The psychological and mechanical effects of voting rules. Evidence from the Romanian parliamentary elections

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Abstract: This paper focuses on the mechanical and psychological effects of plurality, approval voting, alternative voting, the 2008 Romanian electoral system and the majority judgement system, using a quasi-experimental research design. The context of the research has been the 2012 Romanian general elections. Neither the research questions nor the methodology are new, however, to the best of my knowledge no other study of voting rules uses this type of methodology in the context of an Eastern European country. The main conclusions of the study show that although the rules have made little difference at the aggregate level, in determining the winning candidates, they have had a significant impact on voting behaviour. Even though the winner generally stays the same regardless of the rule in place, there has been quite a bit of vote switch moving from one rule to the next, which the data best explains for voters who subjectively believe that their preferred candidates stand little chance of winning the elections, even if in reality this might not be the case. Thus, the study shows that behaviour of Romanian voters is to some extent in line with some of the predictions of the theory of strategic voting.

Key words: voting rules, strategic voting, field experiments, 2008 Romanian electoral system

I. Introduction

Since Duverger (1951), the study of electoral systems has focused on two main dimensions. In Duverger’s terms, the first one is concerned with mechanical effects, meaning the transformation of voters in seats. The study of mechanical effects has given birth to a wide literature concerned with questions of proportionality (Gallagher 1991, Gallagher and Mitchell (ed.) 2005, Lijphart 2003, Benoit 2000), fairness of representation (Norris 2004) according to some key coordinates (Gallagher and Mitchell 2005: 5-12) like the district magnitude, number of votes per voter, ballot structure and levels of seat allocation (Shugart and Wattenberg 2001). Regardless of the methods used to research this type of questions, be it case studies, analytical methods or statistics based on comparative data, the main conclusion of these studies is that the system in place does matter. Very roughly put, having higher district magnitudes, more votes per voter or more levels of seat allocation usually yield better results in terms of proportionality. There are however downsides to these types of systems. They are usually more complex and in turn more difficult for both voters and parties to understand, sometimes, in my opinion, pushing voters further away from their representatives.

The second dimension heavily researched is the one which Duverger (1951) labelled as the psychological effects. By psychological effects Duverger referred to the voters’ reaction regarding vote choice, in anticipation to the mechanical effects. Although Duverger only spoke of the rules’ psychological effects on the voters, latter literature also extended the notion to the parties. If voters might switch their vote as a response to the supposed mechanical effects, parties might also rethink their nomination policy, as a response to the same effects (Riker 1982, Cox 1997).
Returning to the voters, Duverger’s notion of psychological effects can be associated with the theory of strategic voting in rational choice, if we leave aside the behavioural component of the Duvergerian theory and only assume that voters behave as if responding to the mechanical effects. The main idea behind the theory of strategic voting is that rational voters, looking to maximize their utility from voting, will abandon preferred unviable candidates and vote for their second or third choice if that choice has a real chance of winning the election (Riker 1982). Of course, the have been a lot of objections to this theory (Green and Shapiro 1994, Aldrich 1993, Fisher 2004) and its applicability in real life contexts, which due to lack of space, I can only briefly mention here. The voter will abandon her preferred candidate only if she believes that by changing her vote she can influence the outcome of the elections, or in other words be pivotal. But one voter in a mass election is hardly ever pivotal, except in case of ties, which are highly unlikely. Moreover, the voter has to have a very good understanding of the rule and also a lot of information regarding that election in order to recognise a potentially strategic situation and act accordingly (Van der Straeten et. al 2010: 437-439). Not only does she need to know and understand the mechanical effects of the rule in place, but she needs to know or at least make assumptions about how other people will vote. Thus, this is a highly demanding theory of the voter and her ability to make strategic calculations, which can only be realistic in a well-known environment where voters have relatively stable preferences in time. With all its limits however, there is still an extensive literature explaining voting behaviour in different elections, under different rules, using this theory. For the empirical part, it is not as relevant if people are actually able to make this type of calculations, as it is the extent to which we can explain voting behaviour assuming that voters behave as if they were utility maximizers with regard to their vote choice and to that extent, as if they made strategic calculations.

Moving from the theoretical aspects of strategic voting to its empirical applications, methodological considerations arise. According to Blais et. al (2012), four different types of studies can be found in the strategic voting literature: using a comparative framework with countries having different rules, studying electoral outcomes before and after the adoption of a new rule, using laboratory experiments and using quasi-experimental field studies (Blais et. al 2012: 829-830). Each of these approaches has both advantages and disadvantages. Comparative frameworks yields highly significant results, but it cannot guarantee that those results are only due to the different voting rules used and not to some other unobserved feature. Studying electoral chance might also have the same disadvantage, plus that the new rule requires a long period of time to produce noticeable effects. Using laboratory experiments allows for a great deal of control over the preferences and setting but might have questionable external validity due to the artificiality of the environment. Finally, using field experiments eliminates in part the artificial environment, bringing the lab into a real life situation, but it allows less control over all the variables in the setting. It is however, the lesser evil in my opinion, because it takes advantage of a real life election, with real candidates and real voters, it
holds the environment more or less constant, while it allows enough variation of the rules to draw conclusions regarding their effects.

The rest of the paper is structured as follows: the second section gives a little bit of context about the Romanian general elections and the main competitors, the third section discusses extensively the methodology used in the study and lays out the main hypotheses which were tested, the fourth section puts forth the main results both regarding outcomes at the aggregate level and also regarding individual level voting behaviour and finally the fifth section concludes the paper.

II. The Romanian general elections

Since 2008, the Romanian general elections for both the Deputy Chamber and the Senate are carried out under a mixed-member proportional system. The new system is based on a single vote in single-member districts (SMDs), where a candidate requires the absolute majority of votes to win, followed by a compensatory proportional redistribution of remaining seats. Similar to the German case, the system allows the possibility of receiving additional seats in the Parliament for parties obtaining more majorities than the total number of seats they were entitled to proportionally. A 5% threshold is used and candidates winning majorities in SMDs have to represent a party that has passed the threshold in order for them to keep their seat. A more detailed description of the system is given in the next section, along with all the rest of the rules analysed in this study.

