

Suggestive Dominant Strategies in Cheap-Talk Games

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Abstract

This paper provides a new refinement concept in cheap-talk games. The refinement concept, *the suggestive domination*, achieves a Pareto improvement. We show the existence of the *suggestive dominant equilibrium* based on the suggestive domination.

The cheap-talk game is the signaling game with costless communication between an informed player (or *Sender*) and an uninformed player (or *Receiver*). The costless communication means that the players' payoff functions do not depend upon messages sent by the Sender. Subsequently some standard refinement concepts like sequential equilibrium can not eliminate equilibria in a cheap-talk game.

Therefore we present a new criterion, *the suggestive domination*, to refine many equilibria in a cheap-talk game. Blume and Sobel (1995, *Journal of Economic Theory*) also a new refinement concept by introduction the concept of stable communication with the Receiver's beliefs. They present a new relation, the CP-trumping relation, and relate all of reasonable communication patterns, called *agreements* by the trumping relation. But their new relation has some problems to refine the equilibria. Our suggestive domination solves the problems.

The equilibrium refinement with the CP-trumping relation has an unstable factor if the Sender has an additional communication. That is, he may change his message in an additional communication. It implies that his message is not credible. However, our suggestive domination provides a new Pareto-improving agreement. Our equilibrium concept is defined as a result of the refinement by the suggestive domination. Therefore the equilibrium is a Pareto-improved agreement.

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