

社会的ジレンマ状況における行動戦略の自生に関する実験的研究

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英文アブストラクト

Emergence of frequency-dependent cooperative strategies in iterated social dilemma: An experimental study.

Previous formal work on iterated social dilemma has shown that the strategy prescribing one to cooperate if m or more others cooperated in the previous round and defect otherwise, loses their effectiveness as the group size increases. The only reciprocal strategy formally proved to be effective in an N -person situation is “trigger strategy” (Friedman, 1986). This strategy presumes that people set the threshold for cooperation, m , at its maximum, namely $N-1$: all members other than self. This study investigated whether people’s choice behavior in iterated social dilemma approximated such a strategy. In groups of seven, participants played a social dilemma game repeatedly. They were provided with complete information regarding others’ choices in the three preceding rounds, when making a choice in the current round. Results indicated that participants became more reciprocal as the game progressed, responding more sensitively to how many others cooperated in the previous round. Furthermore, the participants used a strategy in the game that were more lenient for reciprocation, with lower threshold for cooperation, than trigger strategy. Implications of current findings and some future directions were discussed.

key words: iterated social dilemma, reciprocal strategy, trigger strategy, experimental game.