

7

Economic Behavior and Rationality

In Chapter 1, we defined economic actors, or economic agents, as people or organizations engaged in any of the four essential economic activities: production, distribution, consumption, and resource maintenance. Economic actors can be individuals, small groups (such as a family or a group of roommates), or large organizations such as a government agency or a multinational corporation. Economics is about how these actors behave and interact as they engage in economic activities. In this chapter we explore the behavior of individual economic actors—people. We look at contemporary research on this topic, and, where it seems relevant, compare this with older approaches.

1. ECONOMIC UNDERSTANDINGS OF HUMAN MOTIVATIONS

Economics is a *social* science—it is about people and about how we organize ourselves to meet our needs and enhance our well-being. Ultimately, all economic behavior is human behavior. Sometimes institutional forces appear to take over (witness the tendency of some bureaucracies to expand over time), but if you look closely at any economic outcomes, you will find that they are ultimately determined by human decisions or behavior. Thus economists have traditionally used, as a starting point, some kind of statement about the motivations behind economic actions.

1.1 CLASSICAL ECONOMIC VIEWS OF HUMAN NATURE

In Chapter 5, we mentioned Adam Smith’s concept of the invisible hand, according to which people acting in their own self-interest would, through markets, promote the general welfare. The concept of the invisible hand has become very famous, but it is often taken out of context to mean that if people *only* behave with self-interest, they will do what is best for the entire society.

This interpretation would have astonished Smith, who, before writing *An Inquiry into the Nature and Causes of the Wealth of Nations*, had written another long book, *The Theory of Moral Sentiments*, in which he examined with care how people are motivated. His emphasis there is on the desire of people to have self-respect and the respect of others. He assumes that such respect depends on people acting honorably, justly, and with concern and empathy for others in their community. Smith recognizes that selfish desires play a large role but believes that they will be held in check both by the “moral sentiments” (the universal desire for self-respect and the respect of others) and also by the fortunate accident by which “in many cases” (not all!) selfish acts can “promote the public interest.”¹

Thus Smith’s vision of human nature and human motivation was one in which individual self-interest was mixed with more social motives. Rather than starting with Robinson Crusoe, who lived alone on an island, he perceived that the behavior of any one person always had to be understood within that person’s social context.

Smith was followed by other economists, such as the trade theorist David Ricardo and the philosopher/economist John Stuart Mill. They held similarly complex views of human nature and motivations. In 1890 Alfred Marshall tried to codify these ideas in a very influential text called *Principles of Economics*, which was published in eight editions, the last published in 1920. Marshall viewed the motives of human actors in an optimistic light—including those of economists, whom he assumed were motivated by a desire to improve the human condition. He specifically focused on the reduction of poverty so as to allow people to develop their higher moral and intellectual faculties, rather than being condemned to lives of desperate effort for simple survival.

1.2 THE NEOCLASSICAL MODEL

neoclassical model: a model that portrays the economy as a collection of profit-maximizing firms and utility-maximizing households interacting through perfectly competitive markets

In the twentieth century, the approach that came to dominate economics was known as the **neoclassical model**. This approach took a narrower view of human motivations. The basic neoclassical or traditional model builds a simplified story about economic life by assuming that there are only two main types of economic actors and by making simplifying assumptions about how these two types of actors behave and interact. The two basic sets of actors in this model are firms, which are assumed to maximize their profits from producing and selling goods and services, and households, which are assumed to maximize their utility (or satisfaction) from consuming goods and services. The two kinds of agents are assumed to interact in perfectly competitive markets (the subject of Chapter 16). Given some additional assumptions, explored later in this book, the model can be elegantly expressed in figures, equations, and graphs.

Some benefits can be gained from looking at economic behavior in this way. The assumptions reduce the actual (very complicated) economy to something that is much more limited but also easier to analyze. The traditional model is particularly well suited for analyzing the determination of prices, the volume of trade, and efficiency issues in certain cases.

