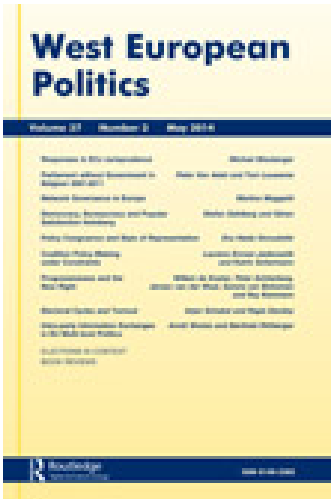

West European Politics
Publication details, including instructions for authors and subscription information:
http://www.tandfonline.com/loi/fwep20

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Published online: 28 Apr 2014.

To cite this article: Arjan H. Schakel & Régis Dandoy (2014) Electoral Cycles and Turnout in Multilevel Electoral Systems, West European Politics, 37:3, 605-623, DOI: 10.1080/01402382.2014.895526

To link to this article: http://dx.doi.org/10.1080/01402382.2014.895526

West European Politics, 2014
Vol. 37, No. 3, 605–623, http://dx.doi.org/10.1080/01402382.2014.895526

Electoral Cycles and Turnout in Multilevel Electoral Systems

ARJAN H. SCHAKEL and RÉGIS DANDOY

This article differentiates between three ways in which electoral cycles may impact on participation in elections. First, it identifies a simultaneity effect – turnout increases to the extent that elections are held on the same date. A second effect is voter fatigue – turnout declines when another election has just been held before. Poll voting is a third effect. It suggests that turnout increases when another election is to be held shortly after. On the basis of a novel dataset that includes 2,915 regional elections held in 317 regions and 18 countries from 1945 to 2009, evidence is found for all three effects. The results point towards a basic dilemma in multilevel electoral systems: increase turnout by holding elections on the same date but accept high vote congruence across elections or decouple election cycles, which decreases vote congruence but lowers participation rates.

Turnout in elections is considered to be one of the 'cornerstones' of modern democracy since 'democratic responsiveness depends on citizen participation' (Verba 1996: 2). Political scientists have therefore been very interested in explaining the proportion of citizens who cast their vote, which varies hugely across countries, across time, and across types of election. Comparative studies show that the institutional context determines to a large extent the willingness of citizens to cast their vote. In an elaborate review of the literature on turnout rates Geys (2006: 653) concludes that 'the institutional procedures governing the course of the elections strongly affect turnout'. In addition, Franklin (1996) observes that country differences have effects on turnout that are four times as great as individual-level differences.

A widely held assumption is that institutional arrangements 'determine the cost of voting and the likely benefits in policy consequences (or net return) of election outcomes' (Franklin 2004: 44). In other words, institutions affect the (perceived) salience of elections and thereby affect turnout rates. However, beyond this general statement lies considerable disagreement. Blais (2006: 122) concludes in his review on the literature on turnout: 'It makes sense to

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believe that turnout is lower in less salient elections but what makes an election more or less salient is still obscure'. An example of this 'obscurity' can be given by the explanations put forward by scholars to explain the exceptionally low turnout in elections taking place in Switzerland and the United States.

Franklin (2004: 96–9) relates low turnout rates in Switzerland and the United States to the lack of 'executive responsiveness' in both countries. In the USA mid-term Congressional elections are less salient because of the separation of powers between the President and Congress which removes the executive from legislative control. In Switzerland the government is a cartel in which the same parties form the government coalition (with the President of the Swiss Confederation rotating every year) no matter what the electoral outcome. Henderson and McEwen (2010) study turnout in Swiss cantonal elections where executive government is not formed by cartels, at least for many cantons (Bochsler and Wasserfallen 2013), yet they observe that average turnout rates are as low as for national elections. They relate the comparatively low participation rates in Switzerland to voter fatigue. Because there are many different kinds of elections and many referenda held on various dates voters do not bother to vote in all of them. However, this explanation does not seem to work in the US where mid-term Congressional elections are often held simultaneously with state-level gubernatorial and/or state parliament elections, along with a number of various other kinds of state- and local-level elections. All this simultaneity does not seem to boost turnout despite the fact that a consistent finding in the literature is that holding elections together significantly improves turnout rates (Blais 2006; Geys 2006; Lijphart 1997).

We argue in this article that the timing of elections significantly impacts on turnout. We start from the same basic assumption as most other scholars, namely that institutions affect the costs and benefits for voters to cast their vote. We differentiate between three types of effects of how electoral cycles can impact on turnout. First, a *simultaneity effect* which assumes that the stakes for political parties and candidates increase when elections are held together resulting in more intensive campaigns and increased media attention which makes it easier for the voter to access information. In addition, simultaneous elections lower the relative costs of voting because the fixed costs of going to the polling station can be divided over multiple elections. Turnout is lower for non-simultaneous elections and, due to a voter *fatigue effect*, turnout can be further reduced in elections which take place soon after another election because costs are multiplied across elections. A third *poll effect* assumes that participation rates increase when an election is held shortly before another, more important election. In these cases, the less important election may be 'interpreted' by voters, politicians, political parties, and media as an opinion poll for the upcoming election, and political parties and politicians have more interest in campaigning in less salient elections which makes it easier for voters to know what is at stake in elections.