The new system was designed to keep the proportional distribution of the previous closed-list PR system used before 2008, while switching emphasis from parties and party lists to individual candidates. The 2008 results seemed to confirm this theory, mainly because only one additional seat was awarded in 2008 and aside from additional seats, the seat distribution at the party system remains the same as under the previous system (Marian and King 2010). However, the 2012 results came to prove that additional seats can severely change the seat distribution logic and disturb the proportionality of the seats.

In 2012 only four electoral competitors, two electoral coalitions and two parties, passed the threshold and obtained representations, aside from the 18 seats attributed by defaults to minorities: the Social-Liberal Union (USL) which was composed of four parties (the Social Democrat Party –PSD, the National Liberal Party –PNL, the National Union for Romania’s Progress –UNPR and the Conservative Party –PC), the Fair Romania Alliance composed of three parties (the Democrat Liberal Party –PDL, the National Christian-Democrat Peasant Party –PNTCD and the Civic Force –FC), the People’s Party Dan Diaconescu PP-DD and the Democratic Union of the Hungarians in Romania –UDMR. The tables II.1 and II.2 below, display the official results of the 2012 general elections both for the Deputy Chamber and for the Senate.
As the tables above indicate, USL received the majority of votes and the majority of seats both for the Deputy Chamber and for the Senate. Although it received about 62% of the vote in both chambers and should have gotten only about 61% of the seats, it ended up getting about 69% of the seats due to the additional seats allowed by the electoral system. Therefore, there was little competition in the 2012 Romanian elections, with USL winning the majority of votes in most SMDs in the country. ARD, which came second, is at about 35% below USL at the national level and the situation is similar in most SMDs. I believe that this situation has been caused by the organization of the USL electoral coalition which includes two of the major Romanian parties (PSD and PNL). In running together, they have increased their chances of winning the majority of votes in most SMDs, which in turn resulted in 79 additional seats in the Deputy Chamber and 38 in the Senate. It is my strong belief that had they run separately, the number of additional seats would have been insignificant, just like in 2008. However, this is counterfactual speculation with no way of knowing for sure.

\[ G = \sqrt{\frac{1}{2n} \sum_{i=1}^{n} (v_i - s_i)^2} \]

\[ G^* \]

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\[ Gallagher’s (1991) disproportionality index \]

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III. Methodology and data

The data have been collected during the Romanian general elections on December 9th 2012, using a quasi-experimental design. The starting point of the design of the study resided in the work of Laslier and Van der Straeten (2008), who have studied approval voting during the 2002 French presidential elections. For this purpose, the day of the elections, they carried out a field experiment, which consisted of installing parallel polling stations in two French towns and of asking real voters, who had already taken part in the official elections, to recast their vote on experimental ballots under the approval rule. The main advantage of this method is that it benefits from a real life election with a real campaign, real candidates, real stakes and real voters with real preferences. Everything was real except for the parallel ballots which were made under the approval voting rule. Thus, this method holds the advantage of using a real life situation as the setting for the study, while still allowing the researcher to produce the necessary data to investigate important questions, in this case regarding voting rules. Although, this type of design does not allow the level of control of a laboratory setting, it still proves to be a very useful research tool.

Because the Romanian electoral authorities did not allow the use of parallel polling stations, we switched from experimental parallel ballots to a self-administered questionnaire composed of several counterfactual scenarios, one for each voting rule included in the study. Thus, instead of actually asking voters to actually recast their vote under different voting rules, we asked them to imagine that the official voting rule would be this and that and to indicate their vote choice under this new scenario. Although there is quite a big difference between asking people what their vote would be in a given situation and actually asking them to cast a vote in that same situation, this was the closest we could get to the initial idea. However, I argue that the design still bares relevance for our research questions given the fact that we conduct our research the day of the Romanian general elections, in real voting polls and on real voters, who have cast a vote in the official elections. In other words, although the design loses in ecological validity, this does not necessary affect the internal or external validity of the study².

In fact, several measures have been taken to improve both the internal and the external validity of the research. First of all, we chose various locations to run this study, in four different counties:

- a big city, Bucharest, where we included two polling stations, belonging to two different single member districts according to the official districting for the elections;

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² For references regarding the different types of validity, please see the chapter on experiments
- two small towns, Racari (Dimbovita county) and Fierbinti-Tirg (Ialomita county) where we included all polling stations; 

- three small countryside communes, Contesti (Dimbovita county), Axintele (Ialomita county) and Glodeanu-Silistea (Buzau county), where all polling stations were included;

The table below illustrates the participation rates in each of the chosen locations:

<table>
<thead>
<tr>
<th>Table III.1. Participation rates by county</th>
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<tbody>
<tr>
<td><strong>County</strong></td>
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<tr>
<td>Bucuresti</td>
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<td>Buzau</td>
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<td>DB</td>
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<td>Ialomita</td>
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<td><strong>Total</strong></td>
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The locations were chosen in such a manner so as to try and cover the socio-economic diversity of the Romanian electorate. Furthermore, the field operators were instructed to include in the study people of all sexes, ages and ethnicities. Thus, even though the sample was self-selected, I argue that it is diverse enough so as to allow me to draw significant conclusions regarding the impact of different voting rules in the Romanian context. I also used post-experiment sample correction methods like weighting on the official vote or doing matching where the analysis required it.

<table>
<thead>
<tr>
<th>Table III.2. Distribution of respondents by age and gender</th>
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<tr>
<td>Age</td>
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<td><strong>Total (%)</strong></td>
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<th>Table III.3. Distribution of respondents by education and gender</th>
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<td>Level of Education</td>
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<td><strong>Total</strong></td>
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Secondly, a leaflet with the description of all the voting rules used in the study and baby-examples for each rule has been distributed door-to-door in all locations of the study. This action was meant to ensure that the potential participants will be aware of the research, thus increasing participation rates, and that they would hold a minimal understanding of the voting rules under which

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3 One polling station was excluded in Racari due to the fact that the building where the station was organized only had one room, so there was no adjacent room where our operators could invite the participants to fill in their questionnaire;

4 Again, one station was excluded in Glodeanu-Silistea for the same reasons as in Racari;
they would be asked to express their vote. Field operators were also instructed to discuss and explain these rules to all the potential participants to the best of their ability. Moreover, field operators were also instructed to assist the participants in filling out their questionnaire if the participants requested or needed help. The baby examples from the leaflets were also present in the polling stations the day of the elections, in case the participants needed to go over them again.

