Do Parties Benefit from Electoral Manipulation? Electoral Laws and Heresthetics in Poland, 1989-1993.

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Abstract

Electoral heresthetics, or the manipulation of electoral systems to a political player's advantage, had profound political consequences for post-communist transitional Poland. Choices of di¤erent electoral systems contributed ...rst to the fall of communism and later to the reclaiming of power by the post-communists. Despite high stakes and top priority attached by political players to electoral heresthetics, their e¤orts were hardly rewarded. The parties supported the ex post more bene...cial electoral system about as frequently as they supported a less bene...cial system. The signi...cant political consequences of new electoral laws often came as a complete surprise to the interested parties and often worked against the interests of the manipulators.

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1 Introduction

Since the publication of Riker's (1986) popular book, we know that heresthetics, or the art of political manipulation, is both a rich subject and can be studied in a disciplined way. The underlying assumption of heresthetics is that political players relentlessly attempt to alter the rules of a game to their own bene...t. Among various modes of manipulation, changes of electoral laws, or electoral systems, occupy a special place. Electoral heresthetics is understood here as an introduction of a new electoral system via parliamentary or non-parliamentary bargaining.[1]

The paper assumes the point of view of the involved parties. Two fundamental questions can be asked about the observed choices. What motivates parties when they change the electoral law? Do they really bene...t from their electoral heresthetics? Ample evidence was collected in response to the ...rst question. It is hardly disputable that parties perform maximization of some sort and various examples of maximization reasoning will be reconstructed in this paper. Typically, a political player supports an electoral system that maximizes his expected share of seats and, under some circumstances, he may consider future policy consequences of his choices. An answer to the second question, which is central for the present paper, is less clear.

This paper introduces a new framework for studying the e¤ectiveness of electoral manipulation and analyzes the ...ve cases of changes in parliamentary electoral law Poland that occurred after the fall of communism. The ...ndings are disturbing. It turns out that the parties supported the ex post more bene...cial electoral system about as frequently as they supported the less bene...cial system.

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[1] In contrast to long-term political consequences of electoral laws, which were the subject of numerous major theoretical works (Duverger 1963, Rae 1967, Lijphart 1994, Taagepera and Shugart 1989), empirical electoral heresthetics has been largely focused on case studies. Examples of the very recent theoretically oriented books and papers include Bawn (1993), Boix (1999), Cox (1997), Moraski and Loewenberg (1997), Kaminski (2001).

For more than half of the manipulators, a lack of methodological skills, electoral uncertainty, unexpected fragmentations and consolidations of the party system, and the low quality of polls, turned prospective gains into actual losses.

Taking the point of view of an entire polity leads one to ask about broader political consequences of electoral laws. Answers to this fundamental question are briefly discussed in sections dealing with the respective elections. While the players in Poland did not benefit from manipulation, the changes in the electoral laws had tremendous immediate political consequences that surprised everybody, including the initiators of electoral change. Mistakes in design committed by communists contributed to their defeat and the subsequent demise of communism (Kaminski 1999). The 1991 lower house electoral law produced a highly fragmented parliament and cabinet rotation. In 1993, the sudden dissolution of the parliament after the new law was introduced left little time for the rightist parties to consolidate and contributed to their sound electoral defeat. Ironically, this change in the electoral law helped the post-communists to regain power (Kaminski et al. 1998). In retrospect, one has to endorse wholeheartedly Lijphart's (1992) claim that the choice of electoral system, especially along the majoritarian and proportional dimension, is "the most important [...] of all constitutional choices that have to be made in democracies."

The next section introduces the model and defines two indicators of heresthetical effectiveness. The assumptions regarding party politics are introduced informally while the effectiveness of electoral manipulation is operationalized with a concept of the heresthetics matrix and two indicators of effectiveness. A distinction between effectiveness and rationality is emphasized. Section 3 describes the political context of all cases of electoral manipulation and reconstructs the four fragments of the heresthetics matrix. Section 4 includes the results and comments. The appendix provides a concise description of voting rules and seat allocation algorithms that were used in Polish electoral laws and deciphers the acronyms of major players.

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2 Framework

2.1 Concepts and empirical assumptions

In order to evaluate the e¤ectiveness of electoral manipulation, one has to compare at least two outcomes. First, the actual electoral results are given explicitly. Second, hypothetical election results are supposed to follow from the electoral law that was competing with the one ...nally chosen. Thus, one needs to identify an alternative electoral system and then use some method of simulation to convert votes into seats under such a system. Procedures of this kind, often based on educated guesses rather than rigorous calculations, motivate many studies of electoral manipulation and reform.

I will identify the following components of our model: (i) manipulators or players, (ii) the actual electoral law and its closest competitor, (iii) players' ex ante preferences over both electoral laws; (iv) players' ex post payo¤s under the actual and competing laws. A numerical measure of the manipulator's success will be then applied to the actual and calculated payo¤s. We make the following assumptions about the empirical interpretation of these components.

Ad (i): Players are parliamentary political parties, coalitions of parties or, in the case of the ...rst non-communist controlled elections, the anti-communist opposition and the coalition of parties of ancien regime. When a new electoral system is introduced, parties' new names or coalitional arrangements may re‡ect various strategic opportunities created by the new law and may change before the elections through splits or mergers. We identify players at the moment of elections and assume that there is a clear correspondence between these identities and the identities at the time of bargaining. This means that their identity stays the same (under perhaps a di¤erent name) or that some bargaining players coalesce or split into electoral players. Thus, players' identities at the moment of bargaining and elections are unambiguously linked.

In about $\frac{1}{3}$ of all cases considered in this paper, players coalesced, split, or

changed names during the waiting period between bargaining and elections. In all cases, the identity changes that took place since the bargaining concluded will be described. Fortunately, parties that coalesced or split after the bargaining or before the elections had in all cases identical attitudes towards the change of the electoral system. One new party that competed successfully in the elections and that did not take part in the bargaining was excluded from considerations.

Ad (ii) The competing alternative electoral laws, called for brevity the alternative laws, can be unambiguously identi…ed. In di¤erent cases of electoral heresthetics, the alternative electoral laws may have slightly di¤erent empirical interpretations. Procedures used for reconstructing such laws will be explained. Minor projects and amendments, if relevant for the choice of a …nal outcome, are described.

All components of the electoral law relevant for the bargaining process are summarized in separate tables. This will include all or some of the following parameters: the nomination procedure, categories of candidate lists, district structure, thresholds structure, voting rule, and parameters of the alternative law that were di¤erent from the actual law. The voting rules used in the electoral laws are described in the appendix with the help of the …ve-fold characterization of Cox (1990) and additional variables.

