

## Online Appendix: Sample Instruction Script

Thank you for agreeing to participate in this research experiment on group decision making. During the experiment we require your complete, undistracted attention. So we ask that you follow these instructions carefully. You may not open other applications on your computer, chat with other students, or engage in other distracting activities, such as using your cell phones or head phones, reading books, etc.

For your participation, you will be paid in cash, at the end of the experiment. Different participants may earn different amounts. What you earn depends partly on your decisions, partly on the decisions of others, and partly on chance. So it is important that you listen carefully, and fully understand the instructions before we begin. You will be asked some review questions after the instructions, which have to be answered correctly before we can begin the paid session.

The entire experiment will take place through computer terminals, and all interaction between you will take place through the computers. It is important that you not talk or in any way try to communicate with other participants during the experiment except according to the rules described in the instructions.

We will start with a brief instruction period. During the instruction period, you will be given a complete description of the experiment and will be shown how to use the computers. If you have any questions during the instruction period, raise your hand and your question will be answered out loud so everyone can hear. If any difficulties arise after the experiment has begun, raise your hand, and an experimenter will come and assist you privately.

This experiment will begin with a brief practice session to help familiarize you with the rules. The practice session will be followed by a paid session. You will not be paid for the practice session.

This paid session of the experiment has 2 parts. In each part you will make choices over a sequence of 20 different decision rounds so in total you will make 40 decisions. In each round, you will receive a payoff, that depends on your decision that round and on the decision of one randomly selected participant you are matched with. We will explain exactly how these payoffs are computed in a minute.

At the end of the paid session, you will be paid the sum of what you have earned in all 40 decision rounds, plus the show-up fee of \$10.00. Everyone will be paid in private and you are under no obligation to tell others how much you earned. Your earnings during the experiment are denominated in POINTS. Your DOLLAR earnings are determined by multiplying your earnings in POINTS by a conversion rate. In this experiment, the conversion rate is 0.006, meaning that 100 POINTS equals 60 cents.

Here is how each decision round, or match, works. First, the computer randomly matches you into pairs. Since there are 14? (note to reader: depends on session) participants in today's session, there will be 7? (note to reader: depends on session) matched pairs in each decision round. You are not told the identity of the participant you are matched with. Your payoff depends only on your decision and the decision of the one participant you are matched with. What happens in the other pairs has no effect on your payoff and vice versa. Your decisions are not revealed to participants in the other pairs.

Next, the computer randomly assigns a number to you, which is equally likely to be any number between 1 and 100. This number is called your "strength." Each strength number is chosen independently for each participant. Therefore usually you and the person you are matched with will have different numbers, although there is a very small (1%) chance the other participant in your pair has the same strength you have. You are told your strength, but will not be told the strength of the other participant until after you have made your decision.

You then have to make a decision to take one of two possible actions. These two actions are called "fight" and "retreat". If both of you choose retreat, then both of you will receive a payoff of 40 points each. However, if either of you chooses fight, then the one with the greater strength receives a 95 points payoff and the one with less strength receives a 5 points payoff. Ties are broken randomly.

[SCREEN 1] This slide shows a summary of the Payoffs

Each of you must make your decision to fight or retreat at the same time, so neither of you are told what the other participant chose (or their strength) until after both of you have made your choices. The match is over when you and the person you are matched with have both made a decision, and the computer will show you the results of your match only.

When all pairs have finished the match and seen the results, we proceed to the next match. For the next match, the computer randomly reassigns all participants to a new pair, and randomly reassigns a new strength to each participant. Your new strength assignment does not depend in any way on the past decisions or strengths of any participant including yourself. Strength assignments are completely independent across pairs, across participants, and across matches. After learning your new strength assignment, you choose either "fight" or "retreat" and receive payoffs in a similar manner as in the previous match.

This continues for 20 matches, at which point Part 1 of the experiment is over. I will read you the instructions for Part 2 after we complete Part 1.

We will now begin the Practice session and go through two practice rounds. During the practice matches, please do not hit any keys until you are asked to, and when you enter information, please do exactly as asked. Remember, you are not paid for these 2

practice rounds. At the end of the second practice round you will have to answer some review questions. Everyone must answer all the questions correctly before the experiment can begin.

[AUTHENTICATE CLIENTS]

Please double click on the icon on your desktop that says “c”. When the computer prompts you for your name, type your First and Last name. Then click SUBMIT and wait for further instructions.

[START GAME]

[SCREEN 2]

You now see the first screen of the experiment on your computer. It should look similar to this screen.

At the top left of the screen, you see your subject ID. Please record that on your record sheet now. You have been randomly matched by the computer with exactly one of the other participants. This pair assignment will change after each match.

You have been assigned your strength for this match, which is revealed to you on your screen. [point on overhead]. Your exact strength number on your own screen would probably be different from the one on this slide.

The participant you are matched with was also randomly assigned a strength, but that will not be revealed to you until the end of the match. All you know now is that their strength is some number between 1 and 100, with every number being equally likely.

There are two buttons, one marked “Fight” and one marked “Retreat”. You must choose one of those two buttons, but please do not do so yet. I want to remind you how your payoffs will be computed. If you and the person you are matched with BOTH choose retreat, then each of you receives a 40 points payoff. If either one of you chooses fight, then whoever has the higher strength receives 95 points and whoever has the lower strength receives 5 points. If you have the same strength, then the computer will randomly choose one of you to receive 95 points and the other to receive 5 points.

