

# Profile or Procedure

Different outcomes for different procedures

## Example (8)

Number of votes: 3    2    2    4

Profile

A	A	B	C
B	C	C	B
C	B	A	A

Plurality?

A - 5

C - 4

B - 2

AntiPlurality?

B - 9

C - 8

A - 5

Borda Count?

C - 12

B - 11

A - 10

# Example (9)

Votes:	<u>2</u>	<u>2</u>	<u>2</u>	<u>3</u>
Profiles	A	A	C	D
	B	D	B	B
	C	C	D	C
	D	B	A	A

Plurality?

A - 4  
D - 3  
C - 2  
B - 0

Top-two?

B - 7  
D - 5  
A - 4  
C - 2

AntiPlurality?

C - 9  
B,D - 7  
A - 4

Borda Count?

D - 15  
B - 14  
C - 13  
A - 12

# Example (10 corrected)

Votes: 3    1    2    2    2    1    3    1

Profiles

A	A	A	C	D	E	E	B
B	C	E	B	C	A	B	E
C	E	C	D	E	C	D	C
D	D	D	E	A	D	A	D
E	B	B	A	B	B	C	A

Plurality?    Top-two?    Top-three    AntiPlurality?    Borda Count?

A - 6	B - 9	C - 12	D - 15	E - 33
E - 4	A,E - 7	E - 10	A,C,E - 12	A - 32
C,D - 2	C - 5	B - 9	B - 9	C - 31
B - 1	D - 2	A,D - 7		B - 28
				D - 26

## Saari Theorem 2

For  $N \geq 3$  candidates,  $\{c_1, c_2, \dots, c_n\}$ , there exists a profile (in fact many),

Such that  $c_j$  wins when the voters vote for their top  $j$  candidates and  $c_n$  wins with Borda Count.

The election procedure makes the difference!

## Example (11)

This example shows that not only can we get different winners, but also that we can get even more different societal rankings!

Note that these results use only positional methods: those methods that give points to each position in the ranking:

Plurality	vote-2	anti-plurality	Borda Count	other	another
1	1	1	3	4	7
0	1	1	2	2	3
0	0	1	1	1	1
0	0	0	0	0	0