

A better system of proportional representation? – Ranking Constituency Voting retains the constituency link with one vote only.

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Introduction

A feature characteristic of both the First Past the Post (FPTP) System and the more proportional alternatives normally represented^{2 3} is the election of the constituency representative on the basis of the majority of votes cast in the case of (Alternative Vote, or AV, in its various forms) after some reallocation of preferences⁴.

I show here that by ditching this requirement, and instead ranking constituencies on the basis of either the proportion or net majority voting for a particular party, one obtains a system which achieves, at least approximately, proportional representation with the retention of the one member constituency and one vote⁵.

One-member constituencies are a historical feature of the UK and the US voting systems (though not to the same extent elsewhere in Europe). The constituency member is then best placed to represent the concerns of the electorate in their constituency in debate, voting and legislation. They also take up personal issues of constituents and can have particular influence through their status as elected representatives.

² The Jenkins commission (1998) (ref 6) was set up with the following Terms of Reference: The Commission was requested to observe the following criteria: a) the requirement for broad proportionality b) the need for stable government (Likelihood of coalition) c) an extension of voter choice d) the maintenance of a link between MPs and geographical constituencies. They recommended a system 'AV plus' which uses a list to counterbalance the bias due to FPTP. The deviation from true proportionality can be assessed on the 1997 general election. FPTP had deviation from proportionality score (DV) of 21% , AVplus with 20% top up would have given deviation from proportionality score (DV) of 12%.

³ See ref 3, from Charter 88, for a comparison of the common voting systems with a commentary on the Jenkins report and reference to more recent publications

⁴ A range of criticisms of FPTP are given in ref 3. Particularly pertinent in relation to this article is the lack of proportion representation to parties who are geographically dispersed who are correctly represented in RCV.

⁵ This is an original idea. I cannot trace any other proponents. I would welcome any comments (and rebuttals) either through the pages of this Journal, in the discussion list or elsewhere.

Methods for achieving proportionality of representation, defined as the same proportion of representatives as voters in a region or country, as implemented in regional parliaments in Scotland and Wales, normally require some form of ‘top up’ system in order to avoid the necessary fact of aggregation whereby the majority party, under most scenarios, gains a larger majority in the representatives than in the voters⁶. This requires that each voter has two votes, and effectively two representatives. The ‘list’ MP however traditionally has less of a responsibility to take up the civil concerns of the constituent. This has led to allegations⁷ of a downgraded status for list member in these ‘two tier’ systems of representation.

The proposed system - Ranking Constituency Voting (RCV)

This involves three stages:

1. Rank each constituency in terms of the proportion voting for each political party.

Ascertain the proportion of votes for each political party.

2. Chose the political party to represent each constituency on the basis of the relative position on each party ranking.

3. Arbitrate ‘on the edges’ according to a well defined and fair resolution process.

An example

Let us say we have three parties, A, B, C. They have %pA, %pB, %pC of the votes where these add up to 100.

For each party in turn, order constituencies according to the proportion of votes given to each party. These are qA, qB, qC.

Pick the %pA of constituencies with the highest qA values– they get a preliminary allocation of party A. Similarly for B,C.

Now scan for ‘Overlaps’ and ‘Non-allocated’ constituencies. ‘Overlaps’ are those with more than one party allocated. These are resolved through a Overlap Resolution Process. ‘Non-allocated’ are those with

⁶ This is a similar process to the aggregation fallacy, whereby any aggregate, over a defined aggregation process has a different distribution to that of the variable being aggregated .

⁷ See Lundberg (2001). Using a postal survey of MPs to obtain Cross national comparisons between Germany (who instigated a dual, list, system, immediately post war on advice from British), and Scotland suggest that Germany has eliminated much of the bad feeling between list and constituency MPS of Scotland (and New Zealand). He attributes this partly to the lack of ‘shadowing’ a feature in Scotland. However in both systems a difference in ‘the greater contact of constituency MPs and voters in the constituency’ and a greater concern with Party policy amongst list MPs being ‘more concerned, when it comes to reelection about the national strength of the party and having their leaders support’ is found. In particular large differences between Constituency and List MPs, both in Scotland and Wales, are found both in accountability to local voters and in perceived representativeness of the population.

no party allocated. – These are resolved through a Non-allocated Resolution Process. Overlaps occur primarily in constituencies where very few voters vote for the third party. Non-allocated occur primarily in constituencies where relatively many voters vote for the third party.

Resolution processes for Overlap and Non-allocated constituencies

Overlap

We need to arbitrate here between more than one selected member or party. A number of resolution procedures are possible. We could select party at random with a weighting fraction designed to ensure true proportionality. Alternatively we could select with explicit reference to the relative positions on the lists, giving greater weight to a constituency relatively higher on the party list. This would allow for the differential voting preferences of the different overlap constituencies. Only one of the previously selected candidate members can be selected.

Non-allocated

These arise primarily when relatively many voters vote for a third party. The resolution procedure is similar to that of the overlap constituencies except that in this case all the parties are represented.

An Illustration

Let us assume we have 3 parties and 6 constituencies.

