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Mixed electoral systems with compensatory mandates - such as the mixed-member proportional electoral system, the positive or the negative vote transfer system - allow for various types of electoral strategies by political parties. The impact of these strategies on the seat allocation varies, however, considerably. This rejoinder compares the various types of electoral strategies, and how they alter the seat allocation.

In four countries, major political parties have in the last decades effectively employed large-scale electoral strategies, in order to alter the seat allocation in parliament to their favour, while respecting the electoral rules. In all four cases - Albania, Lesotho, Venezuela and Italy - major parties could make major gains by running with multiple lists in different tiers under mixed electoral systems with compensatory mandates (MMP) (Elklit 2008; Bochsler 2012). My article in *Representation* (Bochsler 2014) suggests that such *list-splitting strategies*, to which MMP systems are vulnerable, are impossible under the positive vote transfer (PVT), a subtype of mixed electoral systems with compensatory mandates.¹ This does not mean, however, that PVT is immune against strategic voting. XXX [the author of the response] rightly points out other, comparable strategies, which allow parties to increase the number of seats they win in parliament. Indeed, under the PVT with a large number of compensation seats, “small parties will be over-represented in parliament” (Bochsler 2014). Electoral systems with this property suffer from the *party-split paradox*: large parties can make gains in seats, if they divert some of their votes to ‘clone lists’.

This rejoinder provides for an overview over three different types of party strategies under mixed electoral systems, compares these strategies, and their effects on the seat allocation, and discusses the scope conditions under which these strategies work. Using simulations I analyse the implications of party strategies under MMP, PVT, and the Negative Vote Transfer system (NVT).² The rejoinder argues that (except for PVT/NVT systems with a very large number of compensation seats), the consequences of the *party-split paradox* highlighted by XXX are lower than the ones of list-splitting strategy under MMP systems. While none of the mixed electoral systems with compensatory elements is strategy-proof, some are more vulnerable to manipulation than others.

1. Three party strategies under mixed electoral systems

Mixed electoral systems offer an entire menu of incentives for strategic behaviour (Bochsler and Bernauer 2014). Some of these strategies are well-known from conventional electoral systems, others are specific to mixed systems. I distinguish three kinds of strategies under mixed electoral systems with compensatory mandates. Each of the three strategies allows political parties to increase their seat share in parliament by splitting their votes on several lists, without gaining any additional vote.

First, electoral systems, which provide for a higher representation ratio for small parties than for large parties, give leeway to large parties to split their votes on several lists. This will allow them to win extra seats. I define this property as the *party-split paradox*.³ As my article

¹ In my article in *Representation*, the references to the PVT as immune against strategic manipulation (Bochsler 2014, 113), and cited by XXX, were related to the particular list-splitting strategy under MMP systems.

² For definitions of the system, and a detailed account of the strategies, I refer to my article in *Representation*, and to the response by XXX.

³ There can be other paradoxes involved in proportional seat allocation formulas (Balinski and Young 2001), but they mostly rely on a very limited number of votes, so that strategic action would require a very precise anticipation of the vote distribution. I highlight the party-split-paradox, because it can be used by strategic actors.

in *Representation* shows, the PVT with a large number of compensation seats figures among the electoral systems, which over-represent small parties, and therefore suffers from the *party-split paradox*. Under the PVT with a large number of compensatory seats, parties gaining single-seat district mandates are under-represented, whereas parties with no district mandates are over-represented. Parties might turn the party-split paradox to their own advantage, by presenting several candidates in districts, where their candidate might win the mandate. The parties will place their second (and possible further) candidates either on a 'clone list', this can either be the list of an allied party, or a list set up for the purpose of the electoral strategy. With this *transfer-vote strategy*, parties avoid winning the district mandate, and instead transfer the vote to the proportional allocation. Votes counted in the proportional part of the electoral system, for the compensation seats, result in a better representation in parliament, than votes spent for successful district candidates. Hence, under the transfer-vote strategy, parties try to make best use of their votes.

