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Choosing among the Variety of proposed Voting Reforms

Nicolaus Tideman[1]

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Abstract
A wide variety of voting reforms are offered for consideration in this special issue. This paper draws connections among them and identifies the beliefs that make particular proposals more attractive than others.

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1 Introduction: points of Agreement

The principal point on which the proposed voting reforms in this volume agree is that the currently most widely used voting rule, the plurality rule, is inadequate. An important part of the problem with plurality is that it allows support for similar candidates to split and elect none of them, when supporters agree that it would be desirable to elect one of the similar candidates. Some reforms raise the further issue of whether a choice between a pair of candidates should be decided by majority rule, or whether it is appropriate to take into consideration, in some fashion, the intensities of preferences.

Additional points of agreement are that all proposals or candidates are to be treated the same (neutrality) and that all voters are to be treated the same (anonymity). It would be easy enough to construct variations on the proposals that departed from these assumptions, but that is not necessary for the purpose of undertaking a comparative analysis of the proposals.

✉ Nicolaus Tideman
ntideman@vt.edu

[1] Department of Economics, Virginia Tech, 24061 Blacksburg, VA, USA

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2 Preliminary issues

How Often Does the Choice of a Voting Rule Make a Difference? Chang-Geun Song's paper in this volume addresses two preliminary issues. The first is how often the choice of a voting rule makes a difference to the outcome, when counting a given set of ballots. The answer is that depending on which pair of rules one is comparing, it can make a difference as little as 2.54% of the time or as much as 24% of the time. But even if it rarely makes a difference, the question of who wins an election can be so consequential that it is important to evaluate voting rules carefully. Two related, important issue that have not been quantified are (1) the ways in which the choice of a voting rule affects the set of persons who stand as candidates and the positions they take and (2) the ways in which the choice of a voting rule affects the amount and kind of strategic voting.

The pairs of rules for which the choice of a rule makes the least difference are pairs of Condorcet-consistent rules and a pair consisting of IRV (Instant Runoff Voting) and a Condorcet-consistent rule. In the sample of 1,022 "elections" created from surveys of German voters, there was a difference between the results of IRV and Condorcet-consistent rules 26 times, or 2.54% of the time. This is infrequently enough that it might seem that voters need not be concerned about the difference. However, there is a reason for concern, despite the low frequency of elections where there is a difference, namely that when there is a difference, it is not likely to be a case of a small difference between the two candidates. The Condorcet winner is likely to be a centrist, while the IRV winner is likely to be distinctly non-centrist.

There is extremely little difference in the results from different Condorcet-consistent rules. This is because in Song's data there was only one instance out of 1,022 in which there was no Condorcet winner. This is often enough that it will be important to have a cycle-breaking rule for any Condorcet-consistent voting rule, but the choice of a cycle-breaking rule seems hardly more consequential than the choice of a tie-breaking rule for the plurality rule.

Final Five Voting. While Final Five Voting, as advocated by Katherine Gehl in her paper, is a specific, well-defined proposed voting procedure, the idea behind it could be applied to any number of voting rules. "Final five" as a general proposal is the idea that if there are more than five candidates, then there should be a first round of voting in which the field is reduced to five candidates, followed by a second round that selects one of the final five. The idea of choosing more than two candidates to go into the final round of voting was introduced by Katherine Gehl and Michael Porter in their 2020 book, *The Politics Industry: How Political Innovation Can Break Partisan Gridlock and Save Our Democracy*.[1] Their proposal was for a first round in which each voter would be allowed to vote for one candidate and four would be chosen for a second round, using IRV. Gehl has since decided that five is a better number of candidates than four to go through to the final round.

The particular virtue of the final five proposal in any context is that it identifies a manageable number of candidates as the ones that deserve close scrutiny, so that vot-

[1] Boston, Harvard Business Review Press.

ers with limited amounts of time to devote to becoming informed can use that time to concentrate on becoming informed about highly relevant candidates.

Turning now to the proposed reforms, they fall into three categories in terms of the type of evaluative information that they use: Voter can score the candidates, or they can divide them into approved and not approved, or they can rank them. A fourth possibility is that in the event of a voting cycle, there should be further discussion and a revote, before a binding vote is taken.

3 Proposals involving Scoring

Consider first the proposals involving scoring. Scoring has the virtue of providing the most extensive space of possibilities for voters to express their preferences.