Our arguments are evaluated against a dataset which includes turnout rates for 2,915 elections taking place in 317 regions in 18 countries from 1945 to 2009. We focus on regional elections because this maximises variation on our independent variables (i.e. the extent of simultaneity between national, local, regional, and other types of elections) and on our dependent variable (i.e. turnout). In addition, by focusing on regional elections we increase the number of cases significantly, which allows us to observe how far the effects of electoral cycles may vary across different contexts and thus enables us to develop and test a more complex theory about when and where institutions matter (Blais 2006: 123). In the next section we introduce our theoretical arguments and after that we introduce our cases. We then discuss the variables and method, and present the results, followed by our conclusions.

How Electoral Cycles May Impact on Turnout

The decision to vote is often considered by scholars to be a cost–benefit analysis by individuals. A voter will participate in elections when they believe the cost of voting outweighs the perceived benefits of the candidate winning the election. Many scholars also assume that the balance between the costs and benefits of voting is dependent on the likelihood that the vote will actually have an effect on whether or not the preferred candidate will win the election (Riker and Ordeshook 1968). There is considerable debate in the literature whether turnout can be satisfactorily explained by resorting to game theory given the generally low likelihood that one single vote can significantly impact on the final electoral outcome (see e.g. Franklin 2004; Green and Shapiro 1994). In this article we follow Matilla (2003) and Pacek *et al.* (2009) who argue that the voting decision is a low-cost and low-expected-benefit type of decision whereby (small) changes in the stakes of an election might be enough to induce voters to cast their ballot (Aldrich 1993).

One important factor which might significantly impact on the stakes of an election and which may alter the costs and benefits of voting is simultaneity of elections. Geys (2006) proposes two arguments why simultaneous elections increase turnout. On the cost side, going to the polling booth is a fixed cost (Carter 1984; Filer and Kenny 1980) and holding elections on the same date enables the voter to spread those costs across elections. On the benefit side, it is easier for the voter to access information about political parties and candidates in election campaigns running up to simultaneous elections because media pay attention to at least one of the elections and parties and candidates are more likely to increase the amount of campaign spending (Cox and Munger 1989). We expect that turnout will be especially increased in less important (second-order) elections, when it is combined with a more important (first-order) election.

In the case of non-simultaneous elections, the relative timing of elections vis-à-vis each other may still have an impact. A second effect of election cycles has been proposed to explain the exceptionally low turnout figures in

Switzerland and the United Sates. A voter fatigue argument anticipates that voters will abstain from elections when one or more elections have been held (shortly) before the election. Henderson and McEwen (2010: 408), Franklin (2004: 99), and Jackman and Miller (1995: 482–83) resort to this explanation to account for the low turnout in Switzerland and the United States. Lijphart (1997: 8) writes that in the United States voters are asked to come to the polls between two and three times each year and this is topped by one country only, Switzerland, where elections and referenda are held about six or seven times per year.

A third way in which electoral cycles can impact on turnout has been proposed in the literature on second-order elections. Studies on turnout in elections to the European Parliament (EP) have found that citizens vote more actively when the EP election is held close to the upcoming national election (Franklin 1996). EP elections can serve as 'referendum elections' (Carsey and Wright 1998; Simon 1989; Simon *et al.* 1991) or 'barometer elections' (Anderson and Ward 1996), showing what would have happened if elections to national parliaments had been held. When EP elections are held shortly before national first-order elections, 'politicians, journalists and potential voters show increased interest in voting because EP elections serve as markers of party strength in the upcoming national elections' (Matilla 2003: 456).

Turning to the empirical evidence, we observe that the impact of simultaneous elections is one of the most robust findings in studies on participation rates (Blais 2006; Geys 2006; Lijphart 1997). However, this effect has been found for simultaneity between European elections with national elections and one may wonder how far combining non-national (and less important) elections may give a similar boost to turnout. For example, Matilla (2003) studies participation rates for European elections and includes a dummy variable indicating whether the European elections have been held with either national, regional, or local elections in a particular country. The variable pops up as statistically significant but one does not know whether this is due to simultaneity with a first-order, a second-order, or both elections.

Similarly, a poll effect has been established for national elections only. In addition, the way a poll effect is empirically assessed often does not allow us to differentiate it from a (possible) voter fatigue effect. For example, Matilla (2003), who studies turnout in European elections, includes a variable that counts the number of months until the next national parliamentary elections to assess a poll effect and he finds that this variable is statistically significant and negatively correlated with turnout. This result indicates that turnout in European elections declines the further away the European election is from the next national election. However, the further away it is from the next national election the closer it is to the previous national election and, therefore, the result also provides support for a voter fatigue interpretation.

To the best of our knowledge a voter fatigue hypothesis has not been systematically (and directly) tested. It is an explanation which has been put forward by scholars to explain the relatively low participation rates in Switzerland

and the US but it has not been empirically tested beyond the inclusion of country dummies (e.g. Henderson and McEwen 2010). Perhaps this is in part due to the necessarily labour-intensive process of establishing the election dates for all types of elections.

