The case for the alternative vote

Peter D Sozou

Centre for Philosophy of Natural and Social Science

London School of Economics

Houghton Street

London WC2A 2AE

May 4 2011

Abstract

I consider the proposed alternative vote (AV) electoral system against the current first past the post (FPTP) system. I conclude that AV has some significant advantages over FPTP and no significant disadvantages. The main advantages are:

- 1) AV is likely to lead to outcomes in which a higher proportion of voters in each constituency are satisfied with the outcome, and will lead to a situation in which MPs are more representative of their constituents' views.
- 2) AV reduces tactical voting, so voters can more readily express their true preferences. This in turn means that elections will give a more accurate picture of the true level of support for each candidate.
- 3) AV reduces barriers to entry for small parties: they are given a fair fight in elections. Whilst it is difficult for such parties to get MPs elected under FPTP or AV, AV has the critical advantage that it removes the problem of votes for parties that are expected to do badly being wasted votes, so enabling small parties to build support if they can appeal to enough voters.

1. The logic of AV

A group of twenty people are choosing a dessert. They have negotiated a great price with a restaurant, but there's a catch: they must all have the same thing. There are two choices: cheesecake, and ice-cream. They decide to put it to a vote. Nine people prefer cheesecake; eleven prefer ice-cream. So the outcome of the democratic process is that they settle on ice-cream. Not much to argue about there.

But let's pause a minute and ask: why is a democratic vote the right way to settle this question? Clearly not everyone can get what they want – whether the group settles on cheesecake or ice-cream, some people are going to be disappointed. The reason behind putting the choice to the vote is that it's better to please a larger number of people than a smaller number. So, in this case, it's better to please eleven people and disappoint nine than to please nine and disappoint eleven.

Now suppose an additional option, trifle, is introduced. The nine people who prefer cheesecake over ice-cream also prefer it over trifle, so these nine now have cheesecake as their first choice. What of the eleven who prefer ice-cream over cheesecake? Eight of them also prefer ice-cream over trifle. The other three like trifle better than ice-cream. What will the group now settle on? The answer depends on what voting system they use.

Suppose a vote is carried out under the first past the post system. If everyone votes for their first choice, cheesecake gets nine votes, ice-cream gets eight and trifle gets three. So cheesecake wins the vote.

What if a two-round runoff system is used, as in French parliamentary elections? In the first round, if everyone votes for their first choice, the two most popular choices will be cheesecake and ice-cream. Trifle will then be eliminated, and a second-round vote will be held involving just cheesecake and ice-cream. This takes us back to the situation with just the original two choices, and ice-cream will win by eleven votes to nine.

What wound happen under the alternative vote? Suppose everyone puts down their true first and second preferences. No choice will have a majority of first preferences. Trifle will have the fewest first preferences, and so will be eliminated. The three first-preference votes for trifle will be transferred to their second preferences — which in this case is, for all three, ice-cream. So ice-cream now has eleven votes, a majority, and wins the vote.

You may have noticed that the alternative vote acts in a similar way to the runoff voting system. This is no coincidence. The alternative vote is designed to operate like runoff voting but without people having to physically go to the polls more than once. For this reason it is sometimes known as instant runoff voting.

There are two reasons why, given the preferences of people in the group over the three choices, ice-cream would seem to be a better choice than cheesecake. The first is that when there was a simple choice between ice-cream and cheesecake, ice-cream came out on top. It seems unsatisfactory that adding an additional option that is not a serious contender for the group's overall choice should affect the relative standing of the two main options. The second reason is that a majority of people prefer ice-cream over cheesecake.

If, given the preferences of this group of people, you think that the overall choice should be cheesecake, then you should support First Past The Post. If you think that ice-cream would be more appropriate as the overall choice then you should support the Alternative Vote.

I think most people would say that, given the preferences of people in this group, ice-cream is the best choice.

