Behavioral and Experimental Economics

Introduction (1/2)

18

Behavioral economics is concerned with systematic departures from rational choice.

- Behavioral economists attempt to identify systematic biases.
- Departures from rational choice *can* inform the development of more general descriptive models of economic behavior.
- Models can be used to develop testable hypotheses and predict economic behavior.

Chapter Outline

Introduction (2/2)

The model of economic behavior we have considered throughout this book is restrictive in a number of ways.

- Economic agents are assumed to be perfectly rational.
- Agents are assumed to perfectly understand risk and uncertainty.
- Agents are assumed to be self-interested.

Actual people exhibit a number of departures from this rational-agent model of decision making.

Behavioral economics: Branch of economics that incorporates insights from human psychology into models of economic behavior

When Human Beings Fail to Act the Way Economic Models Predict (1/13)

18.1

Systematic Bias 1: Overconfidence

- **A belief that one's skill and judgment are better than they are or that outcomes are likely to be better than their true probability**

Numerous studies have shown that humans tend to overestimate positive attributes about themselves.

- In one survey, 93% of college students said they were better than average drivers.
- On a popular dating website, 77% of individuals describe themselves as having very good or better than average physical attractiveness.

When Human Beings Fail to Act the Way Economic Models Predict (2/13)

18.1

How Economic Markets Take Advantage of Overconfident People

Firms can (and do) take advantage of overconfidence.

Why do gyms charge monthly memberships instead of per-visit fees?

- Individuals who sign up for a health club tend to be far too optimistic about the prospects of sticking to their exercise goals.
- Health clubs tailor their offerings to exploit such optimism.
- Charging monthly fees allows health clubs to extract surplus from overoptimistic clients.

When Human Beings Fail to Act the Way Economic Models Predict (3/13)

18.1

Systematic Bias 2: Self-Control Problems and Hyperbolic Discounting

- **People have a strong preference for NOW.**

Chapter 14 discussed discounting.

- A 10% discount rate implies that $1 today is equivalent to 90 cents next year.
- There is evidence that many people have a much higher discount rate when making decisions about immediate consumption.

Hyperbolic discounting: the tendency to place much greater importance on the immediate present than even the near future when making decisions

When Human Beings Fail to Act the Way Economic Models Predict (4/13)

18.1

Systematic Bias 2: Self-Control Problems and Hyperbolic Discounting

Problem: Decisions stop being **time-consistent**.

- **Consistency in a consumer's preferences in a given transaction, whether the transaction is far off or imminent**
  - When consumers are **not** time-consistent, they will, for instance, specify their preferred exercise and diet routine for next week now; but then when they get to next week, they won't want to stick with the plan they set up.

When Human Beings Fail to Act the Way Economic Models Predict (5/13)

18.1

How Economic Markets Take Advantage of People with Self-Control Problems

Firms can (and do) take advantage of hyperbolic discounters.

Why do credit card companies offer low interest rates initially to entice customers?

- Offers of no or low interest for the first 30 days, low minimum payments on your monthly bill, and "free" balance transfers from other cards are designed to tempt consumers into big purchases.
- If consumers don't pay off their bills before the trial period expires, they will start paying interest.

When Human Beings Fail to Act the Way Economic Models Predict (6/13)

18.1

Systematic Bias 3: Falling Prey to Framing

- **People often make incompatible (and thus irrational) decisions depending on how a decision or problem is framed.**

Endowment effect: Possessing a good makes it more valuable; that is, the possessor must be paid more to give up the good than she would have paid for it in the first place.

Loss aversion: Consumers prefer avoiding economic losses to acquiring economic gains.

- Loss aversion is not irrational; concave utility suggests people are hurt more by losses than gains.
- Loss aversion occurs when people care about nominal losses without accounting for inflation; they care about the dollar amount.

When Human Beings Fail to Act the Way Economic Models Predict (7/13)

18.1

Systematic Bias 3: Falling Prey to Framing

Types of framing bias

Anchoring: using specific information to influence a person's decision

Mental accounting: division of a person's current and future assets into separate nontransferable portions instead of basing purchasing decisions on their assets as a whole

- Instead of considering savings as one whole homogenous category, for example, people keep mental accounts for college money, vacation money, and retirement money.
- Similarly, a consumer who finds $100 (a windfall) may go spend it immediately, since it does not subtract from any predetermined mental account.

When Human Beings Fail to Act the Way Economic Models Predict (8/13)

18.1

How Economic Markets Take Advantage of People Who Fall Prey to Framing

Marketers are adept at taking advantage of framing biases.

