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Abstract

This article explores the conditions of successful electoral system change. It develops four hypotheses on the conditions of the successful implementation of proposals to modify electoral laws. The first hypothesis reflects partisan self-interest and assumes that larger parties are better able to impose their preferred electoral institutions. The second and third hypotheses presume that electoral system design is motivated by instrumental considerations that can either reflect consensual or majoritarian visions of democracy. A fourth hypothesis draws on the timing of reforms and states that successful reform is possible only in relative temporal proximity to extraordinary historical circumstances. A macro, quantitative comparative analysis shows that both the control of larger seat shares and high levels of fragmentation in conjunction explain the successful implementation of electoral laws in 11 new democracies in Central and Eastern Europe. This result is corroborated by four case studies.

Keywords

electoral institutions, electoral system change, Central and Eastern Europe, logit regression

1. Introduction

Electoral laws in Central and Eastern Europe have been subject to relatively frequent changes. What circumstances lead to the successful modification of electoral institutions? This is the research question to be answered in this article. First, the article presents an overview of electoral system changes in Central and Eastern Europe in the period from 1990 until the end of 2003. Second, it explores the conditions for successful electoral law amendments in the region.

I develop four hypotheses explaining the successful implementation of new electoral institutions. The first hypothesis reflects the conditions of parliamentary lawmaking. It assumes that self-interested parties which control a sufficient number of seats in parliament implement new

Corresponding author:
Philipp Harfst, University of Greifswald, Department of Political and Communication Science, Baderstr. 6–7, D–17489 Greifswald, Germany.
Email: pharfst@uni-greifswald.de

electoral institutions. In this view, large parties should be better able successfully to impose electoral system changes than smaller ones. The second and third hypotheses assume that successful electoral system design is driven by the observed consequences of the electoral system already in place and its capacity to balance governability and representation. Finally, the fourth hypothesis posits that electoral system changes are viable only in extraordinary historical circumstances. Following an overview of successful and unsuccessful electoral law amendments, these hypotheses are tested by means of macro, quantitative comparative analyses on the basis of 39 proposed electoral law amendments in Central and Eastern Europe. I demonstrate that control of larger seat shares combined with violations of the principles of a majoritarian vision of democracy explain the successful implementation of electoral laws.

2. Electoral systems: causes, consequences, and change

Electoral systems research is characterized by an ongoing debate about the endogeneity of electoral institutions. Duverger's propositions (1973), often referred to as Duverger's law and hypothesis (Riker, 1982), posit that electoral laws have a considerable influence on the structure of partisan competition. Other authors emphasize that the configuration of a party system has an effect on the electoral institutions which are chosen. Thus, the causal direction in electoral systems research is fiercely debated. The two positions in this debate will be briefly reviewed in the following section. The conclusion of this review is that despite empirical support for both approaches, much is already known about the effects of electoral systems, while we know relatively little about the conditions for successful electoral law change. This is the research gap the present article seeks to bridge.

2.1. Consequences and stability of electoral laws

The basic political consequences of electoral laws were well known long before Duverger (1973) engaged in the task of systematically investigating their effects and testing theoretical expectations with empirical evidence: electoral laws based on the majority principle tend to produce two-party configurations, while proportional representation (PR) usually leads to multiple parties (Ashworth and Ashworth, 1901; Finer, 1935; Hermens, 1941; Rustow, 1950). Duverger's path-breaking contribution to electoral systems research was through formulating the causal mechanisms which elucidate the political consequences of electoral laws: their psychological and mechanical effects. The publication of Duverger's work has stimulated a vast number of scholars to add evidence to the validity of Duverger's law and hypothesis and to qualify them (Clark and Golder, 2006; Lijphart, 1994, 1999; Rae, 1967; Taagepera and Shugart, 1989) – a process that Riker (1982) labels an archetypical example of progress in (political) science.

If party systems are structured by electoral systems, electoral systems themselves should remain relatively stable over time. The reason why the fundamentals of electoral institutions should remain unchanged in established democracies lies in the self-interest of political parties: since electoral reform in most cases requires the support of a parliamentary majority, and since this majority is able to win under the established rules, it will resist attempts to alter the rules of the game it is winning (Nohlen, 1984). Empirical evidence from western democracies seemed, for a long time, to support this stability paradigm. Electoral institutions in these countries have been relatively stable since the 1950s. Lijphart (1994: 52) observes that 'one of the best-known generalizations about electoral systems is that they tend to be very stable and resist change.' Nohlen (1984: 218) sees some room for large-scale changes in electoral laws only in 'extraordinary historical circumstances.'

2.2. Causes and flexibility of electoral laws

The stability paradigm underlying Duverger's approach (1973) to the analysis of electoral institutions and the assumed direction of causality leading from electoral to party systems was challenged soon after the publication of his monograph. In his review of electoral laws and their consequences in six European states, Grumm (1958: 375) argues that 'the generally-held conclusions regarding the causal relationship between electoral systems and party systems might well be revised … it may be more accurate to conclude that P.R. is a result rather than a cause of the party system in a given country.' This view is shared by a number of scholars (Colomer, 2004, 2005; Katz, 2005; Lipson, 1959; Remmer, 2008; Shamir, 1985).

