

Section Exercise for February 22/23: “Beauty Contest” and “Ultimatum” Games

1) The “Beauty Contest” Game:

- The GSI tells everybody in the room to—privately—write down a number between 0 and 100.
- The GSI then collects the slips and adds up the numbers.
- The winner is the one whose number is closest to $3/4$ of the average of the numbers chosen (flip a coin in the event of a tie).
- The GSI then hands the \$5 to the winner.
- What do you think went on? What do you think usually goes on? How does this fit economists’ standard view of how humans behave?

The game has a unique Nash equilibrium: everybody picks 0, and everybody splits the prize. But plays of the game almost never wind up there—and so while choosing 0 is the Nash equilibrium strategy, it is far from the optimal strategy...

2) The “Ultimatum” Game:

- The GSI picks two people out of the class.
- He or she hands one of them the \$5 bill.
- The GSI then warns the first person not to say anything other than “yes” or “no”.
- The second person then proposes a split: “You give me \$X of the money, and you keep $5-X$.”
- If the first person agrees, the money is then split as agreed.
- If the first person says anything other than “yes”, then the money is returned to the GSI and the two players sit down.
- The GSI may, if there is time and if he or she has gotten the money back, let two more people play the game...
- What do you think went on? What do you think usually goes on? How does this fit economists’ standard view of how humans behave?

The unique Nash equilibrium is to propose: “You give me \$4.99 and you keep \$0.01.” But while the game sometimes ends up there, it usually does not do so.

Thereafter (usually) follows a very interesting discussion of just what we do or do not learn about economics, strategy, and psychology from these two games, and from the fact that standard economic models’ predictions of what happens in such games are so rarely right...