

Improving Federal Elections in Canada

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1. Problems with First-Past-the-Post Voting

Canadian Federal elections currently use the voting method called First-Past-the-Post (FPTP) ---also known as Plurality Rule--- to determine how each electoral district awards its seat in the House of Commons. Under FPTP, each voter in the district votes for one of the candidates, and the candidate receiving the most votes wins the seat. The same method is used in the United Kingdom, among other countries.

It is commonplace in Canada (as it is in the U.K.) for a candidate to win a Parliamentary seat with far less than a majority of the vote. In the 2011 election, this happened in many dozens of electoral districts. For example, the Conservative candidate in Moncton-Riverview-Dieppe won his seat with only 37.7% of votes cast; indeed, the Liberal and New Democratic Party (NDP) candidates got 32.6% and 30.1% of the vote, respectively, making an outright majority for *any* candidate impossible. Yet, despite its frequency, electing a candidate without a majority is problematic in several ways.

(1) It implies that most voters in the district are represented by an MP they didn't vote for, a situation at odds with the democratic principle that a leader should represent *all* the people (or at least a majority of them).

(2) It contributes to a recurring discrepancy in Parliament: the majority party in the House of Commons often receives much less than a majority of the vote nationwide. In 2011, for example, the Conservatives won 166 of 308 seats – or 53.9% of the House – but received only 39.6% of the vote. Such a gap may cast doubt on the mandate of the majority party.

(3) The candidate elected can often be *wrong*, in the sense that a majority of voters actually prefer someone else. For instance, in Moncton-Riverview-Dieppe, where the Conservative won in 2011, a majority of voters probably preferred the Liberal. I make this claim under the assumption that NDP supporters would normally rather have a Liberal as MP than a Conservative. If 2/3 of the NDP voters in Moncton had this preference, then 52.7% of the overall Moncton electorate would have ranked the Liberal over the Conservative (the 32.6% who actually voted for the Liberal plus 2/3 of the 30.1% who voted for the NDP candidate). Thus, electing the Conservative using FPTP seems likely to have violated the will of the majority (note that the problem is hardly unique to Conservatives; for example, in other electoral districts, majority will was probably violated by electing NDP candidates).

Besides not respecting majorities, FPTP voting has at least two other drawbacks:

(4) FPTP, in effect, disenfranchises citizens who choose to vote for unpopular candidates. If I opt to vote for the Green candidate in a riding where only a Conservative or Liberal has a decent chance of getting elected, then I have no say in the choice that really matters; there is a sense in which I am throwing away my vote. One might point out that I *could* have a say in the matter by choosing to vote Conservative or Liberal even though I prefer the Green candidate; in other words, I could vote *strategically*. However, strategic voting itself seems undesirable in two ways. First, it means that citizens are distorting their votes rather than expressing their true views. Second, it requires a citizen to figure out not only what she thinks of the candidates herself (no small task), but also how *other* citizens are

going to vote (a much bigger task), so that she can strategically react to them. That is, strategic voting places a large additional burden on citizens.

(5) FPTP can interfere with unpopular candidates or parties stepping forward. Suppose that I am a right-wing potential candidate who seriously disagrees with certain Conservative policy positions. Despite these differences, I may hesitate to stand for Parliament in a separate party and air my views if doing so might split the vote on the right and hand the election to a left-wing candidate. But if I don't stand, citizens are deprived of an additional political option.

2. A Solution: Majority Rule

There is a simple alternative to FPTP voting that overcomes all 5 problems I have described: Majority Rule (MR), originally proposed and studied by the 18th- century philosopher Condorcet. In MR (also called Condorcet Voting), a citizen does more than vote for a single candidate; she has the option of *ranking* candidates, from her most preferred to her least preferred (more accurately, she can rank as many or as few of the candidates as she chooses---the unranked candidates are tied at the bottom of her list). The winner is then the candidate who, according to the rankings, is preferred by a majority to each of his opponents. He is the true majority winner.

For example, suppose that there are three candidates, A, B, and C and that the electorate breaks down into three groups. Voters in group 1 (constituting 40% of the electorate) rank A first, then B, and then C. Group 2 voters (35% of the electorate) rank C first, then B, and then A. Finally, in group 3 (the remaining 25%), voters rank B first, then C, and then A. Under MR, the winner of the election (the true majority winner) is candidate B: a majority of voters prefer B to A (those in groups 2 and 3), and a majority also prefer B to C (those in groups 1 and 3).

Notice that under FPTP voting, by contrast, A would be the winner in this example (40% of the electorate would vote for A, whereas 25% would opt for B, and 35% would go for C). Yet, A makes for quite an unattractive winner. Not only do a majority of voters prefer B to A (as already noted), but the same majority (those in groups 2 and 3) also prefer C to A.