On a more abstract level, we can reformulate these considerations in a systematic way. Reviewing the literature on the effects of electoral institutions, we can conclude that parties and voters act strategically when they enter the electoral arena and decide who they will vote for (see especially Cox, 1997). Tsebelis (1990: 92–118) draws our attention to the fact that players, instead of acting strategically within a given institutional framework, can alternatively choose to play a game on institutional design. Since electoral systems are inherently redistributive and not effective institutions (Tsebelis, 1990: 104), an analysis of their change cannot draw on concepts that hold that political institutions are stabilized through the reduction of transaction costs, the improvement of information flows, or the production of collective gains through cooperation (Benoit, 2004: 366–7). We therefore have explicitly to recognize interest-based conflict over social institutions in general (Knight, 1992) and the rules of the electoral game in particular.

Developments in the past few decades provide empirical evidence for the flexibility of electoral laws. Even in the absence of extraordinary historical circumstances, electoral reforms have been implemented successfully. This is true for the changes between two types of electoral systems that have occurred in established western democracies such as Israel, Italy, Japan, and New Zealand since the 1990s, as well as in Bolivia, Mexico, and Venezuela (Shugart and Wattenberg, 2003a). Furthermore, electoral institutions in the new Central and Eastern European democracies have been subject to more than 20 changes since the end of the *ancien régime* (Harfst, 2007).

2.3. Conditions of successful electoral reform

So why should electoral institutions be modified? Under what circumstances can electoral reforms be successfully implemented? Three different views of the reasons for electoral system (re)design in established western democracies can be found in the literature: one considers parties as self-interested actors that seek to maximize future seat shares; the second holds that instrumental considerations shape the design of electoral institutions; the third approach emphasizes the role of culture, history, and geographical context.[1] In the following, I concentrate on partisan self-interest and instrumental explanations of electoral system change. Culture, history, and geography are crucial long-term factors in the establishment of electoral systems and their subsequent stability, but short-term developments, which are the focus of this article, cannot be explained by these parameters. The first view (partisan self-interest) is modeled by Benoit (2004). Based on rational choice theory and an office-seeking perspective, he develops a model that explains why political parties might be inclined to propose changes to an existing electoral law and under what circumstances they will be able to implement these changes. Basically, in order to promote their partisan interest, political parties need an incentive and the ability to change an electoral law. The incentive is provided by possible seat gains in future elections, while their ability depends on the number of seats they control in parliament and the vote share that is needed to implement electoral reform.

The possibility of self-interested electoral system design by strategic political actors is supported by empirical evidence. Historically, when the franchise was enlarged to working-class people and women at the turn of the 20th century and a fragmented, established right-wing party system was confronted with the rise of socialism, the established parties tended to introduce proportional representation in order to minimize their risk of exclusion from parliament in future elections (Boix, 1999; Rokkan, 1970: 157). Nevertheless, it is debatable whether the threat of socialist parties leads to the introduction of proportional representation. There is evidence that parties do not react to newcomers, but that already existing smaller (parliamentary) parties successfully promote the wish for proportional representation in order to assure their own survival (Blais et al., 2004; Colomer, 2005). In both cases, the explanation for the introduction of proportional representation lies in the self-interest of parties willing and able to depart from existing majoritarian rules. In addition to these comparative accounts, a number of case studies provide further evidence for self-interested electoral system design by seat-maximizing parties, for example in Korea (Brady and Mo, 1992), Mexico (Diaz-Cayeros and Magaloni, 2001), and Russia (Remington and Smith, 1996).

Other records of electoral institutions' development draw on instrumental explanations rather than on partisan self-interest. Rogowski (1987) sees one reason for the introduction of PR in the trade dependence of smaller countries that face stronger pressures for democratic participation and consensual politics. Recently, Cusack et al. (2007) proposed an alternative instrumental explanation for the introduction of proportional representation in the first decades of the 20th century. They focus their analysis on the economic interests of labor and capital and argue that strong guild traditions and powerful employer associations led to a shared interest by both workers and employers to maintain collaborative schemes of accommodation between social groups. This interest was finally translated into the introduction of proportional representation. Another rationale for the implementation of a proportional electoral system can be the appeasement of ethnic, linguistic, and religious divisions (Rokkan, 1970: 157). Put more generally, the instrumental requirements confronting any electoral institution can be collapsed into two dimensions: representation and governability (Dunleavy and Margetts, 1995). The case for representation is regularly justified on fairness grounds (Lijphart, 1999). Fair electoral outcomes, it is argued, should provide a proportional share of legislative seats for each relevant ethnic, linguistic, religious, and social group in a given country. Governability, on the other hand, is obtained when one party gains the majority of parliamentary seats and does not need to compromise with potential coalition partners in order to form a government. Blais and Massicotte argue that ideas play a 'crucial role … in the choice of electoral institutions' (1997: 117). In a more general sense, the two dimensions of governability and representation reflect two different visions of democracy: a majoritarian democracy that values effective and stable government and a consensus democracy that gives greater weight to the fair representation and participation of a large number of social groups in the political process (Lijphart, 1999; Powell, 2000).

Based on these theoretical considerations, I propose four hypotheses on the conditions of successful electoral reform. The first hypothesis is inspired by rational choice models of electoral system change and reflects self-interested parties' ability to change the rules of the game when they control a majority of seats in parliament. Since information on the electoral system preferences of political parties and, hence, on their incentives to support alternative electoral institutions is not available, the hypothesis only draws on the seat shares that supporters of electoral reform control in parliament, while ignoring their incentives to do so.

Hypothesis H1: Larger parties or coalitions of parties will be better able to implement electoral law amendments successfully.

