



Exam EC5501 Candlemas Semester 2005

A-formal Consider the Rubinstein bargaining game with alternating offers that we studied in the lecture. Remember that in this game player i would obtain a payoff of $u_i = \delta^n x$ if agreement was reached after n periods and this player gets a share of size x .

- (a) What if players, instead, pay a fixed waiting cost in each period. I.e. the payoff of player i is $u_i = x - n \cdot c_i$ where c_i is the individual waiting cost (which is small compared to the size of the pie). What can you say if players have different waiting cost $c_1 < c_2$?
- (b) What if players have the same waiting cost $c_1 = c_2$?
- (c) What if players have different waiting cost $c_1 > c_2$?
- (d) Do you think that real players would play the game like this? Please explain your answer.

A-formal Consider the following game which also leads to a division of a pie. Two players simultaneously state a share of the pie x_i and x_j that they want. If their claims are compatible (i.e. $x_i + x_j \leq 1$) they will get what they have claimed (player 1 gets x_1 and player 2 gets x_2).

- (a) What is the appropriate equilibrium concept? What are the equilibria of this game?
- (b) Can one use iterated elimination of dominated strategies in this game to find equilibria or to narrow down the set of equilibria? Explain all steps your answer clearly.
- (c) If you have found several equilibria in the first part of this question, what equilibrium do you expect will be played. Justify your answer.
- (d) What might influence this outcome.

B-essay format In the lecture we discussed bargaining situations in which bargaining power is very unevenly distributed. We have seen that behaviour in these situations does not always coincide with game theoretic predictions.

- (a) Discuss different explanations for this kind of behaviour. How can different motives be related to different participants in the bargaining process?
- (b) How can one distinguish between these explanations?