# Representation, Accountability and Electoral Systems

When promoting certain electoral systems over others, proponents tend to make claims that one system may be "fairer", "more democratic, "representative" or "effective" than others. In this article, the author suggests the fundamental problem in evaluating electoral systems in terms of these criteria is not necessarily that there exists an unyielding trade-off between representation and accountability. Rather, it is that there is no strong normative basis that allows us to distinguish representative from unrepresentative electoral outcomes, either because these outcomes are products of a voting cycle or because our measures of representation are ambiguous.

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Ideally, government is representative and accountable; representative in the sense that its policies align with citizens' interests, and accountable in the sense that it is answerable to citizens for its conduct and responsive to their demands. The electoral system plays an important role in determining how representative and accountable a government is in practice. Yet, it is tremendously difficult to identify an optimal electoral system, that is, one that maximizes both representation and accountability. This is because much research shows that electoral systems that advance representation tend to do so at the expense of accountability, and vice versa.[1]

The trade-off between accountability and representation is often portrayed as a fundamental obstacle to identifying an optimal electoral system, but any such trade-off is not really what prevents us from identifying an optimal electoral system. It is rather that we can neither i) reliably identify more or less representative electoral outcomes, nor ii) rely on repeated elections to hold incumbents to account.

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## The Representation-Accountability Trade-off

### Representation

One can appreciate the effect of the electoral system on representation by recalling Downs's model of electoral competition.[2] The two parties in Downs's model appeal to voters by altering their policy positions. The well-known result of the model is that both parties converge on the position of the median voter, who then randomly supports one of the parties to give it a majority. If we take as a metric of representation the policy distance between the median voter and the median legislator (this is called *congruence*), the result is perfectly representative.

Few real-world elections feature exactly two parties. Once more than two parties inhabit Downs's model one or more of the parties may benefit by diverging from the median voter. This has less to do with the electoral formula (plurality or proportional representation (PR)) than the district magnitude.[3] Even so, Figures 1a and 1b convey how parties tend to arrange themselves under plurality or PR, respectively.[4] In Figure 1a, C takes up a position to the right of the median voter in the hope that A and B will split the vote to the left of the median voter so that C can secure a plurality of votes on the right. In Figure 1b, A, B and C distribute themselves evenly about the median voter's position.

Figure 1a.
Plurality

Median Voter (MV)



Figure 1b.
Proportional Representation
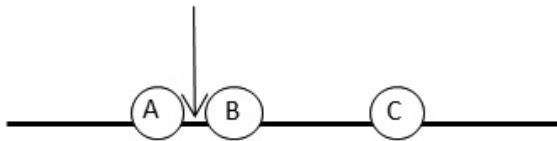
Median Voter (MV)

The representational consequences of these two stylized elections are quite different. If C were to win the plurality election in Figure 1a, there would be a substantial gap between the median voter and the majority party. There is no outright winner in PR elections, and in theory A, B, and C ought to arrange themselves in Figure 1b such that each obtains an equal share of the vote (or else each would have cause to adopt a somewhat different position). This would result in a legislature in which A, B and C have equal seat shares, and in which the median party (B) is therefore located exactly at the median voter's position. In terms of congruence, the PR result is highly representative.
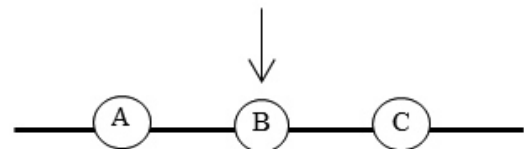
*Accountability*

Powell argues that electoral accountability exists when i) there is clarity of responsibility for political outcomes, and ii) voters can effectively sanction those responsible for those outcomes.[5] Plurality electoral systems tend to score highly on these criteria for two reasons:

1.  Plurality electoral systems tend to produce single-party majority governments, making it obvious which party is responsible for political outcomes.

2.  The translation of votes to seats under plurality electoral systems tends to be such that a small loss of votes can result in a significant loss of seats. Voters can thus inflict significant punishment on the incumbent merely by withdrawing a few percentage points of the vote.

PR does not perform as well on these criteria. Firstly, PR tends to produce coalition governments, and where several parties control government it is more difficult

for citizens to apportion credit or blame for political outcomes.[6]  Secondly, the relationship between votes and seats under PR is neither as steep as under plurality rule nor so determinative of government status. This is because a party's ideological position may grant it legislative bargaining power in excess of its seats share. Parties in this advantaged position are thus somewhat insulated from shifts in their vote shares.

