−.19	0.58		−.34	0.58		−.40	0.57	

TABLE 2 (Continued)

Variable	Model 1			Model 2			Model 3		
	β	*SE*	sig.	*β*	*SE*	sig.	*β*	*SE*	sig.
Simultaneous national–regional	.00	0.24		−.02	0.24		−.01	0.24	
Compulsory voting	−.17	0.21		−.18	0.20		−.23	0.21	
Differrent electoral system between EU national	−.40	0.26		−.50	0.25	*	−.53	0.25	*
Differrent electoral system between EU regional	.10	0.18		.02	0.18		.01	0.18	
Rokkan region	.04	0.10		.04	0.10		.04	0.10	
Regional economy	.00	0.00		.00	0.00		.00	0.00	
Size party	−.20	0.01	**	−.20	0.01	**	−.20	0.01	**
Size region	−.08	0.66		−.16	0.65		−.17	0.65	
EU election 1979 = base									
1984	−.04	0.25		.05	0.24		.07	0.24	
1989	−.20	0.22		−.03	0.22		.01	0.22	
1994	−.44	0.22	*	−.34	0.22		−.34	0.22	
1999	−.04	0.22		.16	0.22		.14	0.22	
2004	−.08	0.23		.14	0.23		.13	0.23	
2009	−.08	0.24		.17	0.24		.19	0.24	
2014	−.30	0.23		−.04	0.23		−.05	0.23	
EU member Austria = base									
Belgium	−.25	0.49		−.24	0.48		−.12	0.48	
Denmark	−.32	0.40		−.40	0.39		−.38	0.39	
France	.15	0.49		.25	0.48		.30	0.48	
Greece	−.52	0.29		−.72	0.29	*	−.71	0.29	*
Germany	−.24	0.55		−.19	0.54		−.10	0.54	

(Continues)

TABLE 2 (Continued)

Variable	Model 1			Model 2			Model 3		
	β	*SE*	sig.	*β*	*SE*	sig.	*β*	*SE*	sig.
Italy	−.54	0.37		−.56	0.36		−.50	0.36	
The Netherlands	−.25	0.32		−.28	0.32		−.27	0.31	
Spain	−.50	0.28		−.67	0.28	*	−.64	0.28	*
Sweden	−.23	0.45		−.39	0.44		−.34	0.44	
United Kingdom	.25	0.53		.08	0.52		.12	0.52	
Constant	2.38	0.64	**	3.12	0.63	**	3.08	0.62	**
Variance region	.00	0.00	**	.00	0.00	**	.00	0.00	**
Variance election	.00	0.00	**	.00	0.00	**	.00	0.00	**
Variance party	17.9	0.23	**	17.3	0.36	**	17.1	0.22	**
Wald chi-square	3,807			4,357			4,561		
Log likelihood	−35,897			−35,689			−35,614		

Note: Shown are the results of a multilevel linear regression model whereby 12,545 party vote share swings are clustered in 1,028 election pairs (European vs. previously held national elections) held in 209 regions in 11 EU member states (see Table 1). Gov nat - gov reg, party is in national and regional government; gov nat - opp reg, party is in national government and in regional opposition; opp nat - gov reg, party is in national opposition and in regional government; opp nat - opp reg, party is in national and regional opposition.

*$p < 0.05$; **$p < 0.01$.

status and RAI-scores and the third model includes a three-way interaction between governmental status, RAI scores, and the dummy. The analysis focuses on the largest parties but a robustness analysis that includes party vote share swings for all parties in government and opposition at the national and regional levels as a dependent variable reveals that the results are robust but the magnitude of the impacts is smaller (robustness analysis 1 in S1).