The second and third hypotheses take instrumental considerations into account. They are derived from the majoritarian and consensual visions of democracy. These competing visions value representation and governability differently, leading to the formulation of two rival hypotheses. Electoral rules that violate the principle either of representation or of governability suffer from delegitimization and will be brought into question. The more pronounced these violations, the easier changes of an existing electoral law can be justified and implemented successfully.

A consensual vision of democracy implies fair representation of all major societal groups. Its principles are violated by any important distortion between vote and seat shares. If the electoral law in place produces high levels of disproportionality, partisans of consensual democracy will consider this result to be unfair and demand reform.

Hypothesis H2: High levels of disproportionality produced by existing electoral rules facilitate the successful implementation of electoral law amendments.

Majoritarian democracy, on the other hand, values governability, which that can best be achieved by stable single-party governments. These governments are more likely to form if only a few parties gain parliamentary representation. The principles of majoritarian democracy are therefore violated by high levels of parliamentary fragmentation. If existing electoral institutions produce highly fragmented party systems, supporters of majoritarian ideas will demand changes to the electoral system.

Hypothesis H3: High levels of fragmentation produced by existing electoral rules facilitate the successful implementation of electoral law amendments.

These three hypotheses are closely related and may partly exclude or condition each other. First of all, each successful electoral reform requires the support of a parliamentary majority. This implies that hypothesis H1 is a necessary condition for the success of electoral system changes. It remains an open question, though, whether the support of larger parties alone is sufficient to change the electoral rules in place. It might well be that additional preconditions such as high levels of fragmentation or disproportionality that violate the principles of the respective visions of democracy need to be present in order to amend an electoral law successfully. This is what the two rival instrumental hypotheses predict. Therefore, if it can be shown that hypothesis H1 alone is a plausible explanation for the success of electoral reform, the rational choice model could then be considered to have been confirmed. However, if it can be shown that alongside parties' seat shares, one of the two instrumental hypotheses is also supported by empirical evidence, we would have to conclude that different combinations of parliamentary support *and* considerations of the majoritarian or consensual character of electoral institutions provide differentiated explanations for the success of electoral reform. In this respect, hypotheses H2 and H3 are complementary to hypothesis H1. Furthermore, since it is highly improbable that the ideals of consensus and majoritarian democracy are violated at the same time by an electoral institution delivering unfair results *and* low levels of governability, hypotheses H2 and H3 are mutually exclusive. Only one should be supported by the data presented below.

Finally, a fourth hypothesis builds on Nohlen's argument that electoral institutions tend to be more flexible when in close temporal connection with extraordinary historical circumstances. The transition of Central and Eastern Europe to democracy in the last decade of the 20th century certainly is such a 'deep-rooted rupture in the historical and political development' (Nohlen, 1984: 217) of the region. In this transition period, and in the following years, it is probable that one will

find institutional adaptations (Roberts, 2009), including electoral system changes. An electoral system only recently established may not yet be deeply rooted in the habits and convictions of the electorate. Therefore, a reform enacted by a parliamentary majority does not incur opportunity costs comparable to those in established democracies, where voters might more easily see through and punish possible partisan strategies in subsequent elections (Katz, 2005: 73). I therefore hypothesize the following.

> *Hypothesis H4*: The more time has elapsed since the first free elections in Central and Eastern Europe, the less often electoral reform can be implemented successfully.

If I can show that the time elapsed since the first free elections has a negative effect on the success of electoral reform, this would not only confirm Nohlen's argument. Since the timing of reform implicitly includes a logic of transition from authoritarian rule in the model, this would also indicate that the Central and Eastern European states cannot be considered as consolidated democracies during the entire period under observation. We would have to conclude that political processes, including electoral reform, during this transitional period are not driven by the determinants we usually observe in established democracies. Since hypotheses H1, H2, and H3 are all derived from a literature mostly dealing with established democracies, such a finding would call the theoretical foundations of these hypotheses into question. If, on the other hand, the timing of a proposal to reform an electoral system has no impact on its successful implementation while other variables do, this would yield the interpretation that a particular transitional logic does not play an observable role in the change of electoral systems. We would then conclude that the mechanisms of electoral reform we observe in established democracies are at work in this particular region and during the whole period under observation as well. Even though the time elapsed since the first free elections in Central and Eastern Europe is relatively short, a negative answer to hypothesis H4 can then be interpreted as support for the assumption that the countries in the region can be regarded as established democracies and that findings from the present study can be generalized.

3. Electoral system change in Central and Eastern Europe: a comparative picture

The remainder of this article is devoted to an empirical analysis of the determinants of successful electoral system change. As a first step, it draws a comparative picture of electoral system change initiatives in Central and Eastern Europe from the first free elections until 2003 and presents data on failed and successful amendments. In the following section, I test the plausibility of the four hypotheses by means of multivariate data analysis and interpret the results with the support of four case studies.

This article's comparative analysis of electoral system change in new Central and Eastern European democracies draws on 11 countries (Bulgaria, Croatia, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovakia, and Slovenia).[2] These cases have been chosen because, except for Croatia and Slovenia, they all used the same electoral system in communist times. Moreover, they were confronted with the task of designing democratic institutions at approximately the same time and faced similar challenges in the transition to democracy and a market economy (Elster et al., 1998). This particular context provides an ideal setting to test all four hypothetical explanations of successful electoral system change using a 'most-similar-cases' design.

