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### Are Regional Elections really 'Second-Order' Elections?

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# Are Regional Elections really ‘Second-Order’ Elections?

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SCHAKEL A. H. and JEFFERY C. Are regional elections really ‘second-order’ elections, *Regional Studies*. This article critically assesses the applicability of the second-order election model to regional elections. It offers first a critique of the second-order election model, arguing that the model has imported an inappropriate ‘nationalizing’ bias into the study of regional elections. Second, the article conducts an empirical analysis that shows that second-order election predictions do not appear to hold for regional elections which take place (1) in political settings where regional elections do not have the potential to signal a future alternation of government at the national level; (2) in authoritative, powerful regions; and (3) in regions where non-state-wide parties compete in regional elections.

Regional elections    Second-order model    Methodological nationalism

SCHAKEL A. H. and JEFFERY C. 区域选举真的是“次级”选举吗？区域研究。本文批判性地评价次级选举模型之于区域选举的适用性。本文首先批评次级选举模型在研究区域选举时不适当当地引进了“全国化”的偏见。再者，本文的经验分析显示，次级选举模型预测并不适用于下列情况中的区域选举：(1)在区域选举不具备做为未来国家层级政府轮替指标的政治环境；(2)在强盛的威权区域；(3)在有非国家层级政党参与区域型选举的区域。

区域选举    次级模型    方法论的国家主义

SCHAKEL A. H. et JEFFERY C. Les élections régionales, sont-elles vraiment des élections de second ordre?, *Regional Studies*. Cet article évalue d'un œil critique l'applicabilité du modèle des élections de second ordre aux élections régionales. Dans un premier temps il fait la critique du modèle des élections de second ordre, affirmant que le modèle a importé dans l'étude des élections régionales un préjugé inapproprié en faveur du ‘nationalisme’. Dans un deuxième temps, l'article fait une analyse empirique qui montre que les prévisions électoralles de second ordre ne semblent pas tenues pour ce qui concerne les élections régionales qui ont lieu (1) dans des milieux politiques où les élections régionales ne risquent pas de signaler une alternance future au plan national; (2) dans des régions autoritaires, puissantes; et (3) dans des régions où des partis politiques qui ne fonctionnent pas au niveau de l'État présentent des candidats aux élections régionales.

Élections régionales    Modèle de second ordre    Nationalisme méthodologique

SCHAKEL A. H. und JEFFERY C. Sind Regionalwahlen wirklich ‘zweitrangige’ Wahlen?, *Regional Studies*. In diesem Beitrag wird kritisch die Frage untersucht, ob sich das Modell der zweitrangigen Wahlen auf Regionalwahlen anwenden lässt. Zunächst wird das Modell der zweitrangigen Wahlen kritisiert und argumentiert, dass dieses Modell eine unangemessene ‘nationalisierende’ Verzerrung in das Studium der Regionalwahlen importiert hat. Anschließend wird in einer empirischen Analyse gezeigt, dass die Prognosen von zweitrangigen Wahlen nicht für Regionalwahlen zu gelten scheinen, die (1) unter politischen Bedingungen stattfinden, in denen Regionalwahlen nicht das Potenzial zur Signalisierung eines künftigen Regierungswechsels auf nationaler Ebene aufweisen, (2) in autoritären und mächtigen Regionen stattfinden und (3) in Regionen stattfinden, in denen nicht auf nationaler Ebene antretende Parteien kandidieren.

Regionalwahlen    Modell der Zweitrangigkeit    Methodologischer Nationalismus

SCHAKEL A. H. y JEFFERY C. Son las elecciones regionales realmente elecciones de ‘segundo orden’?, *Regional Studies*. En este artículo evaluamos desde un punto de vista crítico la aplicabilidad del modelo de elecciones de segundo orden en las elecciones regionales. Ofrecemos primero una revisión crítica del modelo de elecciones de segundo orden, sosteniendo que el modelo ha importado un sesgo inapropiado de ‘nacionalización’ en el estudio de las elecciones regionales. En segundo lugar, en el artículo realizamos un análisis empírico en el que demostramos que las predicciones de las elecciones de segundo orden no parecen ser

válidas en elecciones regionales que tienen lugar (1) en entornos políticos en los que las elecciones regionales no tienen la posibilidad de indicar un futuro cambio de gobierno a nivel nacional; (2) en regiones con poder y autoridad; y (3) en regiones donde partidos de ámbito no nacional compiten en las elecciones regionales.

Elecciones regionales    Modelo de segundo orden    Nacionalismo metodológico

JEL classifications: H70, H77

## INTRODUCTION

Regional<sup>1</sup> elections are now widely studied. There are plenty of them, so analyses with a substantial '*n*' are feasible (there have, for example, been over 120 *Land* elections in Austria since 1945, over one hundred autonomous communities elections in Spain since their reintroduction from 1980, and so on; cf. FABRE, 2010). Official data on their results are in the main easily accessible. And there are readily available tools of analysis because elections – in particular elections that lead to the formation of national governments – have been one of the most studied phenomena in political science. However, in that ready availability of tools of analysis lies a problem. Political scientists generally assume – as is thought quite rightly – that elections that produce national governments are the most important elections for the great majority of voters and political parties. But political scientists also generally assume – it is thought much more questionably – that other kinds of election are best understood in some way as a subordinate function of national-level politics.

That assumption has been presented in a number of guises in the study of regional elections. Regional elections have been seen as ‘balancing’ elections (ERIKSON and FILIPPOV, 2001; KERN and HAINMÜLLER, 2006) used by voters to counterbalance the power of the parties running national governments by favouring other parties at the regional level; as ‘barometer’ elections (ANDERSON and WARD, 1996; cf. DECKER and VON BLUMENTHAL, 2002) or mid-term ‘referendums’ (SIMON *et al.*, 1991; SIMON, 1989; CARSEY and WRIGHT, 1998, p. 1002) signalling the trend of the popularity of national governments; and as ‘second-order’ elections, a concept shaped by the influential work of REIF and SCHMITT (1980) on the seeming subordination of European Parliament (EP) election results to ‘first-order’ national-level politics. Reif and Schmitt argued that there is less ‘at stake’ in second-order elections (SOE) than in national elections, prompting voters to use them as an opportunity to vent their spleen about national-level politics – through protest votes for fringe parties or by not bothering to turn out – before returning to their ‘real’ electoral choice at the next national election (pp. 8–9). The analysis of regional elections through the analytical prism of Reif and Schmitt’s concept of second-orderness has become commonplace in Europe, especially in research on the UK (HEATH and TAYLOR, 1999; PATERSON *et al.*,

2001; BROMLEY, 2006; CURTICE, 2006), but also on Germany (JEFFERY and HOUGH, 2001), Spain (PALLARES and KEATING, 2003), and Italy (TRONCONI and ROUX, 2009).

This article takes issue conceptually and empirically with the assumption that regional election results are ‘second-order’, that is, subordinate to national-level politics. It starts by focusing on the assumptions underlying the concept of SOE. It does this by adopting what might be called a historiographical approach that explores the origins of the concept of SOE put forward by Reif and Schmitt to analyse the 1979 EP elections and subsequent refinements of the concept by others working on later EP elections.

The article argues that the conceptual heritage mobilized by Reif and Schmitt has imported a ‘nationalizing’ bias into the study of regional elections, consistent with the tendency to ‘methodological nationalism’ outlined in the Introduction to this special issue. The present article sets out instead to make a case for exploring regional elections on their own terms. It also shows that, almost without exception, the importation of SOE ideas from the EP to regional elections analysis has been limited to fleeting references to Reif’s and Schmitt’s work on the 1979 (REIF and SCHMITT, 1980) and 1984 (REIF, 1985) EP elections. Subsequent refinements to the understanding of EP elections as SOE have raised significant question marks about Reif and Schmitt’s initial claims about the nationalized logic of voting behaviour in EP elections. These ‘denationalizing’ refinements of knowledge on EP elections have been ignored by those working on regional elections as SOE; for them the concept of SOE remains intellectually frozen in the early to mid-1980s, and remains biased as a result towards a nationalized understanding of regional elections.

These conceptual reflections are used to establish a number of variables that shape the analysis in an empirical section. This draws on the most comprehensive dataset of regional election results that has yet been assembled. The article analyses the results of 2933 regional elections held in 313 regions in seventeen countries over varying periods from 1941 to 2009. It does so in ways designed to test ‘classic’ SOE hypotheses as set out by Reif and Schmitt along with alternative hypotheses that reflect the discussion of both the nationalizing bias of those original hypotheses and the denationalizing refinements of post-Reif and Schmitt work

on EP elections. The article concludes with an evaluation of the limited utility of classic SOE thinking and a reflection on future agendas for research on regional elections.

### IN THE BEGINNING THERE WERE REIF AND SCHMITT

Karlheinz Reif and Hermann Schmitt were at the heart of a network of researchers which formed to study the first ever direct elections to the EP in 1979. Their interpretation of the EP election results was striking. These were not results that reflected 'the "real" balance of forces in the European Community'. For Reif and Schmitt they were not to be understood as the single outcome of one European Commission-wide election, but rather as the aggregation of 'simultaneous national second-order elections', in the then nine member states. Each of these national SOE was 'determined more by the domestic political cleavages than by alternatives originating in the EC [European Commission]' (REIF and SCHMITT, 1980, p. 3). Reif pushed the point further in his assessment of the subsequent EP elections in 1984: 'what is important is the political situation of the first-order arena at the moment when the second-order election is being held' (REIF, 1985, p. 8).

The 'first-order arena' is the arena of contestation for power in national governments. Elections that determine the composition of national governments are 'first-order' because more is, as REIF and SCHMITT (1980, pp. 8–9) put it, 'at stake' in the competition for national government office than in the 'plethora of "second-order" elections' that are variously held, that is, 'by-elections, municipal elections, various sorts of regional elections', those to a 'second chamber' and, after 1979, EP elections too. Because less is 'at stake', REIF and SCHMITT (1980, pp. 9–10) proposed that voters treat such SOE differently:

- They turn out less.
- They favour small or new parties more.
- Parties in national government lose favour, and national opposition parties gain.
- Moreover, voters' propensity to behave in these ways follows a cyclical logic; they are most likely to do so at the midpoint between elections that produce national governments, and less likely to do so soon after, or in the run-up to, an election that produces a national government.

