The Effect of Observability on the Volunteer's Dilemma

Jaimie W. Lien (Chinese University of Hong Kong)
Yihan Xiao (Tsinghua University)
Jie Zheng (Tsinghua University)

A Volunteer's Dilemma is a Public Good Game in which at least one person needs to be a volunteer who makes a costly effort to benefit all players in the group. A dilemma lies in the conflict between private choice and public interest, and players have an incentive to free-ride on others' potential volunteerism. We experimentally examine the impact of observability of the production of a public good on the volunteer's dilemma under a dynamic setting, finding a trade-off between the frequency of the public good produced and the size of the public good across different information environments. In the observable volunteer's dilemma, the probability of players becoming volunteers and the production of public goods is lower; but the time lapsed in initiating and joining the production of the public goods is lower. The inability to observe others' behavior reduces the probability of free riding, but substantially slows down the production of the public good. Building upon these results, we further adjust the game parameters with the aim of finding a setting which can ameliorate this social dilemma: reduced volunteer costs, increased group size, and offered compensation and recognition to volunteers afterwards. Our study contributes to the literature by investigating how individuals' cooperation behavior depends on information environments and payoff structures, and has useful policy implications for situations in which improved social welfare outcomes are hindered by the Volunteer's Dilemma.