This *transfer-vote strategy* only pays out if the seat-vote ratio is larger in the compensatory tier than in the district tier. My article in *Representation* shows that this only is the case if the electoral law provides for more compensatory seats than needed for proportionality. The cut-off line, beyond which this effect comes into play, is determined by the average vote share for the winning candidate in the single-seat districts. If district winners obtain 50% of the district votes, on average, then PVT systems, allocating more than (roughly) 50% of the seats as compensatory mandates will over-represent small parties, and allow for the transfer-vote strategy. If district winners obtain 40% of the votes, then only PVT systems with more than 60% compensation seats will allow the strategy. The transfer-vote strategy might also play in a few isolated districts (but not in others), provided that the number of votes, at which district mandates are won, varies between the districts. These are the districts, where the vote share, at which the district mandate is won, is particularly large.

As the transfer-vote strategy is determined by the average number of votes for the district winner, it is endogenous to party strategies. As it occurred in other types of strategic list-splitting (Ignazi 2002; Bochsler 2012), once one party employs such a strategy, others will follow. However, under the PVT, strategic behaviour by one party will change the parameters for the *transfer-vote strategy* change: the district winner vote share will decrease. This, again, reduces the representation ratio (seat-vote-ratio) of small parties, and increases the ratio of large parties. Once the loophole is exploited systematically, it will be closed. Nevertheless, electoral systems, which do not to provide incentives for such strategic behaviour, would be preferable.

The strategy overlaps with the *stronghold-split strategy*, also applicable under the PVT. However, the stronghold-split strategy works irrespective of the number of seats allocated in the compensatory tier. In party strongholds, candidates win their district by a large margin over the second-largest party. This is not very fortunate for their party: they could win the mandate even with fewer votes, and transfer the difference in votes to the party list. To make these gains, parties might present two candidates in every district in their stronghold. One of the candidates runs on the party list, the second on a 'clone list'. Ideally, one of the two candidates wins the mandate with a very narrow lead of only one vote over the candidate of the second-largest party, so that all other votes benefit the second candidate of the largest party and are transferred to the party list. I define this as the *stronghold-split-strategy*. With the stronghold-split strategy, parties aim at eliminating excess votes for safe seats, making use of all their votes.

To eliminate this strategy, legislators might opt for the Negative Vote Transfer (NVT) system. Differently from the PVT, successful district candidates under the NVT carry all excess votes to the vote transfer tier, i.e. those votes, which they did not need to win the district mandate. The NVT needs, however, a substantially larger number of compensation seats than PVT in order to provide for proportional results.

Third, XXX refers to the *list-splitting strategy*, which has repeatedly been observed under more common MMP rules (Elklit 2008; Bochsler 2012). Parties, which are likely to gain district mandates, might put up a clone list, and advise their voters to vote for the candidates on the party list in the district tier, while casting their party vote for the clone list. With the list-splitting strategy, parties avoid the compensatory mechanism of the electoral system, and manage to convert the district vote and the list vote separately into seats. Thus, major parties give their own voters a larger weight in the seat allocation, compared to the votes cast for other parties. The strategy even applies to MMP systems with a single ballot: parties might move all those candidates, who are unlikely to win their district to a ‘clone list’, and complement it with the *stronghold-split-strategy* discussed above, although the effect will be lower than in two-ballot MMP systems, and it requires parties to anticipate the election result.

In the remaining parts of this rejoinder, I analyse the magnitude of the different party strategies, and compare the effects under different types of electoral systems. Due to the inter-dependencies of the vote distribution, the strategic behaviour, and the properties of the electoral system, highlighted above, simulations might be best suited to study the effects.

2. Simulation

This paragraph estimates the impact of the three discussed strategies on the seat allocation under three types of mixed electoral systems with proportional features, PVT, NVT, MMP. The simulation relies on the vote distribution in the Hungarian 2006 elections,⁴ and hypothetical electoral strategies. The Hungarian electoral system combines the positive vote transfer with a second vote, which determines the party seats allocated in a parallel tier. This is particularly fruitful for the simulation: the district vote allows to simulate the PVT and NVT systems (see also Bochsler 2014, 119), whereas for the MMP simulations, both votes are used. The Socialist Party (MSZP) is picked as the hypothetical strategic agent. The scenarios of the simulation illustrate the maximum possible consequences of strategy, and while they illustrate empirically not always realistic cases, they help gaining an understanding of the magnitude of the strategic effects under different electoral rules.