This conceptual framework was foundational for the study of EP elections (NORRIS, 1997), and remains the starting point for EP elections analysis today (SCHMITT, 2005; MARSH, 2009; CLARK and ROHRSCHNEIDER, 2009). The rather throwaway reference to 'various sorts of regional elections' also became an invitation to analyse regional elections in the same way. The impetus to do so came from research on

voting behaviour in the UK as devolved political institutions were established in Scotland and Wales in the late 1990s; the SOE concept was adopted as a convenient 'off the peg' way of capturing the effects of devolution on Scottish and Welsh voters (HEATH and TAYLOR, 1999; PATERSON *et al.*, 2001; TRYSTAN *et al.*, 2003; HOUGH and JEFFERY, 2003a). It then became a wider analytical currency used to shape regional election analysis in a range of other states (cf. HOUGH and JEFFERY, 2006).

The intent in applying SOE thinking was not so much to seek confirmation that national factors dominated in regional election outcomes, but to identify where and why regional elections did not conform to nationalized expectations. But arguably the entire approach to understanding regional elections in this way was flawed. Those flaws can be exposed by a closer look at the genealogy of the concept of second-orderness. Looking closer reveals an irony, generally not noticed by regional politics scholars (except JEFFERY and HOUGH, 2001, p. 80), but freely admitted by REIF (1997, p. 115): the main inspiration for Reif and Schmitt's thinking on EP elections as second-order was the work of a little-known German political scientist, Reiner Dinkel, on *regional (Land)* elections in Germany (DINKEL, 1977). Dinkel presented a quantitative analysis of *Land* election results in the 1970s which showed a pattern of loss of support for the parties in the German federal government coalition, and the biggest losses of support at the federal mid-term. Dinkel argued in that light that *Land* elections had 'long since become arenas where citizens give their verdict on the performance of the coalition parties at the federal level' (DINKEL, 1977, p. 348). Supplying Reif and Schmitt with their later terminology, he concluded that *Land* elections were 'subordinate elections ... systematically influenced by the superordinate constellation in the *Bundestag* [the national parliament]' (p. 357).

Dinkel's ideas were in turn shaped by other work in electoral studies in the 1970s. He drew in particular on work on cyclical patterns in the popularity of national governments as revealed in: opinion poll findings and by-election results in the UK; and in the relationship of the results of mid-term congressional elections to presidential elections in the United States. The United Kingdom and United States examples revealed persistent patterns of dips in support for the UK governing party/the party of the US President at mid-term that appeared independent of other factors, such as economic performance, and seemed simply to be a by-product of being in power at the national level (cf. MILLER and MACKIE, 1973, p. 279; STIMSON, 1976, p. 3). The US literature developed competing explanations of this national 'penalty' effect based either in differential motivations to turn out (disgruntled opponents of the President were more likely to turn out to express their views than contented supporters)

or in ‘ticket-splitting’ (in which voters sought to balance, say, a Democratic President with a Republican Congress) (cf. LAU, 1985; ERIKSON, 1988). What these different explanations had in common was that voters were using opportunities to express preferences at time points between the elections that produced national governments in order to make some comment on the political arena in which the national government was operating. Those opportunities were not used, or were used much less, to give judgement on the merits of by-election or congressional district candidates. There was in each case, to borrow Dinkel’s formulation, a ‘superordinate’ electoral constellation – that around the formation of national governments – to which other elections were subordinated.

The references through Dinkel to these UK and US antecedents of the SOE approach, and Dinkel’s own focus on Germany in the 1970s, are telling. UK by-elections and US congressional elections are elections to national legislatures. It does not appear too surprising that they display a nationalized political logic; tellingly elections in those states that are not part of the national ‘electoral constellation’ – such as local elections in the UK and gubernatorial and state legislative elections in the United States – do not appear to have such a clearly nationalized logic (cf. HEATH *et al.*, 1999; JEFFERY, 2011, pp. 140–141). Equally, German federalism – especially in the 1970s, the period on which Dinkel focused – was a highly ‘nationalized’ variant of federalism. German federalism did not prize territorial diversity. It was normatively driven by a commitment to nationwide ‘uniformity of living conditions’, and institutionally focused on delivering that commitment through joint action by federal and *Land* governments and by the extensive veto capacity of the *Bundesrat* – the regional second chamber – in federal legislation. The *Bundesrat* was and is composed of representatives of *Land* governments. Its role was pivotal. It had an absolute veto over more than half of all federal laws. For that reason controlling it has been a major prize in *national* politics, even though its composition depends on *Land* election results. The 1970s – when Dinkel was writing – were one of the most polarized eras in post-war German politics. The German Christian Democrats, who had lost power in the 1969 federal election for the first time since 1949, sought systematically to use the *Bundesrat* – and *Land* elections – as a venue of federal opposition (LEHMBRUCH, 1976).

It may not, therefore, appear too surprising that *Länder* elections in Germany especially in that period, and at times also since (JEFFERY, 1999; JEFFERY and HOUGH, 2001), have appeared prone to a nationalized logic of voting behaviour. But other series of regional elections – for example, provincial elections in Canada (WOLINETZ and CARTY, 2006) or cantonal elections in Switzerland, where the ‘patterns of regional democracy’ (VATTER, 2007) have always been more diverse than in Germany – do not reveal such a nationalized

logic. And even in the German case recent work has challenged earlier assumptions about the nationalization of regional elections (HOUGH and JEFFERY, 2003b; VÖLKL *et al.*, 2008a). There appears in other words to be no *a priori* reason to expect voters always and everywhere to treat regional elections as second-order national elections.

This conclusion does not mean that the authors think the conceptual heritage that Reif and Schmitt took into the study of EP elections was in itself flawed. EP elections are nationwide elections in each of the member states of the European Union, and plausibly do get judged by national-level criteria given that the link between individual voter judgments and EP decision-making remains for most observers a distant one. Indeed, though the SOE approach has been substantially refined since its patenting by Reif and Schmitt, it is still the dominant approach in work on EP elections and still generally held to have significant explanatory power. The problem being pointed at is the translation of a nationalized conceptual frame, as evolved by Reif and Schmitt from the UK, US and German antecedents for the study of EP elections, to the study of *regional* elections. The risk is that doing so imports an unreflected assumption that *all* other forms of electoral competition are subordinate to national politics; it underscores the uncritical methodological assumption that the national scale of politics is the only one of ‘real’ importance.

## EXPLORING REGIONAL ELECTIONS ON THEIR OWN TERMS

Most of the findings so far of work on regional elections that applies Reif and Schmitt’s SOE approach confirm that subordination. Reporting on contributions to an edited collection on regional elections in Austria, Belgium, Canada, Germany, Italy, Spain and the UK, JEFFERY and HOUGH (2006, p. 252) concluded: ‘The general finding, then, is that most sub-state elections do indeed appear to be second-order, subordinate to voters’ considerations of state-level politics.’ But there may be a sense of self-fulfilling prophesy at play here. Research findings may be path dependent on research questions. If other starting points are taken that treat regional elections on their own terms, rather than as functions of national elections, a different or at least more nuanced picture might emerge.

### *What is ‘at stake’?*

An obvious starting point lies in the notion of what is ‘at stake’ in different kinds of election. Reif and Schmitt’s assumption that there is more at stake in national elections than EP or regional elections is credible enough. What appears less credible is that what is at stake nationally necessarily crowds out distinct judgements about the issues that might be at stake in regional elections. Recent

work on US (EBEID and RODDEN, 2006), Canadian (CUTLER, 2008), German (VÖLKL *et al.*, 2008a), and UK (JOHNS *et al.*, 2010) regional elections suggests that many voters can compartmentalize the regional electoral arena from the national arena and make different kinds of judgement in each arena. If this – what CUTLER (2008, p. 502) called a 'split-level democratic citizenship' – is the case, then precisely what is at stake in regional elections may well shape how far voters approach a regional election *on its own terms*, that is, uncoupled from the nationalized logic of national elections.

And what is at stake in regional elections has changed. There are more states that have elections to regional parliaments now than when ideas on SOE were being developed in the mid-to-late 1970s, and the tendency has been for those regional parliaments to accumulate more powers as time has passed (MARKS *et al.*, 2010). Mostly this accumulation of powers has increased the autonomous decision-making authority of regional parliaments (what Daniel Elazar coined 'self rule'; ELAZAR, 1987). In part it has increased the scope for regional institutions to co-determine national-level decision-making in combination with national institutions (Elazar's 'shared rule'). Therefore, precisely what is at stake in regional elections will vary across states, reflecting the scope and balance of both self-rule and shared rule powers that regions can wield. It may also vary within states where powers are allocated asymmetrically across regions.

There are obvious implications for the explanation of regional election results. It seems plausible to expect that if more is at stake in a regional election in region X than in region Y, the election outcome in region X is more likely to be shaped by region-specific criteria and less likely so to be shaped in region Y. The regionalization of voting behaviour may, however, also depend on the balance of self-rule and shared rule components of regional powers. Regions with extensive self-rule powers appear more likely to display regionalized voting behaviour; there, more matters that impact on regional voters are decided under the autonomy of regional institutions. Regions with extensive share rule powers that bind them into national-level decision-making might, by contrast, be more prone to nationalized voting behaviour in regional elections as they calculate the impact on national-level decision-making of their regional voting options. The wider point is that one can expect there to be considerable variation in the extent to which regional – and national – factors shape voting behaviour in regional elections.

#### *Non-state-wide parties (NSWPs) as 'small' parties*

A second starting point for treating regional elections on their own terms concerns the presence of region-specific, or non-state-wide parties (NSWPs), that is, parties which do not stand for election across the state

as a whole but only in one region. Such parties typically mobilize on the basis of the distinctive territorial identity shared by a social group within a state – for example, the Scottish National Party (SNP) in Scotland or Convergència i Unió (CiU) in Catalonia. There are now over ninety NSWPs parties in Western Europe which have sufficient organizational infrastructure to contest elections on a regular basis, of which around thirty are significant players in regional party systems (MASSETTI, 2009).

