Experimental Overview

You will be participating in an experiment on human decision making. You will have one of two roles in the experiment: either a Worker or a Supervisor. Your role will be fixed throughout the experiment, and your computer screen will display your role as well as other relevant information. Remember that the information on your computer screen is private. Please do not communicate with the other participants at any point during the experiment. If you have any questions, or need assistance of any kind, raise your hand and the experimenter will come and help you.

Please switch your phones off and place them away. The only materials you will need for this experiment are the computer and the calculator in front of you. We will also provide you with some paper if you wish to take notes.

This experiment will consist of multiple rounds. In each round there will be three tasks. The choice of the Supervisor will affect the payoffs associated with each task, and the Worker will then decide which of the three tasks to implement. The points earned in each round will be added together and converted to USD at the end of the experiment at an exchange rate of 100 points = \$1.00. You will also receive, in addition, a \$5 show up fee.

Supervisor's decision

The Supervisor will control two variables, labeled P and Q, which can be chosen to lie between 0 and 0.9. The chosen values of P and Q will affect the payoffs for the three tasks, which will be labeled task A, task B, and task C. The Supervisor will input their decisions using slider bars. To help fine tune your choice, you may click on the slider and then use the arrow keys to adjust your decision. While the Supervisor is making their decision, the Worker will see a "Wait" screen.

Effect on Worker's payoffs

The payoff variables will affect the Worker's payoffs as follows. For each task, the Worker will either receive 100 points or 0 points.

- Task A will pay the Worker 100 points with probability $0.9 - P$.
- Task B will pay the Worker 100 points with probability $0.9 - Q$.
- Task C will pay the Worker 100 points with probability 0.5.

The Worker's probability of winning 100 points, as a function of P and Q, is summarized in the supplementary payoff guide for Workers.

Effect on supervisor's payoffs: Payment scheme 1

There are two payment schemes that will be used for the supervisor.

In payment scheme 1, increases in P will increase the supervisor's payoff for task A, but decrease their payoff for tasks B and C. Increases in Q will increase the supervisor's payoff for task B, but decrease their payoff for tasks A and C. The formulas are given by:

$$S_A = 20 + 80P - 20Q,$$

$$S_B = 20 - 20P + 80Q$$

and

$$S_C = 20 - 20P - 20Q$$

where S_A, S_B and S_C are the points earned by supervisor in each task.

Note that if P and Q are each increased by the same amount, then the Supervisor's payoff for task A and B increases, and their payoff for task C decreases.

You may also view the supplemental payoff guide that was given to you as a visual representation of the payoffs.

Effect on supervisor's payoffs: Payment scheme 2

In payment scheme 2, increases in either P or Q will decrease the supervisor's payoff for tasks A, B and C with the payoff for task C always being larger than either tasks A or B.

$$S_A = 40 - 20P - 20Q,$$

$$S_B = 40 - 20P - 20Q$$

and

$$S_C = 80 - 20P - 20Q$$

where S_A, S_B and S_C are the points earned by supervisor in each task.

You may also view the supplemental payoff guide that was given to you as a visual representation of the payoffs.

A picture of the Supervisor's decision screen is shown in figure 1.

The Worker's decision

In each round the Worker will choose either Task A, Task B, or Task C using a drop down menu. While the Worker is making their decision, the Supervisor will see a wait screen. The Worker's decision screen is shown in figure 2.

Information structures

There will be three information structures:

1. The Worker can see the exact probabilities of all outcomes at the time they make their decision.
2. The Worker can see a range of possible probabilities for tasks A and B, but not the exact payoffs.
3. The Supervisor can decide whether the information scheme is number 1 or number 2.

In information structure 1, the Worker observes the exact probability of winning 100 points.

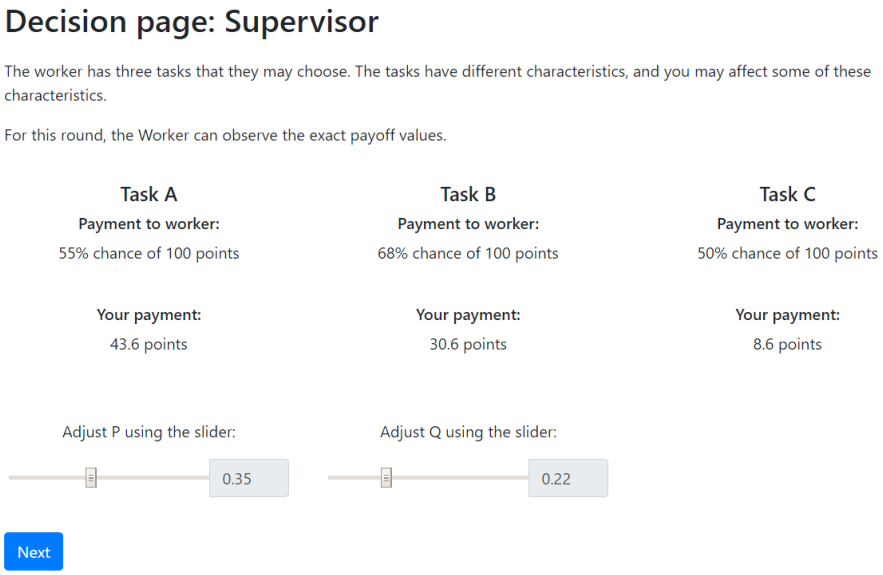

Figure 1: An example screenshot of the Supervisor's decision.