These arguments imply a trade-off between representation and accountability. This is depicted in Figure 2. Only if this trade-off takes the form of the bold line (on which $x$ and $y$ are located), are we really prevented from rank-ordering electoral systems, however. To see this, let $x$ and $y$ represent two hypothetical electoral systems. Observe that $x$ is as accountable as an electoral system could possibly be given its (high) level of representation, and that $y$ is as representative as an electoral system could possibly be given its (high) level of accountability. Trading $x$ for $y$ does not, therefore, result in a better electoral system; it merely changes the mixture of accountability and representation one gets.

Carey and Hix point out that the relationship between representation and accountability need not be unyielding; it could be curvilinear as indicated by the dashed line in Figure 2.[7] If so, there may exist an optimal electoral system, such as $z$. Observe that if you were to replace $z$ by another electoral system (i.e., any spot northwest or southeast of $z$ on the dashed line), *both* representation *and* accountability would decline. In this respect, $z$ offers the best feasible mixture of representation and accountability.

## Problem 1: Measuring Representation

Even if Carey and Hix's optimistic view of the trade-off between representation and accountability were obtained, we would have to be able to measure representation and accountability accurately to identify an optimal electoral system. This is not a trivial task.
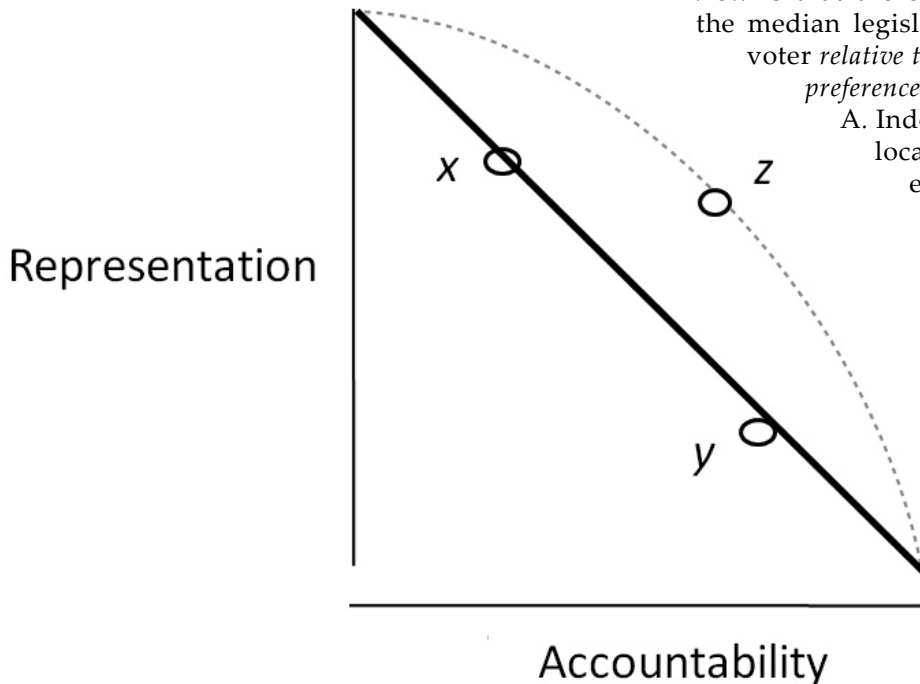
Social choice theory considers how individual preferences combine to form collective choices. A central result in social choice theory is that one cannot assume the *transitivity* of collective choices.[8] What does this mean? Let's say that three parties (A, B and C) contest a majority run-off election, and further that a majority of voters prefer A to B and B to C. Social choice theory tells us that we cannot subsequently assume that there exists a majority for A over C; order the run-off differently or use a different electoral system (e.g., plurality rule or ranked ballots), and C could come out on top.[9] This is a troubling result because it suggests that we cannot know whether an election result is representative – in the sense that it reflects the "will of the majority" – or due merely to the vagaries of a particular electoral system.

Collective choices are almost certainly intransitive whenever voters evaluate ballot options along several dimensions, such as when voters consider not only a party's economic position but also its stance on regional autonomy or the charisma of its leader.[10] In contrast, we can be reasonably sure that collective choices are transitive whenever voters have *single-peaked* preferences.[11] This jargon implies that we can order voters in a single line such that all voters strictly prefer options (i.e., parties, candidates) that are closer to their position in the line to options further away.