So far I have ignored tactical voting. Cheesecake is selected under first-past-the-post if everyone votes for their first preference. But in real elections some voters vote tactically. So in a first past the post election, a lover of trifle might reason to herself: "Trifle is unlikely to win. If I vote for it I may end up with cheesecake, the outcome I like the least. I will instead vote for ice-cream to try and keep cheesecake out". This form of reasoning may work if there is widely held belief that trifle does not stand much chance of winning; the belief that trifle will do badly becomes a self-fulfilling prophesy.

Under AV, for this example, there is no need for voters to vote tactically. Trifle lovers can express their true preferences, even if trifle stands a slim chance of winning, without having to worry about splitting the anti-cheese-cake vote.

This does not mean that that tactical voting is never possible under AV. But, in practice, voters are unlikely to find themselves in a situation where they would consider voting tactically under AV. To understand why, we need to think about the kind of theoretical situation in which tactical voting could occur under AV. Consider the hypothetical constituency of Biffobridge. 40% of voters support Labour, 31% support the Conservatives and 29% support the Liberal Democrats. Let us assume also that most Labour voters prefer the Liberal Democrats to the Conservatives, most Conservative voters prefer the Liberal Democrats to Labour, and Liberal Democrat voters are split roughly 50:50 between Labour and Conservative as second preferences. Under first-pastthe-post, if everyone votes for their favourite candidate Labour will win. Now consider what would happen under AV. The Liberal Democrats would be eliminated in the first round; their second preferences would be evenly divided between Labour and the Conservatives, so Labour would maintain its lead over the Conservatives and win. AV produces the same result as firstpast-the-post. But suppose some conservative supporters give their first preference vote to the Liberal Democrats. Then, if the Liberal Democrats now get more first preferences than the Conservatives, it may be the Conservative rather than the Liberal Democrat candidate who is eliminated. Because most second preferences of Conservative voters are for the Liberal Democrats, the Liberal Democrat could just beat the Labour candidate after second preferences are counted.

How realistic is it to think that people will vote tactically in this way? It requires a contest in which three candidates each has a sizeable level of support. It also requires precise knowledge of the standing of the three parties with respect to the likely pattern of both first and second preferences: given the uncertainty in opinion polls, would voters abandon a reasonably well-placed candidate, rather than support this candidate in the hope of victory? It seems very unlikely, and so it is not realistic to think that there will be sizeable levels of tactical voting under AV. This contrasts with first past the post, where the conditions for tactical voting – that a preferred candidate is widely believed to have little chance of winning – are common. So it is reasonable to conclude that switching from first past the post to AV will reduce tactical voting.

2. AV makes elections fairer and more open

Under FPTP the cards are heavily stacked against independent candidates and new political parties. AV allows for a fairer fight, and so has the potential to make elections more open.

Suppose Anne and Zoe are established candidates on opposite sides of the political spectrum. One is a Conservative and the other Labour. You firmly prefer Anne, and have a strong aversion to Zoe's party. There is another candidate, Belinda, closer on the political spectrum to Anne than to Zoe, who is an independent candidate or is standing for a small party. Belinda is the candidate you would most like to win. Who will you vote for?

Under FPTP, if you believe Belinda has little chance of winning you may choose to vote for Anne to keep out Zoe. Your choice of who to vote for depends not just on which candidate you like best, but also on your beliefs about how other people are likely to vote. If there is a widespread belief that Belinda has little chance, this can become a self-fulfilling prophecy. Even if more people support Belinda than any other candidate, she may do badly in the election because people believe she won't win.

Under AV, you can put Belinda first and Anne second without worrying about how everyone else will vote. If Belinda does badly, she will be eliminated and your second preference will count – so your vote will still count towards Anne and against Zoe in the next round. So if – perhaps unexpectedly – it turns out that Belinda is very popular, she will win.

It is well known in business that fair competition tends to encourage innovation, improve choice, raise standards drive down prices. In simple terms, competition is usually good for consumers. One factor that restricts competition is barriers to entry: if a market is structured in such a way that it is difficult for a new entrant to get a foothold, there will be less effective competition. This is why, for example, the government has acted in the telecommunications industry and is starting to act on banking to make it easier for new players to enter.