A simple application of SOE ideas to regional elections might treat such NSWPs as one of the set of 'small' parties (alongside various Greens, populists, right-wing extremists and others) that benefit from short-term protest voting when less is at stake than in national elections. There are two obvious objections to such a treatment. One is that NSWPs, seen in their own terms, that is, competing in one region only, are often not 'small', but may in fact be one of the main parties and sometimes the biggest in the region concerned (as is the SNP currently in Scotland and the CiU typically in Catalonia). Theirs is not, for obvious reasons, a nationwide scale of action, and applying a national scale of measurement to them runs the risk of misunderstanding their strength and purpose. Second, and consequently, when NSWPs perform better in regional elections than they do in elections to the national-level parliament, as they frequently do, this may have little or nothing to do with protest against national government. Rather it can be understood as the use of regional elections by voters to express their distinctive territorial identity (WYN JONES and SCULLY, 2006) and/or of their demand to secure a regionally defined set of interests – as PATERSON *et al.* (2001, p. 44) put it in the Scottish case, to supply 'Scottish rather than UK answers to Scottish questions'.

HOUGH and JEFFERY (2006, p. 137) pointed to similar, regionalized rationales for supporting NSWPs in regional elections in post-Communist Eastern Germany. So did PALLARES and KEATING (2003) in Spain, who saw the relative success of NSWPs in regional elections (and their relative weakness in national elections in the same region) as a voter response in Spain to 'a vision of state-wide parties based on ideological criteria and one of the NSWP based on regional interests' (p. 250). In sum, there is a growing body of evidence that voters in regions with distinctive territorial identities use regional elections to articulate a sense of distinctive political community, whether defined culturally as identity, instrumentally as interest, or both. This evidence poses a further challenge to the understanding of regional elections as second-order; it points to circumstances in which regional voting behaviour is uncoupled from, rather than a function of, voting behaviour in national elections. Therefore, it appears plausible to expect that where NSWPs perform strongly in regional elections, this is because voting behaviour in regional elections is strongly shaped by region-specific

criteria, and not by interim assessments of the national-level government.

### AFTER REIF AND SCHMITT

Analyses that approach regional elections as SOE often appear stuck in a time warp. There is generally ritual mention of Reif and Schmitt's seminal 1980 article on the 1979 EP elections and sometimes to Reif's contribution (REIF, 1985) on the 1984 EP elections (HEATH and TAYLOR, 1999, p. 150; PATERSON *et al.*, 2001, p. 29; PALLARES and KEATING, 2003, p. 239; TRONCONI and ROUX, 2009, p. 153). In other cases the SOE concept is taken as an unreferenced given (BROMLEY, 2006, pp. 195–196; LOUGHIN and BOLGHERINI, 2006, p. 154). The present authors are yet to find a contribution on regional elections as SOE that takes account of how the SOE approach to EP elections has been refined since the mid-1980s.<sup>2</sup> However, three developments can be identified in the work that explores EP elections as SOE which might help open up additional perspectives on the analysis of regional elections.

The first two underline some of the arguments developed above, and reflect basic structural changes in the European Union since 1979: the European Union got bigger; and the EP now has significantly greater powers. First, with greater size has come greater diversity in the European Union, especially in the accession of the new democracies of Central and Eastern Europe. The new democracies clearly do not conform to SOE expectations in EP elections, with national government parties remaining unpenalized (KOECKE and RINGE, 2006) and not subject to cyclical variations in support (SCHMITT, 2005, p. 659) in EP elections. Just as there are new European Union member states, so there are new regions which have been established since the emergence of the SOE tradition of analysis – and its partial inspiration in German regional election analysis – in the late 1970s, notably in Spain, Belgium and the UK. The regionalization process in these states has been a response to territorial cleavages. It seems plausible to expect that such new regions may introduce new kinds of regional voting behaviour than, for example, in Germany, with its 'nationalized' variant of federalism.

Second, there is now much more at stake in EP elections than in 1979, as both the policy scope of the European Union has widened through successive treaty reforms, and the weight of the EP itself in the European Union legislative process has grown (SCHMITT, 2005, pp. 653–654). In some more recent analyses of EP elections it has been argued that, with more now at stake, voters now vote according to their assessments of European Union-level issues, as well as, but in part instead of, national-level considerations (CLARK and ROHRSCHNEIDER, 2009). This shift in thinking about EP elections confirms the

importance of developing a more refined understanding of what is at stake in regional elections, and how this influences – and where it regionalizes – voting behaviour.

Third, the assumption that parties in national government should lose support in EP elections has been refined in more recent analysis. The classic assumption is that national governing parties are punished in EP elections precisely because the composition of the national government is not what is at stake. But in many European states voting in national elections can have little impact on the composition of national governments where party systems are fragmented, multi-party coalitions the norm, and some parties are more or less constant presences in national government. If the 'relationship between elections and government formation is extremely opaque' (MARSH, 1998, p. 597), then the opportunity to 'punish' the national government in EP elections is also opaque and difficult to carry out. Second-orderness in EP elections may, in other words, be a feature of bipolar systems where there is regular national government alternation, and less present in multipolar, non-alternating systems where the national elections itself lacks the first-order characteristic of determining the composition of national government. If this is the case – as indeed it seems to be (MARSH, 1998, p. 606) – the same logic might equally apply in the relationship of regional and national election results. There is again a historiographical nuance: if German regional elections, in Dinkel's work as adapted by Reif and Schmitt, are foundational for the SOE approach, it needs to be noted that (West) Germany, when Dinkel was writing, had just evolved into a bipolar system of alternating national government. Other regional and federal systems do not necessarily have the same logic of party competition and nor indeed does Germany anymore. Therefore, where national elections do not have the core first-order characteristic of determining the composition of national government, the expectation that regional elections should have second-order characteristics appears flawed.

### CASES, VARIABLES AND METHOD

These conceptual reflections set some markers for the empirical analysis below. This explores classic second-order assumptions: that parties of national government should lose and parties of national opposition should gain if regional elections are SOE; that these effects should be cyclical, that is, most pronounced at the mid-point of the national electoral cycle; and that party size matters, with SOE favouring smaller parties. The authors have also identified, and explore below, three factors which appear to offer a challenge to the widespread assumption that regional elections are SOE:

- More is now at stake in regional elections in many states as public authority has been decentralized to

regional political institutions. Just as recent work on EP elections suggests the extent of what is at stake may limit second-order effects, so it can be hypothesized that the same will apply in regional elections. But those limitations may also vary to the extent that regional authority is based on autonomous, 'self-rule' powers or on 'shared rule' powers exercised in cooperation with national political institutions. Therefore, the impact on regional election outcomes of the extent, and type, of public authority exercised by each region is explored.

- While 'small' in national terms, NSWPs are often not 'small' parties in regional contexts. Their success in regional elections may not reflect the same second-order logics that favour small state-wide parties in EP and other SOE. The basis of their success may instead lie in a sense of distinctive territorial identity or interest in the region concerned. Therefore, the impact on regional election outcomes when NSWPs compete in them was also explored.
- Political systems where there is no regular, bipolarized alternation of national government appear not to conform to SOE expectations in EP elections. If that is the case, it can be hypothesized that the same will apply in regional elections. Therefore, an important distinction made in the analysis below is whether regional elections take place in a political environment whereby regional voting has at least the potential to signal a future alternation of government at the national level. This is specified as a (regional) vote-national government linkage. That potential for a vote-government linkage may be limited in a number of ways: when the national government may include the same (senior) government party for a long time (for example, the Democrazia Cristiana in Italy or the Christelijk Democratisch Appel in the Netherlands); when consociational rules apply that maintain a core set of parties in national government on a long-term basis (MARSH, 1998, SELB, 2006); or when major parties in regional elections have limited weight in the national parliament and/or have never been included in national government (as is the case for many NSWPs). In these circumstances, the voter's ability to use their regional vote to signal a desire for change in national government is compromised. Following MARSH (1998), this article considers Australia, Canada, Denmark, France, Greece, Germany, Italy (1994–2009), Norway, Portugal, Spain, and the UK (Scotland and Wales) as cases where there is a (potential) direct link between regional voting and national government change. The countries where there is no such potential direct regional vote-national government link are: Austria, Belgium, Denmark (in relation to the Faroe Islands and Greenland), Italy (1945–1993), Japan, the Netherlands, Sweden, Switzerland, and the UK (Northern Ireland). Therefore, the article explores below the impact on regional election outcomes of

the presence or absence of such regional vote-national government links.

### Cases

In addition, it has been noted that ideas on both EP and regional elections as SOE drew on predecessor work in the 1970s on a narrow range of empirical cases in the United States, the UK and Germany. Some of the assumptions about EP elections appear no longer to apply with such explanatory power now that the number of member states in the European Union has grown substantially since the 1970s and especially in the last decade. The number of states with significant tiers of regional government has also grown very significantly. Greater diversity of cases of regional elections may, as in EP elections, produce a greater diversity in voting behaviour and qualify the understanding of regional elections as SOE. The analysis below will explore the electoral fortunes of state-wide parties participating in regional elections in seventeen countries. The dataset includes the results of 2933 regional elections in 313 regions in those countries. Table 1 presents the countries, regions and elections covered in this analysis.

### Dependent variable

The dependent variable is state-wide party success in regional elections. Success is measured by a variable labelled *Party vote share change*, which is operationalized by subtracting a party's regional election vote share from the vote share obtained by that party in the previous national election.<sup>3</sup> It is important to note that only parties which participated at least once in a national *and the following* regional election are included. This means that parties which participate in national or regional elections only and parties which are new entrants to party competition in a particular election are excluded. Only parties that obtained at least 5% of the vote in at least one region for a particular national election are included. Data are obtained from SCHAKEL (2011).

### Independent variables

The main independent variable for evaluating second-order effects is the electoral cycle for national elections. The degree to which regional elections are second-order is dependent on the placement of the regional election in the electoral cycle of the first-order arena (vertical simultaneity) as well as in the electoral cycles of other regional elections (horizontal simultaneity). It is frequently assumed that holding several (or all) regional elections in one state simultaneously amplifies their second-order qualities by giving them collectively nationwide reach and resonance (JEFFERY and HOUGH, 2006, p. 249).