It is important to keep in mind that all of the cases considered in this paper di¤ered in many respects. For instance, the 1989 Roundtable negotiations involved long and painful bargaining about all of the main political institutions of the future polity, including the presidency and a bicameral house. Moreover, the bargaining over the electoral law for the Sejm (Lower House) concerned many speci…c parameters, including the size of the nationwide list and the quota of freely elected seats on top on the classical district magnitude and electoral formula choices. The alternative law is constructed here as a thought experiment rather than as an actual alternative law. The construction is based on the most salient issue, i.e., the electoral formula.

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In contrast to the 1989 bargaining, the 1993 electoral law generated strong, though con...ned within the walls of parliament, emotions. The bargaining process was a purely intra-parliamentary a¤air. It resulted in a very precisely engineered law that aimed at the reduction of parliamentary fragmentation and the enrichment of existing larger parties. The new electoral law was introduced against the status quo 1991 electoral law. It was heavily amended by the Senate, and next restored to its earlier version by the Sejm.

Ad (iii) Player's ex ante preferences record a player's attitude towards the two electoral laws at the moment of bargaining. When the bargaining ended with a parliamentary vote, the preferences are interpreted as the player's vote. In non-parliamentary bargaining, players' preferences are identi...ed with their bargaining positions. In all cases considered in this paper, parties, coalitions of parties or other entities acted as unitary players with high internal discipline.

Ad (iv) Players' payo¤s can be plausibly identi...ed with the percentages of seats in the house corresponding to a given law. One can easily think about situations when this seat-maximization assumption may be violated by parties maximizing their political in‡uence. Consider the following simple hypothetical example. For three parties A, B, and C, the seat share under some electoral system S1 would be equal to $v_1^A = 45$, $v_1^B = 55$, $v_1^C = 0$, respectively. Under an alternative system S2, the seat share would be equal to $v_2^A = 40$, $v_2^B = 45$, $v_2^C = 15$. If party A admits a possibility of a cabinet coalition with party C, it would probably prefer S2 to S1 even though it gets more seats under S1.[2]

The fragmentation of a party system and the lack of reliable estimates of electoral support weaken policy motivations versus seat-maximization motivations in electoral heresthetics.[3] In four of the cases considered in this paper,

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[2] See Bawn (1993) for a convincing argument that SPD in the 1949 and 1953 German electoral heresthetics was motivated by policy considerations related to the anticipated cabinet coalition-making opportunities rather than expected seats maximization.

[3] See a similar argument for the Russian 1995 electoral heresthetics in Remington and Smith (1996).

parties were clear seat-maximizers. However, for the 1991 change in the Sejm law, equalizing payoƒs with seats would be clearly inadequate. The long bargaining process culminated in the …nal rounds with the Sejm's …erce struggle with President Walesa over issues orthogonal to the distribution of seats. That is why data for the 1991 change of electoral law was excluded for all parties. Other infrequent exclusions involve missing data for tiny parties whose ex ante preferences over electoral systems could not be determined on the basis of voting transcripts.

Once payoƒs are de…ned theoretically, they must be also estimated empirically. For the actual electoral law, the payoƒs are simply equal to the election results. Under the alternative law, payoƒs are simulated. Every methodology for simulating distribution of seats under various electoral laws works under a number of assumptions.

First, the ballot format and the district structure for the two electoral systems may be diƒerent. In such a case, the very basic voting information for converting votes in districts into seats must be reconstructed. For instance, when the district structure diƒers in both systems, as is the case when majoritarian and proportional systems are compared, some assumptions about splitting or merging districts are required. Second, both systems may provide voters with diƒerent incentives for strategic voting or strategic abstentions. Finally, both laws may provide parties and prospective parties with diƒerent incentives with respect to electoral coalition formation, splits, withdrawals, or entering the political arena as new players. I will brie‡y comment on the underlying assumptions along with a sensitivity analysis, i.e., the analysis of how the conclusions could be changed if the critical parameters of simulation were changed. [4]

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[4] Recently, increasingly more sophisticated simulation methodologies are employed that use survey data and mock ballots in order to estimate the distribution of votes or seats. The list of simulated parameters includes alternative electoral laws (Brams and Fishburn 1983, Dunleavy et al. 1992); shifts of parties' platforms (Scho…eld et al. 1998); removing existing candidates (Alvarez and Nagler 1995); alternative pre-electoral coalitions (Kaminski 2001).

2.2 Model

$|X|$ denotes the number of elements in set X. Let us assume that N is a nonempty set of players in all cases of manipulation and let $|N|=n$. For notational convenience, it is assumed that all players are di¤erent. $S \subseteq N$ will denote the subset of players who supported the electoral change; $P \subseteq N$ will denote the subset of players who opposed the electoral change and supported the alternative law. Thus, it is assumed that $P \cap S = \varnothing$. The payo¤ of player i under the actual electoral law is equal to x_i; the potential payo¤ under the alternative law is equal to y_i. Payo¤s are interpreted as percentages of house seats. It is assumed that $0 \le x_i \le 100$, $0 \le y_i \le 100$, $\sum_{i \in N_k} x_i \le 100$, and $\sum_{i \in N_k} y_i \le 100$, for all k, where N_k is the subset of players involved in the k-th case of manipulation.

Two indicators of heresthetical e¤ectiveness will be de…ned for any nonempty subset of players H including only supporters or opponents, i.e., such that $H \subseteq P \cup S$. The su¢cient statistic for computing both indicators is a heresthetics matrix $H = (x_H, y_H, s_H)$ of dimension $|H| \times 3$, where x_H, y_H are the vectors of actual and potential payo¤s, respectively, and s_H is a vector recording, for each player, whether he is a supporter or an opponent. Formally, $s_i := +1$ when $i \in S$ and $s_i := -1$ when $i \in P$.

Now, our indicators can be de…ned.

(1) $\mu(H) = \frac{1}{|H|}\left(|\{i \in H : s_i(x_i - y_i) > 0\}| + \frac{1}{2}|\{i \in H : x_i = y_i\}|\right)$;

(2) $\sigma(H) = \frac{1}{|H|}\sum_{i \in H} s_i(x_i - y_i)$.

Both indicators have intuitive interpretations.