Results of the simulation are displayed in figures 1 and 2 for the three electoral systems under comparison (PVT, NVT, and MMP). The number of district seats is fixed at 176, whereas the size of the house varies between 177 and 676 seats, so that 1 to 500 compensatory seats available. The vote distribution follows the real 2006 election results. The dependent variable is the same as in the main article: the ratio of seats to votes (A-ratio) (Taagepera and Laakso 1980; Bochsler 2014). Figure 1 and 2 display the seat-vote ratio of the largest party, for which we simulate the effect of strategic behaviour, varying the electoral rules. The dashed black lines are (identical in figures 1 and 2) show the A-ratio for the Socialist Party, at the absence of strategic effects. The vertical black lines displays the number of seats needed in the PVT and NVT system, in order to provide for compensatory results.

For the PVT and the NVT, two different scenarios show the consequences of strategic behaviour in line with XXX’s response. In either case, the MSZP uses a strategy in order to avoid to win district mandates. In Figure 1, in the “split” scenario, the Socialist Party runs with two lists. Its ‘clone list’ presents in every district a second candidate. The votes are split by halves on the two candidates (the main party candidate wins one vote more than the second candidate on the ‘clone list’). This has several effects on the seat allocation. First, in most districts, where the Socialists are leading, it will shift the seat winner to the second, smaller party. This also leads to an indirect effect: as the average vote share at which district seats are won decreases, means that more seats are needed for a proportional allocation of seats (see the grey dashed vertical line). Hence, the strategy reduces the over-representation of small parties, the loophole of the PVT partly eliminates itself. Second, the figure displays the effect on the

⁴ Data is available on www.bochsler.eu/ceedata.html

seat allocation, expressed through the A-Ratio. It is calculated jointly for the Socialists and their 'clone list'. With a small or moderate number of compensation mandates, the *transfer-vote strategy* does not benefit the Socialist Party. If the number of compensation exceeds the number necessary for proportional allocation, the strategy pays out, and the party-split-paradox allows the Socialists to alter the seat allocation in their favour. The simulation also shows that splitting the votes on two candidates benefits the Socialists in PVT systems roughly 150-180 seats, i.e. in PVT systems, where insufficient compensatory mandates are available in order to provide for a fully proportional seat allocation. This stems from the *stronghold-split strategy*: in a few districts, the Socialists are well ahead of the second-largest party, and votes in excess of the second-largest party contribute to the party's result, if they split the votes on a 'clone list'.

The *stronghold-split strategy* does not play under the NVT. Also, the NTV requires (roughly) twice more seats for proportional compensation than the PVT, in order to provide for full compensation. Therefore, under the NVT the *transfer-vote strategy* only plays for extremely large numbers of compensatory seats.

Figure 2 shows a slightly different scenario: Under the NVT, the Socialists would do best by losing every district, if possible, by just a single vote.⁵ This would allow them to transfer all votes, while reducing the vote transfers of their main competitors to a minimum. Therefore, they run with two candidates in all those district, where they would otherwise win the seat. The main Socialist candidate falls short of one vote from winning the seat, while all remaining votes are shifted to a second candidate on the clone list. Under the PVT, the effect of both scenarios (figure 1 and 2) only differs to a minor degree, to the extent that the *stronghold-split strategy* comes into play. In figure 2, after the Socialists split their votes, their results are virtually equal under the PVT and under the NVT.

In either scenario, large parties can *not* benefit from systematic vote-splitting under the PVT or the NVT, if the number of compensation mandates is low. While they can profit under the PVT of a (limited) *stronghold-split effect*, this effect remains small compared to the other possible strategic effects. Only with a large number of compensatory mandates, the *transfer-vote strategy* pays out.

Under the MMP, in either case, the simulations show the Socialist Party winning all district votes, whereas all its party votes are relocated to a 'clone list', which takes part in the allocation of compensation mandates. At its peak, the effect leads to an overrepresentation of the MSZP and its clones of roughly 40%. Under the PVT and NVT, a similar effect is only possible with an extremely large number of compensatory seats.

