

18. Bias - Instructions

You are about to participate in an experiment in economics during which you can earn money.

Most of your earnings during this experiment are expressed in points, with the following conversion rate:

$$20 \text{ points} = \text{€}1$$

This experiment will have two parts. The earnings of each part will be added at the end of the session. You will receive €3 more for participating in this experiment. Your earnings will be paid to you in cash in private and in a separate room by someone who doesn't know the experiment.

It is forbidden to communicate with other subjects during the experiment. If you have any question regarding these instructions, please raise your hand.

PART 1

We thank you for filling out this form that enables you to earn additional money. Your screen shows ten decisions. Each decision is a paired choice between "Option A" and "Option B". You will make ten choices, but only one of them will be used in the end to determine your additional earnings. Let us explain how these choices will affect your earnings. Here is a ten-sided die that will be used to determine this payoff. The faces are numbered from 1 to 10 (the "0" face of the die will serve as 10). After you have made all of your choices, and when you come to the other office to receive your payment, you will throw this die to determine what your payoff is for the option you chose, A or B, for the particular decision selected.

Even though we ask you to make ten decisions, only one of these will end up affecting your earnings. However, you will not know in advance which decision will be used. Obviously, each decision has an equal chance of being used in the end.

Look at Decision 1.

Option A pays €2 if the throw of the dice is 1, and it pays €1.6 if the throw is 2-10. Option B yields €3.85 if the throw of the dice is 1 and it pays €0.1 if the throw is 2-10.

Look at Decision 2.

Option A pays €2 if the throw of the dice is 1 or 2, and it pays €1.6 if the throw is 3-10. Option B yields €3.85 if the throw of the dice is 1 or 2 and it pays €0.1 if the throw is 3-10.

The other decisions are similar, except that as you move down the table, the chances of a higher payoff for each option increase. In fact, for Decision 10 in the bottom row, the dice will not be needed since each option pays the highest payoff for sure, so your choice here is between €2 and €3.85.

To summarize,

- you will make ten choices. For each decision row, you will have to choose between Option A and Option B. You may choose A for some decision rows and B for other rows. You may change your decisions and make them in any order.
- the software will randomly select one of the ten decision which will be used for paiements.
- Then, you will throw the die again to determine your money earnings for the Option you chose for that Decision.

Earnings (in Euros) for this choice will be added to your earnings, and you will be paid all earnings in cash. If you have any question, please raise your hand. Your questions will be answered in private. Please do not talk with anyone.

PART 2

There is two types of subjects (in equal number): employers and employees. Your type is randomly assigned to you and you keep it for all this part. Your type will be written on your screen at the start. The employee has to produce an effort. He doesn't know his ability. The employer has to send an information to his employee about his ability.

During this part, there are 20 periods.

Period description

At each period, paires are randomly formed with one employer and one employee. You will never know your co-participant identity.

1. The employee ability is randomly determined 1,3,5. Neither the employee nor the employer know the ability level.

2. The employer receives a signal about his employee's ability. The following table shows you for each ability level, the possible signals in the 2nd row.

For example, if the real ability is 1, the employer can receive the signal 0, 1 or 2. But he can also receive signal 2 when the real ability is 3.

3. After observing the signal, the employer sends a message to his employee about his ability. The employer can choose to send to his employee the signal he received or a different one. If he chooses to send a different signal, the signal can deviate only about 1 point (+1 or -1).

For example, if the signal received by the employer is 1, he can decide to send message 0, 1 or 2. If he receives signal 4, he can send message 3, 4 or 5.

The different possible messages are described in the following table.

Employee's ability (unknown)	Signal (observed by the employer)	Possible feedbacks (send by the employer)
1	0	-1, 0 or 1
	1	0, 1 or 2
	2	1, 2 or 3
3	2	1, 2 or 3
	3	2, 3 or 4
	4	3, 4 or 5
5	4	3, 4 or 5
	5	4, 5 or 6
	6	5, 6 or 7

4. After observing the message sent by his employer, the employee chooses an effort level: low, medium or high effort.

5. The earnings depend on the chosen effort and the real employee's ability. Earnings are described in the following table.

Ability	Effort (chosen by the employee)	Employee's wage	Employer's profit
1	low	9	5
	medium	8	7
	high	4	9
3	low	9	7
	medium	8	9
	high	11	11
5	low	9	9
	medium	15	11
	high	11	13

Example 1: if the ability level is 3 and the employee chooses a high effort, the employee earns 11 points and the employer earns 11 points.

Example 2: if the ability level is 1 and the employee chooses a medium effort, the employee earns 8 points and the employer earns 7 points.

You observe your earnings for this period. And another period starts.

At each new period, new draws determine:

- your co-participant
- the employee's ability
- the signal received by the employer

Moreover, each employer has to predict employee's effort choice. 20 more points will be added to their earnings if they predict correctly at least 50/100 of the periods.

To summarize, at each period:

- An ability level is randomly assigned 1, 3, 5 at each employee. Neither the employee nor the employer know this ability level.
- The employer receives a signal about his employee's ability.
- The employer sends a message to his employee: the true signal, the signal -1, or the signal +1.
- The employee observes the message and chooses an effort low, medium, high. The employer predicts the chosen effort.
- You observe your earnings.