The proportion of successful players, $\mu(H)$, denotes the proportion of those players in H who supported the electoral law that turned out to be more bene…cial for them, in the total number of players in H. Players who would have received identical payo¤s under both laws are counted with a weight of $\frac{1}{2}$. The larger the value of μ, the more e¤ective players are in identifying a more bene-…cial law. Values $\mu = 0$, $\mu = \frac{1}{2}$, and $\mu = 1$ denote cases when the players never

voted for a more bene...cial law, when they voted for such law in exactly half of the cases, and when they always voted for a more bene...cial law, respectively.

It may happen that a small subset of players favors a seriously disadvantageous ex post law while a larger set of players supports a mildly advantageous ex post law. One may argue that in such a case ¼ shows an excessive e¤ectiveness. The second indicator takes care of this problem and focuses on relative gains and losses. While ¼ simply counts successes and failures, the average gain °(H) denotes the mean gain for players from H from the electoral law they supported versus the law they opposed. By de...nition, ° 2[-100,+100], but the borders -100 and +100 cannot be reached under empirical conditions. (For instance, 100 could denote a strange case with only one party in H that favors an electoral law that would bring it all seats while the alternative law would bring it no seats at all, or variants of this case.) The value of 0 denotes the case of no gain or loss, on average, from the electoral law supported by a player. For a positive °, the larger its value, the larger the mean gain for a player in H from the electoral law he supported. Similarly, for a negative °, larger absolute values denote larger losses.

The ability of ° to account for the size of gains or losses comes at a price. The most important di¤erence between both indicators is how they treat gains or losses x_i-y_i. While ¼ takes into account only the ordinal information about every player (i.e., the sign of a gain or loss), ° is linear with respect to the vector of gains/losses. It forces a comparison between potentially di¤erent payo¤s (e.g., House and Senate seats) and implicitly assumes comparability of units across cases and players.

Basic desirable properties of the operators ¼ and ° can be stated formally with the use of a few auxiliary concepts. Let $H = (x_H, y_H, s_H)$. Then two related matrices are de...ned:

The parties' revealed preferences are altered: $\overline{H} = (x_H, y_H, -s_H)$;

The actual and alternative law's names are permuted: $-H = (-x_H, -y_H, -s_H)$.

It is straightforward that both ¼ and ° satisfy the following basic properties:

(i) Neutrality with respect to electoral laws' names: ¼(H) = ¼(-H) and °(H) = °(-H);

(ii) Anonymity with respect to players' names: ¼(¾±H) = ¼(H) and °(¾±H) = °(H), where ¾ is any permutation of rows in H.

Moreover, (iii) ¼ is normalized, i.e. ¼ 2[0,1] and ¼ can be equal to zero and one; (iv) ¼ is exhaustive with respect to preference reversal, i.e. ¼(H) + ¼($\overline{H}$) = 1; (v) ° is antisymmetric with respect to preference reversal, i.e. °(H) = -°($\overline{H}$).

Formulas (1) and (2) can be applied to any subset of players. We will use both of them to highlight di¤erent aspects of e¤ectiveness among supporters, opponents, and all players, i.e., for H=S, H=P, and H=S [P.

2.3   Note on the rationality of players

E¤ectiveness of heresthetics can be evaluated once the election results under an alternative electoral law are reliably simulated. Evaluation of the rationality of players, i.e., providing a formal procedure for deciding whether speci…c decisions of players were rational, is a more complicated endeavor.

My view is that any formal evaluation of rationality must be related to a well-speci…ed decision-making model attributed to a player. In some non-trivial cases, an evaluation may also depend on the solution concept adopted to de…ne "rationality" within a speci…c model, such as whether a strategy is weakly dominated or rationalizable. This view implies that one needs to reconstruct the decision model of an empirical player before one can judge his actions. Such a task may get very complicated, especially when the player's expectations are not obvious or poorly documented.

Questions of e¤ectiveness and rationality are logically independent, i.e., nei-ther does e¤ectiveness imply model-speci…c rationality nor does the opposite

implication hold. This statement is pretty intuitive. There are two reasons that may explain a disastrous outcome of a rational player or a stunning success of a fool. First, the model used by a player may be inadequate to the empirical decision problem. This may be due to a lack of methodological knowledge, poor data, or deception. Second, when uncertainty is involved, a surprising "move of Nature" may turn a smart decision into a bad outcome or a stupid decision into a glorious victory. In elections, voter preferences are the principal source of uncertainty, especially in transitional democracies with a highly volatile electorate. The finest ex ante optimization of a well-defined payoff function does not guarantee an ex post success.

A great deal of informal evidence corroborates the hypothesis that all players involved in the 1989-1993 bargaining over electoral law tried very hard to maximize payoffs of various sorts. The reading of secret transcripts from the Politburo meetings confirms that the communist experts made quite an impressive intellectual effort in order to arrive at the proper decision-making model, including a re-discovery of the concept of a simple game (see transcripts in Perzkowski 1994: 289-92). Similarly, the rightist parties defeated in the 1993 elections made every effort to increase their chances via coalescing and, next, to estimate the effects of such actions (Kaminski et al. 1998). In both cases, surprising moves of Nature and methodological deficiencies prevented them from achieving better scores. Clear mistakes, or the choice of an ex ante strictly dominated strategy under the player's own imagined decision-making model or a model that we can consider "natural," are infrequent. One such case was described in Section 3, as the coalition Fatherland's choice of a suboptimal registration status in the 1993 Sejm elections.

3 Five cases of electoral manipulation

The analysis of every case begins with a brief description of the political context. Next, main players are identi...ed and their transformations of identity are depicted. The actual and alternative electoral system are presented succinctly in a table and commented upon. A second table includes the reconstructed part of the heresthetics matrix, with actual payo¤s, simulated payo¤s, and players' ex ante attitudes towards both systems. Finally, brief comments are provided on the possible short-term political consequences of an alternative outcome.

Since our interest is in seat-motivated players, one case of manipulation must be excluded. The 1991 bargaining over the Sejm electoral law took place essentially between the Sejm and the President. The main issues in shaping this particular law was how much control would the President have over the timing of elections and the vote counting agency. In all other cases, the bargaining took place among clearly seat-motivated players.

The objective of this section is to obtain the $jHj£3$ heresthetics matrix H that includes players' payo¤s, potential payo¤s, and their attitudes towards the electoral laws. Data were reconstructed with the use of secret and o¢ cial party documents and manifestos, leaders' statements and memoirs, district-level electoral results and polls, and with various simulation methodologies. It is important to remember that the validity of conclusions is conditional on the empirical validity of the respective methodology and data. Thus, in all cases comments on the critical aspects of simulation will be provided.

