

## Experimental Instructions for *Boundedly Rational Information Demand*

Yucheng Liang

This document presents the experimental interface a participant may encounter in the D-Info Treatment. Numbers may vary due to randomization and variations in participants' answers.

[Instructions begin]

Welcome! This study will take around **15 minutes**. So long as you complete the whole study, you will receive a **\$2** completion payment. Depending on your choices and some luck, you may get an additional **\$3** bonus.

[Page break]

### Investment Game

In this study, you will play an investment game. There are two investments, A and B. When the game is played, you will choose one investment. At the end, the outcomes of the investments will be revealed. **If your chosen investment succeeds, you win the \$3 bonus; otherwise, you don't get the bonus.**

**We will tell you the chances of success of the two investments.** For example, an investment's chance of success could be 60%. This means that if this investment is carried out 100 times, it will succeed around 60 times. **Investment A is more likely to succeed than Investment B.** So without additional information, it is better to choose Investment A.

**The outcomes of the two investments are independent** - Whether Investment A succeeds or fails, the chance that Investment B succeeds does not change.

[Page break]

### Two options

Before you play the investment game, **you will receive one of two options** which may help you with the game.

## Option 1: A report on Investment A's outcome

If you receive this option, you will receive a report that tells you whether Investment  $\text{\$e://Field/infoTarget}$  will succeed or fail before you play the investment game. **The report is accurate**, so you can trust it.

## Option 2: An upgrade that increases both investments' chances of success

If you receive this option, the chances of success of the two investments will both increase by a certain number. For example, if Investment A has a 60% chance of success and Investment B has a 40% chance of success, then a 10%-upgrade will increase the success rates of the two investments to 70% and 50%, respectively.

[Page break]

## Scenarios

Before you play the investment game, we will present you 6 different scenarios and ask you a question in each. **The scenarios differ in the chances of success of the two investments in the investment game.** For example, in one scenario, Investment A's chance of success may be 60% and Investment B's may be 40%. In another scenario, Investment A's chance of success may be 70% and Investment B's may be 30%.

**Only one scenario is the real one that describes the investment game you will actually play.** Since anyone could be the real one, you should treat every scenario seriously.

In each scenario, we will ask about **your preference between receiving the report on Investment A and upgrading the two investments.**

Below is an example of the question.

Consider Scenario 1 where Investment A has a 60% chance of success and Investment B has a 40% chance of success.

Before playing the investment game, you will receive one of two options:

- Option 1: a report that tells you whether Investment A will succeed
- Option 2: an x%-upgrade that increases both investments' chances of success by x percentage points

Which of the following statements describes your preference between the two options?

I would choose a 1%-upgrade over the report

I would choose the report over a 1%-upgrade, but I would choose a 3%-upgrade over the report

I would choose the report over a 3%-upgrade, but I would choose a 5%-upgrade over the report

I would choose the report over a 5%-upgrade, but I would choose a 7%-upgrade over the report

I would choose the report over a 7%-upgrade, but I would choose a 9%-upgrade over the report

I would choose the report over a 9%-upgrade, but I would choose a 11%-upgrade over the report

I would choose the report over a 11%-upgrade, but I would choose a 13%-upgrade over the report

I would choose the report over a 13%-upgrade, but I would choose a 15%-upgrade over the report

I would choose the report over a 15%-upgrade, but I would choose a 17%-upgrade over the report

I would choose the report over a 17%-upgrade, but I would choose a 19%-upgrade over the report

I would choose the report over a 19%-upgrade, but I would choose a 21%-upgrade over the report

I would choose the report over a 21%-upgrade, but I would choose a 23%-upgrade over the report

Recall that there is one scenario that describes the actual investment game you will play. Your answer to the question in this scenario will determine whether you get the report or an upgrade. You can read the details on how this is determined below in case you are curious. (You don't have to and we won't test you about it.) The bottom line is, **it is in your best interest to choose the statement that reflects your true preference.**

## Details on how your answer determines the option you receive

The exact upgrade we offer has been predetermined. Suppose in the real scenario, we offer an upgrade that increases both investments' chances of success by 9% and you answer "I would choose a 7%-upgrade over the report." Then, we infer that you would also choose this 9%-upgrade, so we will give you this upgrade, not the report.

Suppose that we still offer the 9%-upgrade but you, instead, answer "I would choose the report over a 11%-upgrade." Then, we infer that you would also choose the report over our 9%-upgrade, so we will give you the report, not the upgrade.

In a nutshell, you will receive either the report on Investment A or the upgrade we offer, whichever you prefer.

All the scenarios that are not real won't affect the investment game in any way.

[Page break]

In summary, in each scenario, we will ask about your preference between two options: knowing Investment A's outcome before playing the investment game or increasing both investments' chances of success by a certain number. Your answer in the real scenario will determine which option you will receive before the investment game.

Now, we will ask you some questions to make sure you understand the instructions. You will need to answer them correctly in order to proceed to the study. When you are ready, please click Next. Once you click Next, you can no longer go back to the instructions.

[Page break]

Suppose that you choose Investment A in the investment game and Investment A fails. Do you win or lose the investment game?

- ☐ Win
- ☐ Lose
- ☐ It depends on the outcome of Investment B.

[Page break]

Suppose that in the investment game, Investment A has a 60% chance of success and Investment B has a 40% chance. After applying a 10%-upgrade, what are their chances of success, respectively?