AV reduces barriers to entry for new political players. It opens the door to a new party being able to build up its support – perhaps slowly, over a number of elections – if it can attract voters. This does not mean that Labour, the Liberal Democrats and the Conservatives will disappear overnight – or indeed disappear at all. The experience of Australia, which uses AV, and of Ireland which uses a system even more to small political parties suggests that large parties will continue to last a long time. Most independents and candidates of small parties will get a low share of the vote, and will fail to be elected under AV just as they would fail to be elected under FPTP. But under AV at least they will get a fair crack of the whip, and we will know the true level of support for minority candidates.

3. Does AV take too much account of second preferences?

AV has been criticised on the grounds that it takes too much account of second preferences. The Prime Minister, for example, has argued that AV will produce a Parliament of second preferences. This is completely wrong. In fact, it can be said that in some situations AV takes too much account of first preferences and not enough of second preferences.

Suppose nine people share an office and must decide on what temperature to set. There are three choices: 15C, 20C and 25C. Four people like 15C best, and these four all prefer 20C to 25C. Two people like 20C best; one of these prefers 15C over 25C and the other prefers 25C over 15C. Three like 25C best, with 20C as their second preference and 15C as their least favoured option. What temperature should be set for the room?

You may feel, intuitively, that 20C is the right outcome as it is the middle choice, so it ensures that everyone gets at least their second preference. In fact, from the perspective of democratic choice: there is a more powerful reason for choosing 20C: it is the only choice which would enjoy majority support against any other. If a temperature of 15C is set, five out of nine people would favour increasing it to 20C. If a temperature of 25C is set, six out of nine people would favour reducing it to 20C.

If you do feel that 20C is the right outcome, you will be in the company of many academics with an interest in voting systems. In such circles, people ask: what are the desirable characteristics of a voting system? One such characteristic is that an option which would enjoy majority support against any other should win the vote.

What would happen in practice under different voting systems? Under first past the post, 15C gets four votes, 20C gets two votes and 25C gets three votes. So 15C is chosen. Under AV, 20C is eliminated after the first round, as it has the fewest votes. The first-preference votes for 20C then transfer, with one each to 15C and 25C. So again 15C is chosen, with five votes against four after the second round. In this case, therefore, AV produces the same outcome as first past the post. A French style run-off election would also produce the same result.

This example shows that, contrary to what opponents of AV would have you believe, AV in fact has a bias towards first preference votes. This bias is clearly not as strong as the extreme bias under first past the post, which takes no account whatever of second preferences. Under AV second preferences can make a difference, as the earlier example of the choice of dessert shows. But it is first preferences which determine the order of elimination. The example of the choice of temperature shows that, under AV, an option which enjoys majority support against any other may fail to be chosen because it does not have enough first preferences.

You may or may not agree with the Prime Minister's view that a candidate should not be elected purely on second preferences. But it is not relevant to the choice between first past the past and AV. Under AV, a candidate cannot be elected unless he or she has enough first preferences to avoid early elimination. A Parliament of second preferences is not possible under AV.

In effect, AV is a compromise between on the one hand the current electoral system that takes no account of second preferences, and on the other hand a system that would please voting theorists but would allow a candidate to be elected with very few first preferences.

4. National representation: how will election outcomes change?

However much we may wish to design a voting system on ideal, theoretical grounds, people will inevitably want to know the practical consequences: what will the outcome be? We should bear in mind that for any electoral system, the outcome is in the hands of the voters, and we cannot know exactly what voters will do in elections several years away.

Some opponents of AV seem to think they have a good idea of how things would turn out. The Labour MP John Healy claims that:

More often than not, it would produce a hung House of Commons. The people would lose their right to throw one government out and put another in.

In contrast David Rownteee, who also opposes AV, claims that

"It doesn't stop majority governments being elected on a minority of votes, it doesn't stop landslide results and it doesn't do anything to ensure minority parties get even one seat in the Commons."