Thirdly, operators were instructed to only approach people who had already cast their official vote and to make sure that they had done so, before inviting them to take part in our study. This caution measure was taken in order to make sure that the study would not disrupt the official voting process.

Fourthly, because we used an intra-subject design, the order in which the counterfactual scenarios regarding the different voting rules appeared in the questionnaire was randomized in order to correct as much as possible for the respondents’ desire for consistency. In other words, the order was randomized so as to minimize the impact of earlier responses to later ones.

The questionnaire began by asking people to list their preferred parties and the order in which they preferred them. They could give up to five choices. This was then considered to be their true preference profile, which would later be compared to people’s vote choice under the several voting rules present in the study. Then, the questionnaire asked people about their vote choice under the following voting rules:

1) Plurality voting in single member districts, also known as first past the post, a system which is used in countries like the United Kingdom, Canada, India and the US. This rule requires that people vote for individual candidates, allowing them to express only one preference. The winner is the candidate that receives the most votes;

2) Alternative voting, a system in which people are asked to rank some or all the candidates in the race and which yields a single winner in single member districts. It is used in Ireland and Australia. In order to determine the winner, first preferences are counted as votes and if a candidate has the majority of first preferences, then that candidate wins. If no candidate has the majority of the first preferences, then the candidate with the least first preferences is eliminated from the race. The votes of the eliminated candidate are distributed to the rest of the competitors and votes are recounted. This procedure is repeated until one candidate has the majority of the votes.

3) Approval voting, a system which to my knowledge is not currently used in mass elections anywhere in the world. However, it is used by several organizations for internal elections. The system requires people approve of, or to vote for as many candidates as they wish. They can

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5 Operators filled in the questionnaires for the respondents if the respondents were unable to read or write. Post-study analysis indicates that there are no systematic differences between self-administered and operator-administered questionnaires;

6 Meaning that we asked all participants to express their vote under all voting rules under study;

7 Single member districts are districts which only one seat to win;
approve one, two, all or none of the candidates. Afterwards, the number of approvals is counted for all candidates and the candidate with the most approvals is declared the winner of the elections.

4) The Romanian mixed–member compensatory system introduced since 2008. This system is based on only one vote, requiring people to vote for individual candidates in single member districts. Using first the Hare quota and then the d’Hondt system, the vote then determines the number of seats that each party and alliance is entitled to nationally and in each county, consisting of several single member districts. Of course, only parties and alliances that have passed the threshold are taken into account. Then, the seats are attributed two candidates in two steps. First, candidates who have received the majority of votes in their single member districts are declared winners and these seats are deducted from the total number of seats that each party of alliance was entitled to. If not all seats have been distributed, then a national list is made out of all candidates according to their absolute number of votes, regardless of the single member district where they ran for office or the party they represent. The rest of the seats are attributed in the order of this list, checking whether each candidate satisfies two conditions: first whether the candidate’s party still has seats to receive and second if the single member district where the candidate has run for office has not been already won by another candidate. This second rule is ignored if one party received more majorities than the total number of seats it was entitled to, thus depriving other candidate’s parties of their seats. In these latter situations, just like in the German case, additional seats are granted and the size of the Parliament is increased.

5) Closed list PR- this system requires people to vote for party lists in multi-member districts, instead of individual candidates. Then, using one of the highest averages methods (d’Hondt, Sainte-Lague etc.) or one of the largest remainders methods (Hare, Droop etc.), the number of seats to which party list is entitled to is determined, more or less proportional to the percentage of votes which that list has received. Finally, the seats of each party are distributed to its candidates in the order they appeared on the party’s list.

6) The majority judgement (Balinski and Laraki, 2010) – a grading system asking people to grade candidates in single member districts from 1 to 10, where 1 is the lowest grade and 10 is the largest. The candidate with the highest median grade (MG) is declared the winner. If two candidates receive the same grade then the percentage of grades above the median grade (MG+) and the percentage of grades below the median grade (MG-) are calculated. The winner is the candidate for whom the difference between (MG+) and (MG-) is greater. The three measures MG, (MG+) and (MG-) determine a candidate’s majority gauge.

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8 For the vote choice under the Romanian mixed-member compensatory system respondents were asked about the real vote they had cast, not to imagine a counterfactual scenario, as this system was the one used in the real elections.
After having indicated their vote choice under the counterfactual scenarios, the respondents were asked a few questions regarding the chances they believed their preferred candidate had to win the elections and also a few socio-demographic questions and questions regarding their level of information about politics in general and about these elections.

The structure of the questionnaire allows for the analysis of the effects of voting rules in two pillars. First of all at the aggregate level, by comparing the results each voting rule yields. The hypothesis to test here is that *when vote choice is fixed, the aggregation rule in place determines the results*. Or in other words, different voting rules yield different winners. But vote choice also depends on the voting rule in place, so to eliminate the impact that each voting rule has on vote choice, the vote choice obtained under each voting rule should be aggregated through all the rest of the rules, in order satisfy the fixed vote choice condition (Blais et. al, 2012). This type of analysis can answer questions long debated in the literature regarding both the properties of voting rules and their consequences in terms of the proportionality, representativeness and fairness in transforming votes into seats (Gallagher 1991, Benoit 200, Lijphart 2003, Norris 2004, Bochsler 2012). This study will only touch upon the consequential side the debate.

Second of all, the individual level effects of voting rules can be analysed by identifying the conditions which increase the probability of vote switch from one rule to the other. Following the literature on strategic voting (Cox 1997, Blais et. al 2012), the voters are most likely to switch their vote to their second or third preference when it is a close elections and their first preference has no chance of winning the election. Thus, they switch their vote so they won’t waste it on a hopeless candidate and so that they will prevent their least preferred candidate from winning. There are two ways of studying vote choice using the data in the questionnaire. The vote choice under each rule can be compared to the preference profile established at the beginning of the questionnaire. The second option would be to assume that vote choice under PR is most likely to be sincere and compare the vote choice under the rest of the rules to the one under PR. Both approaches have flaws. While in the first case we cannot be sure that the ranking given by the voters represents their true preference profile, in the second case we cannot be sure that the PR vote is sincere and voters do not act strategically by thinking of their most preferred coalition and voting in such a manner so as to obtain that outcome. Given that the results of both approaches are quite similar for the data used in this study, I have chosen to present the ones of the second approach. The hypothesis regarding the individual level effects of voting rules which I aim to test is the following: *the less chances her PR choice has to win the elections, the more likely it is that the voter will switch her vote under the other rules.*

A few words need to be said about this hypothesis. First of all, it should be conditional on the elections being competitive. If the voter does not believe that she can influence the outcome of the elections be switching her vote, then she has little incentive to do so. Of course, this affirmation is problematic in itself even in competitive elections as we well know that the probability of
someone having the decisive vote is close to 0 in any mass elections. However, in spite of that people still go to the polls and vote, sometimes even strategically as previous research has shown (Cox 1997), especially in competitive elections. Furthermore, the question is whether the elections need to be competitive from an objective point of view or whether it is enough for the voter to believe them to be so even when they are not, in order for her to vote strategically. Unfortunately, the data collected doesn’t include a question regarding the subjective perception of the competitiveness of the elections, so the analysis will rely on the objective measure of competitiveness.