- ☐ 60%, 40%
- ☐ 70%, 50%
- ☐ 60%, 50%
- ☐ 70%, 40%

[Page break]

Only one scenario in the study is real. Will your answers in the other scenarios affect the investment game?

- ☐ Yes
- ☐ No

[Page break]

Suppose that in one scenario, you are indifferent between the report and a 14%-upgrade. Which of the following statements best describes your preference?

- ☐ I would choose the report over a 11%-upgrade, but I would choose a 13%-upgrade over the report
- ☐ I would choose the report over a 13%-upgrade, but I would choose a 15%-upgrade over the report
- ☐ I would choose the report over a 15%-upgrade, but I would choose a 17%-upgrade over the report

[Page break]

You have correctly answered all understanding questions. Please click Next to proceed to Scenario 1.

[Page break]

[Scenarios 1 – 6]

Consider Scenario 1 where Investment A has a 60% chance of success and Investment B has a 50% chance of success.

Before playing the investment game, you will receive one of two options:

- Option 1: a report that tells you whether Investment A will succeed
- Option 2: an x%-upgrade that increases both investments' chances of success by x percentage points

Which of the following statements describes your preference between the two options?

I would choose a 1%-upgrade over the report

I would choose the report over a 1%-upgrade, but I would choose a 3%-upgrade over the report

I would choose the report over a 3%-upgrade, but I would choose a 5%-upgrade over the report

I would choose the report over a 5%-upgrade, but I would choose a 7%-upgrade over the report

I would choose the report over a 7%-upgrade, but I would choose a 9%-upgrade over the report

I would choose the report over a 9%-upgrade, but I would choose a 11%-upgrade over the report

I would choose the report over a 11%-upgrade, but I would choose a 13%-upgrade over the report

I would choose the report over a 13%-upgrade, but I would choose a 15%-upgrade over the report

I would choose the report over a 15%-upgrade, but I would choose a 17%-upgrade over the report

I would choose the report over a 17%-upgrade, but I would choose a 19%-upgrade over the report

I would choose the report over a 19%-upgrade, but I would choose a 21%-upgrade over the report

I would choose the report over a 21%-upgrade, but I would choose a 23%-upgrade over the report

I would choose the report over a 23%-upgrade, but I would choose a 25%-upgrade over the report

I would choose the report over a 25%-upgrade, but I would choose a 27%-upgrade over the report

I would choose the report over a 27%-upgrade, but I would choose a 29%-upgrade over the report

I would choose the report over a 29%-upgrade

[Page break]

You have answered your preference between the two options for the 6 scenarios. Now, please **write some advice on how to answer our questions** in the 6 scenarios. We may show your advice to a future participant of our study. **If the participant who reads your advice gets a bonus, you will get an additional \$2 bonus.** Therefore, please write your advice to help your advisee get a bonus.

[Page break]

[If report is shown]

## Investment Game

The real scenario is Scenario 1. Investment A has a 60% chance of success and Investment B has a 40% chance of success.

The upgrade we offer increases both investments' chances of success by 19%. We infer from your answer that you prefer the report. Therefore, you will receive the report.

The report says “**Investment A will fail.**”

Now, please choose between the two investments.

- ☐ Investment A
- ☐ Investment B

[If report is not shown]

## Investment Game

The real scenario is Scenario 1. Investment A has a 60% chance of success and Investment B has a 40% chance of success.

The upgrade we offer increases both investments' chances of success by 25%. We infer from your answer that you prefer the upgrade. Therefore, you will receive the upgrade.

Now, please choose between the two investments.

- ☐ Investment A
- ☐ Investment B

[Page break]

Before we reveal the results of the game, we would like to know a bit more about you.

How old are you?

- ☐ Under 18
- ☐ 18-24 years old
- ☐ 25-34 years old
- ☐ 35-44 years old
- ☐ 45-54 years old
- ☐ 55-64 years old
- ☐ 65+ years old

How do you describe yourself?

- ☐ Male
- ☐ Female
- ☐ Non-binary / third gender
- ☐ Prefer to self-describe \_\_\_\_\_
- ☐ Prefer not to say

What best describes your employment status over the last three months?

- ☐ Working full-time
- ☐ Working part-time
- ☐ Unemployed and looking for work
- ☐ A homemaker or stay-at-home parent
- ☐ Student
- ☐ Retired
- ☐ Other

What is the highest level of education you have completed?

- ☐ Some high school or less
- ☐ High school diploma or GED
- ☐ Some college, but no degree
- ☐ Associates or technical degree
- ☐ Bachelor's degree
- ☐ Graduate or professional degree (MA, MS, MBA, PhD, JD, MD, DDS etc.)
- ☐ Prefer not to say

What was your total household income before taxes during the past 12 months?

- ☐ Less than \$25,000
- ☐ \$25,000-\$49,999
- ☐ \$50,000-\$74,999
- ☐ \$75,000-\$99,999



- ☐ \$100,000-\$149,999
- ☐ \$150,000 or more
- ☐ Prefer not to say

Have you invested in stocks or mutual funds?

- ☐ Yes
- ☐ No

How much information do you usually collect and analyze before making decisions?

- ☐ As much as possible
- ☐ Rather much
- ☐ Some
- ☐ A little
- ☐ Not at all

How willing are you to take risks?

- ☐ Very willing
- ☐ Willing
- ☐ Neither willing nor unwilling
- ☐ Unwilling
- ☐ Very unwilling

How often do you plan for the future?

- ☐ Always
- ☐ Often
- ☐ Sometimes
- ☐ Occasionally
- ☐ Seldom