

Appendix

A Instructions for Continuous Instant and Slow Treatments

Welcome! This is an economics experiment. 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 using your smart phone, talking, laughing, etc., you may be asked to leave and may not be paid. We expect and appreciate your cooperation today.

The Basic Idea. The experiment will be divided into a number of periods, and each period you will be matched anonymously with “counterparts”. These counterparts will normally be other participants in today’s experiment, (one-third of the time you will be matched with counterparts controlled by an automated computer program, the remaining two-thirds of periods you will be matched with other participants in the room today).

Throughout each period you will choose a position within a range of possible positions. The number of points you earn each period will depend on your choice and the choice(s) of your counterpart(s).

At the end of the session your earnings in points will be added up over all periods, converted to US dollars at a rate shown on the whiteboard, and paid to you in cash.

How You Earn Points. You earn points at a rate proportional to the size of the action area you control. At each moment, the area you control consists of the points closer to your position than to the position of any of your counterparts.

If more than one participant is located on one position, then they will share evenly the earnings of that position.

At every moment during the experiment you will see your position and earnings, and also those of your counterparts. In **Figure 1**, your position is shown in Green. The height of the Green dot above your position indicates that you are accumulating points at rate 30.1. There are three counterparts in this game (note that in your experiment there may be any number of participants). The left-most counterpart controls the Red dot and is earning a rate of 16.0, while the Yellow counterpart is earning 17.0, and Blue is earning 26.9.

In **Figure 1**, note the discontinuous black line running through the action space (this line will not be visible during your session). This line indicates the payoffs you would earn at every location in the action space, holding the three counterpart players positions constant. Note that the highest earnings rate possible in this example is just to the right of the Red counterpart player’s positions.

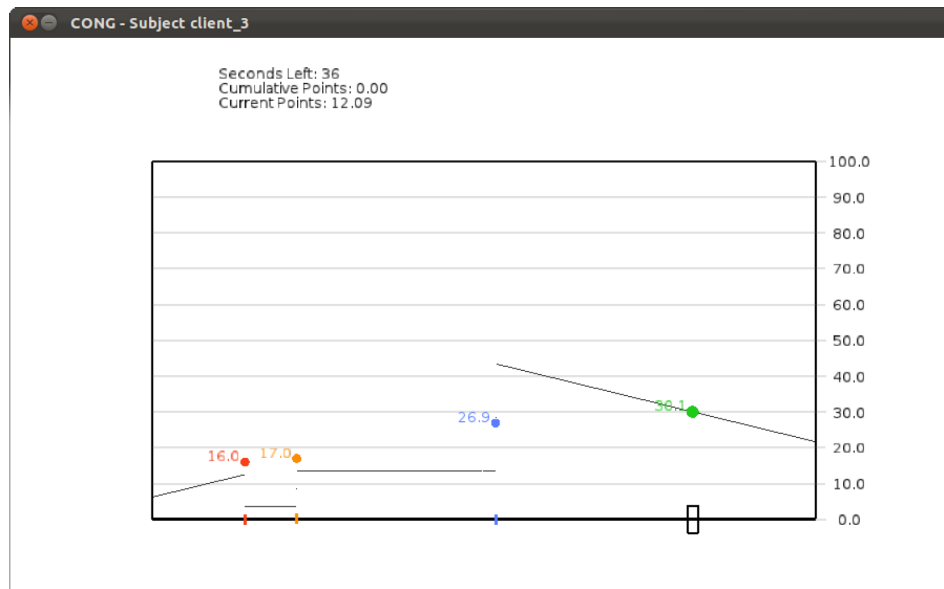


Figure 1

Choosing Your Position. You will be able to select your position by clicking on your desired position with your mouse on the screen, or the keyboard's arrow keys. Using your mouse, drag the slider (a Green mark at the bottom of the action area) to change your position or click the point on the line to which you would like to move to. Using your keyboard arrow keys, simply click the right arrow key to move incrementally right, or the left arrow key to move incrementally left.