A comparison across models reveals that governmental status reaches statistical significance but RAI-scores and the dummy "regional election held in between" do not. However, the interaction between governmental status and RAI scores and the three-way interaction of the former two variables with the dummy "regional election held in between" do reach statistical significance. In addition, a comparison across the three models reveals that the interaction effects are additive which indicates that all three variables should be considered when studying vote share swings between European and previously held national elections. Thereby, the results strongly suggest that there is significant spillover from the regional into the European electoral arena. First, I explore the impact of RAI scores in Figure 1 which displays the marginal effects of increasing RAI scores on the vote share swings of parties with different governmental status at the national and regional levels. The estimates are calculated for the minimum score of 7 (Danish regions) up to the maximum score of 27 (German *Länder*) and the estimates are based on Model 3 in Table 1.

The results in Figure 1 are quite revealing. Parties in national government clearly tend to incur vote share losses no matter whether the party is in government or opposition at the regional level. As hypothesized, parties in national opposition tend to gain vote share in European elections but only when RAI scores are above 11. When RAI scores further increase it are parties in national opposition and in regional government which gain most vote share and they gain more vote share than parties

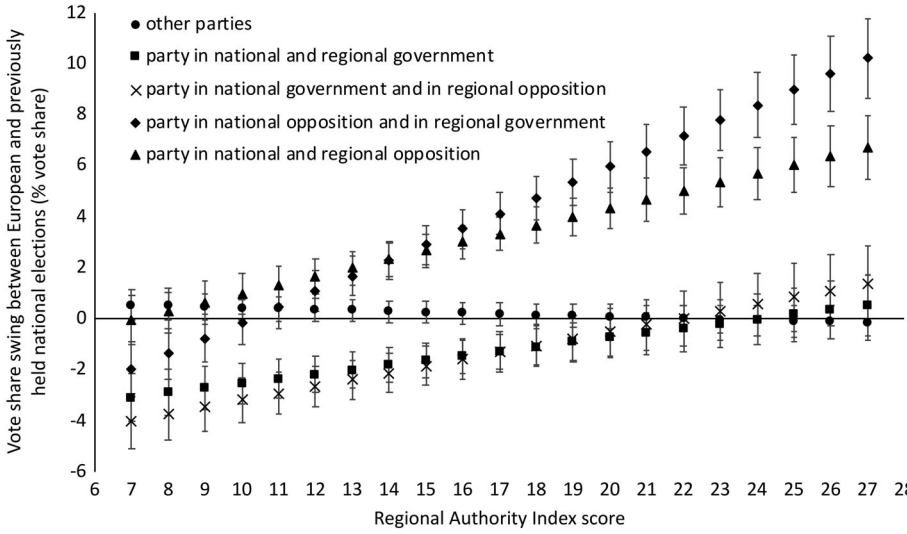

FIGURE 1 Marginal effects of regional authority on vote share swings between European and previously held national elections for five different types of parties. Marginal effects (averages and 95% confidence intervals) are calculated on the basis of the results for Model 3 of Table 2 whereby interval variables are set at their mean, nominal variables at their mode (which is 0 for all dummy variables), and European election at 1999 (European Union member states are not set at a particular value because of a high correlation to regional authority index scores). Descriptive statistics are provided in Table A1

that are in opposition at both levels and once the RAI score goes beyond 22 (i.e., *Länder* in Austria and Germany, *Gemeenschappen* in Belgium, and Spanish *comunidades autónomas*). These results are in line with Hypothesis 2 which reflect the assumption that parties in regional government may incur vote share gains rather than Hypothesis 1 which takes the second-order election model as a starting point and assumes that both regional and national voters use European elections to punish parties in national and regional government. In addition, Figure 1 provides strong support for Hypothesis 3 that expects that (prospective) regional voting is enhanced by increasing regional authority.

The impact of a party's governmental status at the national level is clearly dominant and determines whether a party is likely to lose or gain vote share but regional incumbency matters too. Parties that are in national opposition but are in government at the regional level gain most vote share. This result is in line with empirical evidence that regions are more likely to "bypass" central government and to seek to directly influence EU policy when the region is governed by the main national opposition party (Tatham, 2010). These parties have strong incentives to mobilize regional voters in European elections to vote for representatives whose role in the European multilevel governance system will be strengthened accordingly either at the domestic, European, or both levels.