Secondly, the same issue regarding the subjective/objective perception of a candidate’s chances of winning the elections arises. Because all the rules under study except PR belong to the majoritarian family, the objective measure of the candidate’s chances of winning would be to check whether the voter’s choice under PR is one of the first two ranked parties in the district (Blais et. al. 2012). If it is, according to Cox’s M+1 rule (Cox 1997), that candidate has a real chance of winning the elections, as the rule predicts that the magnitude of the district plus one gives the number of viable candidates in the district. However, the data also includes a question regarding the most likely candidate to win the elections and one regarding the chances of the most preferred candidate, so the analysis will include both measures.

Finally, as Blais et. al. (2012) pointed out, another reason for vote switching might be that the voters prefer one party nationally and another party’s candidate in their district. Thus, if the rule asks them to vote for national party lists as in the case of PR they might have one vote choice and if the rule asks them to vote for individual candidate in their districts they might have another. Therefore, the analysis has to also account for these situations.

IV. Results

IV.1. Aggregate results

As previously mentioned, in order to determine the impact of the voting rules used in study, we first need to look at the outcome of the elections under each of these rules. To do so, the data collected have first been weighted in accordance to the true vote share that each competitor has received in each of the localities where the study has been carried out. The table below displays the outcome of the elections under each of the rules.

9 Competitive elections are usually believed to be those in which the difference in vote share between the first two ranked candidates or parties is less than 15-20% (Cox 1997)

10 The magnitude of the district refers to the number of seats that elected in that district
As the table above indicates, the results do not dramatically change from one rule to another. The winner is always USL regardless of the rule in place and the order of the second and third runner up never changes. Moreover, there is not much difference between PR and plurality of AV, although the theoretical expectation is that smaller parties would rank higher under PR as opposed to plurality or AV. The only noticeable change, although still small in magnitude, can be observed when moving to approval voting. Under the approval voting rule the first runner up, USL, always scores a bit lower than it does under the rest of the rules.

As reported by the respondents in our survey:

Table IV.1.1. Aggregate results under the different voting rules in each District

<table>
<thead>
<tr>
<th>District</th>
<th>Most preferred party</th>
<th>Plurality</th>
<th>First Preference AV</th>
<th>PR</th>
<th>Real Vote&quot; (Romanian mixt-member system)</th>
<th>Approval</th>
</tr>
</thead>
<tbody>
<tr>
<td>District1</td>
<td>USL</td>
<td>59.01</td>
<td>57.53</td>
<td>57.41</td>
<td>58.62</td>
<td>59.11</td>
</tr>
<tr>
<td></td>
<td>ARD</td>
<td>15.55</td>
<td>18.49</td>
<td>19.39</td>
<td>19.31</td>
<td>16.84</td>
</tr>
<tr>
<td></td>
<td>PP-DD</td>
<td>19.43</td>
<td>18.84</td>
<td>20.91</td>
<td>18.97</td>
<td>18.90</td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td>6.01</td>
<td>5.14</td>
<td>2.28</td>
<td>3.10</td>
<td>5.15</td>
</tr>
<tr>
<td>District4</td>
<td>USL</td>
<td>75.52</td>
<td>73.58</td>
<td>74.30</td>
<td>74.87</td>
<td>74.48</td>
</tr>
<tr>
<td></td>
<td>ARD</td>
<td>18.75</td>
<td>18.65</td>
<td>18.44</td>
<td>18.85</td>
<td>17.19</td>
</tr>
<tr>
<td></td>
<td>PP-DD</td>
<td>5.21</td>
<td>7.77</td>
<td>5.59</td>
<td>5.24</td>
<td>7.81</td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td>0.52</td>
<td>0.00</td>
<td>1.68</td>
<td>1.05</td>
<td>0.52</td>
</tr>
<tr>
<td>Buzau</td>
<td>USL</td>
<td>71.43</td>
<td>71.83</td>
<td>74.01</td>
<td>69.40</td>
<td>72.03</td>
</tr>
<tr>
<td></td>
<td>ARD</td>
<td>10.36</td>
<td>7.39</td>
<td>6.86</td>
<td>8.19</td>
<td>5.59</td>
</tr>
<tr>
<td></td>
<td>PP-DD</td>
<td>12.14</td>
<td>16.55</td>
<td>16.97</td>
<td>15.66</td>
<td>18.88</td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td>6.07</td>
<td>4.23</td>
<td>2.17</td>
<td>6.76</td>
<td>3.50</td>
</tr>
<tr>
<td>Dimbovita</td>
<td>USL</td>
<td>67.24</td>
<td>60.30</td>
<td>62.37</td>
<td>63.59</td>
<td>63.02</td>
</tr>
<tr>
<td></td>
<td>ARD</td>
<td>18.17</td>
<td>24.76</td>
<td>25.80</td>
<td>21.01</td>
<td>22.99</td>
</tr>
<tr>
<td></td>
<td>PP-DD</td>
<td>11.16</td>
<td>11.76</td>
<td>10.93</td>
<td>11.90</td>
<td>10.80</td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td>3.43</td>
<td>3.18</td>
<td>0.91</td>
<td>3.50</td>
<td>3.19</td>
</tr>
<tr>
<td>Ialomita</td>
<td>USL</td>
<td>64.40</td>
<td>53.16</td>
<td>65.29</td>
<td>62.38</td>
<td>56.39</td>
</tr>
<tr>
<td></td>
<td>ARD</td>
<td>24.53</td>
<td>33.44</td>
<td>23.88</td>
<td>24.28</td>
<td>31.43</td>
</tr>
<tr>
<td></td>
<td>PP-DD</td>
<td>8.23</td>
<td>10.79</td>
<td>9.62</td>
<td>11.90</td>
<td>11.25</td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td>2.85</td>
<td>2.62</td>
<td>1.20</td>
<td>1.45</td>
<td>0.92</td>
</tr>
</tbody>
</table>

11 As reported by the respondents in our survey:
Also, the vote share of other minor parties that are not ranked among the first three tends to be a lot higher in most cases (with the exception of Ialomita).