Who is right? Most election analysts seem to believe that AV will produce a small increase in the number of seats which the Liberal Democrats will win. The probability of a hung parliament increases, but only slightly. Landslides remain possible, and may indeed be more extreme. So the facts on this point seem to support David Rowntree – AV can still produce landslides. Whether you think the capacity of an electoral system to produce landslides is a good thing or not is a matter of taste. But the analysis does not support the Prime Minister's claim that it would stop voters being able to throw a bad government out.

Projections indicate that the overall effect on the composition of Parliament of switching to AV is likely to be modest. This suggests that, on the question of national representation, there does not seem to be a strong reason to favour FPTP over AV or to favour AV over FPTP.

But predictions of what will happen under AV require a health warning. The best that can realistically be done is to work on the basis that, regardless of the voting system, voters are offered the same policies, candidates and leaders by each party. In reality, it is possible that parties will choose different candidates, policies and party leaders under a different voting system.

5. The PR question

Both FPTP and AV are electoral systems in which each constituency independently elects its MP. Under neither system is there a straightforward relationship between the number of votes gained by each party at a regional or national level and the resulting number of seats. Under both systems, it is possible for party A to get more support over party B at a regional or national level, however measured, while party B gains more seats.

Does this matter? If you believe in the idea of each constituency acting independently, it doesn't. Under this principle, what matters is that each constituency gets the best representative for that constituency, at if this produces distorted results at national level, too bad.

But if you believe that the number of MPs each party gets, at national level, should depend on number of votes at national level, you will probably regard neither FPTP or AV as an ideal system.

In this case the discussion naturally turns to the question of proportional representation (PR). But note first that a system that counts votes and allocates seats on a regional or national basis does not *necessarily* have to be proportional. It could use a formula that allocates a disproportional number of seats to the party that does best, whilst avoiding or at least reducing the random aspect of single constituency systems – FPTP and AV – that number of seats depends not just on total support but on where that support happens to be distributed among different seats. Greece, for example, has a system in which the part gaining the largest number of votes gains a 40-seat premium.

Whilst such a system should be a least a logical possibility, there has been no serious discussion of it for the UK. Instead, the focus has been on proportionality. So I will consider how the question of whether or not the UK should adopt a more proportional system impacts on the choice between FPTP and AV.

We might first ask: is PR a desirable long-term goal? The answer is not straightforward – or at any rate people are divided about the answer. To begin with, any proportional or approximately proportional system must allocates seats on the basis of the number of votes in a geographical area larger than one seat. The current feature of one local MP per constituency, determined only by people in that constituency, will be lost. Bringing in proportionality inevitably reduces localism.

A lot of people believe this is a price worth paying. Many are not happy that tomorrow's referendum is not giving people a choice of a more proportional system. But proportional representation (PR) is not a single electoral system. Rather, there are different systems that have different degrees of proportionality, and also differ in other characteristics: are all candidates treated as individuals, or do people vote for party lists? How are independent candidates treated? How many regions or constituencies should there be? It is not sensible to offer a vote on PR until these questions have been discussed at greater length.

Electoral reformers in the UK who support a move towards a more proportional system mostly favour two systems: one is known as multi-member single transferable vote, and the other AV+. Both are closely related to AV. Both involve voters ranking candidates in order of preference, as in AV. It follows that, while AV is no more proportional than FPTP, it is a logical possible stepping stone towards the kind of proportional system that the UK would be most likely to adopt – were it ever to adopt a proportional system.

Two contradictory arguments have been made by opponents of switching to AV. One runs as follows: switching to PR would be a bad thing for Britain. We should reject AV because it could put us on a slippery slope towards PR. This argument has been made by Robert McIlveen in a research note for the think tank Policy Exchange.

The other argument is: Britain needs to adopt PR. Adopting AV would be a block to adopting PR. Therefore we should reject AV. This argument is made by a group called no2avyes2pr.

