Prisoner's Dilemma with Cheap Talk

Experimental Economics – oTree Project Documentation

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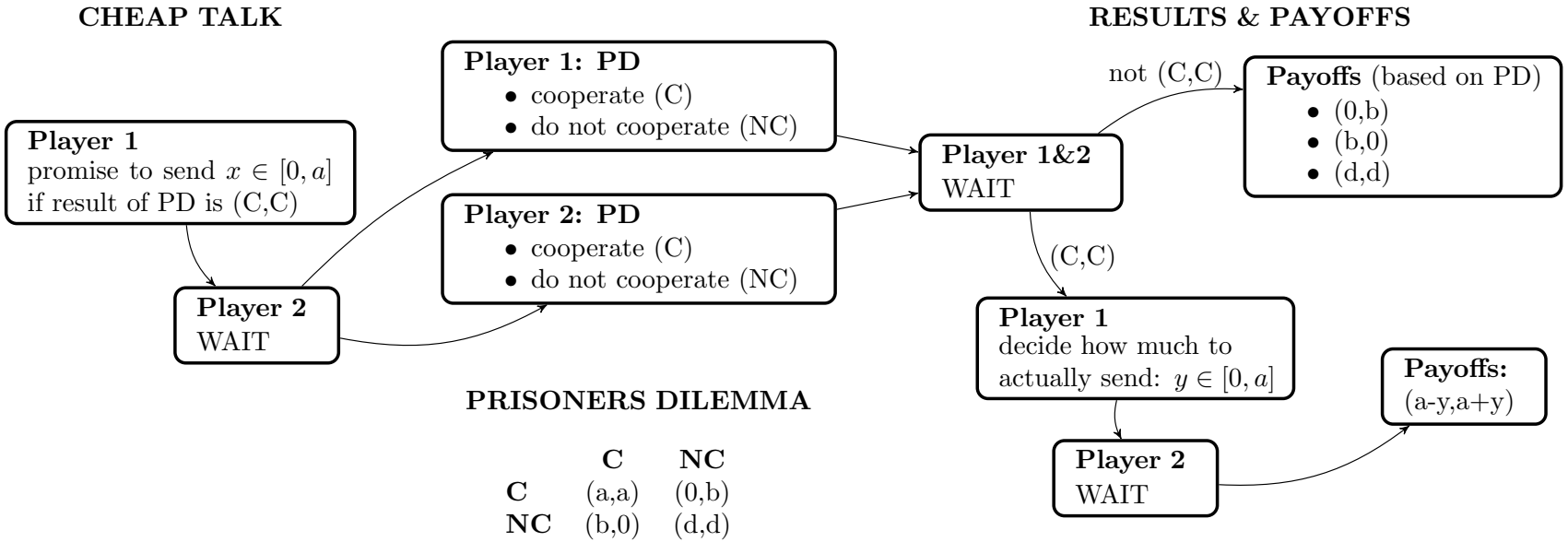
Instructions for the experiment

In this experiment two players are matched randomly and anonymously. Each of them can decide whether to cooperate or defect. Defection leads to better outcome for the defector and worse for the other player. If both players cooperate, they can get (a,a). All combinations of outcomes are displayed in the table below.
To induce the cooperation of player 2, player 1 can promise a reward to player 2 in case they manage both to cooperate. Then both players decide whether to cooperate or not. If they both decide to cooperate, player 1 can decide how much to send to player 2 (independently from the original promise).

	cooperate	**defect**
cooperate	(a,a)	(0,b)
defect	(b,0)	(d,d)

Diagram



PRISONERS DILEMMA

	C	**NC**
C	(a,a)	(0,b)
NC	(b,0)	(d,d)

models.py

- Constants – pay-offs in prisoner's dilemma
  - a – pay-off if both players cooperate
  - b – pay-off for non-cooperating player if the other cooperates
  - d – pay-off if both players not cooperate
- Player
  - Attributes for promised and actual payment
  - Method determining whether cooperation was successful (to determine flow of the game)
  - Methods for calculating pay-offs based on moves
- Group
- Subsession

Templates

- Submit_cheap_talk.html
  - Screen for player 1 with form to select promised amount between 0 and a.
  - Instructions
- Submit_prisoner_dilemma.html
  - Standard prisoner's dilemma game for both players – buttons to select a strategy.
  - Instructions
- Submit_actual.html
  - Displayed only in case of successful cooperation. Contains a form to select actual payment between 0 and a.
- Results.html
  - Display final results of the round.

views.py

- Submit cheap talk
  - Screen for player 1 where she decides how much she promises to pay in case of successful cooperation.
- Waiting screen
  - Wait until player 1 decides how much she promises to pay in case of successful cooperation.
- Submit prisoner dilemma
  - Standard prisoner's dilemma game for both players.
- Waiting screen
  - Wait until both players decide about their moves in prisoner's dilemma. Decide about the next screen and calculate pay-offs if game ends.

views.py

- Submit actual
  - Displayed only in case of successful cooperation. Player 1 decides how much to pay to the player 2.
- Waiting screen
  - Displayed only in case of successful cooperation. Wait until player 1 decides how much she pays to the player 2. Calculate pay-offs.
- Results
  - Display final results of the round. There are two different results screens – for successful cooperation and for other outcomes