When turning to the reforms actually performed in the 11 countries under review, we find both successful and failed initiatives to amend electoral laws following the first free elections.[3] A full switch between two types of electoral system occurs six times altogether (Bulgaria in 1991, Croatia in 1992 and 1995, Estonia in 1992, Latvia in 1992, and Lithuania in 1992), mostly in the turmoil shortly after the end of the *ancien régime*. This finding seems to confirm Nohlen's view (1984) on electoral system change and its relation to exceptional historical circumstances. There are, however, an additional 13 cases of successful reforms within an established type of electoral system. These reforms are daily business in Central and Eastern European states and arise during the whole period under observation; a temporal pattern cannot be identified. By the end of 2003, none of the 11 countries actually organized elections following the same rules as in their (pre-) founding elections – they all experienced at least one electoral system change at some time. Another 31 proposals for electoral system change and reform were not adopted: 16 of these unsuccessful attempts aimed at reforms within an established electoral law, while in the remaining 15 cases supporters rallied for a full switch between two types of electoral systems. These unsuccessful proposals also occurred during the whole period analyzed here. Hence, the following descriptive analysis draws on 50 instances of electoral system change and reform in 11 Central and Eastern European democracies.

In order to characterize the changes of electoral institutions proposed in the first decade of Central and Eastern European democracy, I first focus on changes between types of electoral systems. I differentiate between proportional representation, majoritarian elections, and mixed systems that combine proportional and majoritarian elements in different tiers (Shugart and Wattenberg, 2003b). The pattern that emerges reflects the move to proportional representation in many Central and Eastern European states since their first free elections. Four out of six of the successfully implemented full switches between systems introduced proportional representation (Bulgaria in 1991, Croatia in 1999, Estonia in 1992, and Latvia in 1992), while two introduced mixed systems (Croatia in 1992 and Lithuania in 1992). Two of the four newly introduced proportional systems originated in majoritarian systems and two in mixed systems, while the predecessors of the new mixed formulas were both majoritarian systems. All the successful switches between different types of electoral systems therefore introduced more inclusive systems. When we turn to the 15 proposed full switches that were not implemented, the inverse holds. Some thirteen of those proposals aimed at the introduction of more exclusive electoral rules, while only two intended more inclusive systems.[4]

Examining in more detail the changes that were proposed and in some cases adopted, we have to choose indicators that reliably describe a given electoral system. Two influential parameters have been identified by previous research (Cox, 1997; Lijphart, 1994; Rae, 1967; Taagepera, 2007; Taagepera and Shugart, 1989): electoral institutions can mainly be influenced by adjusting district magnitudes and legal thresholds. The smaller an electoral district, the fewer the parties likely to have a chance of winning a seat in that district. This explains why district magnitude is also referred to as the 'natural threshold' of an electoral system. Legal thresholds have an effect similar to that of district magnitudes, and both 'can be seen as two sides of the same coin' (Lijphart, 1994: 12): the higher a legal threshold, the more difficult it is for a smaller party to gain parliamentary representation. The overview of the nature of changes in Central and Eastern European electoral systems in the present article will therefore focus on changes of district magnitudes and legal thresholds.

Changes in mean district magnitude (ΔM_{mean}) and in the threshold (ΔT) will be the two variables indicating the respective patterns of variation in Central and Eastern Europe. The move to more inclusive rules through successful switches between two types of electoral systems as described

above is well reflected in these two indicators. When examining successfully implemented shifts between electoral systems, we observe a consistent pattern of larger districts and less inclusive thresholds. The opposite is true when examining unsuccessful attempts to shift between systems. A similar pattern of parallel development of magnitude and threshold occurs when we look at the proposed changes in those 29 cases in which existing electoral rules were reformed without full switches between systems: the 13 successful changes resulted in an increase in both mean district magnitude and threshold, while the remaining 16 changes that were not adopted aimed at decreasing both parameters.[5]

This parallel development of district magnitude and threshold (either an increase or a decrease in both indicators) reflects the functional equivalence and the *complementary character* of these two elements of electoral system design. Majoritarian electoral rules limit the fragmentation of party systems by introducing small districts; there is no need to provide for any additional legal threshold. Proportional or mixed systems, on the other hand, are more permissive with respect to district magnitude, but tend to introduce legal thresholds in order to limit the number of parliamentary parties. When reforms within existing systems are proposed, basically the same logic applies: larger districts that promise more proportional results are traded off with an increase in legal thresholds that tend to limit proportionality. Compared with full-scale switches between systems, merely the magnitude of ΔM_{mean} and ΔT is less important.

4. Explaining the success of electoral system change in Central and Eastern Europe

Drawing on the data on successful and unsuccessful electoral system changes in Central and Eastern Europe, I identify 50 proposed changes altogether. Out of these 50 changes, 21 proposed a full-scale switch between two different types of electoral systems, 6 of which were implemented successfully. The remaining 29 changes proposed reforms within an established electoral system, and of these reform proposals, 13 were adopted by parliament. Testing the plausibility of hypothesis H1, which builds on Benoit's rational choice model of electoral system change (2004) and states that larger parties will be better able successfully to impose their preferred electoral law, requires information on the relative strength of parliamentary parties that support a proposed electoral law amendment. Therefore, the data on the 50 proposed changes of electoral institutions presented in the preceding section have been supplemented with information on the relevant supporters of each proposal. The data were collected on those parties that proposed an amendment and *initially* supported it. These parties may later be joined by additional forces that finally ensure a parliamentary majority. Altogether, 65 parties that supported one out of 39 changes are identifiable. Some 11 proposals of electoral law change, none of which were adopted, cannot be attributed to a party or parties, because proposals were submitted either by an unknown coalition of parties or MPs or by a nonpartisan actor such as a nongovernmental organization. For each instance of proposed electoral system change, the seat shares of the initial supporters are summed in order to account for the size of the 39 coalitions of supporters.