The results under approval voting come as a bit of a surprise, since the vast majority of people have chosen to approve only one candidate, even though they had the option of expressing their preference for as many candidates as they wanted to. Out of the whole sample, 85.25% have only expressed approval for one candidate, 8.17% for two candidates and less than 3% have more than two approvals. The table below displays the percentage of people expressing one, two or more approvals by district.

<table>
<thead>
<tr>
<th>No. of approvals</th>
<th>District 1 Bucharest</th>
<th>District 4 Bucharest</th>
<th>Buzau</th>
<th>Dimbovita</th>
<th>Ialomita</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>4.12</td>
<td>4.15</td>
<td>2.81</td>
<td>3.73</td>
<td>6.15</td>
<td>4.43</td>
</tr>
<tr>
<td>1</td>
<td>89.69</td>
<td>86.53</td>
<td>88.77</td>
<td>86.88</td>
<td>79.08</td>
<td>85.25</td>
</tr>
<tr>
<td>2</td>
<td>5.84</td>
<td>8.81</td>
<td>7.37</td>
<td>8.01</td>
<td>9.69</td>
<td>8.17</td>
</tr>
<tr>
<td>3</td>
<td>0.34</td>
<td>0.52</td>
<td>1.05</td>
<td>1.38</td>
<td>2.77</td>
<td>1.59</td>
</tr>
<tr>
<td>4</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>1.54</td>
<td>0.47</td>
</tr>
<tr>
<td>5</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.77</td>
<td>0.23</td>
</tr>
</tbody>
</table>

I turn now to the majority judgement voting system, based on grading candidates from 1 to 10, where 10 is the highest grade. No significant differences can be noticed under this system either. USL is still the winner with a median grade ranging from 9- to 10, followed by ARD with a median grade between 5- and 8- and then by PP-DD with a median grade between 2- and 7+. However, a small change can be noticed in Buzau County where ARD slightly surpasses PP-DD under the grading system where as under all the other voting rules PP-DD is ahead.

<table>
<thead>
<tr>
<th>County</th>
<th>USL</th>
<th>ARD</th>
<th>PP-DD</th>
<th>Other 1</th>
<th>Other 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bucharest</td>
<td>39.2</td>
<td>9 -</td>
<td>42.9</td>
<td>4.4</td>
<td>45.4</td>
</tr>
<tr>
<td>Buzau</td>
<td>0</td>
<td>10</td>
<td>44.2</td>
<td>7 +</td>
<td>4.6</td>
</tr>
<tr>
<td>Dimbovita</td>
<td>33.4</td>
<td>9 -</td>
<td>47.5</td>
<td>36.2</td>
<td>5 -</td>
</tr>
<tr>
<td>Ialomita</td>
<td>36.3</td>
<td>9 -</td>
<td>50</td>
<td>14.8</td>
<td>4.6</td>
</tr>
<tr>
<td>Overall</td>
<td>48</td>
<td>9 +</td>
<td>45.7</td>
<td>36.9</td>
<td>4.6</td>
</tr>
</tbody>
</table>

Where MG is the Majority Grade, MG+ is the percentage of grades above MG and MG- is the percentage of grades below MG, the three components of the Majority Gauge of a Candidate (Balinski and Laraki, 2010 :13)
Looking at the grades received by the three major parties in these elections from their own voters and other parties’ voters, it seems that their own voters always tend to rank their candidates higher than the rest of the electorate. Grades from their own electorate range from 8+ to 10, while grades from non-voters (people who took part in the elections, but voted for another party or alliance) range from 1 to 7+. Therefore, given that most of their own electorate ranked the candidates so high, it is safe to assume that the observed difference in grades between the candidates is mostly due to grades received from non-voters. The higher the percentage of non-voters in the population that showed up at the polls, the bigger the difference between a candidate’s median voters’ grade and the final median grade that candidate received. Following this logic, USL is the least affected by the non-voters’ evaluation because most of the electorate (over 60%) is composed of USL voters, while final median grades for ARD and PP-DD come closer to non-voters evaluations. Thus, it seems that voters have a better chance of influencing other parties’ final grades than their own party’s. So, if wanting to act strategically under this rule, all they can do is try to lower other candidates’ grades.

Table IV.14. The Majority Gauges by County and Party separately for Voters and Non-Voters

<table>
<thead>
<tr>
<th>County</th>
<th>Voters</th>
<th>Non-Voters</th>
<th>Voters</th>
<th>Non-Voters</th>
<th>Voters</th>
<th>Non-Voters</th>
<th>Voters</th>
<th>Non-Voters</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bucuresti</td>
<td>46.2</td>
<td>9 + 32.6</td>
<td>35.5</td>
<td>8 + 32.3</td>
<td>20</td>
<td>9 - 40</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>0 38.9</td>
<td>0 10</td>
<td>42.9</td>
<td>0 10</td>
<td>39.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Buzau</td>
<td>41.7</td>
<td>7 - 45.8</td>
<td>43.6</td>
<td>7 + 42.6</td>
<td>31.3</td>
<td>7 - 49.4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dimbovita</td>
<td>40.7</td>
<td>9 + 36.4</td>
<td>0 10</td>
<td>49.9</td>
<td>50</td>
<td>9 50</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>47.1</td>
<td>5 + 38</td>
<td>47.8</td>
<td>6 + 42</td>
<td>47</td>
<td>5 + 38.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>47.5</td>
<td>9 + 37.6</td>
<td>47.1</td>
<td>9 + 37.4</td>
<td>0 10</td>
<td>42.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ialomita</td>
<td>40.1</td>
<td>7 - 46.8</td>
<td>48.7</td>
<td>6 + 40.4</td>
<td>48.5</td>
<td>5 + 41.8</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>46.6</td>
<td>9 + 34.8</td>
<td>47.7</td>
<td>9 + 36.3</td>
<td>0 10</td>
<td>44.7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overall</td>
<td>44.9</td>
<td>6 - 47</td>
<td>47.4</td>
<td>6 + 42.9</td>
<td>47.1</td>
<td>5 + 41.3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Where MG is the Majority Grade, MG+ is the percentage of grades above MG and MG‐ is the percentage of grades below MG, the three components of the Majority Gauge of a Candidate (Balinski and Laraki, 2010:13).

