

Democracy for Polarized Groups

The Tale of Blotto's Lieutenants

Alessandra Casella ¹ Jean-François Laslier ² Antonin Macé ³

¹Columbia University ²CNRS & Paris School of Economics ³Aix-Marseille School of Economics

September 2015

In a polarized world, majoritarian democracy gives no voice to the minority. Storable Votes—a voting scheme that allows voters to combine multiple votes on a single issue, subject to a total allotment of votes—makes it possible for the minority to win occasionally, while preserving anonymity and preventing obstruction. Existing analyses of Storable Votes assume that voters assign cardinal values to the different issues and have accurate beliefs about the stochastic properties of the value distribution (shape and support, correlations across issues and voters). Such assumptions can simplify the analysis of the game and induce intuitive coordination in voting in experimental settings. But with high uncertainty and ignorance, voters may be unable to rank the importance of different issues or form expectations about others' values. Do Storable Votes still protect the minority?

Formally, the game becomes a decentralized Colonel Blotto game, in which troops (here, votes) are distributed across battlefields (issues) not by the two opposing commanders (single leaders of the two subgroups), but by their lieutenants (individual voters, belonging to the majority or to the minority), with or without communication.

The game with communication can replicate the equilibria of the centralized Blotto game, but to our knowledge no results exist on the decentralized game (without communication). We study it in the theoretical part of the paper, and establish two main results. If the relative size of the minority is not too small: (1) The expected fraction of minority victories is positive in all Nash equilibria of the game. (2) It is positive for any strategy followed by the majority as long as each minority voter concentrates his votes on a sufficiently small fraction of issues, chosen randomly.

We test the theory in a laboratory experiment, focusing in particular on a set of simple symmetric equilibrium strategies. With or without communication, we find that experimental subjects deviate from such strategies, and yet the fraction of minority victories we observe is close to the theory. As suggested by our second result above, minority victories occur because minority voters almost unanimously concentrate their votes and randomize. The implication is that the voting rule is robust to strategic mistakes, as long as minority voters follow what seems, from our subjects, a rather natural behavioral rule.