[SQUEEKING] [RUSTLING] [CLICKING]

PROFESSOR: All right. Sorry about this. Hello.

Sorry about this. There's some internet problems. I was just actually talking to MIT's president, who was in the economics department, talking how MIT can be a leader in technologies. Apparently, good internet is not a part of that. But anyway, so we're going to play a number of games which are standard games to measure social preferences.

You might have a lot of questions about those eventually, you know, what exactly do they measure, how do we interpret certain results, and so on. We're going to discuss these in the next few classes, but for now, essentially, I just want to show you how these games work. You can sort of experience them pretty close to what an actual participant of such a game would experience.

One big difference, of course, is that usually, these games are played in private. Usually, you shouldn't talk very much to your neighbor. One big difference as well is like, we can actually implement some of these, randomly implement some of the choices that are being made, so that makes it sort of more public than in a typical experiment.

So you know, you should be aware of that like whatever choices you may make, whether they're nice or not, they might actually be implemented and be public, so that may or may not affect the way you choose. You should sort of choose truthfully or the way you would like to choose. Don't let that sort of influence you too much.

OK. So what we're going to do is we're going to start with the simplest of our games, which is called the dictator game, which you can see here. Can you guys see the game? Can you join? So try to join the game as it is.

So the way this game works is-- I hope these inspections work. OK, so the way this works is essentially, it's a split the pie game. We're going to figure out what's going on with the volume because it's a different laptop, but essentially, the way this works is like you're going to be endowed with an amount of money. There's going to be two people.

There's going to be essentially what we call the divider or the dictator. That's the person who gets the money. That person can decide how much money he or she wants to share with another person who was randomly selected. The amounts will be-- this is so far entirely hypothetical-- so the amounts will be here, currently, it's $100. I hate to break it to you. You will not be able to win $100 today.

I know, I know. It's $100. You can essentially decide between you and a randomly selected other person how much you would like to give of that money to that other person. It's the simplest of our games. There's going to be the divider and the receiver. The receiver actually does nothing other than just receiving money potentially. The divider is the person to do that. OK.

Again, I'm going to show you some results in a bit, but one big issue that people often have about these dictator kinds of games is to say, well, do you need real stakes or do you need like fake stakes and so on. So what I have here is I have some candy and I have some apples, and later some money. I'm going to start with candy. So these are Swiss chocolate.

So the way this is going to be is like there's going to be always 10 of them, so 10 is sort of like the overall amount that's being shared. Now, what I'm going to do is you're going to decide as if you were going to be selected. Of course, I'm going to only select one pair of people, and that pair is actually going to be actually implemented, OK.

And that is going to be 10, and sort of like the 100, you know, the percentage of the candy that's being shared is going to get to the other person. You should probably use round numbers. Otherwise, you have to sort of like share them in parts. I'm going to pick a number, 50. So this will be hopefully working. It's Brian and Jackie.

So Brian was the dictator, yes, the person giving? Yes? Where's Brian? What did Brian do?

AUDIENCE: [INAUDIBLE].

PROFESSOR: There we go. So here's your candy. You can pick it up. So this is sort of the issue with the public version of this. You should feel free to do whatever you would like, of course. Now, we're going to do the same thing. I brought 10 apples as well. We have BG, whoever you are.

AUDIENCE: [INAUDIBLE].

PROFESSOR: Yes, and how many apples did you--

AUDIENCE: I took three apples.

PROFESSOR: That's three apples for you and seven apples for Lauren, I guess. Here you are.

AUDIENCE: Thank you.

PROFESSOR: They're good apples. You can share them with others as well if you like. Now we're going to do the typical version of this, which is money. Usually, people do this with $5, $10 and so on. We're going to do $5 now, so we have to figure out some way of sharing it, Venmo or whatever. I'm not quite sure, but I'm sure you'll figure it out. Number five. MJ? What'd you do?

AUDIENCE: I gave $2 or 40%.

PROFESSOR: I see. You have to figure out some way of giving $2 to Isabel, wherever she is. But here's the $5. So now, something that people often say is like, well, maybe for $5, is that a lot of money? Maybe not, so we're going to do-- maybe the stakes matter, and some sort of small stakes and so on, people decide in certain ways.

