

Voting Theory - III & Christian Group Decision-Making

Voting Theory Recap:

- **Plurality Method**: Simple but...
 - May violate Condorcet Criterion.
 - Issue of Insincere Voting
- **Instant Runoff Voting**: Addresses issue of insincere voting but...
 - May violate Condorcet Criterion.
 - May violate Monotonicity Criterion.
- **Borda Count**: Tends to select option with broad consensus but...
 - May violate Majority Criterion.
 - May violate Condorcet Criterion.
- **Copeland Method**: Finds Condorcet Winner & satisfies Majority Criterion & Monotonicity Criterion, but...
 - May violate Independence of Irrelevant Alternatives Criterion.

Groups: Look at your work. In your case...

- Does the Plurality Method violate the Condorcet Criterion?
(Is your Copeland Winner different from your Plurality Winner?)
- Does the Borda Count violate the Majority Criterion?
(Is one of your options 1st choice for more than half the voters? If so, is that option different from the Borda Count winner?)

- Does Copeland's Method violate IIA Criterion? (If you remove a non-winning option, does the winner change?)

Arrow's Impossibility Theorem

Roughly: It is not possible for a voting method to satisfy all the fairness criteria we have discussed.

"Most systems are not going to work badly all of the time. All I proved is that all can work badly at times." (Ken Arrow)

Approval Voting

- Instead of ranking options, each voter simply indicates which options he/she considers acceptable.
- The option with the most approval wins.

Downside 1: May violate Majority Criterion.

Downside 2: Susceptible to Insincere Voting.

Making decisions in a group.

- Examples in your life?

- What aspects of group decision-making have we not considered? What other considerations are appropriate for a group of Christians, seeking to make a decision together?

- For example:

- Four families are interested in homeschooling together & they need to pick a curriculum.
- A congregation of 200 needs to select a new pastor.
- A faculty of 80 needs to decide whether/how to change the mission of the college.
- A community of 1,700 is considering starting a new outreach ministry.