⁵ While this scenario is obviously little realistic, as no party can anticipate the vote results exactly, and no party has such a disciplined electorate to split the vote with this precision, the case serves as a 'highest-theoretically-possible-gain' scenario for the NVT.

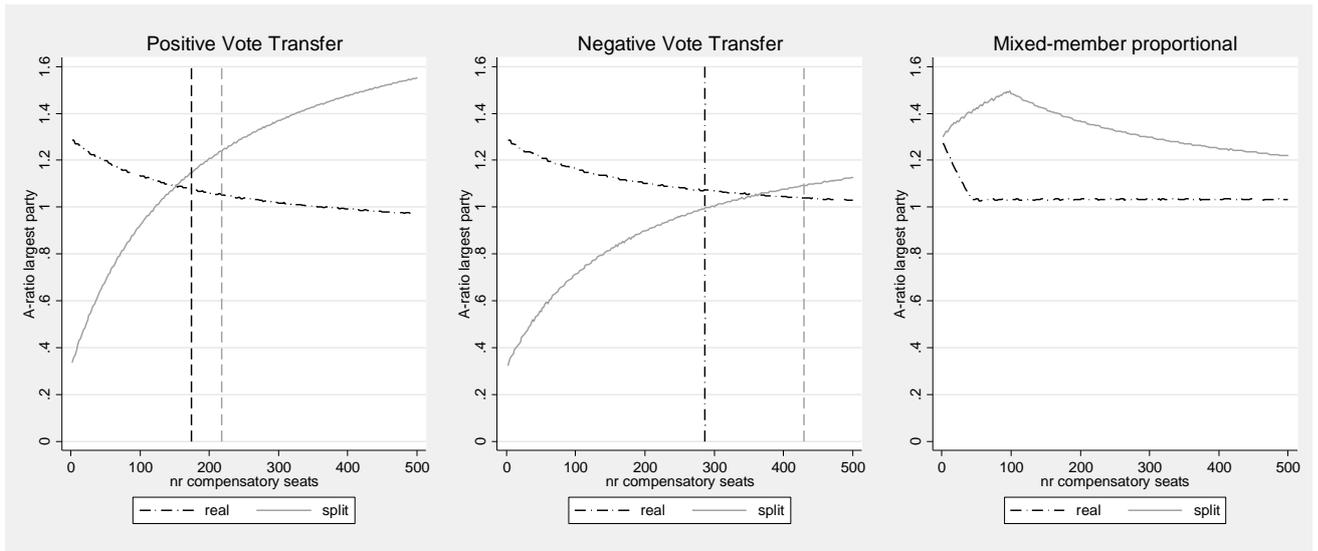


Figure 1: Strategic manipulation under different mixed electoral system, representation ratio. Scenario: large party splits evenly into a party list and a clone list.