Hypotheses H2 and H3, which rely on instrumental explanations for electoral system change, require information on the representativeness of an existing electoral institution and the governability of a polity. If instrumental considerations are the driving force behind its successful implementation, electoral system change depends on the vision of democracy applied. In accordance with the majoritarian vision of democracy, which emphasizes governability, high levels of fragmentation are considered a hindrance and should lead to successful amendments of electoral laws. These new rules should reduce fragmentation and thereby facilitate the formation of accountable

and stable single-party governments. The consensual vision of democracy, on the other hand, emphasizes fair representation, which can be undermined by highly disproportional election results. Disproportional results should lead political parties to consider new sets of rules that facilitate access to parliament and allow for higher levels of representation. We therefore need two additional measures to test the plausibility of hypotheses H2 and H3. The degree of representativeness of an electoral institution can be measured by the index of disproportionality (*G*) suggested by Gallagher (1991). The fragmentation of the parliamentary party system is operationalized using the effective number of legislative parties (*N*), as suggested by Laakso and Taagepera (1979).[6]

Success, the dependent variable, is coded in a binary way. If a proposed amendment to an electoral law is implemented successfully, this is coded as 1, while an unsuccessful proposed change is coded as 0. Since the dependent variable is categorical and binomial, logit regression is used to analyze the impact of independent variables on the dependent variable. The binary dependent variable, Success, is analyzed by the means of a logit model using the explanatory variables supporters' Seat Share, disproportionality (*G*), fragmentation (*N*), and the timing of reform relative to the first free election (Time), all introduced above.

The question to be addressed in this article concerns the circumstances of the *successful* redesign of electoral institutions. The following analyses are devoted to the identification of these circumstances. Hypothetically influential factors explaining the success of electoral system change are political parties' ability to implement changes (H1), instrumental considerations along the ideals of majoritarian (H2) or consensual (H3) democracy, and the timing of the attempted change of an electoral law (H4). Following these hypotheses, strong supporting coalitions, high levels of fragmentation or disproportionality as well as the temporal proximity to the end of the *ancien régime* should all increase the probability that an electoral system change can be implemented successfully.

Table 1 presents the results of four alternative logit regressions modeling the success of electoral system change in Central and Eastern Europe. Since I assume that support by a majority of parliamentary parties will always be needed in order to implement a new electoral law, Seat Share is included in all models. Model 1 is the full model including all independent variables described above. Since the majoritarian and consensual visions of democracy are mutually exclusive, but both the disproportionality and the fragmentation measures are included in the model, this model should not be supported by the data. Actually, Fragmentation and Seat Share have a statistically significant effect on the successful adoption of new electoral rules. Both coefficients display the expected signs, indicating that higher levels of support and fragmentation increase the probability of electoral reform. Disproportionality and Time are statistically insignificant. Models 2 and 3 (excluding disproportionality and timing, respectively) confirm this finding: support and fragmentation remain statistically significant while neither of the two other variables has a significant impact on Success.

Model 4, which includes only the two previously significant terms (Fragmentation and Seat Share), turns out to be the model with the best fit. This is suggested by the values of the Akaike Information Criterion (AIC) and the Bayesian Information Criterion (BIC), both reported in Table 1. The AIC and BIC are measures that combine model fit and its complexity into a single indicator. The lower the values of the AIC and BIC, the better the fit of the model, given the number of parameters. Actually, both the AIC and BIC point to the same conclusion: Model 4 is singled out as the model with the best fit by both indicators. According to the rule of thumb provided by Raftery (1995: 141), the difference in the BIC of 3.7 between the best and the worst model (Model 4 compared with Model 1) can be interpreted as 'positive support' for Model 4. When Raftery's thresholds are applied to the interpretation of the AIC, the difference in the AIC between Model 4 (the best model) and Model 1 (the worst model) of 7.1 is equivalent to 'strong support' for Model 4.

Table 1. Explaining Successful Electoral System Change: Logistic Regression Models.

	Model 1	Model 2	Model 3	Model 4
Supporters' seat share	0.180***	0.177***	0.174***	0.174***
	(0.0624)	(0.0633)	(0.0655)	(0.0666)
Effective number of parties	0.699**	0.659**	0.697**	0.675**
	(0.340)	(0.334)	(0.306)	(0.309)
Gallagher index	0.0368		0.0227	
	(0.113)		(0.101)	
Years since first free election	−0.101	−0.0908		
	(0.142)	(0.149)		
Constant	−11.84**	−11.19**	−12.05***	−11.66***
	(5.192)	(4.827)	(4.566)	(4.303)
N	39	39	39	39
p	0.0113	0.00506	0.0480	0.0213
AIC	28.23	26.28	26.48	24.50
BIC	36.55	32.94	33.13	29.49
Log likelihood	−9.114	−9.142	−9.238	−9.250

Notes: Robust standard errors in parentheses. * $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$.

With the rank order provided by the AIC and BIC in mind, I apply procedures that compare the fit of two competing models and that additionally allow for a test of statistical significance, which is not possible for either the AIC or BIC. A suitable test for model fit in the case of logit regression is a likelihood ratio (LR) test. It allows us to compare two nested models with each other (log likelihoods are reported in Table 1). When testing Model 4 against Models 1, 2, and 3, respectively, the LR test statistic confirms that Model 4 performs significantly better than the competing models.