Periods. The time remaining in the period is shown in the digital clock at the top of the screen. For example, **Figure 1** has 36 seconds remaining. After a brief intermission, a new period will begin with new counterparts who may be different participants than in the previous period.

Frequently asked questions

Q1. Is this some kind of psychological experiment with an agenda you haven't told us?

Answer. No. It is an economics experiment. If we do anything deceptive or don't pay you cash as described then you can complain to the campus Human Subjects Committee and we will be in serious trouble. These instructions are meant to clarify the game and show you how you earn money; our interest is simply in seeing how people make decisions.

Q2. Will there be practice rounds?

Answer. You will have two unpaid 30-second practice periods. Use this time to familiarize yourself the controls of the software, and how your choice and the choices of your counterparts affect your flow payoffs.

B Instruction for Discrete Treatment

Welcome! This is an economics experiment. 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 using your smart phone, talking, laughing, etc., you may be asked to leave and may not be paid. We expect and appreciate your cooperation today.

The Basic Idea. The experiment will be divided into a number of periods, and each period you will be matched anonymously with “counterparts”. These counterparts will normally be other participants in today’s experiment, (occasionally we will match you with counterparts controlled by an automated computer program).

Throughout each period you will choose a position within a range of possible positions. The number of points you earn each period will depend on your choice and the choice(s) of your counterpart(s).

At the end of the session your earnings in points will be added up over all periods, converted to US dollars at a rate shown on the whiteboard, and paid to you in cash.

How You Earn Points. You earn points at a rate proportional to the size of the action area you control. At each moment, the area you control consists of the points closer to your position than to the position of any of your counterparts.

If two or more participants choose exactly the same location, then they will share equally the earnings of that position.

At every moment during the experiment you will see your position and earnings, and also those of your counterparts. In **Figure 1 and 3**, your position is shown in Green (during the experiment, your position will also be indicated by a large green dot). The height of the Green dot above your position indicates that you are accumulating points at rate 25.1. There are three counterparts in this game. The left-most counterpart controls the orange dot and is earning a rate of 19.2, while the Blue counterpart is earning 14.8, and Red is earning 40.8.

In **Figure 3**, note the discontinuous black line running through the action space (this line will not be visible during your session). This line indicates the payoffs you would earn at every location in the action space, holding the three counterpart players positions constant. Note that the highest earnings rate possible in this example is just to the right of the Red counterpart player’s positions.

Choosing Your Position. You will be able to select your position by clicking on your desired position with your mouse on the screen, or the keyboard’s arrow keys. Using your mouse, drag the slider (a Green mark at the bottom of the action area) to change your position or click the point on the line to which you would like to move to.

Using your keyboard arrow keys, simply click the right arrow key to move incrementally right, or the left arrow key to move incrementally left.

Periods and Subperiods. Each period is broken down into a number of subperiods, for example a sixty-second period might be broken down into six, ten-second subperiods. During each subperiod you can freely adjust your tentative position by clicking and dragging the slider. However your actual position for that subperiod is the location of your slider at the end of the subperiod.

In **Figures 2 and 3**, note the light-blue progress bar – it fills up to indicate the end of the subperiod. In the **Figure 2** example below, the subperiod is halfway complete.

Frequently asked questions Q1. Is this some kind of psychological experiment with an agenda you haven't told us?

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Q2. Will there be practice rounds?

Answer. You will have two unpaid 30-second practice periods. Use this time to familiarize yourself the controls of the software, and how your choice and the choices of your counterparts affect your flow payoffs.