Figure 2 displays the marginal effects of holding a regional election in between a European and a previously held national election. Given the important impact of RAI scores, the marginal effects are shown for a similar range of RAI scores as for Figure 1. To clearly distinguish the impact of the

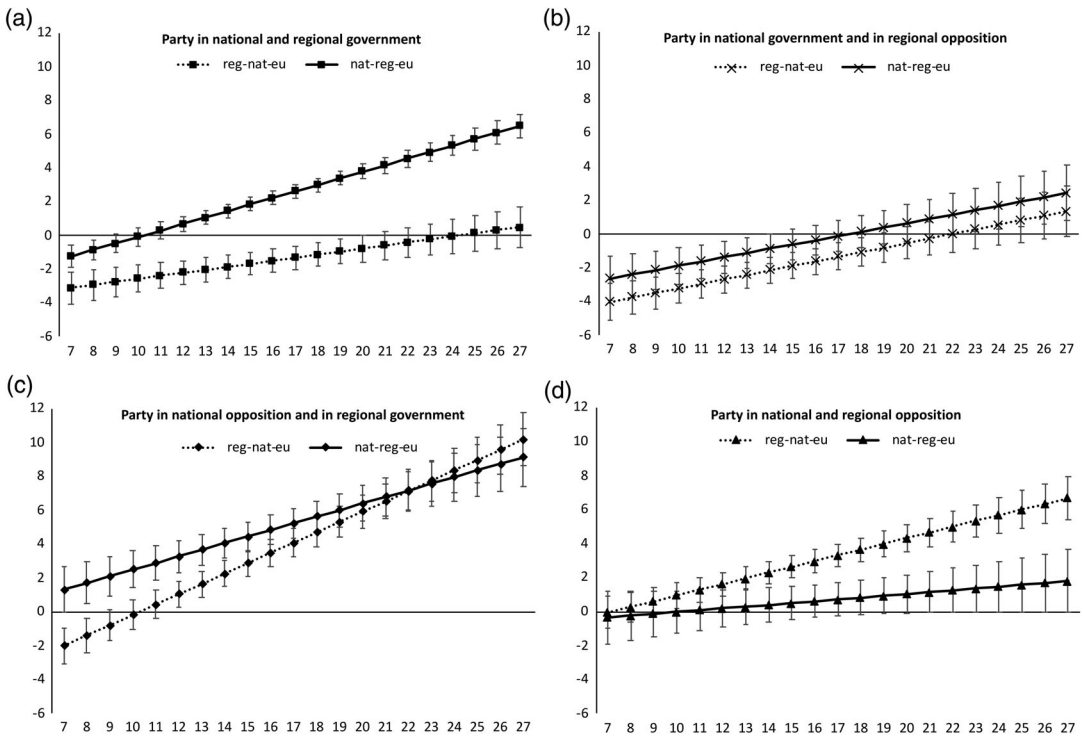

FIGURE 2 Marginal effects (averages and 95% confidence intervals) of the timing of the regional election vis-à-vis the European and previously held national election on vote share swings between European and previously held national elections (*y*-axis) across regional authority index scores (*x*-axis) for four different types of parties. See notes to Figure 1

timing of a regional election vis-à-vis European and national elections, Figure 2 displays one line for the sequence regional–national–European elections (dotted line; effects are similar as those displayed in Figure 1) and one line for the sequence national–regional–European elections (solid line; dummy "regional election held in between" scores 1). The marginal effects are shown by the multilevel governance status of a party, that is, party is in national and regional government (Figure 2a, squares), party is in national government and in regional opposition (Figure 2b, crosses), party is in national opposition and regional government (Figure 2c, diamonds), and party is in national and regional opposition (Figure 2d, triangles).[8]

The impact of electoral timing is statistically significant and this impact is especially noticeable when regions score 12 points or higher on the RAI index. Parties in national and regional government will lose vote share when a European election is held after a national election but these parties will gain vote share when a European election is preceded by a regional election (Figure 2a). In contrast, parties in national and regional opposition cannot expect to win vote share in European elections when a regional instead of a national election has preceded a European election (Figure 2d). Parties in national government can expect to lose vote share except when a regional election has preceded a European election and when RAI scores are higher than 22 (Figure 2b). Finally, parties in national opposition and regional government are likely to incur vote share gains in European elections—especially when RAI scores go beyond 12 points—and they are more likely to do so when a regional election has preceded a European election (Figure 2c).

