How to Improve Presidential Elections

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Bloomington

October 4, 2018

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- Same thing in general election
  - even in Florida, Michigan, North Carolina, Pennsylvania, and Wisconsin (all of which Trump won) anti-Trump vote exceeded pro-Trump vote

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    - in March 8 poll, *both* Cruz and Rubio would have easily beaten Trump in two-candidate contest
  - voting-splitting among Rubio, Cruz, Kasich and others ensured Trump's nomination

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  - voting-splitting between Gore and Nader handed election to Bush

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  - each voter votes for one candidate and winner is candidate with most votes, even if doesn't get majority
- plurality rule vulnerable to vote-splitting
  - two or more similar candidates split the vote, allowing a very different candidate to win

Is there a better way to elect presidents?

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- Answer: yes

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- Bush (Senior) might have defeated Bill Clinton in two-way match-up, but we don't know

- Solution: should have voters provide *rankings* of candidates

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e.g.   Rubio   Trump
              Kasich   or   Kasich
              Trump   Rubio

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e.g.

	Rubio		Trump
	Kasich	or	Kasich
	Trump		Rubio

- What should we do with these rankings?

"True" Majority Rule/Condorcet's method (per Marquis de Condorcet)

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- elect candidate who (according to rankings) would beat each of the others in head-to-head contest

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- contrast with *plurality winner*
  - Trump is plurality winner
  - anti-Trump vote split between Rubio and Kasich
  - if either of Rubio or Kasich drop out, other beats Trump

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  - as he was in Florida

- Once voters submit *rankings*, many systems besides true majority rule become possible

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  - Why limit ourselves to majority rule?

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- otherwise, look at 2 candidates getting most first-place votes

- whichever candidate preferred by majority is elected

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  - majority prefer Rubio (35% + 25%)
  - so Rubio elected in runoff
- saw earlier that majority rule elects Kasich

Which method – runoff voting or majority rule – is better?

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- Way to answer question: which method does better job of satisfying basic requirements (principles) that any good voting rule should satisfy

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- Both true majority and runoff voting satisfy neutrality

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- But runoff voting violates IIC

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- but notice that if Trump doesn't run, *Kasich* wins

- so runoff voting violates "no vote splitting" principle (IIC)

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- both satisfy consensus, anonymity, and neutrality
- but only majority rule satisfies IIC

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- there may not always be a candidate that beats all the others

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- this is called a *Condorcet cycle*
- majority rule violates *decisiveness principle*, which requires that a winner always exists
- runoff voting satisfies decisiveness

- So true majority rule satisfies

  consensus

  anonymity

  neutrality

  IIC

- So true majority rule satisfies

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- Runoff voting satisfies

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- Implied by Arrow's Impossibility Theorem

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- but some rankings may be quite unlikely

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Rubio		Kasich		Trump		Trump

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Kasich	or	Rubio	or	Kasich	or	Rubio
Rubio		Kasich		Trump		Trump

   – but not

Rubio		Kasich
Trump	or	Trump
Kasich		Rubio

- this sort of polarization may be bad for Republican party

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- if most voters polarized, then the majority rule *is* decisive (no Condorcet cycles)

- Define a voting method to *work well* for restricted class of rankings if it satisfies consensus, anonymity, neutrality, IIC, and decisiveness when voters' rankings drawn from that class

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(e.g. true majority rule works well for the class of polarized rankings)

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- if a voting method works well for some particular class of rankings, then true majority rule also works well for that class

- furthermore, there exists some class of rankings for which true majority rule works well but other voting method does not

- thus, true majority rule works well *more often* than any other method

- Thus there is precise sense in which true majority rule is best

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  – then need tie breaker

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    - but Bloomberg and Sanders choose *not* to run
    - afraid of taking votes away from Clinton and handing election to Trump - - vote splitting again
    - public left with 2 deeply disliked candidates

42%	**40%**	**18%**
Trump	Clinton	Bloomberg
Bloomberg	Bloomberg	Clinton-Trump
Clinton	Trump	

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- so there's reason for optimism that presidential elections will improve