

Whose Opinion Counts?

Political Processes and the Implementation Problem*

Rene Saran[†] Norovsambuu Tumennasan[‡]

February 15, 2011

Abstract

The mechanism used in Nash implementation is a form of direct democracy, taking everyone's opinion into account. We augment this mechanism with a political process that selects the opinions of a subset of the individuals. We study three such processes – oligarchy, oligarchic democracy and random sampling – and compare the social choice rules (SCRs) that can be implemented using each of these processes with those that can be Nash implemented. In oligarchy, only the opinions of a fixed subset of the individuals – the oligarchs – determine the implemented alternative. We obtain a negative result for oligarchies: there exist Nash implementable SCRs that cannot be implemented by *any* oligarchy. Oligarchic democracy is a perturbation of oligarchy, in which the opinions of the oligarchs “almost always” determine the implemented alternative but sometimes, everyone's opinions are considered. In a sharp contrast to the negative result for oligarchies, we show that in economic environments, every Nash implementable SCR can be implemented by an oligarchic democracy in which *any* three individuals act as oligarchs. In random sampling, opinions of a fixed number of individuals are selected randomly, which then determine the implemented alternative. We show that in economic environments, every Nash implementable SCR can be implemented by randomly sampling opinions of four individuals.

Keywords: Nash Implementation; Direct Democracy; Oligarchy; Oligarchic Democracy; Random Sampling

JEL: C72; D78

*We thank Bo Chen, Alexander Koch, David Levine, Rudolf Müller, Julia Nafziger, Ronald Peeters, William Sandholm, Ricardo Serrano-Padial, William Thomson and seminar audience at Aarhus and Copenhagen for useful comments and suggestions.

[†]Department of Economics, Maastricht University, PO Box 616, 6200 MD Maastricht, The Netherlands.
Email: r.saran@maastrichtuniversity.nl; *Tel:* +31-43-3883763; *Fax:* +31-43-3884878

[‡]School of Economics and Management, Aarhus University, Bartholins Allé 10, Aarhus C 8000, Denmark.
Email: ntumennasan@econ.au.dk; *Tel:* +45 89 42 1510