Jiao and Nax.

Instructions for an experiment on individual decision-making in a Cournot triopoly.

The instructions follow as closely as possible the instructions by Friedman et al. 2015 and Huck et al. 1999. The main novelty of the experiment is a more nuanced and fine-grained variation of the information setting, ranging from “black box” (Burton-Chellew and West 2013, Nax et al. 2013) to standard full information settings, placing Friedman et al. 2015 somewhere in the middle.

**Instructions**

Welcome to the experiment! This is an economics experiment about decision-making. If you pay close attention to these instructions, you can earn a significant sum of money, which will be paid to you in cash at the end of the last period.

Please remain silent and do not look at other participants' screens. If you have any questions, or need assistance of any kind, please raise your hand and we will come to you. If you disrupt the experiment by talking, laughing, etc., you may be asked to leave and may not be paid. We expect and appreciate your cooperation today. There are two parts of your reward in this experiment: (1) a show-up fee of $XX, which is independent from your decisions in the experiment, and (2) a payment that depends on your decisions in the experiment, which will be explained next.

**The Basic Idea**

The experiment will be divided into a number of periods and in each period you will be anonymously matched with two other players via the computer. In each period you and your counterparts will select strategies and at the end of the period the combination of your and your counterparts' strategies will determine your earnings for the period.

Right now we do not tell you exactly how earnings are determined but here are a few facts:

* Your earnings in each period depend entirely on your strategy and your counterparts' strategies, and nothing else.
* The function that determines your earnings will not change over the course of the experiment. That is, if you and your counterparts use the same strategies at time A as at time B, you both will all have the same earnings at time A as at time B.
* Your earnings are symmetric with your counterparts'. In particular, if you and your counterparts all choose the same strategy, then you all will earn the same amount.

**Payment**

The experiment will last 60 periods. At the end of the experiment, we will randomly select one period and pay you according to your earnings in that period. Any period may be selected, so please do your best in all decisions. The total number of coins you earned in that period will be converted into real money at an exchange rate of 1coin=xxxx.

**Black box (Control 1)**

Each period, you decide how much to invest. You have a fixed budget of 100 coins each period, from which you freely choose any nonnegative integer amount (between 0 and 100 coins). Your budget comes new each period. As the game proceeds, you will learn after each period how many coins you earned last period as a result of your, and your counterparts’, investment decisions.

**Black box, then Full info (Control 2)**

Phase 1

Each period, you decide how much to invest. You have a fixed budget of 100 coins each period, from which you freely choose any nonnegative integer amount (between 0 and 100 coins). Your budget comes new each period. As the game proceeds, you will learn after each period how many coins you earned last period as a result of your, and your counterparts’, investment decisions.

Phase 2

You continue playing the same game. Here is some more information about it. For every coin you invest, you produce one good which is sold. The price of each good is determined by P=(3000/Q)-10, where Q is the total number of coins invested by you and your two counterparts. Your earnings in a period are “your coins invested” times P, plus 100 coins.

As the game proceeds, you will learn after each period, how many coins you and your counterparts invested, and how much you and your counterparts earned last period as a result of your, and your counterparts’, investments. You will play the game for another 40 periods.

**Black box, then game, then others (Treatment 1)**

Phase 1:

The experiment will last 60 periods, divided into three pre-defined phases of 20 periods. Each period, you decide how much to invest. You have a fixed budget of 100 coins each period, from which you freely choose any nonnegative integer amount (between 0 and 100 coins). Your budget comes new each period. As the game proceeds, you will learn after each period how many coins you earned last period as a result of your, and your counterparts’, investment decision.

Phase 2:

You continue playing the same game. Here is some more information about it.

For every coin you invest, you produce one good which is sold. The price of each good is determined by P=(3000/Q)-10, where Q is the total number of coins invested by you and your two counterparts. Your earnings in a period are “your coins invested” times P, plus 100 coins. Phase 2 of the experiment contains another 20 periods.

Phase 3:

You continue playing the same game. Here is some more information about it:

As the game proceeds, from now on, you will learn after each period, how many coins you and your counterparts invested, and how much you and your counterparts earned last period as a result of your, and your counterparts’, investments. Phase 3 of the experiment contains another 20 periods.

**Black box, then game+others’ actions, then others’ payoffs (Treatment 2)**

Phase 1:

The experiment will last 60 periods, divided into three pre-defined phases of 20 periods. Each period, you decide how much to invest. You have a fixed budget of 100 coins each period, from which you freely choose any nonnegative integer amount (between 0 and 100 coins). Your budget comes new each period. As the game proceeds, you will learn after each period how many coins you earned last period as a result of your, and your counterparts’, investment decision.

Phase 2:

You continue playing the same game. Here is some more information about it:

For every coin you invest, you produce one good which is sold. The price of each good is determined by P=(3000/Q)-10, where Q is the total number of coins invested by you and your two counterparts. Your earnings in a period are “your coins invested” times P, plus 100 coins.

As the game proceeds, from now on, you will learn after each period, how many coins you and the counterparts invested, and how much you earned last period as a result of your, and your counterparts’, investments. Phase 2 of the experiment contains another 20 periods.

Phase 3:

You continue playing the same game. Here is some more information about it:

As the game proceeds, from now on, you will also learn after each period, how many coins the counterparts earned last period as a result of your, and your counterparts’, investments. Phase 3 of the experiment contains another 20 periods.

**Black box, then others, then game (Treatment 3)**

Phase 1:

The experiment will last 60 periods, divided into three pre-defined phases of 20 periods. Each period, you decide how much to invest. You have a fixed budget of 100 coins each period, from which you freely choose any nonnegative integer amount (between 0 and 100 coins). Your budget comes new each period. As the game proceeds, you will learn after each period how many coins you earned last period as a result of your, and your counterparts’, investment decision.

Phase 2:

You continue playing the same game. Here is some more information about it:

As the game proceeds, from now on, you will learn after each period, how many coins you and your counterparts invested, and how much you and your counterparts earned last period as a result of your, and your counterparts’, investments. Phase 2 of the experiment contains another 20 periods.

Phase 3:

You continue playing the same game. Here is some more information about it:

For every coin you invest, you produce one good which is sold. The price of each good is determined by P=(3000/Q)-10, where Q is the total number of coins invested by you and your two counterparts. Your earnings in a period are “your coins invested” times P, plus 100 coins. Phase 3 of the experiment contains another 20 periods.