Whether or not voters have single-peaked preferences is an empirical question. However, it is difficult to assess representation even when voters' preferences are single-peaked. Figure 3 depicts two stylized electorates, A and B. The shaded blocks represent the ideological range of voters in each electorate.[12] Thus, electorate A is moderate, with most voters just a bit to the left or right of the median voter (MV). In contrast, electorate B is polarized, with many voters located far to the left or right of the median voter. Elections place the median legislator (ML) as far away from the median voter in A as in B, and by that metric the electoral outcomes in A and B are equally representative.

The claim that the electoral outcomes in A and B are equally representative comes about because our measure of representation (congruence) ignores the variance in voters' preferences. A different view is that the electoral system in B has located the median legislator much closer to the median voter *relative to the (wide) range of the electorate's preferences* than has the electoral system in A. Indeed, the electoral system in A has located the median legislator at one extreme of voters' preferences. This reasoning suggests that we ought to evaluate congruence relative to the range of voters' preferences. Golder and Stramski do this, and find that judgments about the relative capacity of different electoral systems to deliver representative outcomes depends on how we measure representation.[13]

Figure 2.
The Representation – Accountability Trade-off

Figure 3. Representation in Two Electorates



Left               MV     ML            Right
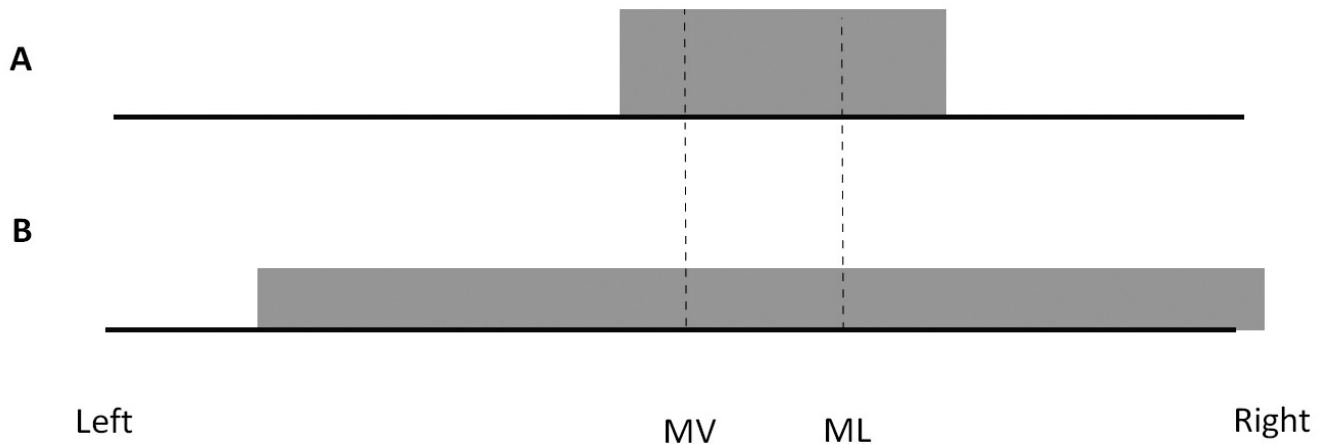
## Problem 2: Elections May Not Deliver Accountability

Electoral accountability is often seen to take the form of an implicit contract between voters and incumbents in which voters promise to re-elect incumbents only if their performance exceeds some standard (ill-defined or idiosyncratic as it may be). Of course, voters would also prefer to elect better rather than worse candidates. Fearon argues that voters are unable to use elections to simultaneously motivate incumbents and select "good" candidates.[14]

Fearon's argument is based on a stylized three-stage election cycle in which:

An incumbent sets a policy, e.g., a target-level of unemployment. Voters want this policy to produce a particular outcome (e.g. zero unemployment), but they cannot precisely discern the degree to which the outcome is due to the incumbent's policy or to other forces (e.g., world markets).

After observing the policy outcome, voters either re-elect the incumbent or elect a replacement.

The politician elected at Stage 2 sets another policy and the electoral cycle ends in a manner akin to the two-term limit that applies to American presidents.

At issue is how voters can cast their votes at Stage 2 to ensure that they get policy they want given three possible challenges. The first challenge is to differentiate between "competent" politicians who can actually achieve the desired policy outcome and incompetent politicians who cannot. The second challenge is to motivate politicians, all of whom prefer a different outcome than voters (perhaps because it's hard work to give voters what they want). The third challenge is a combination of the previous two, i.e., voters must both identify competent politicians and motivate reluctant incumbents.

