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DO BINDING AGREEMENTS SOLVE THE SOCIAL DILEMMA ?

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Do binding agreements solve the social dilemma?¹

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Abstract :

We investigate whether "binding agreements" can provide a solution to the social dilemma that arises in the presence of pure public goods. By signing a binding agreement, players can prevent free riding by the contributors to a public good. However, a well known theoretical result is that the outcome of the endogenous formation of agreements is not necessarily efficient. In our setting, the individual level of contribution to the public good increases with the size of the coalition reaching an agreement and the global coalition is always the socially optimal structure. Agreements form sequentially and the equilibrium outcome is an asymmetric structure, which consists of two coalitions. Our experiment therefore lends force to the theoretical result that outcomes may be inefficient. In fact, we observe an outcome which is even less efficient than that predicted by the equilibrium agreement structure. However, it seems that when subjects reach agreements they do so with the intention of cooperating rather than free riding. Furthermore, it seems that they "learn to cooperate" over time and reach the global agreement more often towards the end of sessions.

Keywords Agreement. Public good. Experiment. Externalities. Sequential game.

JEL Classification C72, C78, C91, C92

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