In conclusion, there is no noticeable difference in the mechanical effects that each of these rules has produces at the aggregate level. Due to the absence of these differences, no conclusions can be drawn regarding the rules’ effects on representation, proportionality or fairness in this particular context. The explanation for this result might lay in the fact that these elections have been quite non-competitive with the grand coalition USL winning about 60% of the vote in almost every district of the country. Had the parties in USL run separately, we might have observed considerable differences between the results that each rule would have produced. However, there is some variation between the vote shares that each rule

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12 The electorate that took part in the elections was divided for each into voters and non-voters by the respondents’ self-reported official vote in the questionnaire. For example, if a person reported having voted for USL in the official elections than she was classified as a USL voter, while if she reported having voted for any other party or alliance she was classified as a non-voter for USL.
returned, meaning that there has been some vote switch. Therefore it is worth looking at the individual level and trying to explain why some people have chosen to change their vote when the rule changed.

IV.2. Individual level results

In order to assess the individual level effects of the rules under study on vote choice, I employ a series of logistic regressions where the dependent variable is a dummy variable which takes the value 1 if the respondent has switched her vote from one voting rule to another. I then try to explain the vote switch using two main predictors (Blais et. all.2012): whether the respondent prefers the candidate of a different party in the district than the party she prefers nationally, coded as 1 whether she prefers a different candidate and 0 otherwise (dif_cand) and whether the candidate’s most preferred party is not one of the two strongest parties in the district where she lives, again coded as 1 if the previous statement is true for the respondent and 0 otherwise (weak). I also include a series of control variables:

- **age**: measured in number of years;
- **male**: gender, coded as 1 for males and 0 for females;
- **edu**: education, measured on a 8 point scale, according to the last level of education completed;
- **income**: measured on a 6 point scale;
- **info**: the information level, constructed as a factorial scale out of three variables regarding the frequency with which the respondent informs herself about politics in general and her estimated level of information regarding politics in general and the electoral campaign; each of these three variables were measured on a 5 point ordinal scale;

- **party, candidate**: the most important factor in decided who to vote for: the candidate, the party or the leader, coded as dummy variables;

- **compet**: whether the regional elections for the county council\(^\text{13}\) that took place in June 2012 were competitive\(^\text{14}\) in district where the respondent comes; two out of the four districts where the study took place had competitive regional elections: Ialomita and Dimbovita;

\(^{13}\) In these elections closed list PR is used to elect the county council;

\(^{14}\) The vote share difference between the first two ranked parties was smaller than 20%;
- *chance: a dummy variable taking the value 1 if the respondent believes that the candidate of the party that the respondent has chosen under PR has no chance of winning the election.

**IV.2.1. Vote switch between PR and plurality (first past the post)**

<table>
<thead>
<tr>
<th>Table IV.2.1.1 PR vs. Plurality</th>
<th>Model1</th>
<th>Model2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>-1.81 (0.68)**</td>
<td>-2.69 (0.75)***</td>
</tr>
<tr>
<td>Info</td>
<td>-0.11 (0.14)</td>
<td>0.002 (0.15)</td>
</tr>
<tr>
<td>Party</td>
<td>-0.05 (0.32)</td>
<td>-0.16 (0.34)</td>
</tr>
<tr>
<td>Candidate</td>
<td>-0.32 (0.34)</td>
<td>-0.43 (0.36)</td>
</tr>
<tr>
<td>Dif_cand</td>
<td>1.60 (0.39)***</td>
<td>0.76 (0.43)</td>
</tr>
<tr>
<td>Edu</td>
<td>-0.18 (0.09)</td>
<td>-0.12 (0.10)</td>
</tr>
<tr>
<td>Age</td>
<td>-0.0006 (0.007)</td>
<td>0.001 (0.007)</td>
</tr>
<tr>
<td>Male</td>
<td>-0.18 (0.24)</td>
<td>-0.14 (0.26)</td>
</tr>
<tr>
<td>Income</td>
<td>0.07 (0.11)</td>
<td>0.04 (0.12)</td>
</tr>
<tr>
<td>Weak</td>
<td>0.91 (0.28)***</td>
<td>0.38 (0.31)</td>
</tr>
<tr>
<td>Compet</td>
<td>0.79 (0.29)**</td>
<td>0.76 (0.31)*</td>
</tr>
<tr>
<td>Chance</td>
<td>2.08 (0.27)***</td>
<td></td>
</tr>
<tr>
<td>AIC:520.13</td>
<td>AIC:465.87</td>
<td></td>
</tr>
</tbody>
</table>

Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1

Model 1 indicates that the most relevant factors in explaining vote switch are whether the voter prefers the candidate of a different party in her district that her preferred party overall, whether her preferred party is not one of the two strongest parties in the district and whether the district had competitive regional elections. All factors mentioned above have a positive effect on the probability of vote switch. Education has a minor negative effect in this first model, with better educated people being more likely to stick with their PR choice. However, the effect disappears in the second model. Therefore, according to the first model, it is more likely for a voter to change her vote moving from PR to plurality if she votes in a competitive district, if her preferred party is weak and also if she favours another party’s candidate that the one her preferred party has nominated in her district.

Interestingly enough, when introducing in the second model the subjective perception on who will win the elections in the district (Chance), both the competitiveness of the elections and the sympathy for another party’s candidate than that of the preferred party become weaker predictors, both in significance and in impact. Moreover, the objective perspective on the chances that the PR choice has of winning the elections loses any significance. In order words, what matters most is whether the voter believes that her preferred candidate has or doesn’t have the most chances of winning the elections. If the voter believes her preferred candidate will lose the elections, then she is seven times more
likely to switch her vote even if that candidate did in fact have a real chance of winning the elections according to Cox’s M+1 rule (Cox, 1997).