Now I don't have a lot of money, actually. This is mostly like, I don't have more cash with me, so like the largest stake I can do is $20. So we're going to, with $20 now, do the exact same thing. All right, how about number 80? Alvin and Julia, what did you do?

AUDIENCE: I gave $5.

PROFESSOR: Very nice. Here you go. You have to figure out a way to actually do that. Now there's a couple more things that, perhaps, one wants to vary here.

So one is communication. So far I think you're not allowed to communicate. Is that right? So you could not communicate with the other person.

So now what we're going to do is like a version-- the exact same thing. I think that this will be $10 but the same, but now it actually allows for communication. So now the sender and the receiver can communicate. The receiver can, sort of, try different things to, like, influence, perhaps, the descender in some ways of eliciting more money. So Jenka and [INAUDIBLE], where are you?

AUDIENCE: We haven't [INAUDIBLE].

PROFESSOR: What was that? You haven't decided, no?

AUDIENCE: [INAUDIBLE]

PROFESSOR: What was that?

AUDIENCE: Seven.

PROFESSOR: I see, and what was the-- did you get any message that conveyed or that made you nicer or no?

AUDIENCE: Yeah, so I was going to keep everything to my self. But yeah, I was going to [INAUDIBLE].

PROFESSOR: I see. So some communication that seems to help this case. So here's $10. You have to figure out how to actually now give $2.

Now another I that you might think might matter quite a bit, which is I'm, sort of, like putting you on the spot quite a bit. Like, I'm sort of like publicizing how much money you gave in front of everybody. So in some sense, you might want to actually keep the $10 or you might want to give a lot or whatever and, like, by just the fact that like showing that to everybody might influence your choices.

So we're going to do one version, which is not quite private but, sort of, close to getting private, which is like I'm just going to announce which team it was. And at the end of the class, you'll tell me what the outcome was and you get the-- or I guess, so you see what the other person does with you. I see. So then the two of you can just essentially then sort of split the money.

It's, sort of, not quite private, because the other person obviously you have to interact with another person. You should keep that in mind, but it's not like everybody in class will notice it, OK. Is it clear what I'm asking everyone?

Yeah, so this is private to the extent like private towards your other classmates except for the person that you're matched with, OK. So this is, again, $10, and this is the last $10 I actually have. So I have more candy.

All right. All right, so here-- where is [INAUDIBLE]? Here. So you get the $10. You just have to find your partner.

Who is it? OK, so you have to, sort of, settle that with her. I'll stay out of this.

OK. We're going to do more. And this is the last one. We're going to do more of communication.

Perhaps you learned about how to best communicate or the like. I think, in most of the remaining grounds, we're just going to do a 10 candies or 10 chocolates, whatever each. So this one is, again, with communication. So you can chat and try to figure out perhaps, as a receiver, how to best influence the sender.

All right, so let's see. By the way, you can be repeatedly chosen. So we have E1. What did you do?

AUDIENCE: 50/50

PROFESSOR: Nice to hear. And here's Arthur.

AUDIENCE: [INAUDIBLE]

PROFESSOR: Here's your other part. These are yours, yeah. Go for it. OK, so what are some good messages? Or what are some compelling messages that you received of any-- or maybe funny ones? Yes?

AUDIENCE: [INAUDIBLE]

PROFESSOR: What was that?

AUDIENCE: Lactose intolerant.

PROFESSOR: You are lactose intolerant or the receiver?

AUDIENCE: [INAUDIBLE]. The giver was actually [INAUDIBLE].

PROFESSOR: I see.

AUDIENCE: They're giving everything.

PROFESSOR: I see. So here's a giver that is lactose intolerant. You could have given it, instead of the other classmate, you could have also just given it to your friend as a giver. But yes. What else? Was there any compelling messages that you received that actually worked or did something? Yes?

AUDIENCE: I wasn't deciding, but the person told me, that if I tell them a joke that makes them laugh, they'll give me chocolate.

[LAUGHTER]

PROFESSOR: And did you?

AUDIENCE: Yeah. They gave me 40, so--

PROFESSOR: Not bad, so--

[LAUGHTER]

Maybe you need to work on the jokes, but yes.

[LAUGHTER]

All right, so now we're going to choose-- play a second game, which is called the-- sorry, let me close this-- which is called the Ultimatum game. So the Dictator game is a nice game in a sense. It's a very simple game. It's a very stark game and very, in some sense, good at capturing a form of pure altruism.

