

The Prisoner's Dilemma

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Abstract: Game theory studies games one is familiar with from childhood and beyond but in an abstract setting. A major goal of game theory is to find the Nash equilibria of a game - a choice of strategy for each player where, for each player, changing his action will not lead to a better payoff. The prisoner's dilemma is a famous example in game theory. Considered in a single iteration of the game, known as a strategic game, it has a single Nash equilibrium. Taken in N iterations or infinite iterations, known as a repeated game, the Nash equilibria become more interesting to study and there are many of them.

Prerequisites: None

References:

[1] M. J. Osborne and A. Rubinstein. *A Course in Game Theory*. MIT Press, 1994