Taking these arguments and observations together we may derive three effects for how election cycles may impact on turnout. First, a '*simultaneity effect*' that expects turnout to increase to the extent to which elections are held on the same date. Second, a '*fatigue effect*' whereby one assumes that turnout will decline when another election has been held just before the election. Turnout may also increase due to a third '*poll effect*' whereby voters are more inclined to cast their vote because they want to use the election to send a signal to another (more important) electoral arena. In this article we want to systematically assess the impact of these three effects in the case of regional elections.

Electoral Cycles and Turnout in Multilevel Electoral Systems

We focus on regional elections because for two reasons they present us with 'ideal cases' to study the impact of electoral cycles. First, according to Matilla (2003: 454), we may argue that the factors that affect costs and benefits of voting in first-order, national elections have an even greater impact on the turnout in second-order, non-national elections. Following the assumptions of the second-order election model, we can consider voting in regional elections as a low-cost, very low-benefit activity because the authority of regional parliaments is often much smaller than the power of national parliaments. As a result, many more potential voters ask the question 'why bother?' and their costs of voting are likely to be lowered (or increased) by the three effects discussed in the previous section.

A second reason why regional elections are 'ideal cases' to assess the impact of electoral cycles is because the extent to which regional elections coincide with local and national elections varies considerably. Table 1 presents the regional elections for which we analyse participation rates. In total we include 2,915 elections held in 317 regions in 18 countries for the period between 1945 and 2009. Unfortunately, we were not able to include US state elections because the peculiar registration procedures vary across the states and raise a serious problem with regard to the validity and comparability of US participation rates (Blais and Dobrzynska 1998). Table 1 also shows the extent to which regional elections are held simultaneously with national and local elections (vertical simultaneity) and with other regional elections (horizontal simultaneity). We follow the definition of a region given by Hooghe *et al.* (2010: 4): 'a regional government is the government of a coherent territorial entity situated between the local and national levels with a capacity for authoritative decision making'. This study includes the first level of government directly below the national government which holds elections and has an average population size greater than 150,000. Three exceptions which

TABLE 1
SIMULTANEITY OF ELECTIONS BY COUNTRY, REGION AND TIME PERIOD

Country	Regions tier	*N*	Election period	Simultaneity National	Regional	Local
Australia	States and Territories	8	1950–2009	no	no	no[1]
Austria	Länder	9	1945–1949	yes	yes	no[1]
			1950–2009	rare	rare	no[1]
Belgium	Regions/ Communities	4	1989–1999	yes[2]	yes[2]	no
			2000–2009	no	yes	no
Canada	Provinces and Territories	13	1945–2009	no	no	no
Denmark	Amter/Regions	15	1974–2009	no	yes	yes
	Faroe Islands/ Greenland	2	1945–2009	no	no	no
Finland	Åland	1	1975–2009	no	no	yes[1]
France	Regions	22	1986	yes	yes	no
			1992–2009	no	yes	no
Germany	Länder	16	1950–2009	no	rare	no[1]
Greece	Nomoi	49	1994–2009	no	yes	yes
Italy	Regioni a statuto speciale	5	1945–2009	no	no	no
	Regioni a statuto ordinare	15	1970–1999	no	yes	yes
			2000–2009	no	yes	no
Japan	Todofuken	47	1967–2009	no	yes[3]	yes[1]
Netherlands	Provinces	12	1945–2009	no	yes	no
Norway	Fylker	19	1975–2009	no	yes	yes
Portugal	Açores, Madeira	2	1976–2009	no	yes	no
Spain	Slow-track regions	3	1982–2009	no	yes	yes
	Fast-track regions	16	1980–2009	no[4]	no	no
Sweden	Län	24	1973–2009	yes	yes	yes
Switzerland	Cantons	23	1945–2009	no	no	no
United Kingdom	London, Scotland, Wales, Northern Ireland	4	1945–2009	no	no[5]	no[1]

Notes: The table displays whether regional elections are held simultaneously with national, (other) regional, and/or local elections. Regional turnout is analysed for 2915 elections held in 317 regions and 18 countries. Turnout data for three Swiss cantons are missing. Compulsory voting is present in Australia, Austria (Carinthia 1989, Styria 1949–94, Tyrol 1949–2002, Vorarlberg 1949–2003), Belgium, Greece, Italy (1945–70), the Netherlands (1945–66), and Switzerland (Schaffhausen).
[1]Regional elections are held simultaneously with local elections within the region in Australian Capital Territory (Australia), Upper Austria and Vienna (Austria), Åland (Finland), Berlin, Bremen, and Hamburg (Germany), Ibaraki, Okinawa and Tokyo (Japan), and Scotland and Wales in 1999 (United Kingdom).
[2]Except for Bruxelles (1989) and the Deutsche Gemeinschaft (1990).
[3]Ibaraki, Okinawa, and Tokyo have an independent election cycle.
[4]Andalucian elections were held on the same date as the national election in 1986 and between 1996 and 2008.
[5]Scottish and Welsh elections are held on the same date.
Sources: Online Appendix A.

are included are Faroe Island (Denmark), Greenland (Denmark), and *Åland* (Finland).