Here's your money. Here's the other person. How much money you want to give for that person? There's often, no communication. Often, it's even anonymous, and so on. So it's essentially, just like, how much do you care about yourself, versus some other person? So that's very simple.

But when you think about real-world situation, often, there's interactions across people. And the Dictator game cannot really capture that that well. So one of the second perhaps most famous or a game [INAUDIBLE] is what's called the Ultimatum game. We have, again, instructions. I think you can't really necessarily hear the narration, but--

[VIDEO PLAYBACK]

- You're going to be randomly placed into groups.

PROFESSOR: Sort of.

- One player in each pair is the proposer. The other is the responder. The first thing that will happen is the proposer proposes how to divide a sum.

[END PLAYBACK]

PROFESSOR: Does it work? No. sorry. So there's a proposer, and there's there's a-- [INAUDIBLE], turn this off.

There's a proposer, and there's a receiver. The proposer, as in the Dictator game, proposes a sum amount of money, as you see. And then the other person, who is the receiver, the responder can accept or reject. OK?

So if somebody says, if I have 10 candy, if I offer you 1, you might say, that's not very nice. And you might reject it. Or you might say, actually, I'd rather have one candy than zero candy, and I accept it. And for each of these amounts, you can make a choice.

But when you are the first person choosing, you need to take into account what the other person might do for different offers that you have. If the offer is rejected, you essentially-- neither of you receives anything. If it's accepted, it's just implemented as what the proposal was. Any questions on that? OK. And we're still playing for Lindt chocolates.

[CLASSROOM CHATTER]

AUDIENCE: I did 50/50 [INAUDIBLE].

PROFESSOR: Wise choice, Here you are. So Vijay, and yeah, Here you are. OK. So we're going to do the-- let me see here.

[INAUDIBLE]. I see. We're going to play the same thing again, but in rotated roles.

So that's usually not what people would necessarily do. Because usually, it would be essentially one-shot games. It was very clean in the sense of expectations are clear. This is a little bit just for you to see the other side. I think this is now-- I think it is with the same person.

It might just be that the roles are rotated. I don't know if you can see what the other-- can you actually see the name of the other person when you player, or no?

AUDIENCE: [INAUDIBLE]

PROFESSOR: I see. So I think it might not be the same person. Sorry, I should know this, but.

[CLASSROOM CHATTER]

AUDIENCE: [INAUDIBLE]

PROFESSOR: Guess that's you.

AUDIENCE: [INAUDIBLE]

PROFESSOR: Here you go. I think she's up there. Now we're going to do the same thing, but entails communication. So that is to say now, as a receiver, you can talk to the other person. You can discuss.

Or as a giver, you can discuss about, if I make you this offer, will you accept it or not? And of course, the receiver will have some thoughts and try to sort make the case of yes or no. And you'll see that has a somewhat slightly different dynamic. So again, same game now, except for now, there's communication. You can talk to the other person.

One person is playing with a robot, so I guess you can't really--

[LAUGHTER]

--communicate. Sorry. Because it's just because there's uneven numbers, and I'm trying to finish up. All right, so--

AUDIENCE: Oh, [INAUDIBLE]. The person gave me 100.

PROFESSOR: Did you accept?

AUDIENCE: Yeah, I accepted.

PROFESSOR: There you go.

[LAUGHTER]

Lucky you.

AUDIENCE: But who is it?

[LAUGHTER]

PROFESSOR: Very nice of you.

AUDIENCE: Oh, well, I'll pay you back.

PROFESSOR: Are you the lacto? Are you the lactose intolerant? No.

[LAUGHTER]

All right, now we're going to do the same thing again in private, just to see whether your choices in private perhaps are different from the-- so it is in private with communication, so as in you can communicate. But again, it's not public, at least to your other classmates, what is actually the outcome of the game. I think I'm running out of Swiss chocolates. So now you have to get some Snickers instead--

AUDIENCE: Woo, woo.

PROFESSOR: --which is worse, I think, but anyway. What did you offer? What's that?

AUDIENCE: I probably received three--

AUDIENCE: Oh.

AUDIENCE: [INAUDIBLE].

PROFESSOR: Three-- did you say 330?

AUDIENCE: [INAUDIBLE]

AUDIENCE: I gave him 3.1 chocolates.

