

Behavioral Economics: Teacher's Guide

For a long time, economists have operated with the assumption that individuals in an economy will always make rational, selfish choices.

Ask your students: Do people think that people always make rational choices? Selfish choices? When have you made an irrational or altruistic choice?

One way that economists test whether or not people behave the way they're predicted to is by having them play simple economic games, such as:

The Ultimatum Game

- 2 students at a time
- first student is given candy to split between them & their partner
- second student can either reject or accept the split
- if second student accepts, students keep amounts decided by first student
- if second student rejects, neither student gets any candy

The Prisoner's Dilemma

- 2 students at a time
- each student is given the option of "cooperating" or "defecting"
- if they defect and their partner cooperates, they get 5 pieces of candy and their partner gets 0
- if they cooperate and their partner defects, they get 0 pieces of candy and their partner gets 5
- if they and their partner both defect, they both get 1 piece of candy
- if they and their partner both cooperate, they both get 3 pieces of candy

Public Goods Game

- whole class plays
- each student is given an equal amount of candy
- students can contribute some amount of candy to the "public"
- whatever is "public" will be doubled and split equally between everyone
- students receive their portion of the public's candy, plus whatever they didn't contribute

Have students play each game and record the way they and their classmates behave, and have them answer the following questions:

- **How did you and your classmates behave in this experiment?**
- **Why did you, personally, make the choices you did?**
- **Did you believe you were acting in your own self-interest?**

Interpretations of the Games:

The Ultimatum Game pits self-interest versus "fairness" or "justice". It's in the first student's self-interest to give the smallest amount possible to the second partner.

It's in the second student's self-interest to accept any amount greater than nothing. But when scientists run the Ultimatum Game, they usually find that the second player will reject offers of less than 30% of the total. The second players are valuing "taking revenge" or perhaps "reminding the other to be fair", over material gain.

(Read more about the Ultimatum Game.)

The Prisoner's Dilemma is a game of trust. Either person benefits most by defecting, but if both defect, both get almost nothing. If they both trust each other, though, they will do well. This game is called "the prisoner's dilemma" because it is sometimes done as a thought experiment: Imagine you and a friend have committed a crime and are in police custody. If you confess, they will let you go free and send your friend to jail for ten years. If your friend confesses, they'll let him go free and send you to jail for ten years. If both of you confess, they'll send you both to jail for ten year sentences. But if neither of you confesses, they'll keep you in jail for a few months on minor charges, then let you go free. What do you do?

(Read more about the Prisoner's Dilemma.)

The Public Goods Game pits responsible citizens against "free-riders". Because the money contributed to the "public" gets doubled, it's in the group's best interest for as many people to contribute as much as possible. However, because contributions to the public are split equally between everyone, the individual actually loses money when they make a contribution. They just have to trust that enough other people will contribute to make up for it. Scientists find that in large groups where contribution amounts are hidden, there are large number of free riders. Does that surprise anyone? In what ways does the United States economy have free riders?

(Read more about the Public Goods Game.)

If students are older, you can have them try to read the original articles and see if the classes' results match what the economists found. If you need help getting your hands on those articles, you can email me.