Fractional Representation

Mandate:

The mandate of the Special Committee on Electoral Reform includes, among others, three apparently contradictory principles. the proposed measure would:

1. reduce between voter intention and the election of representative,
2. avoid undue complexity in the voting process,
3. foster local representation.

While (1) is addressed by proportional representation, the most popular models of proportional representation – party lists and MMP – both reduce local representation, are more complex than FPTP, and for MMP increase the size (and cost) of parliament by providing top-up seats. There is a much simpler system, which avoids these problems – a fractional (or weighted) voting system. Fractional representation results in an exactly proportional system in the context of a FPTP voting system, and so maintains the current well understood system, while maintaining local representation without any additional complexity, and at no extra cost.

Proposal:

Under a fractional voting system, each riding would continue to operate as at present, with the same geographic boundaries. Each riding would continue to send to Parliament the member who received the largest number of votes in that riding (FPTP).

The only change is that, for voting, each elected member is assigned a fractional weight, which reflects the percentage share of the vote received by the member's party. This weight is only used when a member votes in the House of Commons. The weight is calculated as:

$$Weight = \frac{\%vote}{\%seats}$$

Example:

Assume (for ease of calculation) that there are 100 seats, and 3 parties:

Party	Seats	% Vote	Weight
A	20 (20%)	40	2.00
B	20 (20%)	20	1.00
C	60 (60%)	40	0.66

Thus, assuming voting on party lines, with parties A and B voting for the motion, and C voting against, the results under the two systems would be:

Party	Unweighted Vote	Weighted Vote	
A - For	20	40	
B - For	20	20	
C - Against	60	40	

So under the un-weighted system, the proposal would be defeated 40 to 60, while in the weighted system it would be passed 60 to 40:

Precedent:

- World Bank – weight proportional to member's financial contribution.
- IMF – weight proportional to member's financial contribution.
- Public companies – weight proportional to number of shares owned.
- Québec Agglomeration Councils – weight proportional to relative size of population.

Implementation:

Pragmatically, an electronic voting system in which the weights are programmed for each MP, would be the obvious method of implementing this process. In 2003, a special committee endorsed the principle of electronic voting in the Chamber and recommended in two of its reports to the House that the necessary electronic infrastructure be installed in the Chamber during the summer of 2004. While the greater part of this infrastructure was installed as recommended, no further action has been taken in respect of electronic voting. Electronic voting is already implemented in:

- The European Parliament
- The Council of Europe
- The Italian Senate and House.
- The Greek Parliament
- The US House of Representatives

Advantages

- Is well understood, since no change is required from the existing electoral system.
- Is familiar, since proxy voting occurs for every public company.
- Provides one-to-one relationship between a riding and its elected representative.
- Provides exact proportional representation at the party level.
- Does not require any new administrative structures
- Does not require constant redefinition of riding boundaries as population changes.

Details

- **Theory:** The theoretical basis of the weighting procedure is based on the equivalency principal. Consider the context of equal representation by riding size. Riding A has a population of 10,000, while an average riding has a population of 5000. Clearly, since there is one representative from each riding, then riding A is under represented. One solution is to split riding A into two separate ridings, while another solution is to keep the riding as it is, and to assign a voting weight of 2 to the representative of riding A. Since the two measures result in exactly the same outcome, they are equivalent. Fractional representation is based on this theory.

- **Threshold:** All PR systems use an arbitrary threshold to decide the minimum level required for a party to have standing. The threshold implied in this proposal is that a party only has standing if at least one of its members secures a seat. An alternative possibility is that if a party receives more than x% of the vote (the threshold), and does not have a seat, then a compensatory seat is provided for this party.

- **Change:** At a general election, the weights for each member are evaluated using the ratio of proportion of votes to proportion of seats. At this stage, if all members vote on an issue, then the weighted vote reflects the proportion of votes captured by each party at the general election. These weights are then assigned to each riding, and do not change until the next general election. If there is a by-election, then the weight stays the same. If a member becomes an independent, then again the weight does not change (and thus provides no incentive for such a move).

- **Free votes:** The government can declare that it will treat a particular item (excluding budget or non-confidence issues) to be a free vote, and the defeat of the item does not amount to a vote of non-confidence. If all parties permit a free vote, then this is no longer a party vote, and unitary weighting is appropriate. Since a mix of weighted and un-weighted votes is illogical, unitary voting is only permitted if there is a unanimous decision by the chief whips of all the parties to permit a free vote.

- **Constitutionality:** Democratic rights are covered by articles 3, 4 and 5 of the Canadian Charter of Rights and Freedoms. Article 3, which gives every citizen the right to vote in an election, is not affected by this proposal, since the entire voting process is unchanged. Article 4(2) which permits the continuation of the House of Commons beyond 5 years in special circumstances (war, etc.) would be based on a unitary vote, and not a weighted vote. And as there is no constitutional right to have a vote counted in a certain way, there is no provision that would make fractional representation unconstitutional.

Summary

The concept of requiring that the number of seats held by a party matches the percentage vote received by that party is not the relevant metric. What is important in a proportional representation system is that the voting power of a party matches the vote received. A fractional representation system does exactly this, in a simple and direct manner, and, because it is entirely comprehensible, is likely to engage the Canadian population.

Respectively submitted, 30 August, 2016.

Jon Breslaw,
Emeritus Professor of Economics
Concordia University, Montréal, QC