In sum, compared with the three other models proposed here, Model 4 appears to be the preferred model to explain the success of electoral system changes in Central and Eastern Europe. All the relevant coefficients are statistically significant at the 0.05 level and both its AIC and BIC values lead to the conclusion that it is the best-fitting model. Therefore, we can safely assume that the size of a supporting coalition as well as parliamentary fragmentation have a positive effect on the successful implementation of electoral law amendments. All in all, Model 4 yields incorrect predictions on the success of electoral law amendments in only 3 out of 39 cases.

When we turn to an in-depth interpretation of the results of Model 4, we confront a difficulty of logistic regression models. Their coefficients cannot be interpreted directly like linear regressions because 'the effect of a change in a variable depends on the values of all variables in the model and is no longer simply equal to one of the parameters of the model' (Long and Freese, 2005: 116). Therefore, I calculate the predicted probability of the outcome being 1 (in our case, the successful adoption of a new electoral law) for different substantially meaningful values of each independent variable in the model. I choose to calculate the predicted probability of a successful electoral system change for the whole range of values of supporters' seat share at low, intermediate, and high levels of fragmentation and plot them in order to show the joint effect of both variables (see Figure 1). The levels of fragmentation are chosen at the 10th and 90th percentile of this variable to illustrate the effect of low ($N = 2.42$) and high ($N = 10.85$) levels of fragmentation, respectively. The intermediate value is set at the mean of this variable ($N = 4.45$).

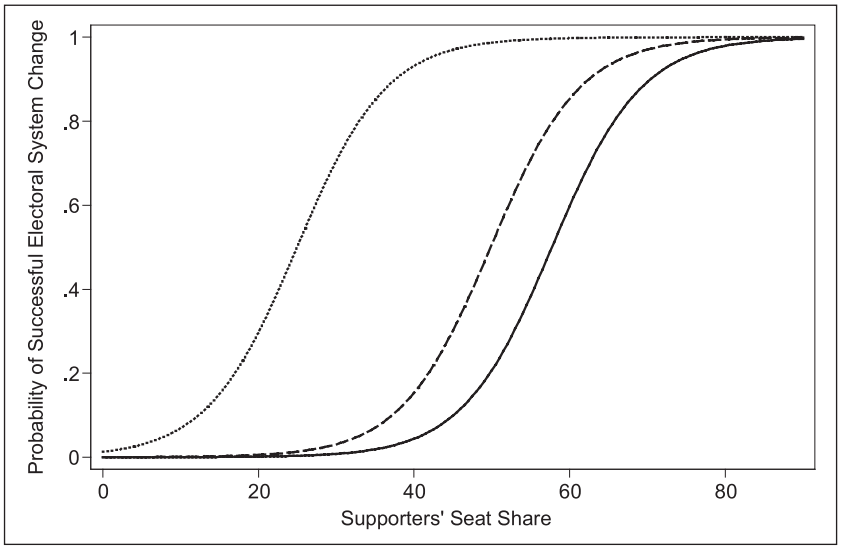

Figure 1. Probability of Successful Electoral System Change at Different Levels of Fragmentation and Supporters' Seat Share.
Notes:
Solid line: low level of fragmentation (10th percentile; N = 2.42).
Dashed line: mean level of fragmentation (N = 4.45).
Dotted line: high level of fragmentation (90th percentile; N = 10.85).

Figure 1 clearly shows that supporters' seat shares and the effective number of parliamentary parties jointly have a remarkable impact on the probability that an electoral system change will be implemented successfully. If the coalition that initially proposes electoral system change is small, a change has almost no chance of realization, regardless of the level of parliamentary fragmentation. Once the size of the supporting coalition increases, the probability of a successful implementation of new electoral rules rises significantly and differences between disparate levels of fragmentation become visible. When fragmentation is held at its mean value (dashed line in Figure 1), the rational choice assumptions of hypothesis H1 rather successfully explain why electoral reforms can be enacted: electoral system changes initially supported by parties controlling 50 percent of the seats in parliament have a fair chance of successful implementation, with a probability of .5; it exceeds a probability of .8 when the supporting coalition controls slightly less than 60 percent of seats. In contrast, less fragmented parliamentary environments (solid line in Figure 1) are more demanding with regard to the supporting majorities. In order to reach a probability of .5 that reform will be enacted successfully, the supporting parties must now control more than 55 percent of the seats and the probability of success rises to .8 only with the support of more than 65 percent of the members of parliament. When we turn to high levels of fragmentation (dotted line in Figure 1), we find support for hypothesis H3. In highly fragmented parliaments, there seem to be fewer obstacles impeding electoral law amendments. Even if the initial supporters of these changes control significantly less than half of the seats in parliament, electoral institutions can be changed successfully. The probability of success reaches .5 when they control more than 25 percent of the votes in parliament and exceeds .8 when they control less than 35 percent. In highly fragmented party systems even small coalitions of initial supporters seem to be able to convince initial opponents to endorse reform in the final parliamentary vote.

In the light of these results two puzzles arise. The first is that violations of majoritarian principles are conducive to reform. This seems to contradict the general move toward proportional systems in the region. The second is the counterintuitive result that minority coalitions successfully implement reform. Both puzzles can be resolved by an in-depth analysis of the facts at hand.