Focusing on vertical and horizontal simultaneity for local, regional, and national elections, we may observe that the extent to which regional elections are held simultaneously varies from no or rare simultaneity to full simultaneity with national and local elections. Full simultaneity can be found in Sweden where national, regional, and local elections all take place on the same date. Some national and regional elections have been held simultaneously in Austria (1945–49), Belgium (1995–99), and France (1986). Statewide simultaneous regional and local elections can be found in Denmark, Greece, Italian ordinary regions, Japan, Norway, and Spanish slow-track regions. In Belgium (2000–9), France (post-1986), the Netherlands, and Acores and Madeira in Portugal, regions hold statewide simultaneous elections on a different date to national and local elections. A regional election can also be held simultaneously with local elections within the region, as happens in Åland (Finland), the Australian Capital Territory (Australia), Upper Austria, and Vienna (Austria), the city-states in Germany, Scotland, and, in 1999, also Wales.

Finally, a regional election may follow its own independent electoral cycle and is held non-simultaneously with national, local, and other regional elections. Examples include the Australian States and Territories, Austrian Länder (post-1949), Canadian Provinces and Territories, German Länder, Italian special regions, Spanish fast-track regions, and Swiss cantons, although occasionally in Austria and Germany a Land election may coincide with one or more other Land elections.

From this overview we can deduce six 'electoral cycle regimes'. The first electoral regime is the one of full simultaneity (*NRL*) whereby all national, regional, and local elections are held on the same date. A second electoral cycle regime, *NR*, occurs when national and regional elections are held simultaneously. The third electoral regime, *RL*, indicates horizontal simultaneity with regional and vertical simultaneity with local elections. A fourth electoral regime, *R*, happens when regional elections are held horizontally simultaneous with each other. Simultaneity with local elections within the region (*L*) is a fifth electoral cycle regime. The final electoral cycle regime is the one in which no simultaneity occurs (*None*).

We aim to assess the independent effects of holding elections simultaneously and holding elections shortly before or after each other. In order to be able to do so we have created a set of dummy variables that are presented in Table 2.

We include in our analysis a dummy variable for each of the six types of electoral regimes. In addition, we have a dummy indicating simultaneity with any other type of election beyond national, regional, and local elections. Apart from local, regional, and national elections, we also identify European Parliament (the EU member states), provincial (Belgium, Italy, and Spain) or other sub-regional elections (e.g. France, *department*, and Germany, *Kreise*), presidential elections (Austria, Finland, France, and Portugal), national and regional

referenda (Australia, Canada, Denmark, France, Italy, Netherlands, Norway, Portugal, Spain, Sweden, and Switzerland). Appendix A (available online at http://www.arjanschakel.nl) details the sources on the basis of which we established electoral cycle regimes and election dates.

In order to assess the impact of voter fatigue and poll voting we introduce two sets of dummies. First, three fatigue dummies indicate whether a national, local, or other type of election has been held 365 days *before* the regional election. Similarly, the second set of dummies, which tap into a poll voting effect, indicate whether a national, local, or other type of election has been held 365 days *after* the regional election. In order to be able to separate a voter-fatigue and a poll-voting effect from a simultaneity effect, the fatigue and poll dummies do not include simultaneous elections. In other words, both sets of dummies only obtain a positive value when a national, local, or other type of election is held at least one day before or after the regional election. In

TABLE 2
ELECTION CYCLE VARIABLES

Simultaneity effect	**Does holding regional elections *simultaneously* with other types of elections boost turnout?**
Simultaneity N, R, L	Dummy: 1 = simultaneous with national, (other) regional, and local elections on a statewide scale
Simultaneity N, R	Dummy: 1 = simultaneous with national and (other) regional elections on a statewide scale
Simultaneity R, L	Dummy: 1 = simultaneous with (other) regional and local elections on a statewide scale
Simultaneity R	Dummy: 1 = simultaneous with (other) regional elections on a statewide scale
Simultaneity L	Dummy: 1 = simultaneous with local elections within region
Simultaneity O	Dummy: 1 = simultaneous with an European Parliament, sub-regional, presidential election, or a referendum
Simultaneity none	Dummy: 1 = independent electoral cycle
Fatigue effect	**Does holding regional elections shortly *after* other types of elections reduce turnout?**
Closeness N	Dummy: 1 = national elections have been held 365 days or less *before* the regional election
Closeness L	Dummy: 1 = local elections have been held 365 days or less *before* the regional election
Closeness O	Dummy: 1 = a European Parliament, sub-regional, presidential election, or a referendum is held within 365 days *before* the regional election
Poll effect	**Does holding regional elections shortly *before* other types of elections boost turnout?**
Proximity N	Dummy: 1 = national elections have been held 365 days or less *after* the regional election
Proximity L	Dummy: 1 = local elections have been held 365 days or less *after* the regional election
Proximity O	Dummy: 1 = a European Parliament, sub-regional, presidential election, or a referendum is held within 365 days *after* the regional election

Note: The sources for determining electoral cycles and election dates are detailed in online Appendix A available at http://www.arjanschakel.nl

addition, we purposely do not include a variable indicating the number of days or months between the regional and previous or next national election because we want to be able to separate a voter-fatigue from a poll-voting effect.