Range Voting. Range Voting, also known as Score Voting, is advocated in the article in this volume by Warren Smith. Under Range Voting, each voter assigns a score to each of as many candidates as he or she wishes to score, and the candidate with the highest average assigned score is the winner. The choice of a range, whether from 0 to 5, or 0 to 100, or some other range, is a secondary issue. A greater range makes it possible for voters to avoid ranking candidates with nearly similar evaluations as tied when they are able to distinguish between them. On the other hand, a greater range might make it more difficult for voters to settle on the scores they wished to report. My own inclination would be to use the scale from – 10 to 10, with decimal scores permitted, so that voters could pick an integer from a relatively small set in most cases, refines their scores with decimals if they wished, and also express the depth of their unhappiness with candidates. If range voting were to be used in public elections, it would be sensible to conduct extensive research on the question of what range was most satisfactory.

Range voting is simple and easy to understand. It is what all voting reformers could be expected to agree on if two conditions are met: (1) Voters have a shared understanding of the meaning of each possible score, and (2) Voters assign scores based on their true evaluations of the candidates and not on the basis of strategic considerations. If these conditions are met, there could hardly be any objection to range voting. Objections arise when people do not believe that these conditions are met. The use of range voting is particularly unsatisfying if it is expected that some voters will abide by the norm that scores are to be non-strategic while others will not, for in that case the power to affect the outcome will be much greater for those who do not abide by the norm than for those who do.

STAR Voting. "STAR" stands for "**S**core **T**hen **A**utomatic **R**unoff." STAR voting is advocated in the article in this volume by Sara Wolk. STAR voting starts just like range voting and adds a step after the scores are tallied, in which the candidates with the two highest average scores are compared by majority rule, using the existing ballots, and the winner of that comparison wins the election. Wolk proposes a range consisting of the integers from 0 to 5.

The first component of STAR voting ensures that voters have the opportunity to express their views of the relative merits of all of the candidates, while the second

step ensures that there is no embarrassing violation of majority rule in the choice of the final winner.

The aspect of STAR voting that is likely to lead to objections is its susceptibility to strategic voting. While all voting systems for more than two candidates are subject to manipulation by strategic voting, many are less vulnerable than STAR voting. The temptation for a potential strategic voter under STAR voting is to place low scores on the more attractive alternatives to one's favorite and place high scores on the less attractive alternatives. If one's favorite gets into the second round and this strategy is successful, then one's favorite faces a less attractive alternative in the second round. However, if too many people use this strategy, the second round could have two candidates who are agreed to be unattractive.

Majority Judgement. Majority Judgement, advocated by Rida Laraki in this volume, differs from range voting in two important ways. First, it uses a relatively small number of names rather than a numerical range for assigning merit to candidates. The names could be letter grades such as *A, B, C, D* and *F*, or words, such as *Excellent*, *Very Good*, *Acceptable*, *Poor* and *Unacceptable*. Because these names have cultural familiarity, there is a greater likelihood than with Range Voting or STAR voting, that voters will have a shared understanding of the meaning of each one and therefore be able to provide evaluations that are interpersonally comparable.

The second way in which majority judgement differs from range voting is that instead of evaluating candidates by their average scores, it evaluates them by their median scores. This greatly reduces the scope for strategic voting, since the median cannot be lowered further by further lowering the score for a candidate whose score is already below the median of the scores assigned by other voters. Strategic voting is still possible, but it is much more rarely feasible to affect the outcome, so it is not as tempting.

Use of the median rather than the mean, with a small number of categories, creates a high probability that two or more candidates will tie for the highest score. Therefore, majority judgement comes with its own mechanism for identifying one candidate as the best of a tied set. The mechanism is to remove equal numbers of best and worst ranking for each of two tied candidates until the removal of any more would results in indistinguishable sets of rankings.

One of the virtues of majority judgement is that, on good evidence, it is easier to score candidates than to rank them.

4 Approval Voting

Approval voting, advocated in this volume by Aaron Hamlin, is in a category of its own. This is the system in which each voter is allowed to award a vote to as many of the candidates as he or she wishes. It can be regarded as a scoring system in which the only scores that are allowed are 1 and 0. Alternatively, it can be regarded as a ranking system in which every candidate must be either tied for first place or tied for last place.

Approval voting has the virtue of simplicity. When there are more than two candidates, giving or withholding a vote from every candidate is arguably simpler than scoring or ranking all of the candidates.