3.1 Sejm and Senate in 1989

The 1989 Roundtable negotiations took place seven years after the communist regime crushed the Solidarity movement and forced it underground. The economy of Martial Law was bleeding and the subsequent attempts at revitalization had failed. Experiencing a gradual economic decline, following unsuccessful re-

forms and a series of massive Solidarity strikes in the late 1980s, the communist rulers decided to make a serious bid at least for the opposition's lack of hostility, if not their friendship.

All institutions of the transitional polity were at stake during the Roundtable negotiations. The electoral law, arguably the most important component of the ...nal compact, was nevertheless only four pages long. The remaining 250+ pages included a detailed catalog of social and economic regulations and declarations, in hindsight clearly irrelevant for the future political developments (Salmonowicz 1989).

Despite allocating the 56 Roundtable negotiation seats among various part-ners, only two major players were important: the communist coalition and the Solidarity trade union. After the elections, the communist coalition split into pieces. Three small organizations of "red Catholics" stayed with the commu-nist party, PZPR, while its former larger satellites, a peasant party and a small business party, joined Solidarity in creating the ...rst non-communist government in the communist bloc. However, at the time of negotiations and elections, the communist coalition was perceived of and acted as a unitary player.

The main features of the Sejm electoral law included splitting the lower house seats between the part reserved for the communist coalition and a freely elected quota, and the choice of single-member district's using simple majority with runo¤ (MR) as the principal voting rule. Seats in a relatively small nationwide district were divided among the partners of the communist coalition. The Senate elections, as a part of the deal, were completely free, with Limited Vote with runo¤ as a voting rule, essentially equivalent to MR (see Table 1). The ...nal important institutional detail was the electoral law for electing the president. The compromise arrangement involved the president being elected by both houses.

TABLE 1 ABOUT HERE

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The alternative electoral law di¤ers from the actual electoral law only with respect to which voting rule is applied to the distribution of the 35% of freely elected seats. This is the only parameter of the electoral law that could have been changed by the players. One can speculate that Solidarity at the Roundtable was ex ante indi¤erent between MR and PR while the communists considered seriously both options. For the reasons explained below, the interval for the free quota seats acceptable to both players was extremely narrow and the size of the free quota was virtually non-negotiable.

The free quota was set at the 35% level after long and painful negotiations. No signi...cantly lower or higher quota could have been accepted by Solidarity or the communists, respectively. The rigidity of this arrangement stems from the critical importance of the $33\frac{1}{3}$% value for both sides, subject to the expected quali...ed majorities in the future parliament. With a smaller free quota, the communist coalition would have had a winning power in all post-election parliamentary simple games regardless of the election results. It would have been able to choose a cabinet, elect a president, change the constitution, and rule e¤ectively even in the worst-case scenario of Solidarity's getting all free-quota Sejm seats and all Senate seats. Such an arrangement was not acceptable for Solidarity since it would be equivalent to an acceptance of a puppet status in the future parliament and could have resulted in a loss of support to more radical opposition groups. After the 35% quota was accepted, the communists made the last e¤ort to turn the $\frac{2}{3}$ quali...ed majority rule necessary to overthrow the Senate's veto into a 60% rule. This re-vitalized the threat of the negotiations' breakdown. As Solidarity's chief negotiator Geremek declared "we needed [a slight margin above the quali...ed majority] as air" (Skorzynski 1995: 244). The ...nal compromise 35% solution with a $\frac{2}{3}$ quali...ed majority gave Solidarity a slight chance of winning the power to block future constitutional changes and vetoing bills (Kaminski 1999). Thus, it provided a necessary legitimacy for the trade union's decision to enter the Roundtable negotiations.

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The second important feature of the electoral law, MR for the Sejm or LVR for the Senate versus other district sizes and voting rules, was surprisingly neglected by Solidarity. Most likely, Solidarity was indi¤erent between MR/LVR and PR. However, various secret PZPR documents, as well as comments of top communist politicians show that the issue was very important for them and that it was given due attention during the Politburo and the Central Committee's meetings. The exact PR formula that was considered was not formulated. There were two main arguments against any PR system that made it unacceptable for the communists. First, a PR system would e¤ectively force them to legalize opposition parties, the action that they resisted vigorously (Kurski and Semka 1993: 18). Recall that MR elections are held between individuals, possibly not a¢liated with any parties, while party-list PR elections are held by de…nition by parties or party-like entities. Second, the communist Trojan horse was the free quota candidates recruited from popular actors, writers, and TV celebrities who were "non-partizan friends of the communists," called for short "monkeys" by the communist leaders (Urban 1997: 48). The communists believed that their "monkeys" would score relatively better under a more person-oriented MR or LVR laws than under a PR system. Reykowski, the chief communist electoral law designer, reports that his last-minute emergency project of the PR electoral law to the Senate presented at a secret meeting to the PZPR's leader general Jaruzelski and his friends was rejected for the same reasons (Reykowski 1997: 42-43). At that moment, Reykowski correctly estimated that the adopted PR would lead to a disaster. Finally, the communists were also unaware that STV, or a similar system, was available that could bring them both all the bene…ts of a PR that are explained below and solve the problems of party legalization and the support for monkeys (Urban 1997: 46).

The estimates of payo¤s under an alternative electoral law obviously depend on the district magnitude assumed and the apportionment formula. Simulations conducted by various authors do not specify the assumed district structure or

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the apportionment formula and rely on di¤ering estimates of the vote for the candidates supported by the communist coalition.[5]   Thus, Table 2 presents various estimates of payo¤s under an alternative PR system as equal to the relative shares (in percents) of the Solidarity and communist candidates in the total vote for free-quota seats.

- TABLE 2 ABOUT HERE -

Solidarity masterfully used the tiny window of opportunity created by the 35% quota and won all unreserved Sejm and 99 out of 100 Senate seats.   The blocking power acquired by the trade union in the parliament resulted in a ten-week stalemate, the breakdown of the communist coalition, the formation of the ...rst non-communist cabinet, and initiated the snowball 1989 revolutions in other Eastern European countries.   Under an alternative PR electoral law, the communists would have had a much better score.   Most importantly, they would have been able to preserve their winning power in all major parliamentary games, thus preserving the system from collapse, at least for some time (Kaminski 1999).

The results of the simulation are not very sensitive to changes in the design of a speci...c PR formula or district magnitude.   In order to preserve power, the communists would need to win at least 8 seats out of 161 of all free quota seats.   This number is small comparing to the relative share of about 20-30% of vote that the communist-backed candidates received.   Thus, one may conclude that the ...nal outcome, depriving the communists the winning power in all post-election parliamentary games, would have emerged under virtually all typical PR arrangements.