Table 1. Countries, regions and elections covered

Country	Regions	N	Election period	N
Australia	States	6	1941–2009	122
	Territories	2	1974–2009	18
Austria	Länder	9	1945–2009	128
Belgium	Gemeenschappen/ Gewesten	4	1989–2009	16
Canada	Provinces	10	1941–2009	175
	Yukon	1	1978–2009	9
Denmark	Amter	15	1974–2001	119
	Region	5	2005–2009	10
France	Faroe Islands	1	1945–2009	18
	Greenland	1	1979–2009	9
Germany	Région	22	1998–2009	87
Greece	Länder (west)	10	1949–2009	147
	Länder (east)	6	1990–2009	25
Italy	Nomoi	49	1994–2009	196
Japan	Regioni a statuto speciale	5	1947–2009	66
	Regioni a statuto ordinare	15	1970–2009	120
Netherlands	Todofukken	47	1965–2009	512
Norway	Provincie	12	1946–2009	182
Portugal	Fylker	19	1975–2009	171
Spain	Azores and Madeira	2	1976–2009	18
Sweden	Comunidades autónomas	19	1980–2009	133
	Län	24	1973–2009	255
Switzerland	Cantons	25	1945–2009	376
United Kingdom	Scotland, Wales and London	3	1999–2009	9
	Northern Ireland	1	1945–2009	12
Total		313		2933

Note: Data are obtained from SCHAKEL (2011).

Vertical simultaneity is measured by the variable *Cycle*, which measures the fraction of time elapsed in the general election cycle. The number of days between a regional election and the previous general election is calculated then divided by the total number of days of a national parliamentary term (which is four years in most cases). To assess whether gains follow a parabolic pattern, the *Cycle* variable is squared (after standardizing the *Cycle* variable to prevent multicollinearity) (MARSH, 1998; HIX and MARSH, 2007). The cycle variables are interacted with a dummy variable indicating whether a party was in national government at the time the regional election was held to assess the effect of government status (WOLDENDORP *et al.*, 2011). For government parties the *Cycle* variable is expected to be negatively associated with the dependent variable and the cycle-squared (*Cycle*<sup>2</sup>) variable to be positively associated. For opposition parties the opposite is hypothesized. Horizontal simultaneity is operationalized as the proportion of regions that hold their elections on the same date.

It was argued above that the extent to which regional elections can be conceived as second-order may depend on how much is ‘at stake’. The Regional Authority

Index (RAI), developed by HOOGHE *et al.* (2010), is used as a codification of how much is at stake in regional elections, as measured by the authority invested in regional government. This measurement distinguishes between self-rule (authority exercised autonomously by a regional government over those who live in the region) and shared rule (authority exercised by a regional government or its representatives in cooperation with national government and with effects across the state as a whole).

It was also argued that second-orderness in regional elections may be qualified by the presence and strength of NSWPs in the region. Therefore, a variable measuring NSWp strength in regional elections was included by summing the vote shares for parties which obtain their votes in one region only.

#### Control variables

Several control variables were included to acknowledge the fact that electoral rules and contexts may differ between the general and regional election. First, the extent to which voters change their vote between the general and regional elections may depend on the historical and cultural characteristics of a region. Regional elections may not follow a second-order logic in regions with a distinct history and/or language. The effects of such distinctiveness were controlled for by using a regional language and history index (FITJAR, 2010). The language index is made up of the following items, with one point awarded for each item: there is an indigenous regional language that is different from the dominant (plurality) language in the state; the regional language is spoken by at least half the region’s population; and the language is not the dominant language of any state.

The history index captures the extent to which the region itself, or other states than the current state, have governed the territory. The index is made up of the following three items, with one point awarded for each: the region has not been part of the current state since its formation; the region was not part of the current state for the entire twentieth century; and the region has been an independent state. Scores on the indices for regions within Europe were taken from FITJAR (2010); and data for Australia, Canada, the Faroe Islands, Greenland, Japan, Northern Ireland and Switzerland were coded by the authors (BOSWORTH *et al.*, 1986; ENCYCLOPAEDIA BRITANNICA, 2010; LEWIS, 2009).

Party vote share change between regional and national elections may depend on the party choices on offer to the voter, which in turn depends on (any differences in) the electoral systems used at regional and national levels. In general, majoritarian/plurality systems lead to smaller party systems with larger parties, and proportional systems lead to larger party systems with smaller parties. For example, when a

majoritarian electoral system at the national level produces two parties, these two parties are bound to lose vote share in regional elections where a proportional electoral system, which produces a larger party system, is used. Voters may have the opportunity to cast their vote in regional elections for parties which are closer to their preferences than for national elections. In the case that a proportional electoral system is used at the national level, but a majoritarian electoral system at the regional level (for example, in some cantons in Switzerland), it would be expected that (some) national parties would gain (significant) vote share. In other words, party vote share changes may vary according to the difference in the proportionality of regional and national electoral systems. In the following analysis proportional electoral systems (PR) take the value of 1, plurality and majority systems take the value of zero, and mixed systems a value of 0.5. The difference variable is calculated by subtracting the electoral system score for regional elections from the score for national elections.

Similarly, party vote share change may also depend on differences in turnout between regional and national elections. When turnout is lower in regional elections than in national elections, the impact is often differential on national government and national opposition parties: supporters of the latter are often more motivated to turn out to express their displeasure with the national government than are supporters of the national government parties to turn out to express their satisfaction (LAU, 1985). In those circumstances one can expect losses in party vote share for government parties and gains for opposition parties. Therefore, the greater the difference between regional and national turnout, the greater the vote share that can be expected for opposition parties in regional elections as compared with national elections, and the greater the losses that can be expected for government parties and the greater the gains that can be expected for opposition parties. The difference in turnout variable is obtained by subtracting the level of turnout in a regional election from the level of turnout in the region concerned in the previous national election.

A number of scholars have noticed that loss in vote share in SOE may in part be explained by party size (MARSH, 1998; HIX and MARSH, 2007). Large parties (whether in government or in opposition at the national level) tend to lose, whereas smaller parties tend to gain. Party size by is controlled for by including the vote share for a party in the previous general election and a party size-squared variable (*Party size*<sup>2</sup>) (after standardizing it to avoid multicollinearity).

#### Method

Gains or losses in vote shares for parties in regional elections are nested observations. Vote share differences are nested within election years, which are subsequently nested in regions. It needs to be acknowledged that

party vote share changes are interdependent with one another because one party's gain is another party's loss. Moreover, elections are clustered within regions, so a multilevel mixed-effects linear regression model is applied in which election years constitute the first level and regions the second level.<sup>4</sup> This kind of model consists of a random and a fixed-effects part. The random-effect part of the model allows the variance components to be partitioned according to the levels, that is, region and election. The fixed-effects part of the model is analogous to standard regression coefficients.

## RESULTS

### Aggregate-level findings

Fig. 1 plots all the vote share changes for national government and opposition parties during the national electoral cycle in all regional elections in the dataset. Since most parliaments apply a fixed term of four years, each interval of 0.25 represents one year. National government parties are expected to lose and opposition parties to gain, and gains/losses should be highest at mid-term (0.5).

From Fig. 1 it becomes apparent that party vote share changes do not entirely follow the expected second-order pattern. The highest levels of loss for national government parties (about -80%) are greater in magnitude

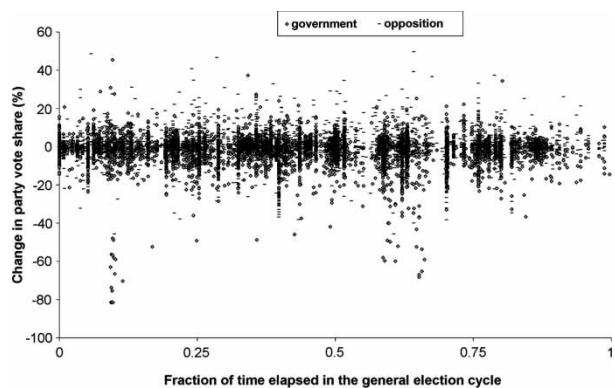


Fig. 1. Change in party vote shares for government and opposition parties

Note: Shown on the *y*-axis are the changes in vote shares for government and opposition parties between national and regional elections. Government participation is evaluated for national governments. The *x*-axis represents the fraction of time elapsed in the general election cycle. Since most parliaments have a fixed term of four years, each 0.25 represents one year. Party vote share change is calculated by subtracting the vote share for a party in a regional election from the regional vote share for the same party won in the previous general election. The graph displays a total of 13,604 vote share changes for 2,933 regional elections held in 313 regions in seventeen countries

than the highest gains by national opposition parties (at about 50%). Where parties gain vote share, the average gain for government parties is 3.4% and for national opposition parties it is 3.3%. A total of 39% of observations see national government parties and 46% see national opposition parties gaining. Where parties lose vote share, average losses are about -6.0% for government parties (61% of observations) and -3.5% for opposition parties (54% of observations). Therefore, average gains are about equal between the types of parties, but when they lose, national government parties lose more than national opposition parties. These patterns offer some support for (but also some contradiction to) second-order assumptions. Moreover, Fig. 1 reveals no clear cyclical pattern of higher national government party losses and higher national opposition party gains at mid-term.

The aggregate patterns are explored further in Fig. 2, which presents average gains in regional elections for four types of parties. Parties are categorized according to whether they are in government or in opposition at the national level at the time the regional election was held (WOLDENDORP *et al.*, 2011). Within each category this article distinguishes between the main (or largest) party versus all other parties. The analysis is differentiated between those regional elections that are held in an environment where there is a (potential) regional vote–national government link (the right-hand side of Fig. 2) and those where this is not the case (the left-hand side of Fig. 2).