In order to better understand the effects that these factors have on vote choice, I run a series of simulations and plot the expected probabilities for hypothetical individuals having in turn one of the characteristics mentioned above. All other variables, except for those of interest, have been either set to their median value (where it was possible to do so) or set to a certain fixed value. For example age and education have been set to their median, while gender was set to 1 because the median value for gender has no meaning. Figures IV.2.1.1 to 2.1.4 are based on model I, while the last two 2.1.5 and 2.1.6 show the differences introduced by the addition of the subjective perspective on winner of the elections in model II. The first thing to notice is that having to vote in a competitive district might double the chances of vote switch in comparison to having to vote in a non-competitive district, all things being equal. The probability of vote switch when moving from PR to plurality increases from about 5% to 10% when the district becomes competitive. If in addition the preferred candidate is not one of the two strongest ones in the district further increases the probability of vote switch one and a half times, bringing it close to 25%. Or, if the voter feels closed to another party’s candidate than the one nominated by her favourite party in the district, then the probability of vote switch increases four time, getting close to 40%. Therefore, it is more likely that voters will change their vote due to personal characteristics of the candidate and not due to strategic reasons, though this does not exclude strategic voting.

Figure IV.2.1.1 Simulation based on Model I
Figure IV.2.1.2 Simulation based on Model I
Even when controlling for candidate effects, figure IV.2.1.2 indicates that there one fourth of the time strategic voting explains the voting behaviour of the electorate who prefers weak candidates in competitive districts. The literature on strategic voting (Dutch and Palmer 2002) indicates that information, as part of the voter’s political sophistication matters. Looking at figure IV.2.1.4, it seems that both well informed and non-informed voters have about the same probability of switching their vote. The effect is slightly negative, with better informed voters having a lower probability of vote switching, which makes sense if we take into account model II, because better informed voters have a better chance of correctly estimating their preferred candidate’s chances of winning the elections and only switching if that candidate objectively have a low chance of winning.

Introducing the subjective perspective of the voter on the most likely winner of the elections, the second model indicates that the probability of vote switch increases seven
times, approaching 40%, if the believed winner is not the voter’s preferred candidate. All else being equal, when the subjective perspective is introduced, liking better another party’s candidate diminishes in effect, only doubling the probability of vote switch, instead of increasing it four times as in the previous model.

IV.2.2. Vote switch between PR and AV (first preference)

Table IV.2.2.1 PR vs. AV

<table>
<thead>
<tr>
<th></th>
<th>Model1</th>
<th>Model2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>-1.86 (0.71)**</td>
<td>-2.73 (0.78)***</td>
</tr>
<tr>
<td>Info</td>
<td>-0.12 (0.15)</td>
<td>-0.03 (0.16)</td>
</tr>
<tr>
<td>Party</td>
<td>-0.24 (0.33)</td>
<td>-0.38 (0.35)</td>
</tr>
<tr>
<td>Candidate</td>
<td>-0.41 (0.35)</td>
<td>-0.51 (0.37)</td>
</tr>
<tr>
<td>Dif_cand</td>
<td>1.74 (0.39)***</td>
<td>0.96 (0.42)*</td>
</tr>
<tr>
<td>Edu</td>
<td>-0.07 (0.09)</td>
<td>-0.007 (0.10)</td>
</tr>
<tr>
<td>Age</td>
<td>0.002 (0.007)</td>
<td>0.006 (0.008)</td>
</tr>
<tr>
<td>Male</td>
<td>-0.18 (0.26)</td>
<td>-0.15 (0.27)</td>
</tr>
<tr>
<td>Income</td>
<td>-0.05 (0.12)</td>
<td>-0.09 (0.12)</td>
</tr>
<tr>
<td>Weak</td>
<td>0.97 (0.30)***</td>
<td>0.43 (0.32)</td>
</tr>
<tr>
<td>Compet</td>
<td>0.35 (0.29)</td>
<td>0.28 (0.30)</td>
</tr>
<tr>
<td>Chance</td>
<td>1.99 (0.29)***</td>
<td></td>
</tr>
<tr>
<td>AIC: 478.62</td>
<td>AIC: 435.13</td>
<td></td>
</tr>
</tbody>
</table>

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1

Moving on to alternative voting, it seems that voters are more prone to switch their PR vote if they like more another party’s candidate and if their preferred candidate is weak. Under alternative voting, the competitiveness of the district loses all significance, probably because it is harder for voters to distinguish between competitive and non-competitive districts under this more complex rule. For the sake of uniformity, I will however continue to illustrate results separately in competitive and non-competitive districts, showing each time that competitiveness does not make a difference. Introducing the subjective identification of the winner in the model again surpasses all other criteria, especially the objective perspective on the strength of the candidates which loses all significance. As with plurality, preferring another party’s candidate still matters, though its effect is diminished. Figures IV.2.2.1 to 2.2.6 illustrate these results.

The competitiveness of the district increases the probability of vote switch by 40%, from approximately 5% to 7%, but the effect is not significant. Figure IV.2.2.1 also illustrates this situation, with the two confidence intervals clearly overlapping. Preferring a weak candidate increases the odds of vote switch one and a half times, bringing the probability close to 20-25%. Personal characteristics of the candidate have a strong impact on vote switch, increasing the probability of its occurrence by four and a half times, moving close to
40% chances of vote switch. The effect is slightly stronger than in the case of plurality. Finally, the level of information has again a slightly negative but insignificant effect. All voters, regardless of their level of political information have the same probability of vote switch.

![Figure IV.2.2.1 Simulation based on Model I](image1)
![Figure IV.2.2.2 Simulation based on Model I](image2)
![Figure IV.2.2.3 Simulation based on Model I](image3)
![Figure IV.2.2.4 Simulation based on Model I](image4)

Just like with plurality, introducing the subjective perspective on the winner increases the chances of vote switch more than six times, if the winner is not believed to be the voter’s favourite candidate. Even though the effect is slightly lower than under plurality, it is still the most important factor in explaining voting behaviour. Looking at the impact of personal characteristics of the candidates, the effect drops from 4.5 times to 1.5. However, it is still significant and it still lifts the probability to about 15-20%.
In conclusion, results under alternative voting are quite similar to the ones under plurality. Evidence of strategic-like behaviour still exist, this theory being able to explain voting behaviour about one fifth of the time, according to the objective perspective on the stakes of the elections. Interestingly enough, the subjective perception of a candidate’s chances of winning is still the most important element in explaining voting behaviour, though its effects are slightly diminished, probability due to the complexity of the rule and the difficulty in identifying situations with strategic potential when this rule is used.