The patterns arising from Figure 2 corroborates Hypothesis 4 that (prospective) regional voting increases when a regional instead of a national election precedes a European election. In these instances, parties in regional government win more vote share in a European election no matter its governmental status at the national level (Figure 2a,c). Figure 2 also suggests that second-order voting by national voters occurs alongside prospective regional voting by regional voters especially when a national election precedes a European election. In these cases, parties in national government tend to lose more vote share (Figure 2a,b) and parties in national opposition tend to win more vote share (Figure 2d) compared to European elections that are preceded by regional elections.

Overall, the results indicate more support for prospective than for retrospective regional voting in European elections. However, the results may be biased toward prospective regional voting considering that the dependent variable is a party vote share swing between European and previously held national instead of regional elections. I ran additional robustness analyses whereby I used the same models but now with party vote swings between European and previously held regional elections as dependent variable (robustness analysis 2 in S1). The results appear to be robust for vote share swings between European and previously held regional elections when it concerns the overall impact of regional authority and relative timing between regional, national, and European elections.

There is one important difference which is that the magnitudes of the vote share swings tend to be larger (i.e., more negative). For example, the "starting value" of the vote share swing for a party in national and regional government in a region with a RAI score of 7 points is −3.1% for a European-to-national vote share swing (Figure 1) but it is −7.6% for a European-to-regional vote share swing (robustness analysis 2). This may indicate a significant portion of retrospective regional voting alongside prospective regional voting. Further evidence for retrospective regional voting is provided by the robustness analysis in Figure S4a; the main difference is that RAI scores need to be above 22 (instead of 12) for these parties to win vote share when a European election is compared to a previously held regional election (robustness analysis 2). Thus, only in highly authoritative regions prospective regional voting (i.e., rewarding parties in regional government) seems to outweigh retrospective regional voting (i.e., sanctioning parties in regional government).

The modeling strategy in this article is not geared toward detecting European voting—that is, voting on the basis of party governmental status at the European level—because the models include an independent variable which only takes party governmental status at the national and regional levels into account. However, the models displayed in Table 2 include a dummy variable which scores positive when a party delivers an EU commissioner. The results indicate that supplying an EU commissioner earns a party a vote share swing bonus of close to 1%. This finding strongly suggests that European voting cannot be ruled out but further research is warranted.

It is important to note that the inclusion of many control variables in the models (Table 2) excludes alternative explanations for the results. For example, parties in opposition at the national level but in government at the regional level gain most vote share (Figure 1) and this may (also) be caused by the fact that parties in regional government tend to be large(r) parties. However, the models control for the size of parties by including the regional vote share won by parties in the preceding national election. The significant impact of holding a regional election in between a European and a previously held national election (Figure 2) may just reflect the fact that more time has elapsed between the European and previously held national election compared to an election sequence when no regional election has been held in between. The models include a cycle and a cycle-squared variable which directly tap into the impact of the timing of the European election in the national electoral cycle.

5 | DISCUSSION

The results presented in this article provide overwhelming evidence that factors arising out of the regional electoral arena impact European election outcomes. First, and most importantly, it is shown that the governmental status at the regional level modifies national spillover into European elections. Parties in national government lose vote share whereas parties in national opposition gain vote share in European elections. However, a party wins most vote share when a party is in government at the regional level and in opposition at the national level rather than being in opposition at both levels. Second, the impact of governmental status at the national and regional levels depends on regional authority. Parties are likely to lose vote share no matter their governmental status at the national and regional levels when elections are held in regions with a RAI score of 10 or below (e.g., Danish regions, French *régions*, and Greek *nomoi*). Third, the impacts of governmental status and regional authority are particularly noticeable when a regional election has preceded a European election. Collectively, these findings strongly suggest that regional politics significantly affects European election outcomes.