Empirical Analysis of Turnout in Regional Elections

According to a stakes-based argument, we may assume that turnout will be higher to the extent that elections are multiplied. We expect the highest turnout for regional elections which are held vertically simultaneous with the more important national elections. Turnout should decline according to decreasing horizontal and vertical simultaneity and we expect to see the lowest turnout figures for elections which follow an independent electoral cycle. We expect to observe declining turnout levels according to the type of electoral regime as follows: *NRL* > *NR* > *RL* > *L* > *R* > *None*. The electoral regime of horizontal simultaneity among regional elections (*R*) is placed below vertical simultaneity between regional and local elections within the region (*L*) because in the former, elections are multiplied for politicians and political parties but not for voters, whereas in the latter electoral regime type, elections are multiplied for both. In the next section we make use of dummy variables to empirically assess the effects of simultaneity, voter fatigue, and poll voting on participation rates in regional elections.

Descriptive Statistics of Turnout in Regional Elections

In Table 3 we present average turnout per electoral cycle regime (turnout data comes from Schakel (2013) and Dandoy and Schakel (2013)). The average participation rates provide strong support for a simultaneity effect. Regional turnout is above 80 per cent when there is vertical simultaneity with national elections (*NRL* and *NR*). The lowest turnout figures of about 65 per cent can be found for regional elections with no simultaneity or with horizontal simultaneity (*None* and *R*). Vertical simultaneity with local elections increases turnout but, in contrast to our expectations, vertical simultaneity with local elections within the region increases turnout to 73 per cent (*L*) whereas regional and local simultaneity on a statewide scale generates an average turnout of 68 per cent (*RL*).

We are also interested in the impact of election cycles via a voters' fatigue effect and a poll effect. Turnout in regional elections may decline when another election has just been held previously and voters do not bother to cast their vote again. Regional turnout may increase when another election is held soon after the regional election and voters want to express their opinion to indicate the popularity of political parties. We may expect that a voters' fatigue effect and a poll effect may be stronger to the extent that regional elections are not held simultaneously. The reason for this expectation is a rather 'mechanical' one. As soon as regional elections are disconnected from local and national elections, it increases the chances that a local or national election will be held shortly before or after the regional election.

TABLE 3
AVERAGE TURNOUT PER ELECTORAL CYCLE REGIME

Simultaneity	Number elections	Average turnout	Standard deviation	Minimum	Maximum
NRL	270	84.45*	5.34	73.68	92.16
NR	41	82.70*	8.00	68.70	97.40
RL	870	67.81*	9.90	40.20	90.61
R	225	63.96	10.52	41.61	86.25
L	129	72.87*	12.32	40.80	96.90
None	748	65.25	15.45	29.50	96.30
Total	2283	69.11	13.39	29.50	97.40

Note: *indicates whether average turnout is higher than the average for regional elections with an independent electoral cycle (none) ($p < 0.001$; one tailed t-test with the assumption of unequal variances across the electoral cycle regimes). Elections held under compulsory voting are excluded. See for the simultaneity variables Table 2.

A second reason for this expectation derives from an empirical observation. Table 3 presents the standard deviation and range (minimum and maximum) of regional turnout per election cycle regime. The standard deviations clearly increase, to the extent that regional elections are not held simultaneously with other elections. With full simultaneity the standard deviation is about 5 per cent and it increases threefold to about 15 per cent for non-simultaneous regional elections. The variation does not so much concern maximum turnout levels, which fall in the same range for all electoral regimes, but is rather reflected by the reported minimum levels. Minimal regional turnout is about 70 per cent in the case of vertical simultaneity with national elections, declines to about 40 per cent for regional elections held simultaneously with local and/or regional elections, and the lowest minimum turnout level of just below 30 per cent is reported for non-simultaneous regional elections. In other words, there is more variation in participation rates when regional elections are not held simultaneously.

In Table 4 we present average turnout figures for regional elections that have been held within a 365-day period prior to or after any other type of election (in the multivariate analysis below we differentiate between types of other elections). We compare those averages to elections which have not been held close to any other type of election.

We find clear evidence of voter fatigue, as well as a poll effect. When another election has been held within 365 days before a regional election turnout will decline by about 3 percentage points. Similarly, when another election has been held within 365 days after a regional election turnout increases by approximately 3 percentage points. Table 4 also displays considerable variation across electoral cycle regimes. A voter fatigue effect is clearly observable for regional elections held simultaneously with national elections (*NR* –6.96 per cent) and for simultaneous regional elections (*R* –7.61 per cent). Likewise, the poll effect is strongest for simultaneous regional elections (*R* +12.42 per cent) and non-simultaneous regional elections (*None* +7.09 per cent) but it is also

present for regional elections held vertically simultaneous with local elections and horizontally simultaneous with regional elections (*RL* +2.90 per cent).

Table 4 also shows disconfirming evidence. Turnout actually increases by 3.83 percentage points for regional elections which are held simultaneously with (other) regional and local elections (*RL*) and which take place within 365 days after another election. Turnout declines by 4.39 percentage points in regional elections which are held simultaneously with national and local elections (*NRL*) and which take place within 365 days before any other election. The latter result can be explained by drilling down into the data. Only in Sweden are national, regional, and local elections held simultaneously with each other. There were no other types of elections in Sweden until EU membership in 1995. Since then European elections have taken place within one year after the general elections. Turnout in Western European countries has been declining since the 1970s (Gray and Caul 2000) and the difference in turnout reported in Table 4 probably reflects the trend in turnout over time rather than a 'reversed' poll effect. This result prompts us to do a multivariate analysis, allowing us to control for trends over time but also to control for other variables that may impact on turnout.