While filling out an approval ballot is quite a simple task, whether this task is easier for voters than scoring or ranking is debatable. It is quite easy to imagine a voter approaching the task of scoring or ranking a set of candidates as something to be done by consulting one's truthful evaluations and eschewing any possible gain from strategic voting. With approval voting, on the other hand, it is readily imaginable that a voter will see no possibility of a non-strategic vote. If there are three candidates who are about equally spaced in merit in a particular voter's mind, should the voter approve the one in the middle or not? The middle candidate is definitely not as bad as the bottom one, and definitely not as good as the top one. It is plausible that this voter would ask herself, "When the votes are counted, which is more likely, A) a close contest at the top between my first choice and my second choice, or B) a close contest at the top between my second choice and my third choice, with my first choice out of the running?" In the event of (A) she would find that her vote would best promote the effect she would like to have on the outcome if she did not vote for her middle choice. On the other hand, if (B) were more likely, then she could best advance her interests by approving the middle candidate. Unless the voter has a clear understanding of what it means for a candidate to be worthy of approval, there will be an unavoidable strategic decision of whether to give a voter to every tolerable candidate, or to count on other voters to narrow the field down to the tolerable ones and approve only the better ones among those who are tolerable.

5 Proposals based on Rankings

For all of the proposed voting reforms in this section, the input from each voter to the vote-counting process is a ranking of the candidates. When existing voting systems employ rankings by voters, they generally do not allow ties in rankings. It would probably be worthwhile to allow ties. It is quite understandable that a voter would be able to provide a strict ranking of most of the candidates, but be unable to distinguish between some pairs of candidates and want to leave that task to other voters. For purposes of this discussion, I assume that ties are permitted.

When I have been asked to rank a set of candidates, I have generally found it easiest to score the candidates and then report the ranking implied by the scores I have given. If, as suggested by Laraki in this volume, most people find it easier to score candidates than to rank them, then, when a rule that required a ranking of candidates is used, one might want to have ballots that provided for voters to score the candidates, and then have computers determine each voter's ranking from the scores. This process will be more straightforward if ties in scores are permitted.

If a ballot asks for scores, it will be valuable to allow at least as many different scores as there are candidates, so that any voter who wishes to distinguish among all candidates will be able to do so.

I would also recommend that there be no requirement that all candidates be scored or ranked. There will inevitable be some voters who have enough information to

provide evaluations of some candidates but not others. No useful purposed is served by requiring such voters to provide uninformed evaluations of some of the candidates in order for their votes with respect to the candidates about whom they are informed to count.

The Borda Rule. This rule, advocated in this volume by Donald Saari, is one of the oldest proposals for a different form of voting. It seems to have been first described in 1433, by Nicholas of Cusa, in his *De Concordantia Catholica*. But the world did not take notice, and it was developed independently by Jean-Charles de Borda, who presented it to the French Academy of Science in June 1770. However, due to administrative oversight, it did not get published until 1781.

Under Borda's proposal, each voter provides a strict ranking of all of the candidates, and, when there are N candidates, a candidate receives N points if ranked in first place on a ballot, $N-1$ points if ranked in second, and so on, down to one point if ranked in last place. Duncan Black, in *The Theory of Committees and Elections*, proposed a variation on the Borda rule, under which ties in rankings would be allowed, and a candidate would receive a point for every candidate ranked below him and a negative point for every candidate ranked above him.

Borda's theoretical justification for his proposal was that every instance of one candidate ranked above another provides an equal quantum of evidence for the merit of the candidate ranked above the other, so that the candidate for whom the evidence of greatest merit is best is the one with the greatest Borda score. If voters would never think of voting strategically, the Borda rule would indeed provide a reasonably good estimate of the relative merit of candidates, though possibly not as good as range voting or majority judgement. However, like range voting, the Borda rule is extremely susceptible to manipulation by strategic voting. A voter desiring to have the greatest possible impact on the election would seek to identify the two candidates most likely to win and rank the one of the two he preferred first and the other last. Borda was aware of this susceptibility of his proposal to manipulation by strategic voting and proposed that it should be used only by gentlemen who would not stoop to such tactics.

Instant Runoff Voting This system, advocated in this volume by Rob Richie, Jeremy Seitz-Brown and Lucy Kaufman, is a system of successive rounds of elimination, in which, in each round, the candidate who currently has the fewest first-choice votes is eliminated and that candidate's votes are reallocated to the remaining candidates named next on those ballots.