The neoclassical model was introduced to generations of students in 1948 with the publication of Paul Samuelson's textbook *Economics: An Introductory Analysis*, which went on to become the best-selling economics text ever. Samuelson's text promoted the idea that economics should be "value free" (i.e., it should be developed without reference to any human goals or values) and that it should be largely or purely deductive, meaning that it should derive conclusions from the simple assumptions stated above, about the motivations of market actors.

In addition to the claim of being value free, through the second half of the twentieth century, many economists used another belief about the field to assert that their discipline was more scientific than other social sciences. They claimed that the entire system of economic theory is so purely deductive that everything in it can be deduced from one essential axiom.* This, the **rationality axiom**, states that "rational economic man maximizes his utility." (Some economists substitute for "utility" another term such as "self-interest," or "well-being.") This statement has often been interpreted to mean that pursuit of self-interest is the *only* thing that is done by rational economic actors—and that anything else is *irrational*.

The statement that the subject of economics is "completely axiomatized" (i.e., everything in it can be deduced from this single basic axiom) has come under considerable criticism. To discuss that in depth, however, would be to get into issues of methodology that are beyond the scope of an introductory textbook. Instead of addressing these arcane matters, we describe some real-world tests that have been applied in recent years to a model of human behavior that states that all that economics needs to know about human behavior is that people are rational and self-interested. We return to the issue of selfishness in Section 3 of this chapter. Section 2 first focuses on the assumption that people are rational in those portions of human

rationality axiom: the statement that "rational economic man maximizes his utility (or self-interest)"

* An axiom is a statement that is considered to be self-evident, without need of proof.

behavior that are related to the economic activities of production, distribution, consumption, and resource maintenance.

Discussion Questions

1. Do you agree with the assumption of the neoclassical model that human behavior is rational and self-interested? Can you think of some examples of economic behavior that might contradict these assumptions?
2. Do you believe economics should strive, as much as possible, to be value free? What do you think are the advantages and disadvantages of this approach?

2. ECONOMIC BEHAVIOR

Recent economic theory has explored views of human nature and decision-making that go beyond the simple axioms of the basic neoclassical model. In this chapter, we examine other models of economic behavior that consider people's (1) choice of goals, (2) the actions they take to achieve these goals, and (3) the limitations and influences that affect their choices and actions.

As we learned in the Chapter 2, any model highlights some aspects of reality while ignoring others. In this case, we employ the term “model” to mean a description of human behavior that emphasizes what is most important to understand how people act most of the time when engaging in economic activities. Such a model obviously cannot explain all human actions, but it should be sufficient to provide a general outline of what to expect. We work our way gradually toward such a descriptive model.

2.1 BEHAVIORAL ECONOMICS

behavioral economics: a subfield of microeconomics that studies how individuals and organizations make economic decisions.

In the past few decades, the neoclassical view of human behavior has been challenged by a strong alternative called **behavioral economics**, which studies how individuals and organizations make economic decisions. Studies in this area suggest that a more sophisticated model of human motivations is required to explain behaviors such as those that lead to stock market swings, the ways that people react to good and bad fortune, and why people often seem to act against their own self-interest.²

Rather than making assumptions about human behavior, behavioral economics relies heavily on scientific experiments to determine how people behave in different situations. Consider the insights from one such experiment, which concerns a three-hour seminar class that has a short break in the middle, when the professor offers the students a snack. Every week, the professor provides the students with a list of possible snacks, and the students vote on which snack they want. Only the snack with the most votes is then provided. The results of this experiment show that every week students tend to pick the same snack—the one that is their favorite.

With a different group of students, who are also taking a three-hour seminar class with a break, the students are instead asked in advance which snacks they will prefer for the next three weeks. In this case, students tend to vote for variety, thinking that they will not want the same snack every week. But this is precisely what students actually do want when they get to vote every week! When planning ahead, students think they will want variety, but when the time comes to consume a snack students tend to stick with their favorite each time. Similar experiments have shown that people who go grocery shopping infrequently also tend to think that they will want variety, but in reality they tend to want their favorite foods more often.

