

**Voting Theory**  
**Discussion Prompts**  
Mathematics of Social Choice  
Duchin, Spring 2021



## Discuss!

1. Which is a better system, beatpath or PWC?
2. Should we Smithify our election systems?
3. Is it ethical for voters to form interest groups and attempt to vote strategically?
4. Plurality voting is best because it is most transparent and easy to understand.
5. Should a fair voting system make it *easy* for minority groups to get proportional representation? (Possible? Likely?) If you think this is important, what counts as a minority group—race? religion? home renters? Republicans in Massachusetts?
6. Most of our work has assumed all voters rank all candidates—including the ones they dislike. How reasonable is it for voters to have to rank all candidates?
7. If voters don't rank all candidates, it's hard to know which candidates they strongly oppose. Try to come up with a system that would take into account the candidates voters support, dislike, or don't have information about.
8. Suppose you knew every preference schedule for voters in every actual election in the U.S. for the last hundred years.<sup>1</sup> If you have a system of election that would satisfy your fairness axioms 98% of the time but would give a really weird and bad outcome 2% of the time, is that acceptable?
9. Can you come up with some real-world scenarios that would lead to a Condorcet cycle? Where cycles exist, do you expect them to be among similar candidates or very different types of candidates?
10. Are party primaries a good idea? If we used ranked voting, should we get rid of primaries?

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<sup>1</sup>For instance, you know the true rankings of Gore vs. Bush vs. Nader preferences for all voters from the presidential race in 2000, and you know the true rankings of all voters from the Republican presidential primary in 2016, etc. etc.