

# Cooperation under the shadow of the future: experimental evidence from infinitely repeated games

Pedro Dal Bó

## Abstract

While there is an extensive literature on the theory of infinitely repeated games, empirical evidence on how "the shadow of the future" affects behavior is scarce and inconclusive. We simulate infinitely repeated prisoner's dilemma games in the lab by having a random continuation rule. The experimental design represents an improvement over the existing literature by including sessions with finite repeated games as controls and a large number of players per session (which allows for learning without contagion effects). We find strong evidence that the higher the probability of continuation, the higher the levels of cooperation. We compare the behavior from these infinitely repeated games with behavior from finitely repeated games of the same expected length and we find that there is more cooperation in the infinitely repeated games. Finally, we consider different payoffs matrices that result in different equilibrium outcomes for some probabilities of continuation, and find that the set of observed outcomes closely follows the set of equilibrium outcomes.

Keywords: infinitely repeated games, prisoner's dilemma, cooperation, experimental economics.

JEL Classification: C72, C73, C91, C92.