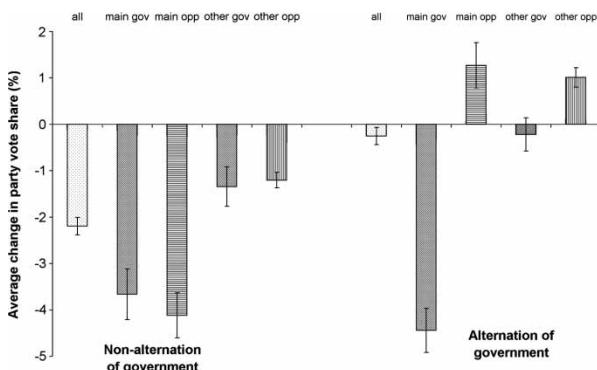


Fig. 2. Average party vote share change in regional elections for different types of parties

*Note:* Shown are average party vote share changes for government (gov) and opposition (opp) parties between national and regional elections. Government participation is evaluated for national governments. The error bars reflect the 95% confidence interval. Main parties are the largest parties among their peers, whereas the other category represents all remaining parties within the category. A distinction is made between regional elections held in an environment where there is a direct link between the vote and government change versus those where this is not the case (see the footnotes to Table 2)

A remarkable difference arises when elections are compared where there is no vote–government link, and those where there is such a link. All parties lose in the former group, whereas in the latter group national opposition parties tend to gain and national government parties tend to lose. From Fig. 2 it can be observed that the degree to which regional elections can be considered to be second-order is highly dependent on whether there is a potential link between regional voting and national government change, echoing the findings of more recent analyses of EP elections.

Another difference that can be observed in Fig. 2 is that the gains and losses are larger for the main (or largest) parties. This could be the result of increased second-order effects in bipolar party systems dominated by a single government and one main opposition party as compared with multi-party systems with coalition governments and numerous opposition parties. However, it should be remembered that this effect might be caused by the size of the parties. The remainder of this Results section maintains the distinction between regional elections that have potential regional vote–national government links (ten countries and Italy from 1994) and those which do not (six countries, the Faroe Islands, Greenland, Northern Ireland and Italy pre-1994).

#### Multivariate analysis

To explore how far the differences observed so far remain in a multivariate analysis, a multilevel regression model is estimated in which electoral cycle, regional authority, NSWP strength and control variables are included.

It is quite evident that the electoral cycle variables have strong explanatory power for changes in party vote share in regional elections in countries where there is a (potential) regional vote–national government link, but not where there are vertically simultaneous regional and national elections or in regional elections where there is not a (potential) regional vote–national government link. As hypothesized above, the *Cycle* variable is negatively associated and the *Cycle*<sup>2</sup> variable positively associated with national government parties. For national opposition parties the opposite effect is found. This indicates that gains and losses for parties in regional elections follow a cyclical pattern. The cyclical effects cannot easily be directly interpreted from Table 2. Therefore, gains and losses for those cases where there is a direct regional vote–national government link along the national election cycle are plotted in Fig. 3. In Fig. 3 the diamonds symbols identify the vote share changes for government parties and the squares identify vote share changes for opposition parties. The x-axis represents the fraction of time elapsed in the national election cycle. Most national parliaments use a fixed term of four years so each year is represented by a 0.25 increase on the x-axis.

Table 2. Multivariate analysis of changes in party vote shares in different types of regional elections

	Direct vote–government link			No direct vote–government link			Vertical simultaneous elections		
	All	Government	Opposition	All	Government	Opposition	All	Government	Opposition
<b>Electoral cycle</b>									
Cycle	0.273 (0.621)	-6.680*** (0.942)	1.156* (0.623)	-0.565 (0.467)	-0.709 (0.688)	-0.029 (0.387)			
Cycle <sup>2</sup>	-0.197 (0.148)	1.053*** (0.221)	-0.525*** (0.152)	0.236* (0.129)	0.300 (0.185)	0.107 (0.111)			
Government	-1.547*** (0.464)			2.117*** (0.335)			0.426*** (0.101)		
Cycle*Government	-4.705*** (1.038)			0.290 (0.691)					
Cycle <sup>2</sup> *Government	0.642*** (0.239)			-0.173 (0.177)					
Horizontal simultaneity	-0.702 (0.596)	1.656 (1.198)	-1.431* (0.791)	0.758 (0.854)	3.251** (1.435)	0.041 (0.662)	0.369 (0.274)	0.810 (0.509)	0.339 (0.313)
<b>Regional authority</b>									
Self-rule	-0.107 (0.079)	-0.227 (0.159)	-0.078 (0.107)	0.267* (0.139)	1.261*** (0.254)	0.034 (0.115)	-0.048 (0.114)	-0.223 (0.209)	0.154 (0.130)
Shared rule	0.090 (0.066)	0.097 (0.128)	0.113 (0.096)	0.194 (0.131)	-0.365** (0.179)	0.530*** (0.089)	0.087 (0.054)	0.169* (0.103)	-0.025 (0.059)
Non-state-wide parties	-0.063*** (0.010)	-0.103*** (0.020)	-0.050*** (0.014)	-0.013 (0.016)	-0.122*** (0.044)	0.004 (0.012)	-0.005 (0.011)	-0.038* (0.023)	0.015 (0.011)
<b>Controls</b>									
Regional language index	-0.328** (0.162)	-0.465 (0.351)	-0.114 (0.227)	-0.874* (0.493)	-2.603*** (0.731)	-0.511 (0.356)	-0.381*** (0.085)	-0.359** (0.168)	-0.369*** (0.091)
Regional history index	0.352** (0.140)	0.622** (0.304)	0.136 (0.193)	1.445 (0.983)	3.631*** (1.442)	1.203 (0.680)	0.090 (0.090)	0.164 (0.196)	0.091 (0.091)
Differential turnout	0.042*** (0.012)	0.026 (0.024)	0.059*** (0.015)	-0.018* (0.010)	0.026 (0.017)	-0.017 (0.100)	-0.014 (0.024)	-0.035 (0.051)	0.023 (0.024)
Different electoral system	-0.945 (0.600)	-4.725*** (1.188)	0.294 (0.823)	-8.596*** (0.690)	-14.701*** (1.280)	-7.135*** (0.625)	-0.097 (0.320)	-0.073 (0.681)	0.176 (0.341)

(Continued)

Table 2. *Continued*

	Direct vote–government link			No direct vote–government link			Vertical simultaneous elections		
	All	Government	Opposition	All	Government	Opposition	All	Government	Opposition
Party size	-0.022*** (0.008)	-0.128*** (0.017)	-0.001 (0.010)	-0.100*** (0.007)	0.015 (0.013)	-0.238*** (0.008)	-0.021*** (0.004)	-0.022** (0.010)	-0.022*** (0.004)
Party size <sup>2</sup>	-1.007*** (0.114)	-0.436** (0.187)	-0.700*** (0.160)	-0.511*** (0.060)	-1.571*** (0.090)	0.236* (0.134)	-0.038 (0.057)	-0.134 (0.113)	0.213*** (0.071)
Constant	4.305***	5.750**	3.754**	-3.334**	-11.168***	-0.422	0.226	2.056	-1.815
Log restricted likelihood	-17 697	-5913	-11 673	-17 702	-7947	-9196	-4146	-1434	-2593
McFadden's adjusted R <sup>2</sup> (%)	5.91	6.62	4.01	11.04	16.96	7.75	1.38	0.62	0.31
Wald Chi <sup>2</sup>	761***	342***	87***	1081***	740***	1222***	79***	50***	47***
Number of observations	5340	1764	3576	5640	2464	3163	2011	635	1373
Number of elections	1199	1177	1186	1231	1190	1125	349	346	341
Number of regions	189	188	189	117	113	114	88	86	88
Number of countries	11	11	11	9	9	9	9	9	9

Notes: \* $p < 0.10$ ; \*\* $p < 0.05$ ; and \*\*\* $p < 0.01$ .

The table shows the results of a multilevel mixed-effect linear model with changes in vote shares in regional elections relative to the previous general election for three groups of parties: all, government and opposition parties (standard errors are given in parentheses). Government participation is evaluated for national government. A distinction is made between regional elections held in an environment where there is a direct link between the vote and government (left-hand side) versus those where this is not the case (middle columns) and versus vertical simultaneous elections (right-hand side). *Vote–government link*: Australia, Canada, Denmark, France, Greece, Germany, Italy (1994–present), Norway, Portugal, Spain and the UK. *No vote–government link*: Austria, Belgium, Faroe Islands, Greenland, Italy (1945–1993), Japan, the Netherlands, Sweden, Switzerland and Northern Ireland.

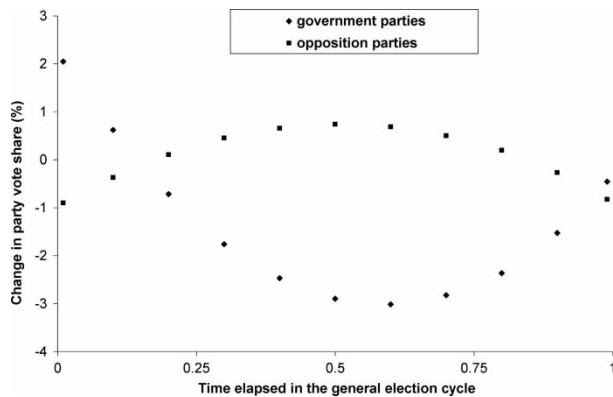


Fig. 3. *Vote share change for government and opposition parties during the general election cycle*

Note: Shown on the  $y$ -axis is the vote share change for government and opposition parties between national and regional elections. Government participation is evaluated for national governments. The  $x$ -axis represents the fraction of time elapsed in the general election cycle. Since most parliaments have a fixed term of four years, each 0.25 represents a year. Estimates are based on the results presented in Table 2 for the regional elections where there is a link between the vote and government change (see the footnotes to Table 2)

A typical second-order effect curve for elections where there is a regional vote–national government link can be observed in Fig. 3. In the case of national government parties, a short honeymoon period just after the national election with an initial 2% bonus can be seen. However, this bonus erodes quickly along the national electoral cycle and after a year or so the gain becomes negative. Losses reach their maximum at about -3% just after mid-term. Afterwards there is a recovery to a loss of about -0.5% just before the next national election. For opposition parties the reverse pattern is observed. The change in vote share is negative at about -1% just after the national election and this increases to just above zero at mid-term. The curve then declines again to about -1% just before the next national election. The findings strongly indicate that second-order effects are apparent in regional elections held in countries in which the national government is likely to alternate.