This proposal has had many names. It is based on a principle, first discussed, unfavorably, by Condorcet in 1788 and first advocated by London barrister Thomas Hare in 1859, so it is sometimes called the Hare rule. This idea is the application to electing one candidate of a system for electing multiple candidates called the Single Transferable Vote, so the idea sometimes goes by that name. The person who first proposed that the idea be used for electing one candidate was William Ware, so it has sometimes been called the Ware rule. In the United Kingdom it has been known primarily as the Alternative Vote. In the United States, in recent decades it has gone by the names Ranked Choice Voting and Instant Runoff Voting. It is currently called Instant Runoff Voting, or IRV, by its American advocates, so I discuss in by that name.

IRV has been adopted in recent years by many American cities. Like other proposed reforms, it resolves the dilemma of voters who want to support an alternative candidate if their primary picks are out of the running. It has the satisfying property that one's second choice cannot undercut one's first choice, because the second choice is not examined until and unless the first choice is eliminated. For sets of rankings found in troves of voting data, IRV has been found to very rarely be susceptible to strategic voting.

The most significant concern that has been raised with respect to IRV is that, if it were used for Congressional elections, where candidates may be strongly tied to a single left-to-right dimension, candidates on the left and right will position themselves close enough to the center to make centrist candidates the ones with the fewest first-choice votes, leading to the election of non-centrists, when the election of centrists would be better for reducing the polarization of politics.

In the 177 U.S. municipal elections with more than two candidates where IRV has been used up to now, there has been only one instance in which the elected candidate was not the Condorcet winner (data from FairVote.org).

While it is possible for an election to have no Condorcet winner, there was a Condorcet winner in every one of the 177 elections in the FairVote database. In 1,022 pseudo-elections formed from preferences reported in German public opinion surveys, there was a Condorcet winner in all but one (Song, this volume).

Perhaps selecting the Condorcet winners 176 out of 177 times is good enough. But if we think that the election of Condorcet winners is the right thing to do, shouldn't we use a rule that elects the Condorcet winner whenever there is one?

A Further Concern Regarding IRV. The article by Robbie Robinette in this volume raises a different concern regarding IRV. Robinette argues that, by standing ready to eliminate a Condorcet winner if that candidate has the fewest first-place votes, IRV invites candidates to not search for the center, where they would best represent their electorates, but rather to position themselves off-center, where, in combination with a candidate on the other side of the center, any centrist can be eliminated under IRV. Therefore, the candidate who win under IRV will tend to have positions notably away from the center.

Condorcet-Consistent Voting Rules In 1785, the Marquis de Condorcet proposed that where there are more than two candidates in an election, the winner should be the candidate, if there is one, who beats all others in paired comparisons. While this idea has been endorsed by numerous voting theorists, it seems that, as Holiday and Pacuit mention in footnote 1 of their paper in this volume, a Condorcet-consistent voting rule (the Nanson rule) seems to have been used in public elections only in Marquette, Michigan, in the 1920s. As noted above, in 177 U.S. public elections conducted by IRV, there was a Condorcet winner in every one, and IRV selected the Condorcet winner in all but one case. The reason that Condorcet-consistent rules have not been used is probably a combination of apparent complexity and the troubling question of exactly what is best to do if there is no Condorcet winner. The advocates of Condorcet consistency have not coalesced on any single Condorcet-consistent rule.

There is a good reason why elections with sincere voters can reasonably be expected to almost invariably have Condorcet winners. That reason is that examination of election data has shown that the distributions of rankings of candidates in

election results tend to come very close to being consistent with a "normal spatial" model of elections, in which candidates have known locations in two or more dimensions, voters have normally distributed preferred locations for candidates in that same space, and voters rank candidates by closeness to their locations.[2] In this model, only random error could generate an election without a Condorcet winner, because, in the absence of random error, every paired comparison will be won by the candidate whose location is closer to the mode of voters' preferred locations, and the transitivity of distances of candidates from that mode will create a transitive ranking of candidates in paired comparisons. The candidate at the head of that transitive ranking, the candidate closest to the mode of the voters' preferred locations, will be the Condorcet winner of the election.

Elections without Condorcet winners are likely to be so rare that it is probably not worth arguing about what should be done in such cases. Yet we need to agree in advance on a rule to use when there is a top cycle. Since cycles can be expected to be quite rare, anything more complex than a simple cycle among three candidates is likely to be extremely rare, unless there are dozens of candidates who are ranked. Therefore, it is attractive to sort Condorcet-consistent voting rules by how they treat the case of a simple cycle among three candidates.