At this time, if your subject ID is even, please click on the button labelled “fight”. If your subject ID is odd, please click on the button labelled “retreat”.

When everyone has made a choice, you are told the choice made by the participant you are matched with and also told that participant’s strength. The outcome is summarized on your screen. [show on overhead screen]

[SCREEN 3]

Each Round Summary is shown on the center of the screen.

The bottom half of your screen contains a table summarizing the results for all matches you have participated in. This is called your history screen. It will be filled out as the experiment proceeds. Notice that it only shows the results from your pair, not the results

from any of the other pairs. PLEASE record this information on your record sheet.

We now proceed to the next match.

For the next match you will be randomly re-matched into pairs, and randomly receive new strength assignments.

[START next MATCH]

Please notice your new strength assignment. [Reader: Ask if everyone sees it, and wait for confirmation from them.] Please make the opposite decision in match 2 than you made in match 1. That is, if your subject ID is even please click on the retreat button and if your subject ID is odd, please click on the “fight” button, and then wait for further instructions.

[wait for them to complete match 2]

Practice match 2 is now over.

Please complete the review questions before we begin the paid session. Once you answer all the questions correctly, click submit. After both participants in your pair have answered the first round of questions, the next round of questions will appear. Please answer all questions correctly and click submit and the quiz will disappear from your screen. [WAIT for everyone to finish the Quiz]

Are there any questions before we begin with the paid session? We will now begin with the 20 paid matches of Part 1. Please pull out your dividers for the paid session of the experiment. If there are any problems or questions from this point on, raise your hand and an experimenter will come and assist you.

[START MATCH 2]

[After MATCH 21 read:]

We have now reached the end of Part 1. Your total payoff from this part is displayed on your screen. Please record this on your record sheet and CLICK OK. We will now give you instructions for Part 2. Please listen carefully.

Part 2

Part 2 of the experiment will take place over a sequence of 2 practice and 20 paid matches. This Part is almost exactly the same as Part 1, with one difference. For each pair, one of the participants will choose to retreat or fight before the other participant makes a choice. The other participant will then be told the first participant’s decision and will then make their decision in response. Payoffs are computed exactly as before. For each match, the computer randomly selects the participant to decide first, so sometimes you will decide first and sometimes you will decide second. The assignment of who decides first or second does not in any way depend on the strength assignment or past decisions. The computer program just randomly assigns one participant for each pair to decide first.

We will now proceed through two practice matches to familiarize you with the screens,

which are slightly different than Part 1.

[Go to Match 22]

You now see the first screen of the experiment on your computer.

In this part of the experiment, the computer randomly assigns an order in which the two members of your pair make decisions. If you are assigned as the first decision maker in your match, your screen should look similar to this:

[SCREEN 4]

[Describe the screen by pointing and READ THE SCREEN]

Of course your exact strength number on your own screen would probably be different from the one on this overhead.

If you are assigned as the second decision maker in your match, your screen looks like this:

[SCREEN 5]

[Describe the screen by pointing and READ THE SCREEN]

Of course your exact strength number on your own screen would probably be different from the one on this overhead.

The first decision maker in each pair must make a decision. If you are decision maker one and your ID is even please click on the Fight button now. If you are decision maker one and your ID is odd please click on the Retreat button now. If you are decision maker two, please wait until it is your turn to make a decision.

Next, the first decision maker's choice is revealed to the second decision maker. Please do not make any decisions until I finish explaining. The screen looks like:

[SCREEN 6] if decision maker one chose fight, READ the SCREEN

[SCREEN 7] if decision maker one chose retreat READ the SCREEN

After viewing this information, the second decision maker is prompted to a choice. If decision maker one chose Fight, then the outcome does not depend on decision maker two's choice. In this case we simply ask decision maker two to click on the "continue" button. If decision maker one chose retreat, then the outcome does depend on decision maker two's choice, so decision maker two must now make a choice of fight or retreat.

This information is summarized on this slide

[SCREEN 8]

If you are decision maker two and you have a choice, if your ID is even, please click the Retreat button now. If your ID is odd, please click on Fight now. Otherwise, please click on the continue button now. This is important so please do not forget to do so. The match cannot proceed until the second decision maker has clicked a button.

The results of the match are then displayed for both decision makers in the pair. The screen should look like:

[SCREEN 9] for first decision maker

[SCREEN 10] and like this for second decision maker

We will now proceed to the second practice match [CLICK NEXT MATCH]. When you are prompted to make a decision, please make the opposite decision from your decision in the first practice match. That is, if your ID is even, click on Retreat, and if your ID is odd, click on Fight. Please go ahead and make your choices. If you are decision maker two and you see the continue button, please remember to click on it or it will delay the experiment.

[Advance to match 23 and wait for participants to finish]

The practice match is now over. Are there any questions before we begin the 20 paid matches?

[SCREEN 11] Here is a summary of the Payoff

[START MATCH 24]

[After MATCH 44, read:]

Your Total Payoff for both parts is displayed on your screen. Please record this payoff on your record sheet and remember to CLICK OK after you are done.

[CLICK ON WRITE OUTPUT]

Your total payoff is this amount plus the show-up fee of \$10. We will pay each of you in private in the next room in the order of your Subject ID number. Remember you are under no obligation to reveal your earnings to the other players.

Please put the mouse behind the computer and do not use either the mouse or the keyboard at all. Please remain seated and keep the dividers pulled out until we call you to be paid. Do not converse with the other participants or use your cell phone while in the laboratory.

Thank you for your cooperation.

Could the person with ID number 0 go to the next room to be paid.