Multivariate Analysis of Turnout in Regional Elections

In order to assess simultaneity, voter fatigue, and poll effects more systematically, we perform a multivariate regression analysis with models including other variables that may impact on turnout. Apart from the dummy variables presented in Table 2, which represent our main interest, we include eight control variables. The control variables are intended to capture the institutional and contextual factors that may impact on participation rates. The first institutional control variable is compulsory voting which should significantly increase

TABLE 4
IMPACT OF THE FATIGUE EFFECT AND POLL EFFECT ON AVERAGE TURNOUT PER SIMULTANEITY REGIME

Simultaneity	***Fatigue* effect: has an election been held within 365 days *before*?**			***Poll* effect: has an election been held within 365 days *after*?**		
	No	**Yes**	**Difference**	**No**	**Yes**	**Difference**
NRL	–	–	–	85.91	81.52	–4.39*
NR	84.06	77.10	–6.96*	82.36	84.37	2.01
RL	66.84	70.67	3.83*	66.87	69.77	2.90*
R	69.03	61.42	–7.61*	56.28	68.70	12.42*
L	73.50	71.85	–1.65	73.28	72.18	–1.10
None	64.79	65.95	1.16	62.30	69.39	7.09*
Total	70.10	66.97	–3.13*	67.98	70.92	2.94*

Note: *indicates whether the difference in means is statistically significant ($p < 0.05$; one tailed t-test). Elections held under compulsory voting are excluded. See for the simultaneity variables Table 2.

turnout. We include a dummy variable that has the value 1 for those elections held under compulsory voting.

Henderson and McEwen (2010) have shown that, in the case of participation rates in regional elections, regional distinctiveness and institutional authority increase turnout. We include two dummies, one measuring whether there is an indigenous regional language that is different from the dominant (plurality) language in the state and one dummy indicating whether the region has not been part of the current state since its formation (Fitjar 2010). Institutional authority is captured by the Regional Authority Index (RAI) measuring regional authority on a 24-point scale at the regional level on a yearly basis (Hooghe *et al.* 2010). The RAI consist of two sub-dimensions: self-rule and shared rule. Self-rule captures the degree of authority exercised in the region and runs from 0 to 15, with points distributed for (i) institutional depth (0–3), (ii) policy scope (0–4), (iii) fiscal autonomy (0–4), and (iv) representative institutions (0–4). Shared rule, which runs from 0 to 9, indicates the influence regional government has within the state and includes (i) regional representation in law making (0–2), (ii) the extent of executive federalism (0–2), (iii) regional consultation in the distribution of tax revenues (0–2), and (iv) regional approval of constitutional changes (0–3).

The expectations as well as the empirical support differ with regard to the effects of electoral rules translating votes into seats on turnout. On the one hand, proportional representation should be beneficial for turnout for three reasons (Blais and Carty 1990). First, it reduces the distortions between the votes won by a party in an election and the number of seats it obtains. As a consequence voters feel more effective, or at least less alienated, and are thus more inclined to vote. Second, most proportional electoral systems have multi-member districts and thereby make it less likely that some districts will be non-competitive. As a result parties have more incentive to campaign everywhere and voters have more incentive to turn out and vote. Finally, proportional rules increase the number of parties and thereby the variety of options from which voters can choose. On the other hand, there are scholars who argue that a single-member plurality system employs simpler rules and increases the probability of a one-party majority government, which leads to greater decisiveness of plurality elections, which, in turn, may increase voter turnout (Jackman 1987; Powell 1980). Most regional elections included in our analysis are conducted under proportional rule and we include two dummy variables, one indicating a majoritarian electoral system (Australian states and territories, Canadian provinces and territories, and some Swiss cantons) and one indicating a mixed system (French régions, most German Länder, Greek nomoi, some Swiss cantons, and London, Scotland, and Wales in the United Kingdom).

Citizens in larger polities are less likely to consider their vote to be meaningful and decisive to the outcome of the election, thus diminishing the benefits associated with turning out to vote (Blais and Dobrzynska 1998; Geys 2006). Hence, we include the variable 'size electorate' – operationalised by taking the natural logarithm of the number of electors eligible to vote in the

national election that has been held before the regional election. We do not take the size of the regional electorate as that would lead us to drop more cases because of data availability. Besides population size, another relevant factor is the competitiveness of an election which may impact on the benefits associated with the probability that one vote affects the outcome (Cox and Munger 1989). We introduce a competitiveness variable which is the percentage point gap between the largest and second largest political party.

We employ multilevel mixed effects linear regression models whereby elections are nested within regions that, in turn, are nested in countries. The models also include a control for autocorrelation (rho). We could not find data on all our control variables and therefore the models exclude 254 elections (out of a total of 2,915 regional elections).