The findings presented in this article are based on an analysis of vote share swings aggregated at the regional level. To the very least, the analysis reveals that the impact of factors arising out of the regional electoral arena are systematically and statistically significantly related to vote share swings between European and previously held national elections. However, an inquiry into whether voters indeed base their vote choice in European elections on governmental status of parties at the regional level requires an analysis of election survey data. To the best of my knowledge, there are no European election surveys that systematically and comparatively ask questions to voters about their vote choice in preceding regional elections or ask questions to tap into vote motivations that relate to regional politics. Similar to the study by Golder et al. (2017, p. 11) this article also leads to "One clear conclusion [which] is that scholars should be encouraged to develop a habit of asking about multiple electoral arenas when surveying voters, rather than focusing on a single level (typically the national one)."

Scholarship on European elections has provided overwhelming evidence that voters tend to treat European contests as second-order to national elections. In this article, I present strong evidence that many regional voters treat European elections as second-order to regional elections and that regional voters vote prospectively (alongside retrospective regional voting) in European elections. In other words, European elections may gain a third-order status when regional government becomes more important (see also Golder et al., 2017, pp. 142–143). This is an important finding because over the past three decades regional electoral democracy has become more widespread and regional government has become more important. Europe has developed into a multilevel electoral system whereby representative institutions and significant decision-making powers are allocated across regional, national, and European governments and this development calls for a wider research agenda on examining the causes and effects of spillover between electoral arenas (see also Bechtel, 2012; Schakel, 2018; Swenden & Maddens, 2009).

ENDNOTES

[1]Regional government is defined as an intermediate tier in between a local and national tier which has on average at least 150,000 inhabitants across the units. This population criterion is relaxed for individual jurisdictions that stick out from a tier of government that meets the population threshold, that is, special autonomous and asymmetric regions (Hooghe et al., 2016, p. 15).

[2]These EU member states are Bulgaria, Cyprus, Estonia, Ireland, Latvia, Lithuania, Luxembourg, Malta, and Slovenia. Out of the 19 EU member states that hold regional elections only Croatia has less than 5 million inhabitants (i.e., 4.2 million).

[3]The supplementary material S1 (available online) also includes a robustness analysis with models that take vote share swings between European and previously held *European* elections as a dependent variable.

[4]Replication files (Stata syntax and dataset) for the analysis below and for the three robustness checks presented in the supplementary material S1 are available on www.arjanschakel.nl

[5]The categories of the governmental status variable for the main parties are as follows: the party is the largest government party at both levels, the party is the largest opposition party at both levels, or the party is largest government party at the regional/national level and the largest opposition party at the national/regional level. Robustness Check 1 of the results in S1 is based on "all" parties: the party is part of the government at both levels, the party is in opposition at both levels, or the party is in government at the regional/national level and in opposition party at the national/regional level. Parties that compete in one election only or compete in elections but do not manage to win a seat are included in an "other" category.

[6]Self-rule measures the extent of independence of a regional government from national government (*institutional depth*), the range of a regional government's authority over policy in its jurisdiction (*policy scope*), the authority a regional government has over taxation within its own jurisdiction (*fiscal autonomy*), the authority of a regional government to borrow on financial markets (*borrowing autonomy*), and whether a regional government is endowed with representative institutions (*representation*). Shared rule measures the extent to which a regional government co-determines national policy-making (*law-making*), the extent to which a regional government codetermines national executive policy in intergovernmental fora (*executive control*), the extent to which a regional government co-determines how national tax revenues are distributed (*fiscal control*), the extent to which a regional government co-determines the restrictions placed on borrowing (*borrowing control*), and the extent to which regional government can initiate or constrain constitutional reform (*constitutional reform*).