Turning back to the discussion of Table 2, a clear difference can be observed between elections where there is a potential link between regional vote and national government change and (1) those where this is not the case and (2) those where there are vertically simultaneous elections. Government parties lose in the first type of elections and win in the two other types of elections, as indicated by the government party dummy variable. Moreover, horizontal simultaneity leads to a 3.25% vote share increase for national government parties in regional elections where there is no regional vote–national government link.

Turning to the other independent variables, regional authority and NSWP strength, it can be observed that regional authority does not seem to matter, but that NSWP strength does. State-wide parties lose vote share in regions where they compete with NSWPs. However, this effect is more apparent for regional elections in states where there is a direct link between regional vote and national government change. For every 1% of NSWP vote share state-wide, parties lose from between -0.06% and -0.12%.

Finally, all control variables matter as well. State-wide parties lose vote share in regions that have a distinct regional language. The loss varies from -0.3% to -2.6% per point on the index. The history index has, contrary to expectations, an opposite effect with national government parties gaining a vote share of up to 3.6% per point on the index.

In general, turnout in regional elections is lower than for national elections (on average 8.3% lower). National opposition parties tend to gain more (or lose less) vote share in regional elections in those regions where more voters turn out. The effect, though, is small. For every 10% increase in turnout difference between regional and national elections the expected loss reduces by about 0.6%. Nevertheless, this result supports the proposition of JEFFERY and HOUGH (2001, p. 77), drawing on LAU (1985), that differences in vote share between national and regional elections can, in part, be explained by differential turnout: supporters of national opposition parties are more motivated to turn out in regional elections than supporters of national government parties.

Electoral systems also matter. Gains are smaller and losses are bigger in regional elections where the proportionality of regional electoral systems is greater than those for national elections. In these circumstances voters tend to change their vote from national government and opposition parties in national elections to other (regional) parties in regional elections.

Party size matters too and large parties tend to lose vote share in regional elections. Losses are limited to less than -1% for parties which obtain a vote share in national elections of up to 30% or less. Significant losses occur for parties which obtain more than 50% of the vote in national elections. The losses vary from -5% for a vote share of 50% to -17% for votes shares at about 80% depending on the beta-coefficients presented in Table 2 used to generate estimates. The relevance of the party size variables is somewhat impaired, though, when it is realized that only 705 out of a total of 13 604 observations (about 5%) concern vote shares above 50%.

Above it was hypothesized that the degree to which regional elections exhibit second-order effects may depend on how much is 'at stake' at these elections, and that these effects may be modified by the balance of self-rule and shared-rule authority exercised by regional governments. Table 3 test this hypothesis for national

Table 3. Effects of self-rule and shared rule on changes in party vote shares in regional elections

	Government parties		Opposition parties		Government parties		Opposition parties	
	Strong self-rule	Weak self-rule	Strong self-rule	Weak self-rule	With shared rule	No shared rule	With shared rule	No shared rule
<b>Electoral cycle</b>								
Cycle	-6.184*** (1.278)	-10.001*** (1.604)	1.648 (1.111)	0.884 (0.705)	-6.024*** (1.202)	-10.776*** (1.748)	0.964 (1.041)	1.410* (0.7510)
Cycle <sup>2</sup>	1.062*** (0.288)	1.342*** (0.453)	-0.461* (0.251)	-0.194 (0.197)	1.012*** (0.277)	1.742*** (0.496)	-0.467* (0.239)	-0.493** (0.2120)
Horizontal simultaneity	1.375 (1.578)	-0.208 (2.335)	-1.979* (1.120)	4.085*** (1.161)	1.514 (1.468)	3.828 (2.792)	-1.528 (1.078)	-0.644 (1.446)
<b>Regional authority</b>								
Self-rule	-0.058 (0.336)	0.260 (0.407)	0.598** (0.250)	-0.520*** (0.181)	-0.060 (0.265)	-0.210 (0.425)	0.280 (0.206)	-0.322* (0.192)
Shared rule	0.124 (0.178)	-0.457 (0.512)	0.151 (0.140)	0.174 (0.259)	0.132 (0.164)		0.157 (0.137)	
Non-state-wide parties	-0.095*** (0.026)	-0.130** (0.057)	-0.039** (0.019)	0.019 (0.026)	-0.092*** (0.024)	-0.374*** (0.103)	-0.045** (0.239)	-0.049 (0.054)
<b>Controls</b>								
Regional language index	-0.273 (0.486)	-0.800 (0.525)	0.149 (0.341)	-0.147 (0.242)	-0.333 (0.460)	-0.882 (0.603)	0.119 (0.340)	-0.394 (0.260)
Regional history index	0.959 (0.523)	0.295 (0.378)	-0.329 (0.374)	0.041 (0.185)	0.894* (0.490)	0.015 (0.415)	-0.254 (0.378)	0.184 (0.192)
Differential turnout	0.003 (0.042)	0.112*** (0.032)	-0.001 (0.034)	0.024 (0.017)	0.011 (0.039)	0.098*** (0.033)	0.020 (0.033)	0.035** (0.017)
Different electoral system	-0.951 (1.959)	-8.252*** (1.639)	-2.000 (1.608)	2.691*** (0.810)	-1.059 (1.820)	-9.670*** (1.914)	-2.001 (1.504)	5.077*** (0.964)
Party size	-0.101*** (0.027)	-0.149*** (0.021)	0.064*** (0.020)	-0.046*** (0.009)	-0.106*** (0.026)	-0.150*** (0.022)	0.060 (0.019)	-0.051*** (0.010)
Party size <sup>2</sup>	-0.688** (0.281)	-0.128 (0.253)	-1.318*** (0.290)	-0.433** (0.184)	-0.604** (0.259)	-0.213 (0.284)	-1.239 (0.274)	-0.330* (0.195)
Constant	2.000	6.155	-6.419*	2.423	2.067	6.965	-1.844	5.127**
Log restricted likelihood	-3261	-2606	-4819	-6566	-3430	-2241	-5148	-6263
McFadden's adjusted R <sup>2</sup> (%)	4.47	9.03	3.92	4.32	4.36	16.92	3.75	4.46
Wald Chi <sup>2</sup>	162***	193***	71***	132***	176***	190***	65***	139***
Number of observations	943	821	1373	2203	998	766	1477	2099
Number of elections	623	554	623	563	652	525	654	532
Number of regions	76	135	76	136	77	113	78	113
Number of countries	7	7	7	7	7	7	7	7

Notes: \* $p < 0.10$ ; \*\* $p < 0.05$ ; and \*\*\* $p < 0.01$ .

The table shows the results of a multilevel mixed-effect linear model with changes in vote shares in regional elections relative to the previous general election for government and opposition parties (standard errors are given in parentheses). A distinction is made between regional elections held in an environment where the regional government is strong (self-rule score  $> 10$ ) versus those elections held in regions which are weak (self-rule score  $\leq 10$ ). Vertical simultaneous elections and regional elections held in an environment where there is no link between the vote and government are excluded (see the footnotes to Table 2).

government and opposition parties for two sets of elections: those held in powerful regions versus those held in less powerful regions. Using data from the Regional Authority Index, the article distinguishes between regions with strong self-rule versus weak self-rule, and regions with and without shared rule. This analysis is done only for those elections which take place in countries where there is a potential link between regional vote and national government change (eleven countries).

The full model is presented, but the main interest is in the cycle variables. If the results for national government parties between powerful and less powerful regions are compared, it can be observed that the beta-coefficients are larger for the latter than for the former. This finding supports the hypothesis that second-order effects are less apparent in high-authority regions where more is at stake in regional elections. To enhance the interpretation of the cycle variables, the gains and losses for government parties for countries where there is a direct regional vote–national government link are plotted in Fig. 4. The difference from Fig. 3 is that party vote share changes for different types of regions, that is, for powerful and less powerful regions, are plotted.

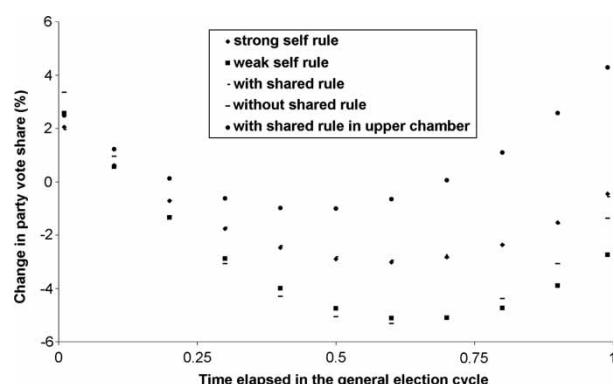


Fig. 4. Vote share change for government parties during the general election cycle

Note: Shown on the  $y$ -axis is the vote share change for government parties between national and regional elections. Government participation is evaluated for national governments. Within the category of parties a distinction is made between elections taking place for authoritative regional assemblies (strong self-rule or with shared rule) versus elections taking place for less authoritative regional assemblies (weak self-rule or without shared rule). A fifth curve indicates the gains for elections that take place in regions which exercise most or all shared rule powers in an upper chamber of national parliament. The  $x$ -axis represents the fraction of time elapsed in the general election cycle. Since most parliaments have a fixed term of four years, each 0.25 represents a year. Estimates are based on the results presented in Table 3 for the regional elections where there is a direct link between the vote and government change (see the footnotes to Table 2)

The basic pattern of the curves in Fig. 4 is the same as those observed in Fig. 3: gains increase or decrease along the general election cycle. There is a clear difference between losses for national government parties in powerful regions versus those in less powerful regions. National government parties lose more in regional elections in the less powerful regions and the additional loss may reach  $-3\%$  at about mid-term. This finding appears to give strong support for the hypothesis that second-order effects diminish when there is more at stake at regional elections.

