

A local matching structure of an evolutionary dynamics leads to ownership in a society

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Spring 2018

Abstract

This paper argues a local matching structure influences equilibrium selected with an evolutionary process. We consider a population consisting of infinitely-many players where each player has three strategy, Hawk, Dove and Bourgeoisie and all players have a common payoff function. It is supposed that the players adopt as flows : at each period a subgroup of the population is randomly drawn and players in the group plays a game with randomly chosen player. After playing game, each player observes the payoff of member of group and switches her own strategy to the one that has given higher payoff to the other players. It is shown that if the size of subgroup above is beyond a threshold, then the Bourgeoisie strategy become neutral stable and the other strategies unstable.

keywords : Hawk Dove Bourgeoisie game, Adaptive dynamics with a local matching structure, Neutral stable strategy.

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