PROFESSOR: You have to--

[LAUGHTER]

You guys can deal with that.

[LAUGHTER]

Here you go. I stay out of this.

AUDIENCE: He's [INAUDIBLE].

AUDIENCE: [INAUDIBLE]. Thank you very much.

[LAUGHTER]

PROFESSOR: All right, we can do one more of these. I also have-- I brought some chocolate bunnies. These are very nice bunnies, so here you go. This is again with communication. So I was saying this is private. I guess it wasn't private. Sorry. Forget about this.

This is in public with communication. So I should have been clear. Isabel and Hannah. What did you do?

AUDIENCE: We did [INAUDIBLE].

PROFESSOR: And it was accepted?

AUDIENCE: Yes.

PROFESSOR: All right, lucky you.

[LAUGHTER]

OK, so now, one main thing about these games is, when you notice this, it's like, in particular, from the receiver's part, there's only one action that you see for one realization, right? So it's not very efficient in terms of eliciting a lot of information. In the sense of if I ask you, how much money did you give? And I'm going to see what you do as the first mover. And then, for a specific realization, you see, what does this person do as a second mover?

Instead, what you can do is we can use what's called the strategy method, which we are, in some sense, already doing, in the sense of the strategy method is to say, in case a certain thing, in case a certain situation occurs, and that situation will be implemented, what would you do in that situation? And there's a positive probability that this actually happens. And so therefore, people are incentivized to behave optimally.

In the sense, that's exactly what we're doing right now. In some sense there's 80 different pairs that are playing, and I'm randomly just quasi randomly selecting just one. So this is already a strategy method. In a sense, I'm asking you, in case you are selected, what would you like to do? So I'm eliciting information from 80 people at the same time, while only having to pay out 10 chocolates or chocolate bunnies, or whatever, at one time for the result.

So that's essentially a way of creating. If you wanted to run large experiments, that's a way of running experiments where there are stakes. And sometimes, it doesn't matter what you choose, but it's much cheaper to do and much more feasible to do so.

Now, the strategy method is going a little bit further. What the strategy method essentially is doing, it is essentially just asking you explicitly, it's asking you explicitly as a proposer, how much would you offer? So it's asking essentially both people. As a proposer, each person is asked, if you were proposing, what would you do?

And then it's asking each person, as a responder, what's the smallest offer that you would accept? Notice, if I have those two pieces, if I match two people, I can play the entire game for any realization, because I know, essentially, the fully contingent plan. In that way, I'm eliciting way more information than just realizing-- and essentially, for each person, I'm going to elicit both what they're doing in both roles.

And for the responder, I'm eliciting also, for all potential realization, as opposed to just if you received $3 or $5, or whatever, what would you do? OK, so we're going to do that right now I guess with Snickers. So now it's not clear who actually your partner is, because now it's essentially you're choosing for all contingent plans. So it's not obvious what your other partner will actually do.

You are essentially deciding, independent of what my partner does, for all scenarios what I'm going to do. And then, essentially randomly, you will be matched with somebody. So why don't you tell me two numbers between 1 and 60.

AUDIENCE: 23.

PROFESSOR: 23 and?

AUDIENCE: 52.

PROFESSOR: 23 and 52. So I'm going to just pick number 23 and 52. We're going to take the offer from, what, 23 and then the response from 52. And I asked you to remember what you chose, hopefully. So 23 is-- I don't know how to pronounce your name-- [INAUDIBLE]? How do you pronounce your name?

AUDIENCE: [INAUDIBLE]

PROFESSOR: [INAUDIBLE], what did you propose?

AUDIENCE: I proposed to do half.

PROFESSOR: Half? OK. And then what did you do, the 50--

AUDIENCE: Two.

PROFESSOR: 52, which is Brandon. So now the question is, for half, if you were offered half, Brandon, what would you actually do? Yeah?

AUDIENCE: [INAUDIBLE]

PROFESSOR: And you'd also accepted it earlier in your round?

[LAUGHTER]

OK. Yes, here you go. And so essentially, that's the way this is usually implemented. So now essentially, for that specific contingency, that's now being implemented. But now I know essentially what Brandon would have done for all scenarios, because he gave me his fully contingent plan.

We're going to do the exact same thing again, in case this wasn't fully clear. So I don't know actually why they are making groups out of this. But whatever, it's fine. Abby?