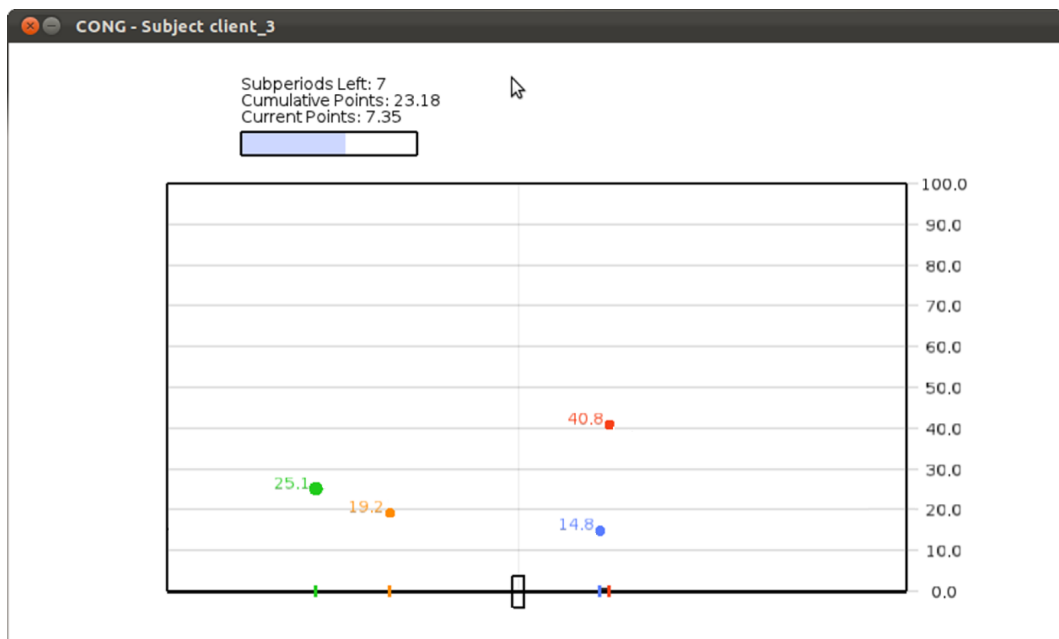


Figure 2

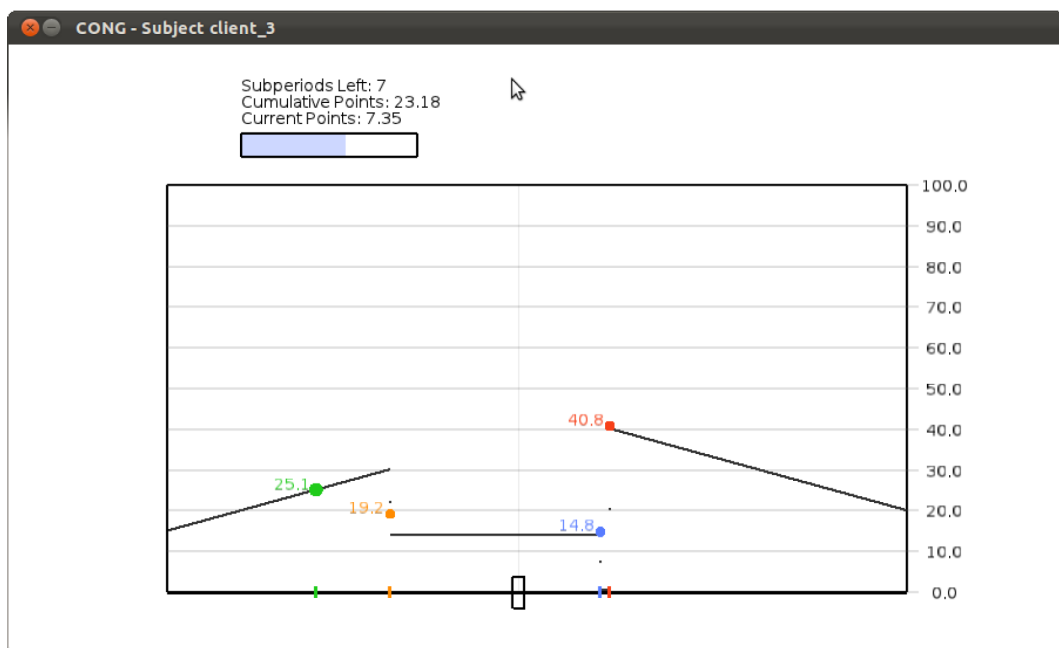


Figure 3