The reasons for low (or high) election turnout are affected by several factors related to national culture and the political system in a given country. Some of these factors are known in advance and can be measured and used directly in the analysis, but others are simply unknown or cannot be measured. Following Matilla (2003), we also study participation in regional elections by not using turnout figures as such but by looking at how the turnout differs from participation in national parliamentary elections in the same country. An additional benefit of incorporating the participation rates of national elections into the operationalisation of the dependent variable is that one controls for differences in national political cultures and habitual voting patterns (Flickinger and Studlar 2007; Franklin 2004). A third advantage of using the turnout gap is that it by and large controls for a declining trend in turnout over time. The second model has the turnout gap as a dependent variable which is operationalised by subtracting regional turnout from the participation rate in the previous national election in the region (data comes from Schakel 2013 and Dandoy and Schakel 2013). In case of simultaneous national and regional elections, we subtract regional turnout from turnout in the national election held at the same date. Positive values indicate, in percentage point difference, that national turnout is higher than regional turnout ($N = 2{,}264$ out of 2,848) whereas negative values indicate that regional turnout is higher than for national elections ($N = 583$ out of 2,848).

As expected, each simultaneity dummy has a positive beta coefficient which is statistically significant. Compared to non-simultaneous regional elections, turnout is more than 20 percentage points higher for regional elections held under full simultaneity (*NRL*) and more than 6 percentage points for regional elections which are held simultaneously with national elections (*NR*). Participation rates are also about 6 percentage points higher for regional elections which are held horizontally simultaneous with other regional elections and vertically simultaneous with local elections (*RL*). Holding elections horizontally simultaneous with other regional elections (*R*) or vertically simultaneous with local elections within the region (*L*) increases turnout rates by about 3 percentage points. Interestingly, the turnout gap is only reduced when regional elections are held simultaneously with national elections. This result

does not come as a surprise because the turnout gap models focus on variation over time by taking the extent of habitual voting into account via the participation rates of previous national elections, and electoral cycle regimes hardly vary across time within countries.

The results presented in Table 5 also support a voter fatigue effect. Depending on the type of election, turnout is decreased by 0.5 to 1.8 percentage points when an election has been held shortly (within 365 days) before the regional election. The effect on the turnout gap is greater and may increase by 1.4 percentage points. We find no evidence for a poll voting effect for national elections but we do for local and other elections. When another election is held within 365 days after the regional election participation rates will increase by about 1.2 percentage points and the turnout gap will decrease by 1.3 percentage points. The turnout gap is also reduced by 1.5 percentage points when a local election is held within 365 days after the regional election.

Turning to the control variables, we may observe that, not surprisingly, compulsory voting has a huge impact on the turnout, which increases by more than 13 percentage points when voters are obliged to cast their vote. Regional authority is negatively associated with participation rates but the variable does not reach statistical significance in the turnout gap model, which leaves the result a bit ambiguous. We return to this finding in the discussion. The presence of a minority language in the region increases turnout by almost 4 percentage points and reduces the turnout gap by more than 2 percentage points. The regional history dummy does not attain statistical significance. We find some mixed results for the electoral system variables. Mixed electoral systems are associated with lower participation rates (about 5.7 percentage points lower) than elections held under proportional rules, whereas majoritarian systems significantly increase turnout (by almost 19 percentage points). Just like the simultaneity variables, the electoral system dummies lose statistical significance in the turnout gap models. This might indicate that these variables have greater explanatory value for cross-sectional than cross-time variance in participation rates. The results also indicate that the larger the electorate the lower the participation rates and the greater the turnout gap. Finally, the competitiveness variable does not reach statistical significance.

In Appendix C (available online at http://www.arjanschakel.nl) we test the robustness of the results by running models with an alternative specification to control for time-varying effects. Regional turnout is declining. We ran models including the number of regional elections, the year of regional elections, and we ran models for regional elections held before and after 1985 (this year has been chosen because it splits the dataset roughly in half). The results presented in Table 5 appear to be robust. In the turnout models the beta coefficients tend to be larger and tend to reach statistical significance for regional elections held before and including 1985, compared to regional elections held after 1985 (Table C1) but the reverse is the case for the models with the turnout gap as a dependent variable (Table C2).

TABLE 5
MULTIVARIATE ANALYSIS ON TURNOUT IN REGIONAL ELECTIONS AND ON THE TURNOUT GAP BETWEEN REGIONAL AND PREVIOUS NATIONAL ELECTIONS