Another illustration of behavior that does not fit older, rigid definitions of rationality concerns the way that we process information. Perhaps the most famous contemporary behavioral economist is not an economist by training. Despite being educated as a psychologist, Daniel Kahneman won the 2002 Nobel Memorial Prize in economic science. Kahneman's

availability heuristic: placing undue importance on particular information because it is readily available or vivid

framing: changing the way a particular decision is presented to people in order to influence their behavior

research has found that people tend to give undue weight to information that is easily available or vivid, something he called the **availability heuristic**. (“Heuristic” means a method for solving problems.) For example, suppose that college students are deciding which courses to take next semester, and they see a summary of evaluations from hundreds of other students indicating that a certain course is very good. Then suppose that they watch a video interview of just one student, who gives a negative review of the course. Even when students were told in advance that such a negative review was atypical, they tended to be more influenced by the vivid negative review than the summary of hundreds of evaluations, even though such behavior seems irrational.

Kahneman has also shown that the way a decision is presented to people can significantly influence their choices, an effect he referred to as **framing**. For example, consider a gas station that advertises a special 5-cent-per-gallon discount for paying cash. Meanwhile, another station with the same prices indicates that they charge a 5-cent-per-gallon surcharge to customers who pay by credit card. Although the prices end up exactly the same, experiments suggest that consumers respond more favorably to the station that advertises the apparent discount. For one of Kahneman’s famous experiments on the importance of framing, see Box 7.1.

A common area of seemingly irrational economic behavior is personal finance. Some companies offer their employees the option of matching contributions to their retirement plans; for each \$1 the employee voluntarily contributes to his or her retirement plan, the employer matches it with an additional contribution. For example, with a 50 percent matching program, for each \$1 an employee contributes, the employer contributes 50 cents. This amounts to an instant 50 percent rate of return on the employee’s investment.

Although most financial advisers suggest taking advantage of matching contributions, many employees do not enroll in such programs, voluntarily forgoing the opportunity to garner thousands of additional dollars for retirement. This is not necessarily irrational, as some employees may have pressing current economic needs. However, one research study

Box 7.1 THE EFFECT OF FRAMING ON DECISIONS

Suppose that you are presented with the following question:

Imagine you are a physician working in an Asian village, and 600 people have come down with a life-threatening disease. Two possible treatments exist. If you choose treatment A, you will save exactly 200 people. If you choose treatment B, there is a one-third chance that you will save all 600 people, and a two-thirds chance you will save no one. Which treatment do you choose, A or B?

Kahneman and Tversky found that the majority of respondents (72 percent) chose treatment A, which saves exactly 200 people. Now consider the following scenario:

You are a physician working in an Asian village, and 600 people have come down with a life-threatening disease. Two possible treatments exist. If you choose treatment C, exactly 400 people will die. If you choose treatment D, there is a one-third chance that no one will die, and a two-thirds

chance that everyone will die. Which treatment do you choose, C or D?

In this case, they found that the majority of respondents (78percent) chose treatment D, which offers a one-third chance that no one will die. But if you compare the two questions carefully, you will notice that they are exactly the same! Treatments A and C are identical, and so are treatments B and D. The only thing that changes are the way the options are presented, or framed, to respondents.

According to Tversky and Kahneman people evaluate gains and losses differently. Thus while treatments A and C are quantitatively identical, treatment A is framed as a gain (i.e., you save 200 people) while treatment C is framed as a loss (i.e., 400 people die). It seems people are more likely to take risks when it comes to losses than gains. In other words, people prefer a “sure thing” when it comes to a potential gain but are willing to take a chance if it involves avoiding a loss.

Source: Amos Tversky and Daniel Kahneman, “The Framing of Decisions and the Psychology of Choice,” *Science* 211(4481) (1981): 453–458.

looked at what happened when a large company changed its policy from a matching program that required employees to sign up for it (an “opt in” program) to a similar program in which employees were automatically enrolled but could opt out if they wanted to.³ Under the new (opt-out) program, 86 percent of employees stayed in the program. For comparable employees prior to the change, the participation rate was only 37 percent. The economic advantages were the same in either case, and the huge difference in participation rates is difficult to justify on the basis of the paperwork needed to sign up for the program. Again, the results demonstrate that framing can have a significant influence on people’s choices.

anchoring effect:
overreliance on a piece of information that may or may not be relevant as a reference point when making a decision