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[5]No o¢ cial data are available.

3.2   Sejm and Senate in 1991

The Roundtable electoral law included a provision limiting its validity to the 1989 elections only.   The bargaining over new laws started in early 1990, soon after the fall of the communist order in Eastern Europe became evident to the political actors.   Both the Sejm and Senate electoral laws were at stake.   The ...nal Senate law was only slightly modi...ed comparing to the 1989 version (see Table 3).

- TABLE 3 ABOUT HERE -

The Senate electoral law was passed quickly on May 10 and the preceding committee bargaining was clearly focused on the degree of proportionality of the law.   The ...nal law was passed by accident.   Initially, the alternative mixed MR/PR law won by a comfortable margin of 156:146.   However, during the vote one of the opponents of the mixed law sneaked to the back row of a section occupied by supporters of the mixed law and noticed that they were voting (by pressing buttons) on behalf of their absent colleagues.   In the repeated voting by raising hands, the LVR law won by 142:141 (Sprawozdanie Stenogra...czne 1991).

While the Senate electoral law was an internal matter of the parliament enacted in a cabaret-like context, the Sejm law attracted the attention of a heavyweight player, President Walesa.   The main issues in shaping this partic-ular law were how much control would the President have over the timing of elections and the vote counting agency.   Votes-to-seats properties were clearly of lesser importance.   At some point, the President o¤ered two options to the parliament: one of them was less proportional than the status quo and the other one was more proportional.   The ...ght for the electoral law resulted in a major crisis, months-long negotiations, presidential vetoes and, ...nally, a desperate at-tempt to change the electoral law via a constitutional amendment.   Threats of

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dissolution of the parliament and even introducing the army into the equation were heard. The members of the parliament were in the ...nal iterations clearly motivated by the desire to preserve their independence. Since this paper is concerned only with cases of parties bargaining about seats, and when external payo¤s - like weakening of presidential power - are not decisively important, the case of 1991 electoral law change must be excluded from consideration.

- TABLE 4 ABOUT HERE -

Table 4 shows that six out of ten players supported the Senate law that is estimated as less bene...cial to them; one player was indi¤erent; three players supported the law more bene...cial to them. One of these three players was the Independents (KNP), who did not have to make any estimates to ...gure out that a party-list based PR would not advance their prospects. The tone of the parliamentary debate clearly had seats-maximization arguments hidden between the lines. The dramatic failure in estimations can be attributed to an unpredicted consequence of the Sejm's electoral law that facilitated fragmentation. The players' expectations at the moment of voting, on May 10, were apparently shaped by the predicted consolidation of the political scene. Such a consolidation did not happen in 1991.

The fragmentation following the 1991 election was the most serious short-term political consequence of the new electoral system. The parties, whose leaders contemplated, negotiated, and discussed consolidation in early 1991, fragmented further in the face of the new electoral law. The e¤ective number of parliamentary parties reached a record high of 10.7. The two years before the next parliamentary elections witnessed four cabinets balancing on the brink of breakdown during their tenures.

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3.3 Sejm in 1993

The 1991 electoral law was widely criticized for its contribution to the fragmentation of the party system. The criticism fueled a coalition of reformers. The ...rst project of UD, the largest party, revived an early 1990 idea of a mixed proportional-majoritarian electoral law and was opposed by all remaining parties. The next, and more realistic, project was built around a bigger set of would-be gainers. The ...nal coalition of seven parties evolved during a long period of ...ne-tuning and bargaining over various parameters of the law. It included both post-communists and ...erce anti-communists. The law was accepted by a comfortable majority in the Lower House on April 15, 1993. It was booed by leaders of smaller parties as a "jerky solution," "electoral swindle," or the "dictatorship of large parties" (Chrusciak 1999: 107-8).

The Sejm's coalition lacked winning power in the Senate and the project was returned with substantial amendments. The ...nal Sejm vote that essentially restored the original version took place in the midst of signi...cant political turmoil on May 28, 1993. On the same day, the Suchocka cabinet fell by a one vote margin. The cabinet could have been saved by one of its own members, a minister of justice, whose sudden stomach problem made him miss the voting by seconds. On the next day, President Walesa dissolved the parliament. Thus, the electoral law that was supposed to serve the remote 1995 elections, was unexpectedly used after four months, in September.

Faced with the prospect of 5-8% thresholds for obtaining seats, the smallest parties started coalitional talks. However, after several weeks of unsuccessful negotiations and polls showing that coalescing might increase their losses, the talks broke down. The shift of voter preferences to the left in the last weeks before the elections and further fragmentation caused by the entry of a new player, the Walesa-backed BBWR, marked the defeat of the post-solidarity right and the triumphant return of postcommunist parties.

The new electoral law was still proportional but all three major changes strongly favored larger parties (see Table 5). Stricter eligibility requirements and vote thresholds ruled out small parties from the ...nal seat allocation. The old Hare-Niemeyer quota formula was substituted with the d'Hondt divisor formula, more friendly towards larger parties. Finally, the 37 large regional districts with an average magnitude of 10.6 seats were substituted for 52 smaller districts with an average magnitude of 7.3 seats.

An obvious alternative to the newly introduced law is the status quo 1991 law. The simulations of seat distribution assume that the 1991 electoral law was applied to the actual party system and vote distribution in the 1993 elections. The 1993 votes were broken down into precincts and next re-assembled to re-create the 1991 structure of 37 districts. There are no corrections for strategic voting. However, since the 1991 electoral law was extremely proportional, i.e., involved large districts and no thresholds, the distributions of seats generated by this law were not too sensitive to small changes in voter distribution, possibly caused by strategic voting.

Splits and mergers in the parliament and unsuccessful electoral coalitions marked this period of fuzzy identities of political players. At the moment of voting over the 1993 electoral law, there were 18 parliamentary clubs or circles (small clubs). In the elections, there were 15 major parties and coalitions of parties. Main parliamentary parties went to the elections under their own names. A few players formed electoral coalitions or changed their names. In all cases, the newly formed coalitions included players that voted in the same way on the new electoral law. Among the 15 electoral competitors, there was one new party and two non-parliamentary parties. Table 6 lists players with their identities ...xed at the moment of elections.