- **Endowment-effect bias:** some firms offer free trials and money back guarantees, knowing that biased consumers will inflate its subjective value once they own an item.
- **Anchoring bias:** a firm might artificially inflate the base price of a good and then advertise a 50-percent-off sale.
  - Anchoring in the consumer's mind the idea that the good is worth the original inflated price makes the half-price good look like a bargain.
- **Mental accounting:** salespeople ask consumers how much they are willing to pay for a good.
  - Knowing this, salespeople are likely to get every bit a consumer has allocated to a purchase (and sometimes more).

When Human Beings Fail to Act the Way Economic Models Predict (9/13)

18.1

Systematic Bias 4: Paying Attention to Sunk Costs

- **Allowing sunk costs to affect decisions**

In Chapter 7, we showed that rational agents should not pay attention to sunk costs when making economic decisions, since the money is already spent.

However, numerous studies have shown that people often fall victim to the **sunk cost fallacy**.

Systematic Bias 5: Generosity and Selflessness

- **Acts motivated primarily by a concern for the welfare of others**

Finally, while the economic model of rational choice assumes rational self- interest, many people often engage in acts of generosity and exhibit altruism.

  - Donations to charity are the most obvious example.

When Human Beings Fail to Act the Way Economic Models Predict (10/13)

18.1

While the rational-choice model is not perfect, it does an excellent job of predicting human behavior in many circumstances.

- This model can often be generalized or otherwise extended to account for behavioral anomalies.
- Provides a basis for thinking about seemingly irrational behavior, often illuminating rational motivations (e.g., conspicuous charitable donations that improve reputation).

Regardless of individual behavior, markets tend to be coldly rational.

- Exposure to markets has been shown to reduce bias in actors and/or behavior.

When Human Beings Fail to Act the Way Economic Models Predict (11/13): Question 1

18.1

When you receive your paycheck, you realize you have just enough money to cover your weekend trip home, as well as your separate grocery budget for the week. This is an example of:

A. Endowment effect

B. Anchoring

C. Mental accounting

D. Loss aversion

When Human Beings Fail to Act the Way Economic Models Predict (12/13): Question 1 – Correct Answer

18.1

When you receive your paycheck, you realize you have just enough money to cover your weekend trip home, as well as your separate grocery budget for the week. This is an example of:

A. Endowment effect

B. Anchoring

C. Mental accounting (correct answer)

D. Loss aversion

When Human Beings Fail to Act the Way Economic Models Predict (13/13): Discussion Question

18.1

How does generosity and fairness disrupt the traditional economic models?

Testing Economic Theories with Data: Experimental Economics (1/3)

18.3

The evidence from psychology and behavioral economics has emphasized the importance of testing economic models with real data.

However, analyzing decisions in the real world is very difficult. In response, two subfields of economics have emerged as leaders in the evaluation of economic models:

1. **Econometrics:** field that develops and uses mathematics and statistical techniques to test economic theory
2. **Experimental economics:** branch of economics that relies on experiments to illuminate economic behavior

These two fields have helped turn economics into a more evidence-based science.

Testing Economic Theories with Data: Experimental Economics (2/3)

18.3

Experimental Economics

Three types of experimental approaches are used in economics.

1. Lab experiment: test of a theory in a laboratory setting

- People (often undergraduates looking for a bit of money) are brought into a controlled laboratory setting and asked to perform tasks.
- Benefits: can control for many things
- Drawbacks: unlike lab mice, people know when they are being experimented on—a recognition that may alter outcomes. Stakes are often lower than in the real world; tasks are unfamiliar.

Testing Economic Theories with Data: Experimental Economics (3/3)

18.3

Experimental Economics

2. Natural experiment: a randomization or near-randomization that arises by happenstance

- Oftentimes, policies or other changes affect people in a randomized way that allows economists to investigate questions using field data.
- Financial aid packages that have hard GPA cutoffs allow economists to investigate how aid affects school performance by considering people just above and below the threshold.

3. Field experiment: research method in which randomizations are carried out in real-world settings

- While this avoids biases that might arise in the lab, field experiments are often expensive, and they must still abide by human subject research guidelines and informed consent rules.

Conclusions and the Future of Microeconomics (1/1)

18.4

In this chapter, we moved beyond the rational-agent model of economic behavior and introduced a number of biases that illustrate some of the motivating factors behind the burgeoning field of behavioral economics.

Additionally, we have discussed some of the methods economists employ to evaluate economic theories and models.

Microeconomics is a fast-growing field, offering tools for the analysis of important public policies and a variety of other questions pertaining to human behavior. These tools are more in demand than ever before.

Finally, having even a basic understanding of microeconomics should prove useful for everyday decisions, so don't be afraid to draw on the knowledge from this course in the years to come.