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Editorial

Experimental Game Theory and Its Application in Sociology and Political Science

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Game theory, laboratory experiments, and field experiments are common and powerful tools in many social sciences [1]. However, applications in Sociology and Political Science remain scarce and scattered [2]. Yet, the combination of game theory with controlled experiments provides a powerful tool to better understand social and political processes, for example, [3–5]. The mathematical structure offered by game theory and the control offered by an experimental environment allow the researcher to isolate sociological and/or political phenomena to study their development and their effects. The relationship between game theory and experiments is twofold. On the one hand, game theory provides solid ground on which to design an experiment and a formal benchmark that serves as a measuring rod for a structured analysis of observed behavior. On the other hand, experiments can be used to test equilibrium predictions and to pinpoint shortcomings of theory as well as point to directions in which the theory can be adapted.

The aim of the special issue is to encourage original research that seeks to study sociological or political phenomena using laboratory experiments that are based on game theoretical benchmarks and that seek mathematical modeling of game theoretical arguments to inspire experiments in the fields of Sociology and Political Science, and vice versa.

In a research article of the special issue, G. Bravo et al. experimentally study whether intermediaries can positively influence cooperation between a trustor and a trustee in an investment or trust game. Another article by L. A. Palacio et al. develops a game theoretical foundation for experimental investigations of the strategic role in games with nonbinding communication. In another article, L. Corazzini and M. Tyszler employ quantal response equilibrium (QRE) to find out the extent of confusion and efficiency motives of laboratory participants in their decisions to contribute to public good. The article by S. A. Tulman utilizes QRE (i.e., noisy decision-making) and altruism-motivated players to investigate the "paradox of voter turnout" in a participation game experiment. Finally, in another article, B. Kittel et al. present a laboratory study in which they examine the role of the middle class on income distribution within the framework of a contest game.

We hope that the selection of articles in this special issue will help to inspire scholars in Sociology and Political Science to add mathematics to their tool box and adopt game theory and experimentation in their research methodology.