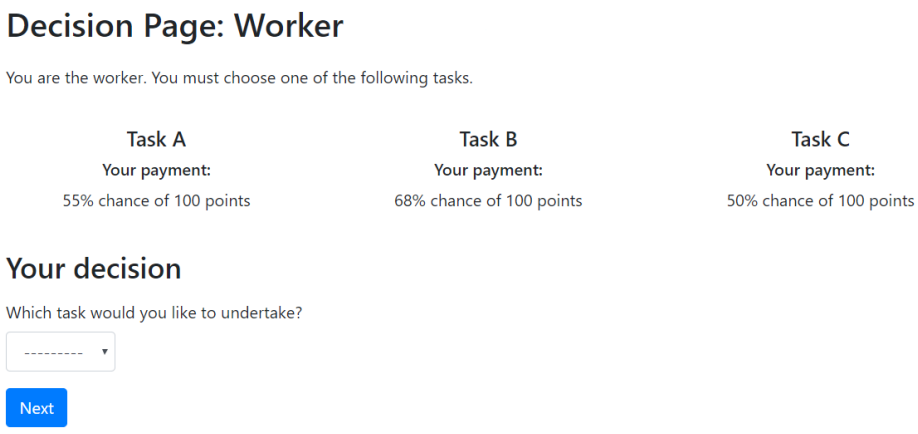

Figure 2: An example screenshot of the Worker's decision.

In information structure 2, the Worker observes a range of possible payoff probabilities for tasks A and B. The range shown will be the same for tasks A and B, but the true probabilities may differ between task A and B and **are still calculated as described above**. When the probabilities for the two tasks are not equal, one probability will always be in the upper half of the range and the other probability in the lower half of the range. The range displayed is determined by the sum of $P + Q$. The Worker payoff guide demonstrates the relationship between $P + Q$ and the range displayed.

Figures 3, 4 and 5 show some example screenshots under information structure 2.

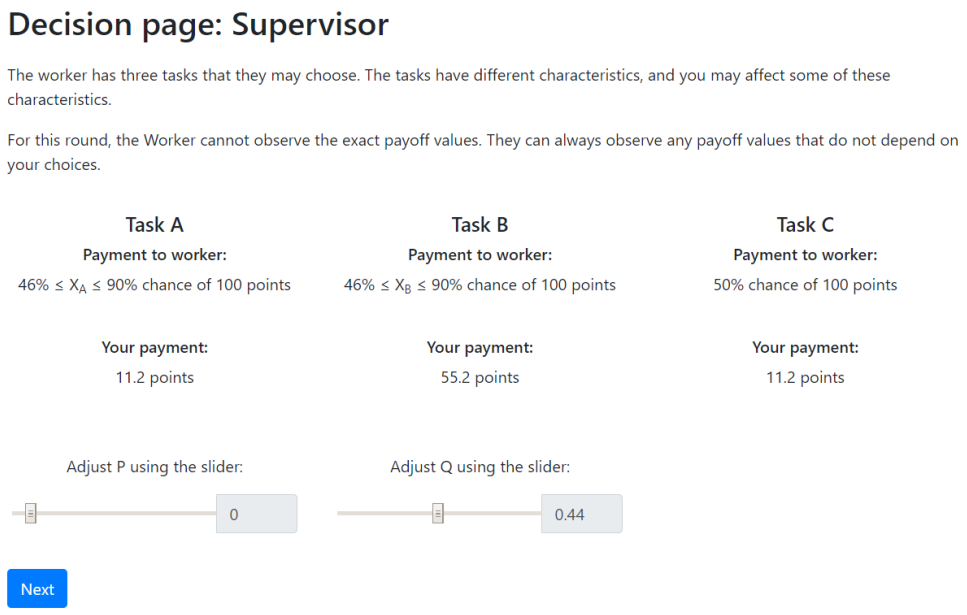

Figure 3: A supervisor decision screen under information structure 2 where the supervisor selects $P = 0$ and $Q = 0.44$.

