The Minimum Approval Mechanism implements Pareto Efficient Outcome Theoretically and Experimentally†

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Abstract

We propose the minimum approval mechanism for the standard linear public goods environment with two players, which is an extension of the mate choice mechanism proposed in Saijo, Okano and Yamakawa (2011) for the prisoner's dilemma game. In the first stage, players simultaneously and privately choose their contributions to the public good. In the second stage, players simultaneously decide whether or not to approve the other's contribution after observing it. If both players approve the other, each contributes as much as he chose in the first stage, and if some player rejects the other, the mechanism refunds the difference between contributions to the player with higher offer in the first stage. Experiments revealed that the minimum approval mechanism is so effective to sustain an efficient outcome that average contribution was 94.2% of the endowment. Individual choice data in the mate choice mechanism treatment suggests that subjects used heuristics which are consistent with backward elimination of weakly dominated strategies.