X_i is a constituency ($i=1$ to 6). These are shown below ordered by % vote for each party (A,B,C). The bold line is the cut off below which a constituency does not return a given party.

A	B	C	Party
X1	X4	X3	
X2	X5	X6	
X3	X1	X5	
X6	X6	X1	
X5	X3	X2	
X4			

So, Outcome is

Party A –chosen in constituencies X1, X2

Party B– chosen in constituencies X4, X5

Constituency X3 goes into the Overlap resolution process (as above bold line for both parties A,C).

Constituency X6 goes into the Non-allocated Resolution process.

Discussion

The particular advantage of this proposed system is that, as each person has one parliamentary representative, there are no issues with multiple representation. Moreover even in ‘safe’ constituencies there is a chance that a representative who does not have the majority of votes can be elected. This should operate to increase voter turnout, especially when one party nationally is thought to command a vast majority over the others.

The downside, in terms particularly of acceptability to the general public, is the possible election of a constituency representative on a minority of the vote. This would occur particularly when one party has a definite majority nationally, and here an opposition party is elected in the constituency, on a minority vote. Campaigning for a shift in public opinion for such a system should stress the ‘societal’ aspect - we are voting to gain a truly representative democracy and we therefore need to take into account of all votes nationally as well as those in our constituency in the selection of representing member. Even if the voting inclination of our constituency is vastly in favour of one party, the situation nationally may well be different. And policies of political parties are primarily national ones (even when with a local flavour).

Much of the debate on proportional and ‘first past the post’ systems has rested on the desirability or otherwise of strong government. This also has implications for extreme (and minority) parties. Proportional systems are generally thought to lead to a larger number of parties

with greater tendency for coalitions (though the evidence in regard to SV – Supplementary vote used in the election of the Greater London Assembly is the opposite - see ref 3). One feature of the system proposed is that parties with relatively low national support will get their true proportional representation. There is an opposite issue with independent representatives (for example against hospital closures in a constituency). These cannot be elected unless their share of the national vote is greater than $1/n$ where n is number of constituencies. This is unlikely to be achieved, except when the percent of the vote in the area is far larger than others, with an independent representative. This would encourage the formation of single issue, or issue focused parties in a loose coalition.

It is worth noting that a range of ordering methods for constituencies can be used. Whilst we have focused on the percent voting for a particular party in a constituency, we could instead order constituencies on the (net) excess of votes for each party over the next largest party or over all other parties in combination. This would introduce proportional representation considerations (similar to those of AV) into the constituency listings (call this PR with PR or PRPR) and with it further opportunities for strategic voting.

Intriguingly there are other systems which ensure (approximate) proportionality. One such ‘vote from a hat’ suggested in the Blog in reference 2, simply puts all votes in a constituency in a hat, the first one picked being the winner. The advantages enumerated are similar to those of this system with an additional one is that it saves the counting of votes and leads to quick election results⁸. The blogger does not mention the random errors involved!

Further refinements of voting systems would give consideration to regions as autonomous entities, within which proportionality is ensured (OVWRP – ordered voting with regional proportionality). Simply, the ordering of constituencies would be within predefined regions. If too small this may increase to the point of unacceptability the prevalence of non-allocated and overlap constituencies. Empirical work could usefully be carried out on this aspect.

Voting systems are often evaluated in terms of the use of ‘strategic voting’. This is a feature of STV as well as FPTP (see interview with Michael Dummett, ref 4). Under the proposed system this will feature to a lesser extent, as the selected party for a given constituency is dependent also on the National vote). This is one the strongest arguments for such a system.

⁸ The proposed system requires that all counts need to come in before a decision on which candidates are elected is reached. This may reduce the build up of excitement on election night as the constituency results come I one by one but would result in less lack of sleep amongst the interested general public and greater work productivity the next day!

Further empirical work should be carried out on the prevalence of 'overlap' and 'non-allocated' constituencies (potentially an issue in terms of voter acceptability) under a range of voting scenarios (both of overall representation and differential representation between constituencies). Differences in practice between different resolution processes, and alternative party ordering processes (including PRPR) would be quantified in each situation.

References

1. http://en.wikipedia.org/wiki/Voting_system - see, in particular, the ballot, constituencies, proportional methods sections.
2. <http://refusingthedefault.blogspot.com/2010/09/alternative-vote-and-flaws-with.html>
3. http://www.unlockdemocracy.org.uk/charter88archive/pubs/brief/vote_guide.html
4. http://eprints.lse.ac.uk/552/1/VPP05_01.pdf - interview with Michael Dummett.
5. Lundberg, TC (2001) The Impact of Mixed-Member Proportional Representation in Scotland and Wales: Lessons from Germany?. Keele European Parties Research Unit (KEPRU). Working Paper 20.
6. Lundberg, Thomas Carl (2006) 'Second-Class Representatives? Mixed-Member Proportional Representation in Britain', *Parliamentary Affairs*, 59(1): 60-77, ISSN 0031-2290.
7. <http://www.archive.official-documents.co.uk/document/cm40/4090/contents.html>

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