

Second-Year Advanced Micro: Behavioural Economics

Vincent Crawford Game Survey, Hilary Term 2010

Please take a few minutes to fill out a short survey designed to highlight some of the issues studied and assumptions made in this part of the lectures. The results will be anonymously tabulated and used to motivate some of the ideas. The results will be most useful if you answer the questions carefully. In each case you are asked to imagine that you are playing anonymously, either with one partner randomly selected from this class or with the entire class, as indicated. Although you will not be paid, you are asked to try to decide as if your decisions would determine the indicated payoffs, in dollars.

1. Imagine that you are playing the following game as Row player, with one randomly selected member of the class. What is your choice: T, M, or B?

| | L | C | R |
|---|-----|-----|-----|
| T | 7 0 | 0 5 | 0 3 |
| M | 5 0 | 2 2 | 5 0 |
| B | 0 7 | 0 5 | 7 3 |

2. Imagine that you are playing the following game as Row player, with one randomly selected member of the class. What is your choice: T, M, or B?

| | L | C | R |
|---|-----|-----|-----|
| T | 7 0 | 0 5 | 0 7 |
| M | 5 0 | 2 2 | 5 0 |
| B | 0 7 | 0 5 | 7 0 |

3. Imagine that you and every other member of the class are making guesses, simultaneously, between limits 0 and 100. The member whose guess is closest to $\frac{1}{2}$ the class average guess wins a \$20 prize, with ties broken randomly. What is your guess?

In each of the next two games, each player has her/his own target, lower limit, and upper limit. These are different across players, and they influence players' payoffs as follows. Players make simultaneous guesses, which are required to be within their limits. Each player then earns 1000 points minus the distance between her/his guess and the product of her/his target times the other's guess.

4. Imagine that you are playing the following game as Player 1, with one randomly selected member of the class. What is your guess?

| | Lower Limit | Target | Upper Limit |
|----------|-------------|--------|-------------|
| Player 1 | 200 | 0.7 | 600 |
| Player 2 | 400 | 1.5 | 700 |

5. Imagine that you are playing the following game as Player 1, with one randomly selected member of the class. What is your guess?

| | Lower Limit | Target | Upper Limit |
|----------|-------------|--------|-------------|
| Player 1 | 300 | 1.3 | 500 |
| Player 2 | 200 | 1.5 | 900 |

6. Imagine that you are playing the following game as Row player, with one randomly selected member of the class. What is your choice: Stag or Rabbit?

| | Stag | Rabbit |
|--------|------|--------|
| Stag | 2, 2 | 0, 1 |
| Rabbit | 1, 0 | 1, 1 |

7. Imagine that you are playing the following game as Row player, with one randomly selected member of the class. What is your choice: H or T?

| | H | T |
|---|-------|-------|
| H | 2, -2 | -1, 1 |
| T | -1, 1 | 1, -1 |

8. Another, randomly selected member of the class has hidden a prize in one of four boxes arranged in a row. The boxes are marked: A, B, A, A. Your goal is to find the prize. Her/his goal is that you will not find it. You are allowed to open only one box. Which box do you open: A, B, A, or A?

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1. Imagine that you are playing the following game as Column player, with one randomly selected member of the class. What is your choice: L, C, or R?

| | L | C | R |
|---|---|---|---|
| T | 0 | 5 | 3 |
| M | 0 | 2 | 0 |
| B | 7 | 5 | 3 |

2. Imagine that you are playing the following game as Column player, with one randomly selected member of the class. What is your choice: L, C, or R?

| | L | C | R |
|---|---|---|---|
| T | 0 | 5 | 7 |
| M | 0 | 2 | 0 |
| B | 7 | 5 | 0 |

3. Imagine that you and every other member of the class are making guesses, simultaneously, between limits 0 and 100. The member whose guess is closest to $\frac{1}{2}$ the class average guess wins a \$20 prize, with ties broken randomly. What is your guess?

In each of the next two games, each player has her/his own target, lower limit, and upper limit. These are different across players, and they influence players' payoffs as follows. Players make simultaneous guesses, which are required to be within their limits. Each player then earns 1000 points minus the distance between her/his guess and the product of her/his target times the other's guess.

4. Imagine that you are playing the following game as Player 2, with one randomly selected member of the class. What is your guess?

| | Lower Limit | Target | Upper Limit |
|----------|-------------|--------|-------------|
| Player 1 | 200 | 0.7 | 600 |
| Player 2 | 400 | 1.5 | 700 |

5. Imagine that you are playing the following game as Player 2, with one randomly selected member of the class. What is your guess?

| | Lower Limit | Target | Upper Limit |
|----------|-------------|--------|-------------|
| Player 1 | 300 | 1.3 | 500 |
| Player 2 | 200 | 1.5 | 900 |

6. Imagine that you and every other member of the class are playing the following game, with payoffs determined as indicated. What is your choice: Stag or Rabbit?

| | All Other Players | |
|--------|-------------------|--------------|
| | All-Stag | Not All-Stag |
| Stag | 2 | 0 |
| Rabbit | 1 | 1 |

7. Imagine that you are playing the following game as Column player, with one randomly selected member of the class. What is your choice: H or T?

| | H | T |
|---|-------|-------|
| H | 2, -2 | -1, 1 |
| T | -1, 1 | 1, -1 |

8. You are asked to hide a prize in one of four boxes arranged in a row. The boxes are marked: A, B, A, A. Another, randomly selected member of the class will then be allowed to open only one box. Her/his goal is to find the prize. Your goal is that s/he will not find it. In which box do you hide the prize: A, B, A, or A?