AUDIENCE: [INAUDIBLE]

PROFESSOR: Yes. What did you propose?

AUDIENCE: [INAUDIBLE].

PROFESSOR: Eight?

AUDIENCE: 50.

PROFESSOR: Was that 30?

AUDIENCE: 50.

PROFESSOR: 50-- sorry. And--

AUDIENCE: [INAUDIBLE]

PROFESSOR: But you--

AUDIENCE: [INAUDIBLE]

PROFESSOR: No. Sorry. It was 8 and?

AUDIENCE: 13.

PROFESSOR: 13 is Brian.

AUDIENCE: [INAUDIBLE]

PROFESSOR: So we've got-- here you go. You guys are pretty nice.

[LAUGHTER]

In previous years, we're not that nice.

AUDIENCE: [INAUDIBLE]

AUDIENCE: [INAUDIBLE]

PROFESSOR: All right. So now we're going to play the third game, which has been used a lot in this literature, which is called the Trust game. The Trust game works as follows. So there is a person who is the investor, who gives some amount of money. And so let me just-- OK, where's the video?

There's supposed to be a video. Oh, here. Sorry. All right.

So they call it an investment game, a trust game. There's the investor, and there's the responder. The investor-- why is this so slow? OK. So the investor and the responder have some amount of money, which is a little bit contrived here. But anyway, let's assume that's true. The investor chooses how much to send. This is the investment.

The responder gets the investment plus a multiplier. The multiplier here is usually two or three. And then the responder gets essentially the investment plus the multiplier and then can decide to respond and send money back. OK?

So in our case, I guess this is a little tricky to do with candy. But suppose the investor has 10 to start with. You can now decide out of the 10 how much you're going to give to the other person. That is multiplied by 3. I need to make sure we have enough candy. I think I do. That is multiplied by 3. And then the other person can decide to send some back. OK?

And so you get the issue that essentially, on the one hand, you want to send a lot, to get the other person to have a lot to be able to send you back. But of course, it could also be that you send a lot, and the other person says, thank you very much, and doesn't send you anything. OK? OK, so this is without communication. And we'll do one with communication after that.

And why don't you take these two and divide in those fractions that you have. How about this? So usually, this would be obviously with real numbers, done properly.

AUDIENCE: Oh, three?

PROFESSOR: No, no, just divide it. I think roughly half is fine.

AUDIENCE: Thank you, [INAUDIBLE].

PROFESSOR: Sorry, this is a little tricky with these numbers.

AUDIENCE: OK. [INAUDIBLE]?

PROFESSOR: No, no, no. Then we will use this for the next. I'll get these.

AUDIENCE: You can do the next one.

PROFESSOR: Yes.

[LAUGHTER]

All right, so we can do the same thing with communication. So now you can essentially, before the first person makes their first choice or where before, when the person is making the response choice, you can communicate and talk about what you might do in the future, which may or may not be the truth, of course.

We have Jodi and Sarah.

AUDIENCE: [INAUDIBLE]

PROFESSOR: Hi. What did you give and receive?

AUDIENCE: She gave me all of it, and I gave half of it.

PROFESSOR: So that's, in some sense, the ideal scenario, because the other person had a lot of faith in their classmate, perhaps because it's in public, because perhaps because they think their classmates are really nice. And so you gave a lot to start with. And then so that was multiplied, and then you actually got a lot back, which doesn't always happen either.

So I think you could just, whatever this number is, and divide it according to the actual division of what it is. So now we're done with those games. What I'd like you to do is-- so next time, we're going to discuss in detail each of these games. And if you want more rigorous research in a sense of rigorous versions of this research, and trying to understand, when you do this a bit more carefully, in terms of, experimental economists are extremely careful in their procedures and in their ways in which they present information, and so on and so forth.

So what we just were doing was pretty sloppy by those standards. So what can we learn from this research that does it very carefully? And what does it predict, when you think about, OK, these lab games, in some sense, they are fairly contrived, what can we learn actually? Are they predictive of real world behaviors?

If you have any observations about things that you have learned or thought that were interesting, and so on, feel free to share them on the forum, anonymously, if you like. And I can discuss some of the things. This could be either anecdotes about messages you received or things that happened. I can then look at these and share them with the class. Otherwise, I'll see you on Monday.

[CLASSROOM CHATTER]