

Three Main Concerns

- Empirical Evidence for Condorcet Paradox? (Majority Cycles)
- Empirical Consensus among Consensus Methods? (Generalization of Condorcet Efficiency)
- Consistent Estimators (Beyond Condorcet Efficiency)

Normative Theory

Descriptive Theory & Data

Behavioral Social Choice

Data

American Psychological Association Presidential Elections
8 Data sets (1998-2005)
Ballots: Partial/Full Rankings of 5 Candidates

Partial Ranking Ballots

Complete Ranking

B D C E A

Partial Ranking

B D C

Three Models of Partial Rankings

Weak order model

Unranked candidates
Are tied at the bottom of the preference

B D C E
A

Partial order model

No preferences b/w candidates when one or both are unranked

E
B D C
A

Size-Independent Linear Order model

Partial ranking is "beginning" of an unknown linear order
Linear order "profile" inferred statistically

B D C A E

B D C E A

Consensus Methods

- Condorcet
- Borda
- Plurality
- Anti Plurality
- STV
- Coombs
- Plurality Runoff

Results

No Cycle in any of the 8 data sets !!!

1998	Condorcet	Borda	Plurality
WO	CBADE	CBADE	CEABD
ZW	CBD AE	CBD AE	CAEBD
SIM	CBD AE	CBD AE	CAEBD

Agreement among winners APA data
(Weak Order Model)

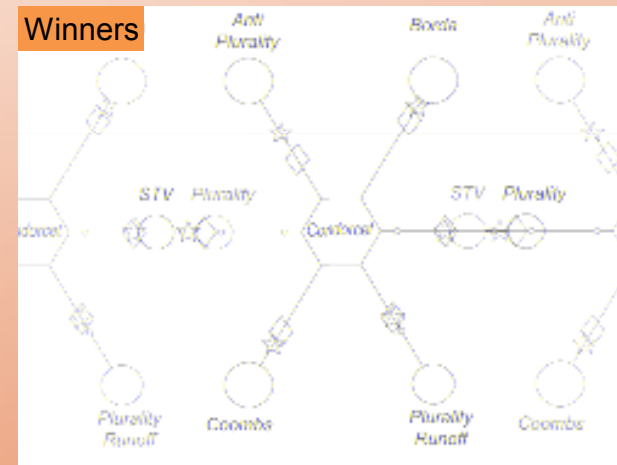
	Condorcet Borda	Condorcet Plurality	Borda Plurality
1998	>.99	>.99	>.99
1999	>.99	.79	.79
2000	>.99	>.99	>.99
2001	>.99	>.99	>.99
2002	>.99	>.99	>.99
2003	>.99	>.99	>.99
2004	>.99	>.99	>.99
2005	>.96	.03	.06

Results are consistent for other models

Three Main Conclusions

- Absence of Empirical Evidence for Condorcet Paradox (Majority Cycles)
- Empirical Consensus among Consensus Methods (Generalization of Condorcet Efficiency)
- Consistent Estimators (Beyond Condorcet Efficiency)

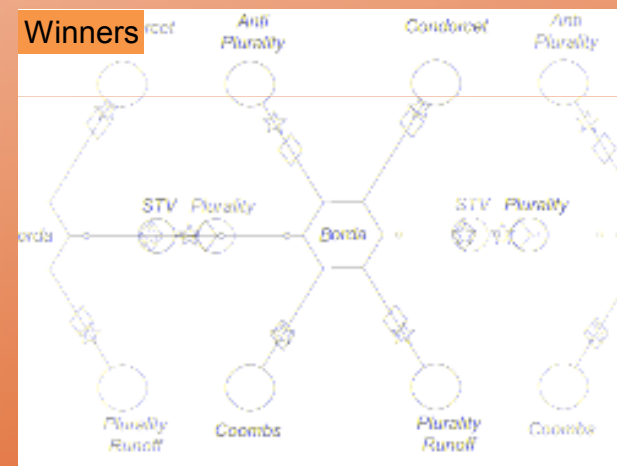
Winners



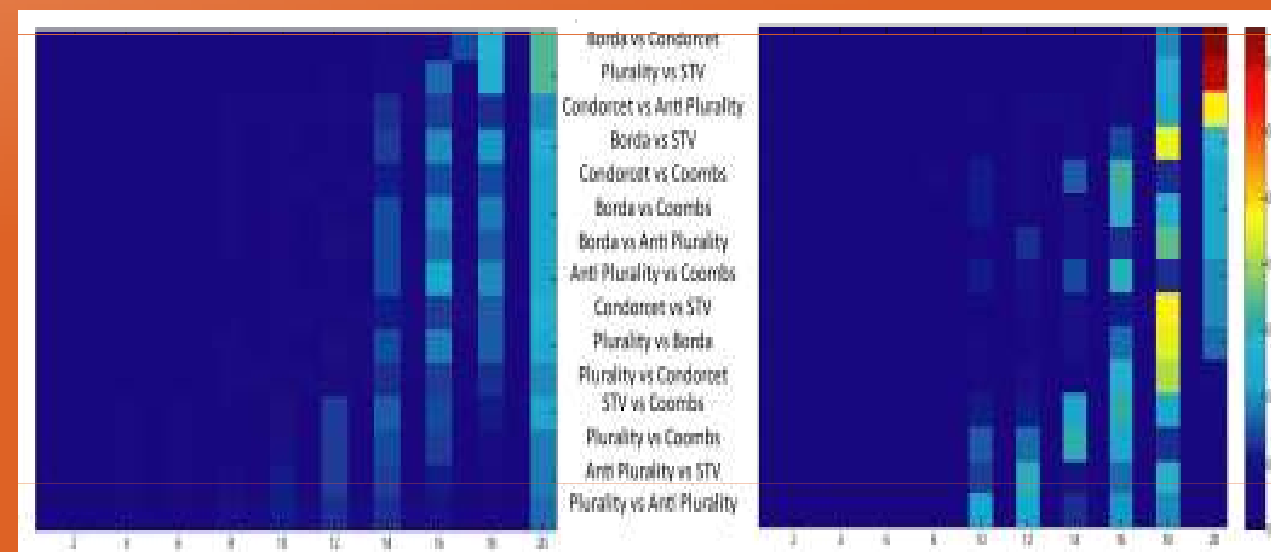
Losers



Winners



Losers



Future Directions

Analysis of large scale national election surveys from, e.g., Canada, France, Germany, Israel, USA

Analysis of data from individual and group decision making experiments

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