Prevent Haters from Hijacking Primaries with Fairer Voting

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Executive Summary

All popular voting algorithms have been proven mathematically to be irrational. However, further research has shown that some algorithms are less irrational than others. In elections with more than 2 candidates, the current electoral voting algorithms cause fratricide among similar (likely "mainstream") candidates, enabling divisive candidates to win even though they cannot muster a majority. One well-known voting algorithm is less irrational, prevents fratricide, and is "fairer". This is the voting algorithm used by Olympic judges. It seems likely that such a voting algorithm would select primary winners that are less divisive and more capable of winning the general election.

Background

Arrow's theorem proves that many voting systems that are not tyrannical or indecisive must be "irrational": i.e., in an irrational voting system, the voter finds himself voting for people he dislikes or even loathes as the "lesser of evils". Since democracies cannot survive being either tyrannical or indecisive, they have universally embraced irrational voting algorithms. However, additional research has shown that not all voting algorithms are equally irrational. And some selection systems that break the narrow definition of "voting" can do even better.

The Problem

Meanwhile, the Republican primary of 2016 has demonstrated how extreme the irrationality can become when using conventional political voting algorithms. Many of the candidates held similar positions on plans for governance. These were the nondivisive, "mainstream" candidates. Since the voter can only vote for one candidate, this led to "fratricide": the similar candidates split the votes of the majority of voters, enabling the divisive candidate to capture a plurality. So in a simplified version of the 2016 primary, given mainstream candidates M1, M2, and M3, competing against divisive candidate D, if the mainstream candidates split 60% of the vote evenly, candidate D would "win" with a plurality of 40%. The result is a primary winner who is strongly disfavored by a majority of party members. Examination of similar historical episodes shows this tends to result in severe consequences in the subsequent general election.

A Solution

There are numerous algorithms that are less irrational than the algorithms used in modern primary elections. One such algorithm stands out for being both easy to understand and well-known throughout the populace. That algorithm is the one used by Olympic judges. Candidates are granted values on a 0-10 scale. Multiple candidates can get the same value. The winner is the candidate who receives the highest sum of values.

There are variations of the Olympic algorithm that might make more sense for a political election. In the Olympics, tenth-point variations are allowed, whereas in an election an integer scale seems adequate. And a 0-5 scale rather than 0-10 might fit the ballot machinery more easily, and seems an acceptable simplification. Furthermore, there are other fairer algorithms if experts on electoral voting identify a significant problem with the Olympic scheme. The important thing is to select an algorithm that is simple, yet reduces irrationality and fratricide.

For an example, we will use a 0-10 integer scale Olympic system.

An Example

Consider a Republican voter from the #NeverTrump movement who lives in Arizona. One such voter (an actual person) ranks the possible candidates as follows

Kasich
Rubio
Bush
(large gap in desireability)

Clinton
Cruz
Sanders
Trump

To be clear, for this #NeverTrump Republican, Clinton is preferable to both Cruz and Trump, while everyone including Sanders is preferable to Trump.

In the actual Arizona primary, this voter, after analyzing the state's voting algorithm, voted for Cruz. This is odd because, in the general election, if Cruz ran against Clinton, the voter would choose Clinton. Why did he vote this way?

Here is the analysis: Only Kasich, of the three desireable candidates, remained in the race. It was not clear that Clinton would be the Democratic candidate. Arizona's primary uses a "winner take all" algorithm. Polls indicated that Kasich had no chance of winning the Arizona primary, but Cruz did. Kasich's only chance was to have the nominee selected at a brokered convention. This would require Trump to have less than an absolute majority of delegates. If Cruz won Arizona, it would improve the chance of a brokered convention, which would give Kasich his only remaining chance of winning.

So this voter correctly chose to vote for someone in the primary he would not vote for in the general election. This is an example of irrationality at its finest.

Now consider the situation given an Olympic voting algorithm. First consider this voter's evaluation if he lived in an early-primary state with all the candidates active. It could look something like this:

10 – Kasich
9 – Rubio
8 – Bush
3 – Cruz
0 – Trump

The three similar candidates are no longer committing fratricide; all three of them are given higher values than Cruz or Trump. Because of the absence of fratricide, Rubio and Bush would not drop out early in the race: using a bit of induction/guesswork as to how voters in the earlier votes would have acted given Olympic voting, Kasich, Rubio, and Bush probably would have been the 3 top contenders, each individually capturing more delegates than either Cruz or Trump. In our example voter's evaluation, Cruz is given enough points to choose him clearly over Trump if none of the three desirable candidates are able to compete successfully.

Now let's suppose that the early primaries are still highly irrational, and our voter in Arizona faces the same difficult situation except Arizona has moved to Olympic voting: Arizona is still a winner take all state and only Cruz has a chance of defeating Trump. Even here his voting would be less irrational: he might give all the candidates except Trump a 10, and give Trump a 0. This voting strategy would fully reflect the "anybody but Trump" perspective of a #NeverTrump voter. It might also attract more mainstream voters into voting at all in the election: given a choice between Cruz and Trump, the mainstreamer is likely to stay home, but with Olympic voting he can still cast a strong affirmation of desirable candidates without "wasting" his vote.

In all the above cases there is no fratricide. The algorithm is "fairer": candidates are not penalized for holding views similar to other candidates who share those views with a majority of voters. The algorithm collects more information from the voters about their preferences, and uses that information to more accurately reflect the desires of the populace.

Divisive candidates would have their divisiveness reflected in a large number of zero valuations. Mainstream candidates would cluster but would not be penalized for holding values aligned with mainstream voters. Outlying candidates who are distinct but not divisive are not penalized, and may benefit: mainstream voters who like some of the outlier's ideas can give an affirmation to the candidate without sacrificing their one single vote. This enables the outlier to inform the party about important directions of evolution without having to achieve a dramatic revolution to get attention, allowing the party to evolve more smoothly to accept the changing values of future mainstream voters.

By doing a better job of selecting candidates in tune with larger swaths of the population, the algorithm assists the party in selecting electable candidates more effectively than the opposing party. The first party to embrace such a primary voting algorithm would hold an advantage over the opposition as long as the opposition continued to use less rational methods.

Though most voters are familiar with the Olympics and the Olympic voting system, it might take several election cycles for voters to change their voting strategies to embrace the opportunity afforded. It is easy to imagine some voters, the first time they experience this process, giving their favorite candidate a

10 and all others zero. But the Olympic algorithm is easy to understand. One would expect that over a series of election cycles, a majority of voters would learn how to use the system to better express their desires.

Conclusion

In primary elections, using a voting algorithm that is fairer, i.e., an algorithm that produces results that better reflect the desires of the voting population, is more likely to select candidates that are better equipped to win the general election. There are several algorithms that are fairer than the algorithms currently in use. One promising algorithm is the scheme used by judges in the Olympics. This paper suggests that the Republic party should look very seriously at selecting primary voting algorithms that can yield more effective outcomes.