

# Is Alternative Vote a better voting system? It depends...

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Countries rarely change their election systems, and when they do the changes usually 'stick' for a very long time. So the UK's promised referendum on adopting the Alternative Vote in May 2011 is an historically important occasion. [Rafael Hortala-Vallve](#) argues that voters and politicians both need to take a long-term view of their decisions to back or oppose reform. Each system has its own problems and limitations.



An ideal electoral system does not (cannot) exist. This key fact has been known in the social sciences for more than fifty years, where it goes by the name of Arrow's "impossibility theorem". Questions about the design of any electoral system always generate political confrontations amongst advocates of different rules. A problem for the neutral observer is that these advocates often highlight only the good properties of their preferred electoral system, but ignore its unavoidable limitation.

In the United Kingdom, the First Past the Post System (FPTP) has the key problem that it only elects a single member of parliament per constituency, which creates anomalies where parties that receive a large share of votes nationwide but don't come first locally are under-represented in parliament.

Yet this problem is not centrally addressed by the referendum choice, which will have only one possibility for a change – that is, to introduce the Alternative Vote (AV). This is a system where citizens rank candidates in order of preference. [LSE's Simple Guide of Alternative Voting Systems](#) describe how the system then operates as follows:

*Voters fill in a ballot paper where they number the candidates in order of preference – that is, they put 1 for their first preference; 2 for their second choice; 3 for the party they like 3rd, and so on.*

*We count all the first (top) preferences that voters have given, as now. If any candidate gets majority support (i.e. 50% +1), they immediately win the seat. If not, the candidate who has the fewest 1st preference votes is knocked out of the contest, and we look at the second preferences of their voters, redistributing these votes to the remaining candidates in line with these voters' number 2 choice. This process of knocking out the least popular candidate and redistributing their voters' choices as voters intended continues until one candidate gets 50 per cent.*

*In the USA this system is called 'instant run-off' and this is a good summary of what AV does – it delivers a run-off election when no one gets an outright majority on first preference votes.*

Because it retains the current single-member constituencies, AV will not answer the issue above of disproportionality. But in the 'classic' or [Australian form of AV](#) described above it does take account of the citizens' full preference ordering over the candidates.

For most constituencies, the change in electoral rule will probably not have any effects. When a candidate has the support of a majority of the electorate both AV and FPTP select that candidate. In the UK now, two thirds of the winning candidates for Westminster under FPTP do not have the support of a majority of their local voters. Yet in these seats some voters may already be voting strategically to try and prevent one candidate they dislike from winning the seat, as with Labour voters choosing to back the Liberal Democrats to try and stop the Conservatives winning a seat. This effect may mean that again the same candidate is elected under both AV and FPTP electoral rules.

However, there will be some cases (maybe only in 20 or 30 seats countrywide in the UK) where AV elects a different candidate than FPTP. If you think about this situation, you should realise that in these areas a majority of voters prefer the candidate elected by AV to the one elected by FPTP. It follows then that in each and every constituency where AV makes a difference, voting reform favours a majority of voters, while in

constituencies where it makes no difference voters should be neutral between FPTP and AV. Given this, we might assume that an automatic majority of voters would exist nationwide to ensure the passage of the AV reform.

However, this relies on the assumption that voters only care about electing their local MP. It is obvious that elections are not only about this and that British citizens are also (indirectly) electing a Prime Minister and government. Under such considerations it may no longer be the case that a majority supports electoral reform. Quite a lot may depend on how much the electorate values the representation of their constituency interests.

The current debates around electoral reform already highlight the different properties of FPTP and AV. There are however a few misconceptions, some of which are being pushed by the Deputy Prime Nick Clegg and his colleagues, that I would like to clarify. First, AV does not eradicate the possibility of strategic voting. It is a mathematical fact that all electoral rules with three or more candidates are susceptible to strategic voting. (This rule is known as the Gibbard–Satterthwaite theorem).

Second, it is simply inaccurate to claim that AV unequivocally elects the MP preferred by a majority of voters. It is perfectly possible for AV to select a candidate who is ranked below another candidate in the race by a majority of the population. The example below shows a hypothetical election where candidate B is elected under AV even though a majority of voters would prefer candidate A to B in a straight contest between the two.

*A hundred citizens are electing one of three candidates. The citizens' preferences can be described as follows:*

- 36 voters rank candidate C top, then candidate A second and candidate B as worst choice.*
  - 34 citizens rank candidate B top, then candidate A second and candidate C as worst choice;*
- and*
- 30 citizens rank candidate A top, then candidate B second and again candidate C as worst choice.*

*If we write > to mean 'is preferred to', then we can summarize the preferences of our electorate as follows:*

*for 36 citizens:  $C > A > B$*

*for 34 citizens:  $B > A > C$*

*for 30 citizens:  $A > B > C$*

*Assuming that all citizens vote sincerely (i.e. follow their own top preference), then FPTP elects candidate C and AV elects candidate B.*

*The risks of FPTP are highlighted in this example: candidate C is the candidate ranked last by almost two thirds of citizens here, and this majority would prefer either candidate A or candidate B over the actual FPTP winner.*

*However, we can also see in this case how candidate B selected under AV does not have unequivocal majority support. In a 'pairwise' straight head-to-head choice between A and B – that is, if it was a run-off contest between these two candidates – then A gets 66 votes and B only 34. Thus a clear majority of voters prefer A to B.*

*(Incidentally if we also checked to see if A is preferred to C, this run-off would give candidate A 64 votes and candidate C only 36. In a rule suggested in the eighteenth century by the Marquis of Condorcet, A would clearly beat both her rivals in straight comparison votes).*

*The possibility of strategic voting (often called tactical voting in Britain) is present under both electoral systems:*

- Under FPTP, voters supporting candidates A and B have incentives to coordinate and try to outvote candidate C.*
- Under AV, if seven voters backing C pretend that they favour candidate A, then they will elect their second most preferred option as winner (candidate A instead of B).*

It is worth noting here, however, that under FPTP, this example above also shows that the winning candidate would be C, who is actually the least popular candidate and the person considered worse than any other candidate by a majority of the voters. One thing you can say for sure about AV is that the system would never elect such an unpopular candidate, dubbed by political scientists 'majority losers'!

The comparison between electoral rules is never straightforward: AV may be preferable to FPTP in certain aspects and hence solve some problems. But it also introduces some risks that are not present under FPTP. Because it is difficult (perhaps impossible) to foresee the full consequences of electoral reform, politicians should be careful in what changes they claim AV will bring about. Likewise, we should be wary of believing political fiction writers and their predicted consequences for electoral reform. Reform will in all likelihood considerably modify the actions of voters. It will also influence the strategies of candidates, parties, donors, interest groups, journalists, etc. There is however something of which we can be certain: AV would make UK politics more inclusive by making candidates compete for high rankings from the majority of citizens, instead of solely targeting their own core supporters.