	Turnout	**Turnout gap**
Simultaneity N, R, L	20.92**	–10.56**
	(1.83)	(1.91)
Simultaneity N, R	6.71**	–3.11**
	(1.18)	(1.25)
Simultaneity R, L	5.93**	1.32
	(1.34)	(1.27)
Simultaneity R	3.47**	–1.64
	(1.17)	(1.24)
Simultaneity L	3.07**	–0.74
	(1.31)	(1.25)
Simultaneity O	–1.79**	–0.50
	(0.63)	(0.77)
Closeness N	–0.46**	1.40**
	(0.23)	(0.32)
Closeness L	–1.77**	1.34**
	(0.44)	(0.58)
Closeness O	–0.59**	0.45
	(0.29)	(0.39)
Proximity N	–0.05	0.03
	(0.21)	(0.29)
Proximity L	–0.28	–1.52**
	(0.50)	(0.62)
Proximity O	1.17**	–1.35**
	(0.25)	(0.33)
Compulsory voting	13.01**	–9.20**
	(0.72)	(0.67)
Regional authority	–0.64**	–0.03
	(0.09)	(0.10)
Language	3.51**	–2.12**
	(1.58)	(0.91)
History	1.11	0.24
	(1.44)	(0.81)
Mixed electoral system	–5.71**	0.88
	(1.46)	(1.22)
Majoritarian electoral system	18.79*	2.78
	(10.74)	(7.12)
Electoral size	–2.81**	2.45**
	(0.42)	(0.26)
Competitiveness	–0.01	0.02
	(0.01)	(0.01)
Constant	108.42**	–123.17**
Rho	0.869	0.318
Log restricted likelihood	–8126	–8435
Wald Chi^2	786**	505**
Variance country	101.72	44.84
% out of total	52.9	51.1
Variance region	0.00	10.51
% out of total	0.0	12.0
Variance election	90.51	32.49
% out of total	47.1	37.0

(*Continued*).

TABLE 5 (*Continued*).

	Turnout	Turnout gap
N country	17	17
N region	304	304
N election	2661	2661

Note: $^{*}p < 0.05$; $^{**}p < 0.01$ (one-tailed). Shown are the results of multilevel mixed effects linear regression models whereby elections are nested in regions and regions are nested in countries. Shown are beta coefficients with their standard errors in between brackets. The models include a control for autocorrelation over time (rho). See Table 2 for the simultaneity, closeness and proximity variables and see online Appendix B for descriptive statistics on the dependent and independent variables.

Overall, we find significant empirical support for a simultaneity effect and a voter fatigue effect. The evidence for a poll voting effect is weaker and we find no evidence of such an effect for national elections, despite the fact that national elections are often considered more important than regional elections (Schakel and Dandoy 2013). Besides showing the presence of simultaneity and voter fatigue effects, we also show that the type of election matters as well. Simultaneity with the more important national elections seems to boost turnout with greater magnitude than linking second-order elections. In the next section we discuss the implications of these results.

Discussion

The results presented in this article clearly show that election cycles for various tiers may impact (heavily) on participation rates in a particular election. This effect runs through a simultaneity effect or, in the case when election cycles are disconnected from each other, through a voter fatigue and/or a poll voting effect. Our main conclusion is that the timing of elections is one of the major institutional variables which can explain differential levels of participation rates of elections taking place in a multilevel electoral system.

Actually we would like to go one step further in stressing the importance of election cycles. In Table 3 we saw that the standard deviation of turnout increases to the extent that simultaneity among national, regional, and local elections declines. Variables that have been found to have an impact on turnout may do so differently across electoral cycle regimes. An exploration of a voter fatigue effect and a poll voting effect in Table 4 already hinted at this. The statistically significant and negative beta coefficient for regional authority presented in Table 5 led us to do some additional analyses also because Henderson and McEwen (2010) found a clear positive effect for regional authority. We re-ran the models of Table 5 but now included interaction effects between the simultaneity dummies and the regional authority index (results are presented in online Appendix D). In the model with turnout as a dependent variable, the regional authority index loses statistical significance but the

interaction effects between regional authority and the simultaneity dummies for *NR* (–0.33), *RL* (–0.81), and *L* (–0.27) gain statistical significance and are negative. In the model with the turnout gap as a dependent variable, the regional authority index is negative and statistically significant (–0.61), indicating that regional authority reduces the turnout gap in regional elections with an independent electoral cycle. The interaction effects between regional authority and the simultaneity dummies *RL* (0.88) and *L* (0.35) are both positive and statistically significant.

These results are more in line with the results of Henderson and McEwen (2010) because they focus on turnout rates in regions which predominantly have independent electoral cycles. More importantly, these results show that variables can have different (conditional) effects according to the institutional context and these results also suggest that turnout scholars are well advised to develop more complex explanations which separate general patterns that hold everywhere from conditional ones that apply only in some specific contexts (Blais 2006). In other words, we think that electoral cycle regimes are one of the major contextual variables which condition the effects of other variables that may impact on turnout.

The results presented in this article point out a basic dilemma of multilevel electoral systems with regard to the quality of democracy. On the one hand, one would like to have high participation rates in all elections and therefore one is well advised to hold all elections on the same date. However, horizontal and vertical simultaneity of various types of second-order elections decreases the extent to which voters make different vote choices in the various electoral arenas because voters tend to take their cues from the national first-order political arena rather than the second-order arena (Hix and Marsh 2011; Reif and Schmitt 1980). Distinctive voting patterns can be increased by disentangling electoral cycles but this reduces electoral participation, especially when elections are held shortly after each other. In terms of electoral engineering with regard to achieving high turnout, this means that multilevel electoral systems should not have too many elections – as in Switzerland and the US for example – which significantly reduce turnout. In sum, one needs to find a balance between two objectives, namely a high participation rate, which calls for holding elections together, and distinctive voting patterns (i.e. differences in party vote shares between elections), which can be achieved through the decoupling of elections but which reduces turnout.

The underlying research materials for this article can be accessed at http://www.arjanschakel.nl.

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