Fearon shows that voters can meet the first two challenges by setting some standard, and re-electing the incumbent if the standard is achieved. For example, the voters say "We prefer zero unemployment, but if you deliver unemployment below 3 percent, we'll re-elect you." This rule is sufficient to meet the first two challenges, that is, it allows voters to distinguish competent from incompetent incumbents in the first case, and to motivate reluctant politicians in the second case.

Surprisingly, however, this voting strategy fails in the third case. The problem is that under such conditions voters cannot stick to their promise of re-electing an incumbent who achieves their standard. To see this, observe that a re-elected incumbent will not work to deliver the policy that voters want at Stage 3 because the reward and motivation of re-election no longer apply. The voters' choice is thus between an incumbent whom they know will ignore their policy preferences, on one hand, and a potentially competent challenger, on the other; voters always prefer the latter and so the incumbent might as well ignore the voters' preferences at the outset. With all incumbents, competent or not, behaving this way, the electorate cannot distinguish which are competent and which are not. Elections thus fail to motivate incumbents or identify "good" candidates.

## Conclusion

The fundamental problem in evaluating electoral systems in terms of these criteria is not necessarily that there exists an unyielding trade-off between representation and accountability. It is that we cannot reliably distinguish representative from unrepresentative electoral outcomes, either because these outcomes are products of a voting cycle or because our measures of representation are ambiguous. The situation is no better with regard to accountability; even if we can state that the clarity of responsibility and the capacity to sanction incumbents is better under electoral system $x$ than under electoral system $y$, there is no assurance that such conditions are sufficient to motivate or constrain office-holders. It seems that we lack any strong normative basis for evaluating electoral systems. While this is a pessimistic conclusion, it should encourage citizens to carefully scrutinize politicians' claims that some electoral systems are inherently "fairer", "more democratic," "representative" or "effective" than others.

## Notes

1   Donald L. Horowitz, "Electoral Systems: A Primer for Decision Makers", *Journal of Democracy* Vol 14 No 4 (2003), pp. 115-127.

2   Anthony Downs, *An Economic Theory of Democracy*. New York: Harper and Row, 1957.

3   Gary W. Cox, "Centripetal and centrifugal incentives in electoral systems", *American Journal of Political Science* Vol 34 No 4 (1990), pp. 903-935.

4   G. Bingham Powell, Jr., *Elections as instruments of democracy: Majoritarian and proportional visions*. New Haven: Yale University Press, 2000.

5   G. Bingham Powell, Jr., *Elections as instruments of democracy: Majoritarian and proportional visions*, pp. 50-51.

6   G. Bingham Powell, Jr. and Guy D. Whitten, "A ross-national analysis of economic voting: taking account of the political context", *American Journal of Political Science*, (1993), pp. 391-414. See also Ray M. Duch and Randall T. Stevenson, *The economic vote: How political and economic institutions condition election results*. New York: Cambridge University Press, 2008.

7   John M. Carey & Simon Hix, "The Electoral Sweet Spot: Low Magnitude Proportional Electoral Systems", *American Journal of Political Science* Vol 55 No 2 (2011), pp. 383-397.

8   Kenneth J. Arrow, *Social choice and individual values. New York: Wiley, 1963.*

9   Formally, Arrow's Theorem tells us that any electoral rule that respects certain minimal fairness criteria admits the possibility of an intransitive social choice.

10  Richard D. McKelvey, "Intransitivities in multidimensional voting models and some implications for agenda control", *Journal of Economic Theory* Vol 12 No 3 (1976), pp. 472-482.

11  Amartya K. Sen, "A possibility theorem on majority decisions", *Econometrica: Journal of the Econometric Society* Vol 34 No 2 (1966), pp. 491-499.

12  The fact that one can represent the preferences of voters in A and B as points along a straight line implies that they have single-peaked preferences.

13  Matt Golder and Jacek Stamski, "Ideological congruence and electoral institutions", *American Journal of Political Science* Vol 54 No 1 (2010), pp. 90-106.

14  James D. Fearon, "Electoral accountability and the control of politicians: selecting good types versus sanctioning poor performance", in A. Pzewrorski, S. Stokes, and B. Manin, eds., *Democracy, Accountability, and Representation*. New York: Cambridge University Press.