There are three treatments of a cycle among three candidates that are found among the Condorcet-consistent rules that are currently advocated. The three treatments are: (1) select the plurality winner among the three; (2) eliminate the plurality loser among the three and then select the winner from the paired comparison between the remaining two; and (3) reverse the direction of the smallest majority and select the resulting Condorcet winner.

1) **Select the plurality winner.** This is what happens under "bottom-two runoff IRV" (BTR-IRV) when the field is reduced to three candidates in a cycle. BTR-IRV is a relatively new voting rule, advocated in this volume by Robert Bristow-Johnson. Under this rule, if no candidate has a majority, there is a runoff between the candidates with the two smallest plurality scores, and the loser of that paired comparison is eliminated. Such runoffs are repeated until there a candidate has a majority. Since a Condorcet winner will win every comparison it enters, such a candidate must be the final winner. If the field is down to three candidates in a cycle, then the comparison will be between the two with the lowest plurality scores, and the winner of this comparison will lose to the third candidate in the cycle, so the candidate not in that first comparison, the one with the greatest plurality score, will be the winner.

   BTR-IRV has the virtue of being a slight variation on standard IRV, so people who have accepted standard IRV may find it easy to accept that BTR-IRV should be used to ensure that if there is a Condorcet winner, then that candidate will be elected.

   BTR-IRV has the liability that it appears to be more susceptible to strategic voting than other Condorcet-consistent rules.

[2] Nicolaus Tideman & Florenz Plassmann. "Modeling the outcomes of vote-casting in actual elections." *Electoral Systems*. Springer, Berlin, Heidelberg, 2012. 217–251.

2) **Eliminate the plurality loser and select the winner of a paired comparison between the remaining two candidates** This is the practice of a collection of four very similar "Condorcet-Hare" voting rules that are exactly the same when there are three candidates but can yield different outcomes when there are more than three candidates. These rules are described in this volume in the paper by François Durand. The rule among the four that to me seems most plausible begins by identifying the "Smith set," that is, the smallest set of candidates such that all candidates in the set beat all outside the set, in paired comparisons. All candidates outside the Smith set are eliminated. If the Smith set contains only one candidate, then that candidate is the winner. If the Smith set contains more than one candidate, then each vote is allocated to the candidate in the Smith set who is ranked highest on that ballot, and the candidate with the fewest votes is eliminated. The process of identifying the Smith set with respect to the remaining candidates, eliminating all candidates outside that set, and eliminating the candidate with the fewest plurality votes with respect to the remaining candidates continues until only one candidate remains. That candidate is the winner.
   The particular virtue of the Condorcet-Hare rules is that, in an investigation of artificial elections formed from triples of candidates who were evaluated by voters in surveys, the Condorcet-Hare rule was notably less susceptible to manipulation than other Condorcet-consistent rules.
3) **Reverse the smallest majority and select the resulting Condorcet winner**. This is the result from a three-candidate cycle when the voting rule is Minimax, Kemeny-Young, Simplified Dodgson, Young, Ranked Pairs, Beatpath (Schulze) or Stable Voting. Rather than describing all seven of these rules, I will illustrate the practice and explain its virtue with respect to just the Minimax rule, advocated in this volume by Richard Darlington. If you think it is important to ensure that the best possible rule is used for cycles with more than three candidates, then you will want to explore how all of these other rules deal with cycles among more than three candidates.

   The Minimax voting rule is the rule that the winner is the candidate whose worst loss in paired comparisons is least bad. It is possible to create examples with four or more candidates in which the winner by the Minimax rule is not from the Smith set (the top cycle). If one wishes to avoid this theoretical anomaly, one can modify the Minimax rule slightly and say that the winner is the member of the Smith set whose worst loss in paired comparisons is least bad.
   The merit of dealing with three-candidate cycles by reversing the smallest margin can be seen in the following fact: When one examines instances of three-candidate cycles in voting data, it frequently happens that there is one leg of the cycle that is within a vote or two of going in the other direction, so that, upon seeing this pattern one says to oneself, "I see. This paired comparison should have gone in the other directions, but as a result of random factors it went in the direction opposite of what it would have done with a larger sample. The 'intended' winner of this election should be understood to be the candidate who is a Condorcet winner when this paired comparison is reversed." All seven of the mentioned rules produce this result in the case of a three-candidate cycle.