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The distribution of seats under the old law would have been altered dramatically. In four cases, players supported laws that were estimated to be ex post less bene...cial. Eight players supported the ex post more bene...cial law. However, one of these players, the pro-church Fatherland, counted on the "Sunday mass" favorable e¤ect and, as the only larger party, voted against the new law since it admitted Saturday as a possible election day in addition to Sunday. The elections were in fact held on Sunday, thus making the Fatherland's fears unjusti...ed. Fatherland made a clear ex ante mistake when it was registered as a coalition rather than a committee of citizens. In the elections, it scored just below the coalitional threshold but above the threshold for committees. (The strategy of registration as a coalition was weakly dominated by the strategy of registering as a committee due to what can be considered a legislative mistake. For a coalition of parties, the two modes of registration di¤ered exclusively with respect to the threshold.)

The short-term political consequences of the new law compared to the old one were tremendous. Two post-communist parties commanded a comfortable majority of 65.9% of Sejm seats while winning only 35.8% of the votes and rebuilt their political power. The fragmented post-solidarity right failed miserably. Simulation shows that under the old law, the post-communist parties would have fallen short of the Sejm majority and the cabinet would have been most likely assembled out of the pool of post-solidarity parties (Kaminski et al., 1998).

4 Results: E¤ectiveness of electoral heresthetics in Poland, 1989-1993

The results show the indicators of e¤ectiveness for various subsets of players. It was noted earlier that the heresthetics matrix H provides su¢cient information for the computation of both indicators. For every player i in the set H, the

matrix lists three pieces of data: x_i is i'-s electoral result, y_i is i'-s simulated electoral result under the alternative law, and s_i denotes i'-s attitude against the actual electoral law. For all four changes in the Polish electoral law, the relevant pieces of data are provided in Tables 2, 4, and 6. In the case of the 1989 elections, the number y_i was obtained as a mean of the estimates by various authors. The matrix H is obtained by stacking values from columns x_i, y_i, and s_i for all cases such that $s_i = +1$ or -1.

The players' final decision of whether to support or oppose the electoral change was in all cases a result of long deliberation, with support from experts, polls, and the use of some simulation methodologies. Recall that the value of ¼ belongs to [0,1] where $\frac{1}{2}$ denotes a case when the players identified an ex post more beneficial law in exactly half of the cases. The larger the value of ¼, the more effective were the players in identifying a more beneficial law. For °, 0 denotes the case of no gain or loss, on average, from the electoral law supported by a player. For a positive °, the larger its value, the larger the mean gain for a player in H from the electoral law he supported. Small values represent insignificant gains or losses.

The values of indicators for the four combined cases of the Polish 1989, 1991, and 1993 changes in the electoral law are shown in Table 7.

- TABLE 7 ABOUT HERE -

The indicator ¼ tells a truly surprising story. Overall, the players would have been slightly better in identifying the more favorable electoral law by tossing a fair coin rather than by using their brainpower. The effect is very strong for those who supported the change while the opponents achieved some success with the identification of an ex post beneficial electoral law. The value of ° confirms these findings. For supporters, the alternative electoral law would have produced slightly better average results while for opponents the results would have been slightly worse. For all players, the average gain from supporting the

electoral law of their choice is slightly positive but its size is negligible. Recall that only cases with a strong evidence that parties were interested in maximizing their seat shares were included in the data set. In such cases, considerations like the maximization of the expected bargaining power in the post-electoral cabinet game were of negligible importance. Thus, the results can be interpreted as the parties' sound failure to identify the ex post bene...cial electoral systems.

An interesting pattern is revealed when the two indicators are computed separately for the three years when the electoral heresthetics took place (see Table 8).

- TABLE 8 ABOUT HERE -

The e¤ectiveness of heresthetics according to both indicators increased over time. In the 1993 elections, despite some substantial unexpected changes in voter preferences that turned some supporters of a new law into losers, the e¤ectiveness was highest. Parties seemed to be better equipped with method-ological tools and their experts did a better job in analyzing the consequences of electoral heresthetics. This ...nding is consistent with other observations (Sulek 1994, Kolarska-Bobinska 1997). Another factor, independent of the politicians' competence, that reduced heresthetical uncertainty was a higher accuracy of polls following new methodologies introduced by polling agencies that were bet-ter suited for estimating party support in fragmented party systems.

5 Conclusion

The results show that the hectic electoral heresthetics in Poland during the early years of transition did not pay, on average. Since there is plenty of informal evidence that the players tried very hard to maximize their expected payo¤s, and that payo¤s were to a large extent identi...ed by them with parliamentary seats, the discovered empirical regularity forms an interesting puzzle. The second,

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rather intuitive, regularity shows that players were improving their scores over time.

The two sources of manipulation failures are the uncertainty associated with transitional elections and the lack of appropriate methodological tools and skills on the players' side. Thus, players were often not aware of various subtle properties of electoral laws (the communists in 1989) or used the polls without necessary caution (the communists in 1989 and the rightist parties in 1993). Their calculations were obscured by the changes in coalitional structure of the party system between the electoral law vote and the elections, such as fragmentation, consolidation, or the entrance of new parties (most parties in 1991, the rightist parties in 1993). They exaggerated the importance of "personalization" of elections (the communists in 1989, most parties in 1991). Finally, substantial shifts in voter preferences turned a few prospective winners into ex post losers (the communists in 1989, the rightist parties in 1993).

Cases of electoral laws bringing consequences unexpected by their authors are often reported by scholars, especially in transitional polities. There is some evidence that dictators setting new electoral laws usually overestimate their support (Przeworski 1991). Such overcon...dence may facilitate the support of an ex post non-optimal electoral system. Examples abound. In 1989, the Hungarian communists ...ercely defended an ex post disastrous electoral law, similarly to their Polish colleagues (Hibbing and Patterson 1992). The pattern survived the fall of communism, and in Eastern Europe during the transition "The parties in power have consistently misjudged both their electoral prospects and the impact of legal thresholds on their share of parliamentary seats" (Moraski and Loewenberg 1999: 168). Even in established democracies, like New Zealand, parties happen to initiate electoral law reforms that hurt them badly in hindsight (Nagel 1994a, b). Clearly, electoral engineering, like playing with matches, may be dangerous for your (political) health.

A word of caution must be repeated: ine¤ective manipulation is not equiv-

alent to irrationality. The latter concept would have to be operationalized in a di¤erent way, on a basis of players' expectations. A falsi...cation of any rationality-related hypothesis would be more di₵cult technically. In the Polish context, a well-documented example of an *ex ante* mistake by Fatherland was uncovered in the 1993 elections. A less clear case is the bad choice of the electoral law of the Polish communists in 1989 elections. Both cases are related to the lack of su₵cient methodological and computational resources of the unlucky players who chose a strategy that, under a natural decision-making model, was weakly dominated. Moreover, both cases can be interpreted as mistakes only under models that were "obviously relevant" for the respective decisions; in the players' own models, the dominant strategies were not represented. Almost all other cases of what we can classify as *ex post* mistakes can be fully and easily explained by unexpected moves of Nature. How strong is the impact of a disturbing factor under various circumstances and to what extent it makes electoral heresthetics ine₵cient are big questions. A more de...nitive statement on that matter would require studying a larger set of cases from around the world.