So voters are being asked to reject AV because it makes PR more likely, and because it will block PR. They clearly can't both be right.

The no2avyes2pr argument is bizarre. Many of the arguments which have been made against AV in this debate – such as the increase in the chance of delivering a hung parliament, and the greater complexity than FPTP – can be made more strongly against any likely form of PR which we would be offered. If the British people reject AV, it is highly improbable that they will then rush to adopt a more proportional system, even if we were miraculously to be offered this option in the near future.

The slippery slope argument is also weak. The referendum on AV establishes an important precedent, that the people should have the final say on changes to the voting system for Westminster elections. It is inconceivable that any changes could be mad ein future without as referendum. So opponents of proportional representation will be able to campaign against it if and when a PR option for Westminster elections is put to the British people.

I suspect that most people in the UK are neither committed to a more proportional system not diehard opponents of such a system. Adopting AV will give the British people experience of a preferential system. Why not see how this goes, and keep an open mind on PR, for which any decisions will be made by future parliaments and future voters?

6. Conclusion

There seem to be no strong reasons against adopting AV. There are powerful reasons in favour, in particular:

- 1) AV is likely to lead to outcomes in which a higher proportion of voters in each constituency are satisfied with the outcome, and will lead to a situation in which MPs are more representative of their constituents' views.
- 2) AV reduces tactical voting, so voters can more readily express their true preferences. This in turn means that elections will give a more accurate picture of the true level of support for each candidate.
- 3) AV reduces barriers to entry for small parties: they are given a fair fight in elections. Whilst it is difficult for such parties to get MPs elected under FPTP or AV, AV has the critical advantage that it removes the problem of votes for parties that are expected to do badly being wasted votes, so enabling small parties to build support if they can appeal to enough voters.

Appendix: AV treats all voters fairly

A number of opponents of AV would have you believe that AV erodes the principle of one person one vote. Do these arguments stand up to scrutiny?

Consider the hypothetical constituency of Happyton. There are 20 voters and three candidates: Red, Green and Blue. Eight voters support Red. Seven support Green. Five support Blue. Under the first past the post voting system, Red will win if everyone votes for the candidate they like best.

What would happen under the run-off system used in parliamentary elections in France? This involves two rounds of voting. In the first round, Red will get eight votes, Green will get seven and Blue will get five. Blue will then be eliminated, and there is a second round of voting to choose between Red and Green. The eight voters who support Red and the seven who support Green in the first round are likely to continue to do so in the second. What of the five who support Blue? Suppose that four of them prefer Green to Red, while one prefers Red to Green. Then in the second round Red will have a total of nine votes (the eight who supported her in the first round plus one who supported blue in the first round). Green will have eleven (seven plus four). So Green will win.

Do some voters get more votes than others? No. Everyone gets one vote in the first round and one in the second. I am not aware of any French people complaining that their system gives some people more votes others.

Now consider what would happen in Happyton under AV. Red will get eight first preference votes, green will get seven and blue five. Blue is then eliminated, and the second preferences of Blue voters are counted. As before, suppose four Blue voters prefer Green over Red, while one prefers Red over Green. Then after second preferences are counted, Green has eleven votes while Red has nine.

Notice that the process for determining who gets elected in Happyton under AV is equivalent to the run-off election system. In both cases Blue, the candidate who comes third, is eliminated. In both cases, once Blue is eliminated, the election outcome depends on whether more voters prefer Red or Green.

It is because of this logical equivalence that AV is sometimes known as instant run-off voting. It is based on the principle of replicating what would happen in a run-off election without people having to physically trudge to polling stations more than once.

If you believe that AV gives some voters more votes than others, then you must also believe that a real run-off election of the sort the French employ gives some people more votes than others. This is palpably absurd.

When there are more than three candidates, AV can allow several rounds of elimination. But the principle remains the same. The several rounds of elimination are equivalent to several rounds of voting in a run-off election, where every voter gets one vote in each round. It is wrong to claim that AV gives some people more votes than others.