

Cooperation in Repeated Interactions with Uncertain Ends: An Experimental Study of Centipede Games with Random Game Termination

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Experimental games have previously been used to study principles of human interaction. Many such games are characterised by iterated or repeated designs that model dynamic relationships, including reciprocal cooperation. To enable the study of infinite game repetitions and to avoid endgame effects of lower cooperation toward the final game round, investigators have introduced random termination rules. This talk will report a study which extends previous research that has focused narrowly on repeated Prisoner's Dilemma games by conducting a controlled experiment of two-player, random termination Centipede games characterised by the longest decision sequences reported in the empirical literature to date (24 decision nodes). Specifically, we assessed cooperation rates and compared the effects of four different termination rules, which provided different contexts of uncertainty: no random game termination, random game termination with constant termination probability, random game termination with increasing termination probability, and random game termination with decreasing termination probability. We found that although cooperation was lower for games with shorter expected game lengths, the participants' cooperativeness was significantly reduced only in the most extreme condition with decreasing computer termination probability and an expected game length of two decision nodes.