Turning to the first puzzle, one might challenge the conclusion that a majoritarian vision of democracy is one of the driving forces of electoral reform in Central and Eastern Europe. In fact, I have shown that all six successful full switches from one electoral system to another introduced more inclusive electoral rules. All except one (Croatia in 1999) occurred in the very first years following the end of the *ancien régime*. In the following years, only intra-system reforms were implemented successfully. These, however, reduced the inclusiveness of the newly established proportional or mixed systems by increasing thresholds or decreasing district magnitude. We therefore observe a twofold movement. In the early years after the fall of communism, Central and Eastern European electoral systems converged toward inclusive proportional or mixed types of electoral institutions. By contrast, successful reforms in the following years aimed at a reduction of some of the inclusiveness granted before. If the new rules result in high levels of fragmentation, representation is cut back in order to facilitate the formation of stable governments.

The second puzzle concerns the majority requirement for any reform. How is it that parliamentary minorities were able to prevail in enacting electoral change, especially since the constitutions of two states (Slovenia and Hungary) demand a two-thirds majority for such changes? In order to solve this puzzle, I propose to examine more closely those cases in which a minority of initial supporters finally organized majority support for reform in parliament. Altogether, three such cases can be identified. Two of these cases also figure in the list of the three incorrectly predicted cases of the logit model, which I will also discuss in detail.

The first incorrectly predicted, but successful electoral system change that was initially supported by a parliamentary minority is the 1998 amendment of the Slovak electoral law. This amendment replaced the existing four electoral districts with a district magnitude ranging from 13 to 50 seats by a single national district encompassing all 150 seats of the assembly. This change was originally advocated by two of the three coalition partners at the time, the Movement for a Democratic Slovakia (HZDS) and the Slovak National Party (SNS). The third coalition partner, the Association of Workers of Slovakia (ZRS), came up with a counterproposal that aimed at the introduction of eight districts, but was not able to carry it through (Birch et al., 2002: 75–6). Finally, ZRS supported its coalition partners' proposal. However, the amendment was not primarily driven by the electoral design interests of the ruling coalition: the introduction of a single national district does not make a big difference in terms of election outcomes for the party system, especially since a legal threshold of 5 percent was retained. Rather, the national list was interpreted as a move against opposition parties, which lost the possibility to place locally prominent figures on regional lists. Furthermore, the legal threshold now applied to each individual party, whether it belonged to an electoral alliance or not. This regulation also disadvantaged opposition parties that intended to form such alliances (Birch et al., 2002: 76–7). Finally, the amendment also restricted the opposition's access to the media in a critical way (OSCE/ODIHR, 1998: 6–8).

The second incorrectly predicted case of minority success is the adoption of the amended Latvian electoral law in 1995. The debate on the electoral law began when the governing Latvia's Way (LC) proposed to increase the existing legal threshold from 4 percent to 5 percent. What followed was a multitude of alternative proposals that, among other things, aimed at lower or higher thresholds. The LC's coalition partner, the Political Union of Economists (TPA), sought to no avail for a compromise on a mixed-member system and finally accepted the initial proposal. Since the LC–TPA government was a minority coalition, there must have been additional parties or

individual deputies that finally voted in favor of the government's proposal; unfortunately, they cannot be identified. They probably advocated even higher thresholds initially and finally preferred the government's proposal to a failure of reform.

The third case not correctly predicted by the logit regression is the reform of the Czech electoral law in 2000. It was originally supported by a majority of deputies; however, it was never executed. The Social Democrats (CSSD) and the Civic Democratic Party (ODS) wanted to introduce a more restrictive electoral system, even though fragmentation in parliament was at a comparably low level ($N = 3.7$). They passed an amendment that provided for an increase of the number of electoral districts from 8 to 35, thereby reducing mean district magnitude from 25.0 to 5.7. The national threshold of 5 percent was not subject to change. The CSSD and ODS controlled more than 68 percent of the seats in parliament and easily ensured the passage of the amendment. However, the Czech constitutional court revoked the amendment since it contradicted the principle of proportionality stipulated by article 18(1) of the constitution (Birch et al., 2002: 81–4).

These three cases make clear that seemingly astonishing results or incorrect predictions of the multivariate analysis can be explained when we look at our cases in more detail. In the Slovak case, electoral reform does not primarily target the electoral rules themselves, but can be considered as a by-product of the attempt to hamper the opposition's election prospects. In Latvia, a minority proposal was probably accepted by parties that initially rallied for even more far-reaching reforms. Finally, the Czech reform failed due to a third, non-parliamentary actor. In all three cases, special historical circumstances or additional veto institutions played a decisive role in the process of electoral system reform.

The fourth case that merits closer examination is correctly predicted by the logit regression, but displays a counterintuitive result since it was successfully implemented despite an initial coalition of a minority of deputies. It nicely illustrates the validity of hypothesis H3, which emphasizes instrumental considerations along the lines of a majoritarian vision of democracy as an explanation for change. In fact, instrumental electoral engineering aiming at a reduction of fragmentation played a crucial role in the amendment of the Polish electoral law in 1993. The general election in 1991 brought a multitude of parties into parliament, boosting fragmentation to more than 10 effective parties. All in all, five different proposals to amend the electoral law were tabled in 1993. The one finally adopted increased the number of districts from 38 to 53, thereby reducing mean district magnitude from about 12.0 to 8.7 seats, and introduced a threshold of 7 percent for the national list (69 seats), while the threshold in the regional districts remained unchanged (5 percent). It was supported by four parties (together controlling about 40 percent of seats): the Left Alliance (SLD), the Confederation for an Independent Poland (KPN), the Peasant's Party (PSL), and the Liberal Democratic Congress (KLD). In the final parliamentary vote, this minority coalition was able to ensure the additional support of the Democratic Union (UD), which had previously proposed a mixed-member system (Benoit and Hayden, 2004). When it became clear to the UD that its preferred system would not win a majority, it aligned with the four other parties in order to pass a law that was likely to reduce fragmentation in future parliaments, thereby reaching its overall aim. Actually, the new rules matched expectations: fragmentation was reduced to less than four effective parties in the 1993 elections. This case clearly illustrates the findings of the statistical analysis above. A minority proposal can prevail if it is submitted in a highly fragmented environment. Instrumental considerations inspired by a majoritarian vision of democracy drive reform when aimed at a reduction of parliamentary fragmentation in order to enhance governability. The overall aim to reduce fragmentation encourages parties originally opposing a particular reform to back it in the end. This finding strongly supports hypothesis H3.