6 Appendix

- TABLE 9 ABOUT HERE -

- TABLE 10 ABOUT HERE -

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Table 1. Essential components of the actual 1989 majority runoff and alternative electoral laws for the Sejm (Lower House) and the Senate (Upper House) elections

SEJM

District structure	Categories of districts					
	regional					nationwide
	PZPR	Open	ZSL	SD	CM	
Number of districts	156	161	67	24	17	1
Seats in districts (total)	156	161	67	24	17	35[1]
Voting rule	MR[2]	MR	MR	MR	MR	LV
Threshold (for candidates)	–	–	–	–	–	50%[3]
Nomination procedure	Support of 3000 citizens, party membership required[4]					Party
Alternative electoral law	Open district seats assigned according to a PR formula with a district magnitude of about 4-6 seats.					

SENATE

District structure	Categories of districts	
	two-seat	three-seat
Number of districts	47	2
Seats in districts (total)	94	6
Voting rule	LVR[2]	LVR
Nomination procedure	Citizens supported by 3000 voters (no party restrictions)	
Alternative electoral law	Seats assigned according to some PR formula in a nationwide district with a magnitude of 100 seats.	

Source: Dz.U. 1989, poz. 102; Dz.U. 1989, poz. 103.

[1] Seats on the nationwide lists were reserved as follows: PZPR: 17; ZSL: 9; SD: 3; CM: 6;

[2] MR = majority runoff; LV = limited vote; LVR = limited vote with runoff; see the appendix for descriptions of voting rules;

[3] Due to a legislative mistake, the runoff properties for the nationwide list were not specified;

[4] Candidates had to be members of the following disjoint subsets of citizens: Open (free quota) – for non-affiliated with any party; PZPR (communist party); communist-controlled organizations: ZSL (peasant party), SD (small business party), and CM ("Catho-Marxists": PAX, PZKS, and UChS – organizations of pro-communist Catholics).

Table 2. Payoffs (percentages of Sejm and Senate seats) of the main players in the 1989 elections and estimates of payoffs under an alternative PR electoral law

Main players	Elections 6/4/1989 [1] (x_i)	Simulated payoffs under a PR electoral law (y_i)			Support 3-4/1989 [5] (s_i)
		Raciborski [2]	Kwiatkowski [3]	Kaminski [4]	
SEJM					
Communist coalition	65	74.5	74.7	74.1	+1
Solidarity	35	25.5	25.3	25.9	?
SENATE					
Communist coalition	1	27.2	23.9	–	+1
Solidarity	99	72.8	76.1	–	?

Source: [1] Sejm i Senat Rzeczpospolitej Polskiej 1989-1991 (1991: 20-38); [2] Raciborski (1991: 118); [3] Kwiatkowski (1992: 370); [4] Kaminski (1999: 105); [5] Kurski and Semka (1993: 18), Urban (1997: 46-48), Reykowski (1997: 42-43). In the column "Support," "+1" denotes support for the actual electoral law; "?" denotes missing data (a non-determined attitude).

Table 3. Essential components of the actual LV 1991 and alternative majoritarian-proportional electoral laws for the Senate elections

District structure	Categories of districts	
	two-seat	three-seat
Number of districts	47	2
Seats in districts (total)	94	6
Voting rule	LV [1]	LV
Alternative electoral law	Mixed majoritarian-proportional with 49 FPP seats and a nationwide district of 51 seats with a PR formula.	

Source: Dz.U. 1991, poz. 246.
[1] LV = limited vote; FPP = First Past the Post; see the appendix for description.

Table 4. Payoffs (percentages of Senate seats) of the main players in the 1991 elections and estimates of payoffs under the alternative mixed majoritarian-proportional law

Main players (parties)	Elections 10/27/1991 [1] (x_i)	Simulated payoffs under alternative electoral law [2] (y_i)	Support 5/20/1991 [3] (s_i)
UD	21	17	− 1
SLD	4	10	− 1
WAK	9	11	+ 1
PSL	7	7	− 1
KPN	4	6	new
POC	9	14	+ 1
KLD	6	9	+ 1
PL	5	6	+ 1
Solidarity	11	8	+ 1
PChD	3	2	− 1
LPW-Piast	1	1	?
German Minority	1	1	?
KNP (Independent) [4]	19	8	+ 1

Source: [1,2] Gebethner (1992: 78); [3] Polish News Bulletin (1991); Kronika Sejmowa (1991).
Note: The identities of players were recorded as of election time. Only non-ephemeral parliamentary parties or coalitions of parties that competed in the 1991 elections are listed. In the column "Support," "+1" denotes vote for the actual 1991 electoral law; "–1" denotes vote against the 1991 electoral law in favor of the alternative law; "new" denotes a party that was not represented in the Sejm during the voting; and "?" denotes missing data. Identities of players at the time of parliamentary voting were mapped onto the identities of parliamentary parties; some names were altered. "Independent" representatives were counted as a separate entity since during the voting they were represented by a parliamentary club that acted as a "non-partisan" party KNP.

Table 5. Essential components of the Polish PR electoral law for the Sejm 1993 elections and the alternative PR law for the 1991 elections

Actual 1993 electoral law for the 1993 elections		
Categories of candidate lists	(i) Party or political organization; (ii) Minority group; (iii) Coalition of parties; (iv) Committee of citizens;	
District structure	Categories of districts	
	regional	nationwide
Number of districts	52	1
Seats in districts (total)	391	69
Nationwide thresholds		
Single party or committee	5%	7%
Coalition of parties	8%	7%
Minority group [1]	0% or 5%	0% or 7%
Voting rule	Open List d'Hondt [2]	Closed List d'Hondt [3]
Alternative electoral law (1991 electoral law)		
District structure	Categories of districts	
	regional	nationwide
Number of districts	37	1
Seats in districts (total)	391	69
Nationwide thresholds	0%	5% [4]
Voting rule	Open List Hare-Niemeyer	Closed List Modified Sainte-Laguë [3]

Source: Dz.U. 1993, poz. 205; Dz.U. 1991, poz. 252.

[1] A minority group could choose one threshold to be waived; [2] See the appendix for description of voting rules; [3] Votes used in the nationwide district for seat allocation were equal to the total number of votes for a list in regional districts; [4] or winning seats in at least five regional districts.

