

Experimental Analysis of Volunteer's Dilemma with Incomplete Information (Very Preliminary)

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Abstract

Since being defined by Diekmann (1985), *Volunteer's Dilemma* has been used to analyze situations with social dilemmas in which a voluntary contributor can produce a collective good for everyone with a personal cost.

The contexts range from providing a public good, such as serving as a department chair, to avoiding a public loss, such as saving a drowning child. If all the players are rational homo economicus, the same model can be applied to those contexts and yield the same results regarding how players behave in an equilibrium. However, if players exhibit diminishing sensitivity or loss aversion, the context actually matters.

In this paper we analyze the cases of providing a public good and avoiding a public loss separately, assuming players have value functions as proposed in prospect theory. Our theoretical model suggests that players contribute more in the case of public gain than in the case of public loss. However, the participants in the experiment seemed to contribute more in the case of public loss although the difference was not significant.

Our experimental data also suggest that participants exhibit reciprocal behavior after the public good provided by another person.

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