IV.2.3. Vote switch between PR and the Mixed-member Romanian electoral system

| Table IV.2.3.1 PR vs. the Mixed-member Romanian electoral system |
|-----------------|-----------------|-----------------|
| Model 1         | Model 2         |                 |
| Intercept       | -2.27 (0.73)**  | -3.05 (0.79)*** |
| Info            | -0.17 (0.15)    | -0.10 (0.16)    |
| Party           | -0.01 (0.35)    | -0.09 (0.37)    |
| Candidate       | -0.07 (0.37)    | -0.12 (0.38)    |
| Dif_cand        | 2.22 (0.37)***  | 1.57 (0.41)***  |
| Edu             | -0.06 (0.10)    | -0.005 (0.10)   |
| Age             | -0.004 (0.007)  | -0.001 (0.008)  |
| Male            | -0.11 (0.26)    | -0.09 (0.27)    |
| Income          | 0.14 (0.12)     | 0.11 (0.12)     |
| Weak            | 1.05 (0.30)***  | 0.55 (0.32)     |
| Compet          | 0.33 (0.29)     | 0.29 (0.30)     |
| Chance          | 1.77 (0.28)***  |                 |
| AIC: 472.86     | AIC: 439.09     |                 |

Results for the Romanian mixed-member compensatory system place it somewhere between plurality and alternative voting. While it shares the impact of preferring weak
candidates with plurality, it resembles the alternative voting system when it comes to the competitiveness of the districts. It is to be expected that competitiveness does not play a big role under the Romanian system for two reasons. First of all, as the aggregate results have shown, there was little competition to begin with in these elections. Second of all, voters know that weaker candidates might still have a chance of winning a seat through redistribution even though it is more difficult to predict their chances, so they might less inclined to switch their vote even in competitive settings.

However, figure IV.2.3.2 indicates that the probability of vote switch is almost doubled when the voter prefers a weak party, behaving in a similar way to plurality. The effect is a little bit weaker than in for plurality or alternative voting, bringing the probability up to only 20% chances of switch. Thus, the voting behaviour of some people is still explained by strategic voting at least one fifth of the time. I believe this is again caused by the complexity of the system, as people might have a difficult time predicting the outcome of the distribution, but they might be able to predict the outcome of the first majoritarian component and try to take the safer path in trying to influence the majoritarian winner. Surprisingly enough, liking best another party’s candidate has the most powerful effect on vote choice, increasing the probability of vote switch eight times. This comes to stress that the system is candidate centred at least for the majoritarian component, even though parties play a key role in the proportional redistribution component. Information levels have again little effect on vote choice, with informed and non-informed voters behaving the same way.

![Figure IV.2.3.1 Simulation based on Model I](image1)

![Figure IV.2.3.2 Simulation based on Model I](image2)
Moving on to the second model, results resemble previous ones from plurality and alternative voting. The subjective perspective on who the winner is becomes the most powerful factor in vote choice, increasing the probability of vote switch almost five time. The impact is however a bit weaker than in previous cases, only bringing the probability up to 30-35%. Preferring a weak candidate loses in impact and significance, only increasing the probability of vote switch by about 70%. And given that the initial probability is small to begin with, preferring a weak candidate only give about 15% chances of voting for a different candidate.
Liking better another party’s candidate still have a powerful effect under the Romanian system although diminished by half in comparison to the first model. All else being equal, the chances of vote switch increase almost four times approaching 30%. It has the strongest impact on vote choice out of the three rules, even when introducing the subjective perception of the elections’ winner.

V. Concluding remarks

This study has aimed at researching the impact of several voting rules both on outcomes and on voting behaviour, using a quasi-experimental design. Although previous research has been carried out on these rules and also this methodology has been used before to try to answer similar questions, to the best of my knowledge, no study has focused on Eastern European countries as the setting for a quasi-experimental design researching voting rules. But context might matter and using the same type might not bring out its effects because it is always held constant in this type of studies, while only the aggregation rule varies (Laslier and Van der Straeten 2008, Blais et. all 2012, Ferrer and Granić 2012). The study presented here is no exception, as all rules are studied in the Romanian setting. However, the Romanian setting is a variation in itself compared to previous studies and the use of a similar methodology and analysis allows some comparison to previous studies. While in all the studies cited above the winner changes with the rule, at least in comparison to the official results, in the Romanian case it does not. Given the non-competitive character of
the 2012 Romanian elections, this result is not surprising. In more competitive elections, where the difference between the first and the second runner up would be less than 20%, similar conclusions regarding the aggregate results might be also drawn for Romania. The lack of variations in the aggregate results might also be favoured by the low percentage of vote switch from one rule to the next. In the Romanian case it was about 10%, compared to about 25% in the Ontario case presented by Blais et. al (2012). The 10% couldn’t make much difference in a setting where the vote gap between the first and second runner up is three or sometimes four times larger. Thus, further research is necessary to better assess the aggregate impact of these rules in an Eastern European country.

The impact of non-competitiveness on the aggregate outcomes might also influence individual behaviour as, according to Duverger (1951), vote choice is a response to the anticipation of these outcomes. It then follows that Romanian voters had little to none incentives to act strategically, as supporters of smaller parties had extremely low odds of influencing the results. The data indicates however that there has been a bit of vote switch when comparing the rest of the rules with the PR vote. The statistical analyses ran on plurality vs. PR, AV vs. PR and the Romanian mixed-member compensatory system vs. PR, all indicate that people more inclined to change their vote if their first preference is a weak candidate or if they like better another party’s candidate than the one nominated by their preferred party in their district. The first case is in line with the theory of strategic voting and with the findings of Blais et. al (2012). However, the novelty of this study is that it shows that this effect is strongest when instead of labelling strong and weak candidates according to their vote share, we label them according to the voter’s perception. In other words, voters are most inclined to switch their vote if they perceive their preferred candidate as weak, be that objectively true or not. This means that, voters might be inclined to move away from actually viable candidates if they perceive them as weak.

In conclusion, results for the Romanian study are not that different from previous results, maybe just a bit weaker, which might come from the non-competitiveness character of the 2012 elections or from peculiarities of the Romanian voters, who are not as used to voting as other voters from non-post-communist countries. Thus, further research on more competitive elections is necessary in order to check for the robustness of these findings.
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