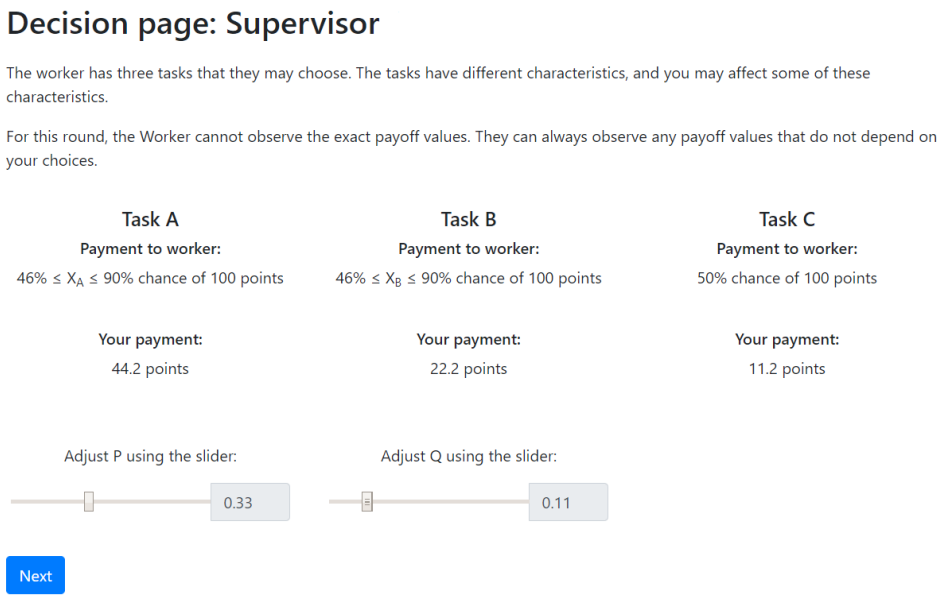

Figure 4: A supervisor decision screen under information structure 2 where the supervisor selects $P = 0.33$ and $Q = 0.11$.

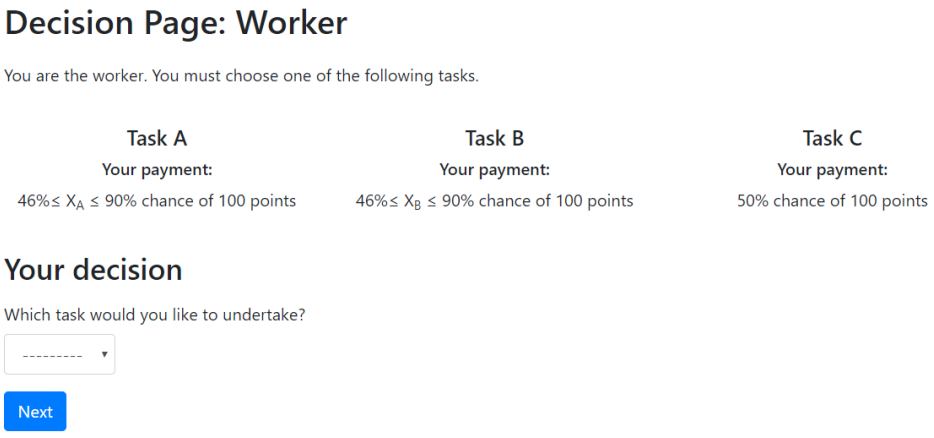

Figure 5: The Worker decision screen under information structure 2, when $P + Q = 0.44$.

Rounds

There will be a total of 36 rounds. Each round you will be randomly and anonymously matched with another player in the room. You will maintain the same role (i.e. worker or supervisor) throughout the experiment. The table below outlines which payment scheme and information scheme will be in effect in each round.

	Information Structure 1	Information Structure 2	Information Structure 3
Payoff Scheme 1	Rounds 1 to 4 Rounds 25 to 28	Rounds 5 to 8 Rounds 29 to 32	Rounds 9 to 12 Rounds 33 to 36
Payoff Scheme 2	Rounds 13 to 16	Rounds 17 to 20	Rounds 21 to 24

Feedback

At the end of each round, you will receive feedback on the round. The feedback will include:

- The values of P and Q chosen by the Supervisor, even if these values were not visible to the Worker *during* the round.
- The choice made by the Worker.
- The payoffs for both the Supervisor and the Worker.

Note on earnings

Your total earnings will be the sum of your earnings in each round. It is possible to earn negative points in some rounds. In the unlikely event that someone has a negative points total after 36 rounds then their earnings will be set to 0 points.

Quiz

Before the experiment there will be a brief quiz to ensure that you understand the tasks. You will need to answer all three questions correctly before you may proceed. Once everyone has completed the quiz then the experiment will begin.

Demographic survey

At the end of the experiment there will be a brief demographic survey. Please fill the survey in accurately. Once you have completed the survey your total earnings will be displayed. You should then sit quietly until an experimenter arrives at your terminal.

Summary

- In each round the Supervisor will select values for P and Q.
- In some rounds the Worker will observe the exact probabilities, in other rounds they will observe a range of possible probabilities.
- In each round the Worker will select one task; either A, B or C.
- The task chosen by the Worker will be implemented, and the points earned by the Worker and Supervisor will depend on the task chosen, the values of P and Q.
- Points will be summed across all rounds, and converted to dollars at the end of the experiment.
- Each round you will randomly re-matched with another player in the room.