An effect similar to framing is known as **anchoring**, in which people rely on a piece of information that is not necessarily relevant as a reference point in making a decision. In one powerful example, graduate students at the MIT Sloan School of Management were first asked to write down the last two digits of their Social Security numbers.⁴ They were then asked whether they would pay this amount, in dollars, for various products, including a fancy bottle of wine and a cordless keyboard. Assuming rational behavior, the last digits of one’s Social Security number should have no relation to one’s willingness to pay for a product. However, the subjects with the highest Social Security numbers indicated a willingness to pay about 300 percent more than those with the lowest numbers; apparently they used their Social Security numbers as an “anchor” in evaluating of the worth of the products.

In a real-world example of anchoring, a high-end kitchen equipment catalog featured a particular bread maker for \$279. Sometime later, the company began offering a “deluxe” model for \$429. Although they did not sell too many of the deluxe model, sales of the \$279 model almost doubled because now it seemed like a relative bargain.

2.2 THE ROLE OF TIME IN ECONOMIC DECISIONS

The retirement program example cited above suggests that in making their decisions people might not appropriately weigh the future. In other words, people seem to place undue emphasis on gains or benefits received today without considering the implications of their decisions for the future. Further evidence of this is the large number of people who have acquired significant high-interest credit card debt; indeed, about 6 percent of Americans are considered “compulsive shoppers,” who seek instant gratification with little concern for often very troublesome consequences of running up a great deal of debt.⁵ But you do not need to be a compulsive shopper to fall short of the ideal “rational consumer” who knows and weighs all the relevant costs and benefits.

time discount rate:
an economic concept describing the relative weighting of present benefits or costs compared to future benefits or costs

You may know someone who does not pay much attention to the future consequences of his or her actions. Economists would tend to say that this person has a very high **time discount rate**, meaning that in his or her mind, future events are very much discounted or diminished when weighed against the pleasures of today. (The technical meaning of “discount rate” is discussed in Chapter 12.)

On the other hand you might also know people who seem to have the attitude “I’ve got to work hard and prepare now; enjoying myself will have to wait for later.” Economists would say that people like this have low time discount rates if by their current work they are gaining benefits for tomorrow. The later benefits loom large (that i.e., are *not* “discounted”) in their decisions.

Time discount rates are important in all sorts of situations. Economists usually assume that people who invest in a college education has a relatively low time discount rate, because they are willing to forgo current income or relaxation to study for some expected future gain. (Of course, this is not true for individuals who enjoy college or regard it as more appealing than the prospects for postcollege experience.)

Company leaders with high time discount rates may concentrate on making this quarter’s financial statement look good, whereas those with more concern about the future will look toward longer-term goals. In deciding on environmental regulations, people who work at

government agencies are forced to make decisions about how much weight to give the well-being of future generations. The lower their discount rate, the more important safeguarding the well-being of future generations appears.

2.3 THE ROLE OF EMOTIONS IN ECONOMIC DECISIONS

The potential conflict between our reasoning and our emotions has long been studied by philosophers and writers. The conventional view is that emotions get in the way of good decision making, as they tend to interfere with logical reasoning. The American author Marya Mannes once wrote: “The sign of an intelligent people is their ability to control their emotions by the application of reason.” This implies that excessive reliance on emotions to make economic decisions could result in irrational behavior.

But again, research from behavioral economics suggests a more nuanced reality. It does not seem to be true that decisions based on logical reasoning are always “better” than those based on emotion or intuition. Instead, studies suggest that reasoning is most effective when used for making relatively simple economic decisions, but for more complex decisions we can become overwhelmed by too much information.

The 2010 book *Predictably Irrational*, by the psychologist Dan Ariely, describes how people consistently tend to procrastinate, overpay in certain situations, and fail to understand the role of emotions in our decision making. The book also reveals that we often place an above-market value on what we possess because we are “irrationally” attached to our possessions and that we use price as a “signal” in selecting among medicines, to the point that the placebo effect is stronger for more expensive drugs.

