Strategic Voting and Non-asymptotic Condorcet Jury Theorem: A Sufficient Condition for Superiority of Single Person Decision-making

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Abstract

The Condorcet jury theorem claims under certain conditions that committees with more members can decide more efficiently. We analyze the efficiency of decision under strategic voting and we compare the efficiency between the single person decision-making and the group decision-making by voting. We construct a Bayesian model in which the degree of information precision of a member is determined randomly. Our main result is that the single person decision-making is more efficient than group decision-making by voting under certain conditions. This sufficient condition successfully explains our observation about practices of letting a particular person decide instead of using voting for the group decision-making.

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