INTRODUCTION

444 Lecture 1

Brian Weatherson

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WELCOME

THIS COURSE

Philosophy 444: Groups and Choices

WHO WE ARE

Lectures

Brian Weatherson

Discussion Sections

Walla Mohamedali

Brandon Swinney

WHEN WE ARE

Lectures

Tuesday and Thursday, 8.30am-10am.

Angell Hall, Auditorium D

Discussion Sections

Varies!

WHAT WE COVER

1. Group Attitudes
2. Voting
3. Games and Coordination
4. Information Networks

Let’s go over each of these a bit more

GROUP ATTITUDES

We'll look at how groups act, whether groups have beliefs, and what it takes for those beliefs to be reasonable, and how to combine individual attitudes into a group attitude.

VOTING

We'll look at voting systems that are used around the world, and some theoretical results about the limits of voting systems.

GAMES AND COORDINATION

We'll introduce the basics of game theory, with a focus on (a) coordination games, and (b) how well empirical evidence matches up to the theoretical predictions that game theory makes.

INFORMATION NETWORKS

We'll look at some famous games involving transmission or suppression of information, and link this to contemporary work on optimal information networks.

ASSESSMENTS

1. Two papers - 20% each, 40% total.
2. Weekly assignments - 6% each, 5 assignments (that count), 30% total
3. Participation in lecture (including performance in games) - 10%
4. Final Exam - 20%

GAMES?!

We will be doing a lot of things in lecture, almost all using online tools.

Today's won't count for assessment purposes.

But you do need some device to connect to the internet for these games.

A phone should be fine - it will be low bandwidth, and just presenting simple options in text.

BIG ADVICE

READ THE SYLLABUS!

DOLLAR AUCTION

FIRST GAME

It’s an auction.

I’m sure you’ve all done auctions before, but it’s worth going over the details.

What most people in America call an auction is what’s called in the literature a **first-price**, **English** auction.

ENGLISH AUCTION

Start with a low bid, maybe a reserve that the seller won't accept any bids below, and then each successive bidder has to say a higher number to stay in the auction.

At the end of the bidding, the person who says the highest number gets the good being sold, and have a commitment to pay the amount they bid.

FIRST-PRICE

All that matters at the end is (a) who said the highest number, and (b) what that number is.

Lots of auctions have a more complicated structure.

SECOND-PRICE

For various reasons that we might get into later in the course, there are theoretical reasons to focus on the second-price, i.e., the second-highest bid.

In a **simultaneous**, **second-price** auction, everyone puts in bids at the same time.

The person who puts in the highest bid gets the good.

They are obliged to pay the amount of the second-highest bid. (We might come back later int he course to why this is a good design, and when it gets used.)

DOLLAR AUCTION

1. English style bidding. There's an opening bid, then each bid must be greater than the previous high.
2. The highest bid gets the good being auctioned, in this case a dollar bill.
3. The high bidder has to pay that amount. This is a charity auction, so they have to pay it to charity.
4. Here's the twist in this case: The second highest bidder has to pay the amount they bid to charity as well, and they don't get the dollar.

CHARITY

The charity this time is GiveDirectly, which some of you may have heard of.

I like them because I think there are two important considerations in thinking about charitable actions.

1. Making people's lives better.
2. Respecting people's autonomy.

Giving people money does both of those things. Why it does is an interesting bit of epistemic network theory, and again something we might come back to.

RULES

So if you bid, if your bid is the highest you're obliged to pay that amount to GiveDirectly, and you get the dollar.

Also if you bid, if your bid is the second highest you're obliged to pay that amount to GiveDirectly, and you do not get the dollar.

Let's take it away.

GUESS 2/3

RULES

1. Everyone guesses a whole number between 1 and 100.
2. To make your guess, type your name and your guess into the Google Form whose link and QR code are on the right.

QR code for https://myumi.ch/ez44V

RULES

3. The winner is the person whose guess is closest to 2/3 of the average of all the guesses. If some people are equally close, I'll pick a winner at random from the ones who are equally close.
4. For this one, I don't want people to talk, just put in the guess.

QR code for https://myumi.ch/ez44V

DISCUSSION

RULES - TAKE TWO

1. Everyone guesses a whole number between 1 and 100.
2. To make your guess, type your name and your guess into the Google Form whose link and QR code are on the right.

QR code for https://myumi.ch/GkbbP

RULES - TAKE TWO

3. The winner is the person whose guess is closest to 2/3 of the average of all the guesses. If some people are equally close, I'll pick a winner at random from the ones who are equally close.
4. For this one, talk with people around you.

QR code for https://myumi.ch/GkbbP

DISCUSSION

RULES - TAKE THREE!

1. Everyone guesses a whole number between 1 and 100.
2. To make your guess, type your name and your guess into the Google Form whose link and QR code are on the right.

QR code for https://myumi.ch/Dwppx

RULES - TAKE THREE!

3. The winner is the person whose guess is closest to 2/3 of the average of all the guesses. If some people are equally close, I'll pick a winner at random from the ones who are equally close.
4. For this one, talk with people around you.

QR code for https://myumi.ch/Dwppx

DISCUSSION

The only **equilibrium** of the game is that everyone guesses 1. Then you are all equally close to the answer, i.e., 2/3, and each person has a 1 in N chance of winning.

Big thing we'll talk about a lot during the course - what precisely does **equilibrium** there mean?!

THREE APPROACHES TO GAME THEORY

1. Game theory, or what we might better call Rational Choice Game Theory.
2. Evolutionary game theory.
3. Behavioral game theory.

We're not really doing 2, but we are going to go back and forth between 1 and 3.

FOR NEXT TIME

Starting on group attitudes.

We’re starting with Margaret Gilbert’s non-reductionist approach to groups.