MR obviously solves problems (1) and (3) above because it elects a candidate who commands a majority over all the others. MR is also likely to solve problem (2) because, under this voting system, a party with a majority in Parliament will have majorities in each of the districts it wins---and so it will probably have an overall popular majority nationwide.

To see that MR solves problem (4), note that a voter who favors an unpopular candidate (call him candidate A) does not disenfranchise herself by ranking A first; if B and C are the candidates with a real chance of winning, she can have her say about them by ranking B above C or C above B (but both below A). Thus, she has every incentive to vote according to her true preferences.

MR solves problem (5) through a similar logic. Under MR, a potential right-wing candidate, R, need not fear splitting the vote with the Conservative nominee and thereby handing the district election to the NDP. This is because any voter drawn to either R or the Conservative can rank them *both* above the NDP

candidate. And so the Conservative candidate will not lose support vis-à-vis the NDP candidate if R decides to stand.

MR and other candidate–ranking voting methods are sometimes criticized for imposing a greater burden on the electorate than FPTP, where a voter only has to choose a single candidate. However, under MR, a voter always has the *option* of choosing just one candidate (the others will then be treated as tied for second). That is, MR gives a voter the *opportunity* to rank multiple candidates, but doesn't *require* her to do so.

Still, MR is not a perfect voting method (indeed, the Impossibility Theorem—an important finding in voting theory due to Nobel laureate Kenneth Arrow—proves that a perfect method doesn't exist). This is because conceivably there might be *no* candidate whom a majority prefer to each of his opponents, i.e., there could be no true majority winner. In such a circumstance, a runoff would be required (the runoff could be conducted using the ballots already submitted; a new round of voting would not be needed). Yet, in Canada, the possibility that a runoff would ever be needed seems remote: only if large numbers of Conservative voters ranked NDP candidates above Liberals or if large numbers of NDP voters ranked Conservatives above Liberals could a true majority winner fail to emerge.

3. *Alternative Voting*

Section 2 concentrated on MR as an improvement to FPTP voting because MR is the only voting method that solves all 5 problems outlined in section 1. However, there is another method, called Alternative Voting (or Instant Runoff Voting), that solves most of them. In an Alternative Voting (AV) election, each voter ranks the candidates from most preferred to least preferred on her ballot, just as in MR. If there is some candidate who is ranked first on a majority of ballots, he is elected. Otherwise, the candidate who is ranked first on the *fewest* ballots is dropped. The dropping process is then repeated (with lower-ranked candidates moving up on a voter's ballot if her first-ranked candidate is dropped) until a majority candidate emerges.

AV solves problems (1), (2), (4), and (5) for much the same reasons that MR does. However, it does not solve problem (3), the possibility of electing the wrong candidate. To see why not, consider the example of section 2 involving candidates A, B, and C. Notice that no candidate gets a majority of first-place rankings; candidate A comes closest with 40%. So, according to AV rules, the candidate with the fewest first-place votes is then dropped. But this is candidate B (with 25%), who we saw is actually the true majority winner. Thus, AV eliminates the wrong candidate.

Despite this theoretical shortcoming, AV is used in practice more often than MR. The fact that it is easier to count ballots in AV (under AV, ballot counters need to look only at first-place votes and eliminate the appropriate candidate, whereas under MR they must examine relative popularities for every pair of candidates) is probably the historical reason for this difference. But, of course, fast computers make ballot counting today an easy task regardless of the voting method.

Thus, MR emerges as a more attractive voting method than AV. The point to be stressed, however, is that either MR or AV would be a considerable improvement on FPTP voting.

4. Proportional Representation

MR and AV, although substantially better than FPTP voting, are fairly modest changes to the current Federal election system. In particular, they leave the single member electoral district structure (a single MP is elected from each district) in place. For that reason, this brief has focused primarily on them.

But it is worth mentioning a more radical reform, Proportional Representation (PR). There are many PR variants, but in the simplest version, each party prepares a list of candidates in ranked order, each citizen votes for a single party, and candidates are then elected in proportion to their party's share of the vote, starting with the most highly ranked candidates (this is sometimes called "closed list" PR). For example, if there are 300 seats to be filled in Parliament and the Conservative Party has won 30% of the vote, the first 90 (30% of 300) names on the Conservative list are elected.

The philosophy behind PR is quite different from that of the other voting methods discussed here. Under FPTP, MR, and AV the objective is to select the "right" MP in a district. Under PR, the goal is to select the "right" composition of Parliament.