It was argued above that regions with shared rule powers should be more prone to nationalized voting behaviour. Contrary to expectations, however, a difference between the estimates for weak versus strong self-rule and shared rule is not observed. When the model is rerun with *Cycle* and *Cycle*<sup>2</sup> interacted with a dummy variable indicating whether most or all shared rule is exercised via an upper chamber of parliament (as is the case in Austria, Belgium, Germany and the Netherlands), the fifth curve in Fig. 4, labelled 'with shared rule in upper chamber', is obtained. The most notable difference is that the curve is lifted upwards and national government parties do not lose vote share in these regions except for a minor loss around mid-term. Although the pattern is still cyclical, national government parties do not (generally) lose vote share, so elections in regions with shared rule powers exercised in an upper chamber of parliament do not conform to SOE expectations.

The final hypothesis concerns NSWPs participation which may lead to region-specific voting behaviour as opposed to interim assessments of the national-level government. The model for two types of elections was rerun in Table 4: those elections in which NSWPs participate versus those where they do not. National government parties tend to lose vote share in regional elections no matter whether or not NSWPs participate. However, second-order effects are more apparent in those elections where NSWPs do not participate. First, the beta-coefficient for the government party dummy is stronger for elections with NSWPs than that for elections without NSWPs. Second, both the *Cycle* and *Cycle*<sup>2</sup> variables are significant for government parties only in elections without NSWPs. Third, both cycle variables are significant (and of the opposite sign) for opposition parties, but again only for those elections without NSWPs. Taking these findings together, strong support is found for the claim that the extent to which regional elections may be considered to be second-order depends on the participation and strength of NSWPs.

## CONCLUSION

Perhaps the most important conclusion of this article is the limited utility of classic SOE thinking with respect to regional elections. The second-order model has

Table 4. Effects of non-state-wide party (NSWP) participation on changes in party vote shares in regional elections

	All parties		Government parties		Opposition parties	
	With NSWPs	Without NSWPs	With NSWPs	Without NSWPs	With NSWPs	Without NSWPs
<b>Electoral cycle</b>						
Cycle	-0.653 (2.126)	0.114 (0.651)	-7.068** (3.093)	-6.360*** (0.980)	-1.280 (2.071)	1.091* (0.653)
Cycle <sup>2</sup>	-0.034 (0.447)	-0.250*** (0.160)	0.992 (0.629)	1.194*** (0.238)	0.011 (0.430)	-0.655*** (0.163)
Government	-3.556** (1.457)	-1.353*** (0.484)				
Cycle*Government	-6.265* (3.432)	-4.361*** (1.072)				
Cycle <sup>2</sup> *Government	1.038 (0.725)	0.751*** (0.253)				
Horizontal simultaneity	-0.658 (1.473)	0.114 (0.755)	-1.786 (5.404)	2.395 (1.496)	-1.719 (1.797)	-1.037 (0.932)
<b>Regional authority</b>						
Self-rule	-0.257 (0.247)	0.045 (0.094)	0.274 (0.382)	-0.205 (0.193)	-0.468 (0.299)	0.096 (0.119)
Shared rule	0.320 (0.246)	0.085 (0.074)	0.829** (0.344)	0.057 (0.147)	-0.025 (0.311)	0.127 (0.099)
Non-state-wide parties	-0.065** (0.026)		-0.070** (0.035)		-0.053** (0.027)	
<b>Controls</b>						
Regional language index	-0.003 (0.362)	-0.510** (0.233)	0.628 (0.549)	-1.168 (0.536)	-0.134 (0.440)	-0.347 (0.301)
Regional history index	0.163 (0.537)	0.329** (0.152)	-0.412 (0.783)	0.541 (0.350)	0.333 (0.656)	0.241 (0.192)
Differential turnout	0.017 (0.043)	0.050*** (0.013)	-0.084 (0.069)	0.043* (0.025)	0.087* (0.051)	0.044*** (0.016)
Different electoral system	0.451 (2.290)	-0.966 (0.657)	-4.553 (3.567)	-2.681** (1.344)	1.796 (2.765)	-0.716 (0.876)
Party size	-0.017* (0.009)	-0.017* (0.009)	-0.249*** (0.053)	-0.099*** (0.018)	0.003 (0.029)	-0.001 (0.010)
Party size <sup>2</sup>	-0.950*** (0.124)	-0.950*** (0.124)	-0.146 (0.486)	-0.573*** (0.201)	-0.786* (0.411)	-0.617*** (0.174)
Constant	6.754**	2.077	-1.786	4.478	9.553**	1.550
Log restricted likelihood	-2690	-14951	-921	-4946	-1739	-9910
McFadden's adjusted R <sup>2</sup> (%)	6.86	5.77	6.43	6.47	3.21	4.18
Wald Chi <sup>2</sup>	244***	488***	102***	218***	30***	86***
Number of observations	779	4561	266	1498	513	3063
Number of elections	212	987	200	977	199	987
Number of regions	67	175	65	174	67	175
Number of countries	9	11	9	11	9	11

Notes: \* $p < 0.10$ ; \*\* $p < 0.05$ ; and \*\*\* $p < 0.01$ .

The table shows the results of a multilevel mixed-effect linear model with changes in vote shares in regional elections relative to the previous general election for three groups of parties: all, government and opposition parties (standard errors are given in parentheses). A distinction is made between regional elections where NSWPs participate versus those elections where NSWPs do not participate. Vertical simultaneous elections and regional elections held in an environment where there is not a link between the vote and government are excluded (see the footnotes to Table 2).

some merit in explaining regional election outcomes; however, it needs to be emphasized that clear second-order effects were found only in a subset of the full dataset of 2933 elections only.

Regional elections where there is no (potential) link between regional vote and national government formation (1231 of the 2933 elections) do not conform to second-order expectations. Moreover, regional elections which are held simultaneously with national elections (another 349 elections) do not conform to second-order expectations.

Of the remaining 1199 elections (41% of the full dataset), second-order effects are more apparent for national government parties in regions with weak regional authority than in stronger regions, so identifying a further 623 elections as not conforming with SOE expectations.

Of the remaining 576 elections, second-orderness is also limited by the presence of NSWPs, which reduces the number of elections further by forty-five leaving a total of 531 elections (in seven countries and thirty regions) where clear SOE effects can be found.

Taking these qualifications together, the second-order model has limited explanatory power in explaining regional election outcomes. Strong second-order effects can be found for only 18% of the elections (531 out of 2933 regional elections). The obvious implication is that much regional elections research hitherto has taken a flawed starting point. It is characteristic that the flaw consists in a set of expectations that regional elections outcomes should be shaped by a logic of national – first-order – party competition. There is something in this set of expectations – 18%, as suggested above – but with that at best only a partial and subsidiary explanatory potential. Research needs to turn more systematically to an analysis of regional elections on their own terms, not with an *a priori* assumption that they are subordinate to national elections. Such research may well find national-level effects on regional voting; but the authors are confident it will also find substantial regional-level effects which are independent of national politics, along perhaps with instances where regional-level calculations shape voting behaviour in national elections in the regions concerned.

Such findings in individual-level analyses based on regional election surveys, ranging from the impact of UK foreign policy issues on Scottish elections (BROMLEY, 2006), to regional-level valence voting in Ontario (CUTLER, 2008), to some *Länder* in Germany – Bremen and Brandenburg – where regional-level issues shape what voters do in national elections (VÖLKL *et al.*, 2008b, pp. 23–25, 28–29), are beginning to be seen. What is lacking though is a systematic approach to designing and commissioning regional election surveys which might enable competing hypotheses on what shapes regional voting behaviour, and its differences from national-level voting behaviour in the same region, to be explored across cases. In that sense the capacity to build a generalizable theory of regional voting behaviour, and multilevel effects that might shape and link voting behaviour at different levels of government, is limited. Building that capacity will require significant investment in data collection at the regional level to complement and challenge what are generally outstanding national-level and comparative datasets on individual-level voting behaviour in national elections. For the time being, therefore, the mobilization and exploration of aggregate-level results, such as in this article, may be a necessary route ahead, both in challenging some of the nationalizing assumptions social science analysis tends easily to apply, and in build-

ing a case for spending significant sums of research funding on regionalized data sources.

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## NOTES

1. The authors recognize that the terminology of 'region' is contested, and that some of the places termed 'regions' in this article consider themselves 'nations'. But the article conforms for simplicity's sake to standard comparative terminology which deems a 'region' to be a unit of government bigger than local government and smaller than state-wide government, and 'national' to be the description for government at the state-wide scale.
2. Though WYN JONES and SCULLY (2006, p. 191, n. 8) do at least point to subsequent SOE work on EP elections.
3. An alternative operationalization would be to construct an expected vote share and use that as a benchmark for the regional vote share. The assumption is that the change in national support for a party is gradual, that is, that the change is the same per unit of time during the whole election period from the first to the second national election. A caveat of this method is that it fails to account for short-term forces such as party or party leader popularity or the traits of individual candidates (GAINES and CROMBEZ, 2004, p. 296). Related to the expected vote method is the relative vote (DINKEL, 1977; JEFFERY and HOUGH, 2001), which is calculated by taking the average of two general election vote shares. This method significantly reduces the number of cases since a party is included only if it participates in at least two general and one regional elections in succession. The analyses were replicated according to the different operationalizations, and the results remained robust.
4. Models whereby regions are clustered in countries and models using panel-corrected standard errors controlling for autocorrelation (BECK and KATZ, 1995), with and without country dummies, yield by and large the same results.

## REFERENCES

- ANDERSON C. J. and WARD D. S. (1996) Barometer elections in comparative perspective, *Electoral Studies* 15, 447–460.  
 BECK N. and KATZ J. (1995) What to do (and not to do) with time-series cross-section data?, *American Political Science Review* 89, 634–647.  
 BOSWORTH C. E., VAN DONZEL E., LEWIS B. and PELLAT C. (Eds) (1986) Khe-Mahi, in *The Encyclopaedia of Islam*, Vol. V, pp. 439–440. E. J. Brill, Leiden.