We can therefore conclude that the self-interest hypothesis H1 in combination with the majoritarian instrumental hypothesis H3 explain the changes in electoral institutions we observe in Central and Eastern Europe in the first decade after the fall of communism. Put very generally, majority coalitions usually implement reform successfully. However, the lower the level of fragmentation, the bigger reforming majorities need to be. At the same time, even minority proposals for reform have a fair chance of implementation if the level of fragmentation is comparably high. This finding is nicely illustrated by the Polish case, in which parties compromised in order to adopt less inclusive electoral rules that empirically resulted in a significant reduction of fragmentation. In addition to this general pattern discovered by quantitative analysis, special historical circumstances or the intervention of additional veto institutions can substantially influence the process of electoral reform in individual cases.

4. Conclusion

The present article aimed at analyzing the conditions of successful electoral law changes in Central and Eastern Europe from 1990 to 2003.[7] Based on a review of the existing literature on the causes and consequences of electoral law reform, I formulated four hypotheses on the successful implementation of electoral law amendments. The first hypothesis draws on the ability of political parties to amend electoral laws. It states that larger coalitions of supporters will be better able to modify the rules of the game, regardless of other circumstances. The second and third hypotheses assume that additional conditions must be present. Electoral reform is then driven by violations of the principles of fairness or governability. Finally, a fourth hypothesis states that electoral institutions can only be reformed in close temporal connection with extraordinary historical events.

The data collected on changes in electoral institutions in Central and Eastern Europe since the first free elections clearly show that initially there was a move toward more inclusive proportional or mixed electoral systems. More exclusionary electoral systems were proposed, but were not implemented. Successful reforms within existing electoral systems generally aimed at a reduction of district magnitude and an increase of thresholds.

When we turn to the conditions of successful electoral change, a logit regression shows that the timing of reforms has no significant impact on their success. This finding also leads to the conclusion that the mechanisms at work in the countries under observation resemble those in established democracies. Disproportionality has no effect on the success of electoral reforms. We can conclude that unfair election results do not promote change. Two mechanisms drive electoral system change: initial supporters' seat shares and parliamentary fragmentation combined have a positive effect on the success of electoral reform proposals. A majority coalition of supporters can successfully amend an electoral law when fragmentation is at its regional mean. When fragmentation is at a low level, electoral reform can only be implemented if its supporters control a 'supermajority' of seats in parliament. When fragmentation is high, electoral reform can be successfully implemented even if the coalition initially supporting it does not control a majority of seats in parliament. Apparently, high levels of fragmentation lead to the perception that governability is endangered and compel political elites in Central and Eastern Europe to implement electoral change. Violations of the principles of majoritarian democracy are conducive to reform. These reforms do not entirely abandon the proportional or mixed systems that have been introduced in the first years after the fall of communism, however, but reduce the proportionality of existing systems. Legal thresholds are increased and district magnitude is decreased in order to reduce fragmentation. This pattern is illustrated by the Polish electoral reform of 1993. The very high level of fragmentation, with more

than 10 effective parties, led to the introduction of more exclusive rules. Excessive fragmentation drives parties to sacrifice representation.

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Notes

1. For a recent review of all three approaches, see Lundell (2010).
2. The period analyzed runs from the first free elections, including founding and pre-founding elections, the latter being the subnational elections before the dissolution of Czechoslovakia, the Soviet Union, and Yugoslavia (Nohlen and Kasapovic, 1996; O'Donnell and Schmitter, 1986), until the end of 2003.
3. The most important source used, especially for information on proposed electoral system changes that were not successfully implemented, is the *Eastern European Constitutional Review*'s *Constitution Watch* (1990–2003). Since the journal ceased publication in 2003, my data collection ends at this point. For a detailed summary of all relevant electoral system changes and their political circumstances, see Harfst (2007).
4. Of the thirteen proposals that unsuccessfully attempted to introduce more exclusive electoral rules, eight proposed a move from proportional representation to a mixed system, four proposed a move from proportional representation to majoritarian elections, and one proposed moving from a mixed system to a majoritarian one. Regarding failed proposals to move to more inclusive electoral rules, one concerned moving from a majoritarian system to PR and another from a mixed system to PR.
5. The difference in the mean of ΔM_{mean} is statistically significant at the 0.05 level only for the groups created by success, not for the type of change; the same pattern applies to the differences in the mean of ΔT.
6. Data on seat shares as well as for the calculation of the fragmentation and disproportionality indices have been retrieved from the *Institutions and Political Actors* database assembled by the Center for the Study of Democracy at Leuphana University, Lüneburg.
7. Supplementary data files are available for consultation and replication at http://ips.sagepub.com/

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Author biography

Philipp Harfst is Assistant Professor in the Department of Political and Communication Science at the University of Greifswald. He teaches political science methods. His research interests and publications are in the areas of political institutions, institutional change, and electoral systems.