> In an examination of statistical properties of several dozen voting rules, estimated by examining the results of all of the triples of candidates that could be constructed from Politbarometer surveys, the scores of BTR-STV, Condorcet-Hare, and Minimax with respect to apparent ability to select the candidate with the greatest aggregate utility and with respect to resistance to strategy were found to be as shown in Table 1.

Based on this table and on the discussion above, one can say that the special virtue of BTR-STV is that it is a simple step from STV. The special virtue of Condorcet-Hare is that it is noticeably more resistant to strategic voting than the others. The special merits of Minimax and its cousins are that these rules are ever so slightly more efficient than the others in selecting the candidate with the greatest apparent aggregate utility, and they treat three-candidate voting cycles that are barely cycles in the way that seems most natural to treat them.

6 Dodgsonian re-evaluation

As James Green-Armytage notes in his contribution to this volume, Charles Dodgson (more widely known as Lewis Carroll, author of *Alice in Wonderland*) proposed that in the event of a voting cycle, the body making a decision should discuss the issue further and should not reach a decision unless, upon further reflection and with changes in votes allowed, the participants in the decision reach a result in which there is a Condorcet winner. Bowing to the necessity of reaching a definite result, Green-Armytage takes inspiration from Dodgson's suggestion and recommends a second and possibly more rounds of voting in the event of a voting cycle, with a winner certain to be specified at the end of the process. Green-Armytage argues that this procedure has a reasonable prospect of defeating strategic voting.

In the two-round version of the Green-Armytage proposal, the first round consists of ranking the candidates, checking for a Condorcet winner, eliminating candidates outside the Smith set, allowing candidates to withdraw, and checking again for a Condorcet winner. One or more candidates in the Smith set might withdraw out of an understanding that they have no chance to win and that by withdrawing they can secure the best outcome that they can expect.

If there is no Condorcet winner at the end of the first round, the second round begins with voters providing new rankings of the remaining candidates. Knowing of the existing cycle, the voters can predict the ways in which changing their votes can be expected to contribute to breaking the cycle and lead to the best outcomes that they can expect. If there is no Condorcet winner from the second round of vot-

Table 1 Estimated Properties of Some Condorcet-Consistent Voting Rules

	Apparent Efficiency	Resistance to Strategy
BTR-IRV	0.9515	0.8003
Condorcet-Hare	0.9516	0.9804
Minimax and its cousins	0.9519	0.8461

Source: Green-Armytage et al., Statistical Evaluation of Voting Rules, *Social Choice and Welfare* 46.1 (2016)

ing, the round proceeds like the first, except that, after any voluntary withdrawals have occurred, if there is still no Condorcet winner, the candidate with the fewest first-place votes is eliminated before a check for a Condorcet winner is made. This produces a winner if the Smith contains no more than three candidates. If after two rounds there is still no winner, there are two options. One is to continue with the Condorcet-Hare procedure of eliminating the candidate with the fewest first place votes, reallocating those votes to the candidates named next on them, and eliminating candidates no longer in the Smith set until there is a winner. The other option is to have additional rounds like the second, in which voters have the opportunity to revise their votes and candidates have the opportunity to withdraw before a candidate is eliminated. The first option definitely produces a result after a procedure no more tedious than the usual combination of a primary election and a general election. The second is truer to the spirit of the proposal and definitely produces a result after no more than $N - 1$ rounds of voting, where N is the number of candidates.

7 Conclusion

The proposals in this volume illustrate the many dimensions in which voting might be changed. Should there be a preliminary round of voting in which the number candidates is reduced to no more than five or so? How should voters report their evaluations of candidates? By scores, by grades, by approved or not, or by rankings? If scores or grades are used, should they be summarized by their means or by their medians? If rankings are used, should they be employed to construct summary scores as in the Borda rule, be used as the basis for deciding which candidates to eliminate successively as in IRV, or be used to find the Condorcet winner or closest approximation thereto as in Condorcet consistent rules?

People who are concerned with improving voting are far from ready to coalesce on a single reform proposal. We will probably need to have different polities gain experience with a variety of these proposals before we can expect to be confident of their relative merit. Ultimately, a voting rule is good if it is satisfying to those who use it. Voting theorists contribute by using their expertise to communicate to voters the things that voters will want to know in developing their own taste in voting rules. I hope this analysis promotes better understanding of the properties of the voting rules that might be adopted.