[7]European elections taking place in one EU member state only are excluded, that is, the dataset does not include the first European elections held in Greece (1981), Spain (1987), Sweden (1995), and Austria (1996).

[8]The results for other parties are not shown because there is no substantially and statistically significant impact for regional authority (see Figure 1) or for the dummy "regional election held in between".

REFERENCES

Bachtler, J., & Mendez, C. (2007). Who governs EU Cohesion Policy? Deconstructing the reforms of the structural funds. *Journal of Common Market Studies*, *45*(3), 535–564.

Bechtel, M. M. (2012). Not always second order: Subnational elections, national-level vote intentions, and volatility spillovers in a multi-level electoral system. *Electoral Studies*, *31*(1), 170–183.

Bodenstein, T., & Kemmerling, A. (2012). Ripples in a rising tide: Why some EU regions receive more structural funds than others. *European Integration Online Papers (EIoP)*, *16*(1) Retrieved from http://eiop.or.at/eiop/-texte/2012-001a.htm.

Chalmers, A. W., & Dellmuth, L. M. (2015). Fiscal redistribution and public support for European integration. *European Union Politics*, *16*(3), 386–407.

Committee of the Regions. (2009). *The Committee of the Regions' White Paper on multilevel governance*. Brussels: Author.

Dandoy, R., & Schakel, A. H. (Eds.). (2013). *Regional and national elections in Western Europe. Territoriality of the vote in thirteen countries*. Houndsmills: Palgrave Macmillan.

de Vries, C. E., van der Brug, W., van Egmond, M. H., & van der Eijk, C. (2011). Individual and contextual variation in EU issue voting: The role of political information. *Electoral Studies*, *30*(1), 16–28.

Dellmuth, L., & Stoffel, M. F. (2012). Distributive politics and intergovernmental transfers: The local allocation of European union structural funds. *European Union Politics*, *13*(3), 413–433.

European Commission (2000) Commission regulation (EC) No 1159/2000 of May 30, 2000.

European Commission (2006) Commission regulation (EC) No 1828/2006 of December 4, 2006.

European Commission. (2014). *Review. European and national elections figured out*. Brussels: Directorate-General for Communication, Public Opinion Monitoring Unit.

Golder, S. N., Lago, I., Blais, A., Gidenhil, E., & Gschwend, T. (2017). *Multi-level electoral politics. Beyond the second-order election model*. Oxford: Oxford University Press.

Gschwend, T. (2008). Studying contamination effects in multi-level systems of governance: First thoughts about hypotheses and research design. In C. van der Eijk & H. Schmitt (Eds.), *The multilevel electoral system of the EU* (pp. 229–240). Mannheim: Mannheim Centre for European Social Research (MZES) at the University of Mannheim; CONNEX Report Series No. 4.

Henceroth, N., & Oganesyan, R. (2019). The effect that structural and investment funds have on voter behaviour in European parliamentary elections. *Journal of Common Market Studies*, *57*, 599–615. https://doi.org/10.1111/jcms.12837

Henderson, A., & McEwen, N. (2015). Regions as primary political communities: A multi-level comparative analysis of turnout in regional elections. *Publius*, *45*(2), 189–215.

Hepburn, E. (2016). Cohesion policy and regional mobilisation. In S. Piattoni & L. Polverari (Eds.), *Handbook on cohesion policy in the EU* (pp. 203–216). Cheltenham: Edward Elgar.

Hix, S., & Marsh, M. (2007). Punishment or protest? Understanding European parliament elections. *The Journal of Politics*, *69*(2), 495–510.

Hix, S., & Marsh, M. (2011). Second-order effects plus pan-European political swings: An analysis of European parliament elections across time. *Electoral Studies*, *30*(1), 4–15.

Hobolt, S. B., & de Vries, C. E. (2016). Public support for European integration. *Annual Review of Political Science*, *19*, 413–432.