Table 6. Payoffs (percentages of Sejm seats) of the main players in the 1993 elections and estimates of payoffs under the alternative 1991 electoral law

Main players (parties)	Elections 9/19/1993 [1] (x_i)	Simulated payoffs under 1991 electoral law [2] (y_i)	Support 4/15/1993 [3] (s_i)
PC	0.0	4.6	+ 1
Fatherland	0.0	8.3	− 1
PSL-PL	0.0	1.7	− 1
KPN	4.8	7.3	+ 1
SLD	37.2	20.9	+ 1
PSL	28.7	16.1	+ 1
KLD	0.0	3.3	+ 1
Solidarity	0.0	5.5	− 1
UD	16.1	11.5	+ 1
UP	8.9	8.5	− 1
UPR	0.0	2.2	− 1
KdR	0.0	0.9	− 1
German Minority	0.9	0.9	+ 1

Source: [1] M.P. nr 50, poz. 470; [2] Gebethner (1995); [3] Mazur (1993).
Note: The identities of players were recorded as of election time. Only parliamentary parties or coalitions of parties that competed in the 1993 elections are listed. In the column "Support," "+1" denotes a vote for the 1993 electoral law; "–1" denotes a vote against the 1993 electoral law. Identities of players at the time of parliamentary voting were mapped onto the identities of parliamentary parties; some names were altered.

Table 7. Indicators of heresthetical effectiveness for various subsets of players

Subsets of players	Proportion of successful players π	Average gain γ (percentage of seats)	Total number of players
Supporters	.37	−0.85	15
Opponents	.65	+1.9	10
Supporters+opponents	.46	+0.25	25

Source: Tables 2, 4, and 6.

Note: "Supporters" denotes all players who supported the changes; "Opponents" denotes all players who opposed the changes; "Supporters+opponents" denotes all players except for those who were indifferent or whose attitude was not determined.

Table 8. Indicators of heresthetical effectiveness for the 1989, 1991, and 1993 changes of electoral laws

Indicator (for supporters+opponents)	1989	1991	1993
Proportion of successful players π	0	0.35	0.65
Average gain γ (percentage of seats)	– 17	+0.38	+3.37
Total number of supporters and opponents	2	10	13

Source: Tables 2, 4, and 6.
Note: "Supporters+opponents" denotes all players except for those who were indifferent or whose attitude was not determined.

Table 9. Concise description of voting rules and apportionment algorithms used in and considered for the 1989 Sejm and Senate, 1991 Senate, and 1993 Sejm electoral laws [1]

Name	V	P	C	K	F	L	A
Limited Vote (LV)	k^2	yes	no	$k>1$	plurality	no	–
Limited Vote with Runoff (LVR)	k	yes	no	$k>1$	runoff	no	–
Majority Runoff (MR)	1	no	no	1	runoff	no	–
First Past the Post (FPP)	1	no	no	1	plurality	no	–
Open List d'Hondt	1	no	no	$k>1$	d'Hondt	yes	plurality
Closed List d'Hondt	1	no	no	$k>1$	d'Hondt	yes	ranking
Open List Hare-Niemeyer	1	no	no	$k>1$	Hare	yes	plurality
Closed List Modified Sainte-Laguë	1	no	no	$k>1$	Modif. Sainte-Laguë	yes	ranking

Variables:
V – number of votes;
P – is partial abstention allowed?
C – is cumulation of votes allowed?
K – district magnitude;
F – electoral formula for assigning seats among lists;
L – is voting for individual candidates within the list allowed?
A – allocation algorithm for assigning seats within lists (applies only when answer to L is "yes").

Electoral formulas and allocation methods:
Runoff – candidates with largest numbers of votes win seats subject to 50% requirement; if *m* seats are not assigned in the first round, 2*m* candidates with the largest number of votes compete in LV elections in the second round.
Ranking – seats assigned according to pre-defined party rankings.
Quota methods of seat allocation: Each such method uses a *quota* $q = v^T/f(k)$ and a *remainder* $l_i = v_i - m$, where v^T is the total number of votes, k is the district magnitude, $f(k)$ is a function of district magnitude that defines a particular method, v_i denotes the total number of votes for a party, and *m* is the largest multiple of a quota not greater than v_i. If $k+1<f(k)\leq k$, then seats assigned for every quota q of votes won by a party and then to parties with largest remainders l_i; other values of $f(k)$ may require a more complex formula.
Hare-Niemeyer – quota method with $f(k) = k$;
Divisor methods of seat allocation: Each such method uses an infinite series of divisors $d_1, d_2,...$ If the district magnitude is k, the votes of every party i in this district v_i are divided by k consecutive divisors. For every party, these numbers form a new finite series $v_i/d_1, v_i/d_2, ..., v_i/d_k$. Next, all finite series are compared and seats are assigned to parties whose series include k largest numbers.
d'Hondt – divisor method with the series 1, 2, 3, ..., *n*, *n*+1, ...
Sainte-Laguë (original) – divisor method with the series 1, 3, 5, 7, ..., 2*n*+1, 2*n*+3, ...
Modified Sainte-Laguë – divisor method with the series 1.4, 3, 5, 7, ..., 2*n*+1, 2*n*+3, ...

[1] Classification according to variables V, P, C, K, F is due to Cox (1990); [2] LV is often characterized as a rule with $V<k$.

Table 10. Acronyms and English names of major players

Acronym	Corresponding English name
BBWR	Non-Partisan Bloc for Supporting Reforms
CM	"Catho--Marxists" (three small organizations of pro-communist Catholics)
Fatherland	Country's Electoral Committee Fatherland (descendent of WAK)
KdR	Coalition for the Republic
KLD	Liberal-Democratic Congress
KNP	Club of Independent Members of Parliament
KPN	Confederation of Independent Poland
Solidarity	Solidarity Trade Union
PC	Centrum Alliance (descendent of POC)
PL	Peasant's Alliance
POC	Citizen's Alliance Centrum
PSL	Polish Peasant Party (descendent of ZSL)
PSL-PL	Polish Peasant Party-Peasant Alliance (descendent of PL)
PZPR	Polish United Workers Party (communist party)
SD	Democratic Alliance (communist-controlled small business party)
SLD	Alliance of Democratic Left (descendent of PZPR)
UD	Democratic Union
UP	Labor Union
UPR	Union of Realpolitik
WAK	Catholic Electoral Action
ZSL	United Peasant Alliance (communist-controlled peasant party)