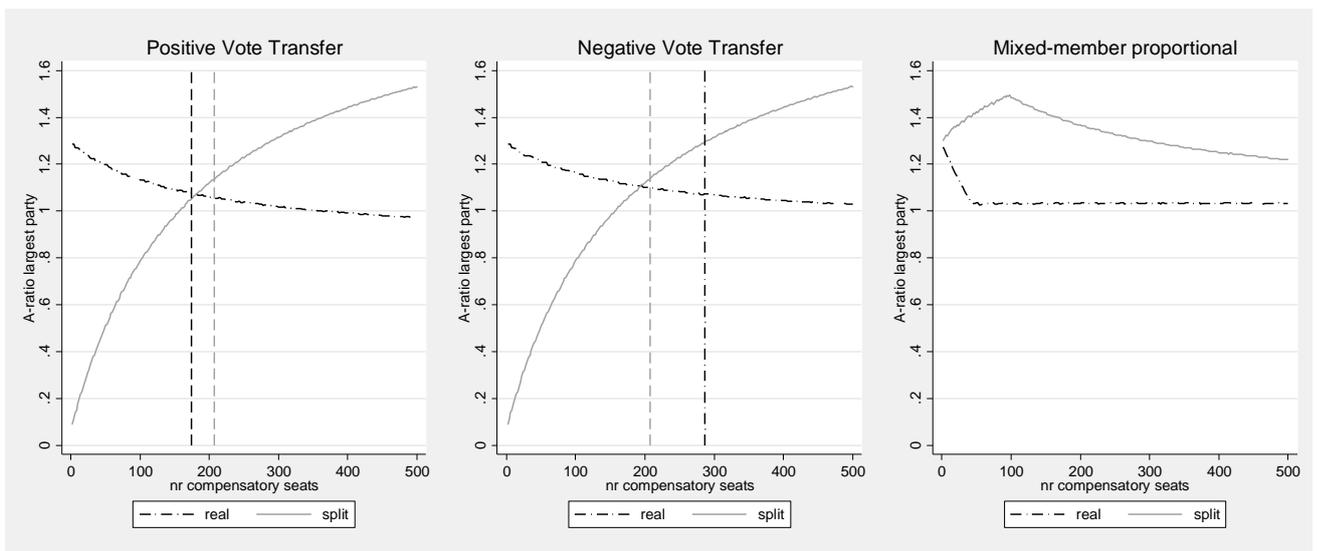


Figure 2: Strategic manipulation under different mixed electoral system, representation ratio. Scenario: large party runs with two party candidate and clone list candidate in seat-winning districts.

3. Summary

This rejoinder has assessed party strategies to maximise the number of seats gained under three different mixed electoral systems with proportional features. XXX's response is correct: none of the three systems is strategy-proof. Each of the three systems, MMP, PVT, and NVT, offers possibilities for parties to win more seats at a constant number of votes, if their voters follow their advise.

These strategies vary, however, considerably with regards to the magnitude of their effect (see table 1 for a comparison). The strategies under the PVT and the NVT are only applicable if the number of compensatory seats available is large. And whereas the list-splitting strategy is quite straightforward to implement, the stronghold-split, and to a lesser degree the transfer-vote strategy require political parties to have accurate expectations about the outcome of the elections, and specifically target districts, where the strategies pays out. After all, this leaves electoral engineers with a trade-off, to resolve: with a moderate number of compensatory

seats, MMP systems provide for the best proportionality, but allow for large-scale strategic manipulation, while PVT and especially NVT are immune to the strategies discussed here, or will only give small advantages for parties playing strategic games. Both the PVT and the NVT require a larger number of compensatory seats, in order to provide for a fully proportional outcome. But once the number of compensatory seats gets too small, they tend to over-represent small parties, and therefore allow for the transfer-vote strategy, highlighted by XXX and simulated in this response.

| | Mixed-member proportional | Positive Vote Transfer | Negative Vote Transfer |
|--|--|--|--|
| Trade-off district seats vs. proportionality | Can be proportional with moderate number of compensation seats (<50%), allows to include a large number of directly elected members. | Requires a large number of compensation seats (>45%), in order to provide for proportional outcomes; i.e. small number of directly elected members. | Requires a very large number of compensation seats (>55%), in order to provide for proportional outcomes; i.e. small number of directly elected members. |
| Possible strategies of district-winning parties | <i>List-splitting</i> : Split-ticket voting between party candidates (district vote) and clone party list (party vote) | <i>Transfer-vote</i> : If more compensation seats than needed: split votes on two candidates and two lists <i>Stronghold-split</i> : In districts, where the winning candidate is elected comfortably, split votes on the winning candidate and candidate from clone list | <i>Transfer-vote</i> : If more compensation seats than needed: split votes on two candidates and two lists |
| Strategy conform with “one person one vote”? | No: list-splitting allows parties to convert district vote and party vote separately into seats. | Yes: transfer-vote strategy allows parties to use the votes in the tier, where they count more; stronghold-split avoids excess votes in safe districts. | Yes: transfer-vote strategy allows parties to use the votes in the tier, where they count more. |
| Magnitude of strategic effect if number of compensation seats ... small-moderate | Large | Small | None, or very small |
| ... large | Moderate | Moderate | Small |
| ... very large | Moderate | Large | Moderate |

Table 1: Strategic effects under three mixed electoral systems with compensatory seats.

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