Hobolt, S. B., & Tilley, J. (2014). *Blaming Europe? Responsibility without accountability in the European Union*. Oxford: Oxford University Press.

Hooghe, L., & Marks, G. (2016). *Community, scale and reginal governance. A postfunctionalist theory of governance*. II. Oxford: Oxford University Press.

Hooghe, L., Marks, G., Schakel, A. H., Niedzwiecki, S., Chapman-Osterkatz, S., & Shair-Rosenfield, S. (2016). *Measuring regional authority. A postfunctionalist theory of governance* (Vol. I). Oxford: Oxford University Press.

Hough, D., & Jeffery, C. (Eds.). (2006). *Devolution and electoral politics*. Manchester: Manchester University Press.

Keating, M., Hooghe, L., & Tatham, M. (2015). Bypassing the nation-state. Regions and the EU policy process. In J. Richardson & S. Mazey (Eds.), *European Union. Power and policy-making* (pp. 445–466). London: Routledge.

Lau, R. R. (1985). Two explanations for negativity effects in political behaviour. *American Journal of Political Science*, *29*(1), 119–138.

Liñeira, R. (2011). "Less at Stake" or a different game? Regional elections in Catalonia and Scotland. *Regional and Federal Studies*, *21*(3), 283–303.

Marsh, M., & Mikhaylov, S. (2010). European parliament elections and EU governance. *Living Reviews in European Governance*, *5*(4). https://doi.org/10.12942/lreg-2010-4

Osterloh, S. (2011) *Can regional transfers buy public support? Evidence from EU structural policy*. ZEW discussion paper no. 11-011. Retrieved from ftp://ftp.zew.de/pub/zew-docs/dp/dp11011.pdf

Piattoni, S. (2016). Cohesion policy, multilevel governance, and democracy. In S. Piattoni & L. Polverari (Eds.), *Handbook on cohesion policy in the EU* (pp. 65–78). Cheltenham: Edward Elgar.

Piattoni, S., & Schönlau, J. (2015). *Shaping EU policy from below. EU democracy and the Committee of the Regions*. Cheltenham: Edward Elgar.

Rallings, C., & Trasher, M. (2005). Not all "second-order" contests are the same: Turnout and party choice at the concurrent 2004 local and European parliament elections in England. *The British Journal of Politics and International Relations*, *7*(4), 584–597.

Reif, K., & Schmitt, H. (1980). Nine second-order national elections: A conceptual framework for the analysis of European election results. *European Journal of Political Research*, *8*(1), 3–44.

Schakel, A. H. (2015). How to analyze second-order election effects? A refined second-order election model. *Comparative European Politics*, *13*(6), 636–655.

Schakel, A. H. (Ed.). (2017). *Regional and national elections in eastern Europe. Territoriality of the vote in ten countries*. Houndsmills: Palgrave Macmillan.

Schakel, A. H. (2018). Rethinking European elections: The importance of regional spillover into the European electoral arena. *Journal of Common Market Studies*, *56*(3), 687–705.

Schakel, A. H., & Dandoy, R. (2014). Electoral cycles and turnout in multilevel electoral systems. *West European Politics*, *37*(3), 605–623.

Schakel, A. H., & Romanova, V. (2018). Towards a scholarship on regional elections. *Regional and Federal Studies*, *28*(3), 233–252.

Scully, R. (2013). More Scottish than Welsh? Understanding the 2011 devolved elections in Scotland and Wales. *Regional and Federal Studies*, *23*(5), 591–612.

Shikano, S., & Nyhuis, D. (2019). The effect of incumbency on Ideological and valence perceptions of parties in multilevel polities. *Public Choice*. https://doi.org/10.1007/s11127-019-00659-7

Swenden, W., & Maddens, B. (2009). Introduction. Territorial party politics in western Europe: A framework for analysis. In W. Swenden & B. Maddens (Eds.), *Territorial party politics in western Europe* (pp. 1–30). Houndmills: Palgrave Macmillan.

