

Jean-Charles de Borda

Born in **Dax** in **1733**,
was taught by the uncle
Jacques-François de Borda,
at **7** entered the school of the **Barnabite
Fathers**,
at **11** he attended the **Jesuit college of
La Flèche**.

After his studies he joined the **army**,
to then switch to the **navy**,
and only after, he started his academic
career as a **Mathematician and Scientist**



Where did the Borda's Method stem from?

- Borda took issue with the basic axiom that underlies ballot elections, namely that the majority of votes expresses the wish of the electorate.
- He argues that only in a bipartisan election a majority vote is fair, thus when more candidates are present there has to be a ranking of merit to establish the winner.
- His method is identical to Cusanus'; however he clarified and justified the assumption that one additional rank should always accord the candidate the same additional gain.

The Borda's Method

Candidates: Sophia, Emily, John; Number of Voters: 33

Simple Majority Election

12 electors: Sophia

11 electors: Emily

10 electors: John

Election by Ranking of Merit

12 electors: Sophia > John > Emily

11 electors: Emily > John > Sophia

10 electors: John > Emily > Sophia

Merit units allocation in the Borda's

System:

The First Choice gets: **3** m units or
points

The Second Choice gets: **2** m units or
points

The Last Choice gets: **1** m unit or
point

12 electors: Sophia > John > Emily

11 electors: Emily > John > Sophia

10 electors: John > Emily > Sophia

Sophia gets: $12 \times 3 + 11 + 10 = \mathbf{57}$ points

Emily gets: $12 + 11 \times 3 + 10 \times 2 = \mathbf{65}$ points

John gets: $12 \times 2 + 11 \times 2 + 10 \times 3 = \mathbf{76}$
points

The Winner in this case is **John**.

m unit=merit unit

How does this apply in a conventional majority election?

In a normal majority election for a candidate to win, such candidate would need to obtain at least $1 - 1/n$ part of the votes.

Where n is the total number of candidates in the election.

$2/3$ of the vote if there are **3** candidates, $5/6$ if there **6** candidates and so on.

Problems:



If there are less voters than candidates, the vote has to be unanimous.

What happens in the case of a tie?

What happens if a voter is indifferent about certain candidates? Is it fair that such candidates still get some merit units?

What happen in the likely case that the winning candidate is nobody's favorite?

Nobody's favorite case:

12 electors: Sophie > **John** > Max > Emily

11 electors: Emily > **John** > Max > Sophie

10 electors: Max > **John** > Emily > Sophie

Votes: John **99**, Max **86**, Emily **76**, Sophie 69.

Appereance of a weaker candidate:

51 electors: Jack > Oliver

49 electors: Oliver > Jack

Votes: Jack **151**, Oliver 149

51 electors: Jack > Oliver > Pete

46 electors: Oliver > Jack > Pete

3 electors: Oliver > Pete > Jack

Votes: Jack 248, Oliver **249**, Pete
102

Social Implication of Borda's Method

Pros

- **Encourages Consensus**
- **Reduced Influence of Strong Polarization**
- **Psychological Effects on Voters and Candidates**

Cons

- **Impact on Political Representation**
- **Psychological Effects on Voters and Candidates**
- **Potential for Strategic Voting**
- **Potential Marginalization of Minority Voices**
- **Complexity and Voter Understanding**

Saari in his “*A chaotic exploration of voting paradoxes*” addresses how the method may undermine the public’s faith in democratic processes if it leads to counterintuitive outcomes.

Brams in many of his works highlights how the Borda’s method can lead to outcomes where a candidate who is nobody’s top choice might still win, which could affect social satisfaction and the perceived legitimacy of the electoral process.

in “*The Theory of Committees and Elections*” **Black** examines the social implications of Borda’s method, discussing how it promotes centrist, broadly acceptable candidates. He highlights both the positive impact of fostering consensus and the downside of potentially marginalizing minority views.

Bibliography:

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