Research by Ap Dijksterhuis, a psychologist in the Netherlands, has shed some valuable insight on the limits of reasoned decision making. In one experiment, he and his colleagues surveyed shoppers about their purchases as they were leaving stores, asking them how much they had thought about items before buying them. A few weeks later, they asked these same consumers how satisfied they were with their purchases. For relatively simple products, like small kitchen tools or clothing accessories, those who thought more about their purchases tended to be more satisfied, as we might suspect. But for complex products, such as furniture, those people who deliberated the most tended to be *less* satisfied with their purchases. Dijksterhuis and his colleagues conclude:

Contrary to conventional wisdom, it is not always advantageous to engage in thorough conscious deliberation before choosing. On the basis of recent insights into the characteristics of conscious and unconscious thought, we [find] that purchases of complex products were viewed more favorably when decisions had been made in the absence of attentive deliberation.⁶

Even for relatively simple decisions, there is such a thing as “thinking too much.” Another experiment with college students involved their tasting five brands of strawberry jam.⁷ In one case, students simply ranked the jams from best to worst. The student rankings were highly correlated with the results of independent testing by *Consumer Reports*, suggesting that the students’ rankings were reasonable. But in another case students were asked to fill out a written questionnaire explaining their preferences. As a result of the additional deliberation, students’ rankings were no longer significantly correlated with the *Consumer Report* rankings. The researcher concluded:

This experiment illuminates the danger of always relying on the rational brain. There is such a thing as too much analysis. When you overthink at the wrong moment, you cut yourself off from the wisdom of your emotions, which are much better at assessing actual preferences. You lose the ability to know what you really want.⁸

Discussion Questions

1. Why do you think economists are so interested in questions of how decisions are made?
2. Discuss how one or more conclusions reached by behavioral economists helps you to understand an experience that you have had.

3. ECONOMIC RATIONALITY

“Rationality” has become a loaded word in economics, bringing with it the baggage of earlier models that did not anticipate the findings of behavioral economics or take into account other everyday observations. In this section we formulate an alternative view of human behavior that is more realistic.

3.1 CHOOSING GOALS AND TRYING TO ACHIEVE THEM

Economists generally proceed from a belief that people should be free to choose their own goals, even if their chosen goals differ from those of most others. However, what can be considered a rational goal has limits, especially considering that people usually have more than one final goal. Some goals that people pursue may be unachievable. People may also choose reasonable goals, but engage in irrational behavior that leads them *away from* their achievement rather than toward it. A reasonable definition of rational behavior includes (1) selecting goals that are consistent with present and future well-being, and (2) pursuing the goals in a manner that can reasonably be assumed to lead to their achievement.

3.2 THE ROLE OF CONSTRAINTS AND INFORMATION

It is important to note that economic decisions are always made subject to constraints, including limits on income and other resources and on physical or intellectual capacities. A universal constraint is time. Every day you face the choice of how to allocate 24 hours among competing activities such as sleeping, studying, going to class, eating, and entertainment. You cannot decide to allocate 10 hours each day to sleeping, 5 hours to studying, and 10 hours to hanging out with friends because you do not have 25 hours available. To put this in terms that we introduced in Chapter 1, your “production possibilities frontier” has only 24 hours per day.

Another important factor in an economic model of rationality is *information*. In assessing their options, economic actors make use of their existing knowledge but often need to collect additional information. Consider the decision to purchase a new automobile. Numerous factors go into such a decision. Should you buy a new car or a used one? What is the relative importance of fuel economy, safety, and luxury features? What about resale value and maintenance costs? Making a rational decision requires that you obtain information on these various factors.

optimizing behavior: behavior that achieves an optimal (best possible) outcome

The neoclassical approach tends to assume that rational behavior is **optimizing behavior**, based on the further assumption that rational economic actors have “perfect information.” A slightly more modest version says that people will collect information until the perceived costs of acquiring additional information exceed the perceived benefits. However, there is no way of guaranteeing either that people can know enough to make that “cost/benefit” calculation (i.e., to make an informed decision about when to stop gathering information) or that, when they do stop gathering information, they will know enough to make an optimal or even a good choice.*