Tatham, M. (2008). Going solo: Direct regional representation in the European Union. *Regional and Federal Studies*, *18*(5), 493–515.

Tatham, M. (2010). With or without you? Revisiting territorial state-bypassing in EU interest representation. *Journal of Public Policy*, *17*(1), 76–99.

Tatham, M. (2011). Devolution and EU policy-shaping: Bridging the gap between multi-level governance and liberal intergovernmentalism. *European Political Science Review*, *17*(1), 434–450.

SUPPORTING INFORMATION

Additional supporting information may be found online in the Supporting Information section at the end of this article.

How to cite this article: Schakel AH. Regional spillover into third-order European elections. *Governance*. 2021;34:643–663. https://doi.org/10.1111/gove.12434

APPENDIX

TABLE A1 Descriptive statistics

Variable	Mean	*SD*	Minimum	Maximum
Vote share swing European to national	0.01	4.83	−30.48	33.31
Vote share swing European to regional	0.28	5.30	−45.72	37.62
Vote share swing European (*t*) to European (*t*–1)	−0.34	4.89	−37.10	37.50
1 = gov nat–gov reg (main parties)	0.04	0.20	0	1
2 = gov nat–opp reg (main parties)	0.03	0.16	0	1
3 = opp nat–gov reg (main parties)	0.03	0.16	0	1
4 = opp nat–opp reg (main parties)	0.03	0.18	0	1
1 = gov nat–gov reg (all parties)	0.08	0.27	0	1
2 = gov nat–opp reg (all parties)	0.07	0.25	0	1
3 = opp nat–gov reg (all parties)	0.06	0.25	0	1
4 = opp nat–opp reg (all parties)	0.19	0.39	0	1
Regional authority index	15.23	5.87	1	27
Dummy regional election in between	0.34	0.47	0	1
European Union (EU) commissioner	0.10	0.30	0	1
Cycle	1.86	1.04	0	4.08
Cycle^2	4.52	4.04	0	16.69
Simultaneous European and national elections	0.01	0.09	0	1
Simultaneous European and regional elections	0.11	0.32	0	1
Compulsory voting	0.14	0.35	0	1
Different electoral system between EU national	0.39	0.49	0	1
Different electoral system between EU regional	0.33	0.47	0	1
Rokkan region	0.25	0.43	0	1
Regional economy	95.52	24.64	46.09	232.30
Size party	8.09	12.70	0	67.97
Size region	0.06	0.07	0	0.61
EU election 1979 = base category	0.05	0.25	0	1
1984 dummy	0.05	0.21	0	1
1989 dummy	0.10	0.30	0	1
1994 dummy	0.12	0.33	0	1
1999 dummy	0.19	0.39	0	1
2004 dummy	0.17	0.38	0	1
2009 dummy	0.17	0.37	0	1
2014 dummy	0.15	0.36	0	1
EU member state Austria = base category	0.03	0.18	0	1

(Continues)

TABLE A1 (Continued)

Variable	Mean	*SD*	Minimum	Maximum
Belgium dummy	0.02	0.13	0	1
Denmark dummy	0.10	0.29	0	1
France dummy	0.13	0.33	0	1
Greece dummy	0.10	0.30	0	1
Germany dummy	0.16	0.36	0	1
Italy dummy	0.20	0.40	0	1
Netherlands dummy	0.08	0.27	0	1
Spain dummy	0.11	0.31	0	1
Sweden dummy	0.08	0.26	0	1
United Kingdom dummy	0.01	0.11	0	1

Note: The total number of observations is 12,545 and 7,072 for vote share swing European (t) to European (t–1). The table also includes descriptive statistics for the variables included in the robustness analyses displayed in the supplementary material S1 (available online). Gov nat - gov reg, party is in national and regional government; gov nat - opp reg, party is in national government and in regional opposition; opp nat - gov reg, party is in national opposition and in regional government; opp nat - opp reg, party is in national and regional opposition.