- BROMLEY C. (2006) Devolution and electoral politics in Scotland, in HOUGH D. and JEFFERY C. (Eds) *Devolution and Electoral Politics*, pp. 192–213. Manchester University Press, Manchester.
- CARSEY T. M. and WRIGHT G. C. (1998) State and national factors in gubernatorial and senatorial elections, *American Journal of Political Science* **42**, 994–1002.
- CLARK N. and ROHRSCHEIDER R. (2009) Second-order elections versus first-order thinking: how voters perceive the representation process in a multi-layered system of governance, *Journal of European Integration* **31**, 645–664.
- CURTICE J. (2006) Is Holyrood accountable and representative?, in BROMLEY C., CURTICE J., MCCRONE D. and PARK A. (Eds) *Has Devolution Delivered?*, pp. 90–108. Edinburgh University Press, Edinburgh.
- CUTLER F. (2008) One voter, two first-order elections?, *Electoral Studies* **27**, 492–504.
- DECKER F. and von BLUMENTHAL J. (2002) Die bundespolitische Durchdringung der Landtagswahlen. Eine Empirische Analyse von 1970 bis 2001, *Zeitschrift für Parlamentsfragen* **33**, 144–165.
- DINKEL R. H. (1977) Der Zusammenhang zwischen Bundes- und Landtagswahlergebnissen, *Zeitschrift für Parlamentsfragen* **18**, 348–360.
- EBEID M. and RODDEN J. A. (2006) Economic geography and economic voting: evidence from the US states, *British Journal of Political Science* **36**, 527–547.
- ELAZAR D. (1987) *Exploring Federalism*. University of Alabama Press, Tuscaloosa, AL.
- ENCYCLOPAEDIA BRITANNICA (2010) *Encyclopædia Britannica Online* (available at: <http://www.britannica.com>) (accessed on 28 June 2010).
- ERIKSON R. S. (1988) The puzzle of mid-term loss, *Journal of Politics* **50**, 1011–1029.
- ERIKSON R. S. and FILIPPOV M. G. (2001) Electoral balancing in federal and sub-national elections: the case of Canada, *Constitutional Political Economy* **12**, 313–331.
- FABRE E. (2010) Multi-level election timing – a comparative overview, *Regional and Federal Studies* **20**, 157–174.
- FITJAR R. D. (2010) *The Rise of Regionalism. Causes of Regional Mobilization in Western Europe*. Routledge, London.
- GAINES B. J. and CROMBEZ C. (2004) Another look at connection across German elections, *Journal of Theoretical Politics* **16**, 289–319.
- HEATH A., MCLEAN I., TAYLOR B. and CURTICE J. (1999) Between first and second-order: a comparison of voting behaviour in European and local elections in Britain, *European Journal of Political Research* **35**, 389–414.
- HEATH A. and TAYLOR B. (1999) Were the Welsh and Scottish referendums second-order elections?, in TAYLOR B. and THOMSON K. (Eds) *Scotland and Wales: Nations Again?*, pp. 149–168. University of Wales Press, Cardiff.
- HIX S. and MARSH M. (2007) Punishment or protest? Understanding European Parliament elections, *Journal of Politics* **69**, 495–510.
- HOOGHE L., MARKS G. and SCHAKEL A. H. (2010) *The Rise of Regional Authority. A Comparative Study of 42 Democracies*. Routledge, London.
- HOUGH D. and JEFFERY C. (2003a) Landtagswahlen: Bundestestwahlen oder Regionalwahlen?, *Zeitschrift für Parlamentsfragen* **34**, 79–94.
- HOUGH D. and JEFFERY C. (2003b) Regional elections in multi-level systems, *European Urban and Regional Studies* **10**, 199–212.
- HOUGH D. and JEFFERY C. (2006) Germany: an erosion of federal–*Länder* linkages?, in HOUGH D. and JEFFERY C. (Eds) *Devolution and Electoral Politics*, pp. 119–139. Manchester University Press, Manchester.
- JEFFERY C. (1999) Party politics and territorial representation in the Federal Republic of Germany, *West European Politics* **22**, 130–166.
- JEFFERY C. (2011) Multi-level party competition in regional and federal states, in ENDERLEIN H., WÄLTI S. and ZÜRN M. (Eds) *Handbook on Multi-Level Governance*, pp. 136–152. Edward Elgar, Cheltenham.
- JEFFERY C. and HOUGH D. (2001) The electoral cycle and multi-level voting in Germany, *German Politics* **10**, 73–98.
- JEFFERY C. and HOUGH D. (2006) Devolution and electoral politics: where does the UK fit in?, in HOUGH D. and JEFFERY C. (Eds) *Devolution and Electoral Politics*, pp. 248–256. Manchester University Press, Manchester.
- JOHNS R., DENVER D., MITCHELL J. and PATTIE C. (2010) *The Holyrood Elections 2007: Explaining the Result* (available at: <http://www.scottishelectionstudy.org.uk/paperspubs.htm>).
- KERN H. and HAINMÜLLER J. (2006) Electoral balancing, divided government, and midterm loss in German state elections, *Journal of Legislative Studies* **12**, 127–149.
- KOEPKE J. R. and RINGE N. (2006) The second-order election model in an enlarged Europe, *European Union Politics* **7**, 321–346.
- LAU R. R. (1985) Two explanations for negativity effects in political behaviour, *American Journal of Political Science* **29**, 119–138.
- LEHMBRUCH G. (1976) *Parteienwettbewerb im Bundesstaat*. Kohlhammer, Stuttgart.
- LEWIS M. P. (Ed.) (2009) *Ethnologue: Languages of the World*, 16th Edn. SIL International, Dallas, TX (available at: <http://www.ethnologue.com>) (accessed on 28 June 2010).
- LOUGHIN J. and BOLGERINI S. (2006) Regional elections in Italy: national tests or regional affirmation?, in HOUGH D. and JEFFERY C. (Eds) *Devolution and Electoral Politics*, pp. 140–156. Manchester University Press, Manchester.
- MARKS G., HOOGHE H. and SCHAKEL A. H. (2010) An era of regionalization, in HOOGHE L., MARKS G. and SCHAKEL A. H. (Eds) *The Rise of Regional Authority. A Comparative Study of 42 Democracies*. Routledge, London.
- MARSH M. (1998) Testing the second-order election model after four European elections, *British Journal of Political Science* **28**, 591–607.
- MARSH M. (2009) Vote switching in European Parliament elections: evidence from June 2004, *Journal of European Integration* **31**, 627–644.

- MASSETTI E. (2009) Explaining regionalist party positioning in a multi-dimensional ideological space: a framework for analysis, *Regional and Federal Studies* **19**, 501–531.
- MILLER W. L. and MACKIE M. (1973) The electoral cycle and the asymmetry of government and opposition popularity: an alternative model of the relationship between economic conditions and political popularity, *Political Studies* **21**, 263–279.
- NORRIS P. (1997) Second-order elections, *European Journal of Political Research* **31**, 109–114.
- PALLARES F. and KEATING M. (2003) Multi-level electoral competition: sub-state elections and party systems in Spain, *European Urban and Regional Studies* **10**, 239–255.
- PATERSON L., BROWN A., CURTICE J., HINDS K., McCARONE D., PARK A., SPROSTON K. and SURRIDGE P. (2001) *New Scotland, New Politics?* Polygon, Edinburgh.
- REIF K. (1985) Ten second-order elections, in REIF K. (Ed.) *Ten Second-Order Elections*, pp. 1–36. Gower, Aldershot.
- REIF K. (1997) Second-order elections, *European Journal of Political Research* **31**, 115–121.
- REIF K. and SCHMITT H. (1980) Nine second-order national elections: a conceptual framework for the analysis of European election results, *European Journal of Political Research* **8**, 3–44.
- SCHAKEL A. H. (2011) Congruence between regional and national elections, *Comparative Political Studies* (published online on 18 October 2011). Regional election data available at: <http://www.arjanschakel.nl/>.
- SCHMITT H. (2005) The European Parliament elections of 2004: still second-order?, *West European Politics* **28**, 650–679.
- SELB P. (2006) Multilevel elections in Switzerland, *Swiss Political Science Review* **12**, 49–75.
- SIMON D. M. (1989) Presidents, governors and electoral accountability, *Journal of Politics* **51**, 286–304.
- SIMON D. M., OSTRUM C. W. JR and MARRA R. F. (1991) The president, referendum voting, and sub-national elections in the United States, *American Political Science Review* **85**, 1177–1192.
- STIMSON J. A. (1976) Public support for American presidents. A cyclical model, *Public Opinion Quarterly* **40**, 1–21.
- TRONCONI F. and ROUX C. (2009) The political systems of Italian regions between state-wide logics and increasing differentiation, *Modern Italy* **14**, 135–150.
- TRYSTAN D., SCULLY R. and WYN JONES R. (2003) Explaining the quiet earthquake: voting behaviour in the first election to the national assembly for Wales, *Electoral Studies* **22**, 635–650.
- VATTER A. (2007) Lijphart goes regional: two different patterns of consensus in Swiss democracies, *West European Politics* **30**, 147–171.
- VÖLKL K., SCHNAPP K.-U., HOLTMANN E. and GABRIEL O. W. (Eds) (2008a) *Wähler und Landtagswahlen in der Bundesrepublik Deutschland*. Nomos, Baden-Baden.
- VÖLKL K., SCHNAPP K.-U., HOLTMANN E. and GABRIEL O. W. (2008b) Zum Einfluss der Bundespolitik auf Landtagswahlen: theoretischer Rahmen und Analysemodell, in VÖLKL K., SCHNAPP K.-U., HOLTMANN E. and GABRIEL O. W. (Eds) *Wähler und Landtagswahlen in der Bundesrepublik Deutschland*, pp. 9–36. Nomos, Baden-Baden.
- WOLDENDORP J., KEMAN H. and BUDGE I. (2011) *Party Government in 40 Democracies 1945–2008. Composition – Duration – Personnel*. [Dataset available from the authors upon request]
- WOLINETZ S. B. and CARTY R. K. (2006) Disconnected competition in Canada, in HOUGH D. and JEFFERY C. (Eds) *Devolution and Electoral Politics*, pp. 54–75. Manchester University Press, Manchester.
- WYN JONES R. and SCULLY R. (2006) Devolution and electoral politics in Scotland and Wales, *Publius: Journal of Federalism* **36**, 115–134.