One challenge to the traditional assumption of rationality comes from Herbert Simon, another psychologist who received a Nobel Memorial Prize in economic science (in 1978). Considering the matter of whether it is indeed possible for people to identify the optimal

*The uses of cost-benefit analysis, and some issues with this approach, are examined in Chapter 12.

satisfice: to choose an outcome that would be satisfactory and then seek an option that at least reaches that standard

meliorating: starting from the present level of well-being and continuously attempting to do better

path dependence: situations in which what is possible, or what is chosen, in the present depends on what has happened in the past

bounded rationality: the hypothesis that people make choices among a somewhat arbitrary subset of all possible options due to limits on information, time, or cognitive abilities

point at which one should cease gathering additional information, Simon logically showed that, in fact, one first needs to have complete knowledge of all choices in order to identify that optimal point! Moreover, determining what additional information might be out there and then gathering it can be very costly in time, effort, and money. Accordingly, Simon maintained, people rarely optimize. Instead they do what he called **satisficing**; they choose an outcome that would be satisfactory and then seek an option that at least reaches that standard.

Given constraints of time and so forth, satisficing seems to be a reasonable behavior. If an individual finds that the “satisfactory” level was set too low, a search for options that meet that level will result in a solution more quickly than expected or perhaps even multiple solutions. In this case, the level may then be adjusted to a higher standard. Conversely, if the level is set too high, a long search will yield nothing, and the “satisficer” may lower his or her expectations for the outcome.

Another deviation from rational behavior as traditionally defined has been called **meliorating**—defined as starting from the present level of well-being and then taking any opportunity to do better. A simple example is a line fisherman who has found a whole school of haddock but wants to keep only one for his supper. When he catches the second fish, he compares it to the first one, keeps the larger, and releases the other. Each subsequent catch is compared to the one held in the bottom of the boat. At the end of the day, the fish that he takes home will be the largest of all those caught.

One result of using melioration as the real-world substitute for theoretical optimization is its implication that *history matters*: People view each successive choice in relation to their previous experience. It is commonly observed, for example, that people are reluctant to accept a situation that they perceive as inferior to previous situations. This psychological **path dependence**—the idea that where you are going depends on where you have been—is relevant to feelings about rising prices and even more so to attitudes about declining wages.

Satisficing and meliorating may both be included under the term **bounded rationality**. The general idea is that, instead of considering all possible options, people limit their attention to some more-or-less arbitrarily defined subset of the universe of possibilities. With satisficing or meliorating behavior, people may not choose the “best” choices available to them, but they at least make decisions that move them toward their goals.

3.3 THE ROLE OF INFLUENCE

The discussion above cautions that in modeling human behavior, it is necessary to recognize that there is no known decision rule within human capabilities that guarantees an entirely satisfactory conclusion, let alone the “best of all possible” conclusions.

A very important aspect of decision making relates to the outside influences on us. In the discussion of behavioral economics, we saw examples of ways that others can affect our decisions by setting a “frame” or providing extra emphasis on one conclusion at the expense of others. Available information is, of course, a critical feature, and actors other than the decision maker may have a strong influence on which information is available. The literature in behavioral economics provides a wide array of other ways that decision making can be distorted by influences not related to the goals of the particular actor.

These realities have long been well known to politicians and advertisers, who, since the early part of the twentieth century, have often based their successes on assuming *irrational* consumers and voters. For example, food companies are well known to cater to the innate physical preference for sugar, fat, and salt. These three elements are crucial for health when eaten in appropriate amounts, but they were rarely available in sufficient quantity during most of human evolution. We are all therefore born with some degree of craving for these substances; learning is required to recognize when we have had “enough.” Makers of potato chips and other sweet, salty, fatty, prepared foods would prefer that this learning *not* take

place. And just as corporations gravitate toward behavior that fattens profits, even if their products do more harm than good, politicians also often find it hard to resist the easy appeal to emotions of greed, even fear, rather than offering sound information on which voters can make good decisions.

As we go through this book, applying microeconomic principles to different issues, we continue to explore whether economic actors are making rational decisions and whether there are policies that could encourage decisions that enhance both individual well-being and the well-being of society.

3.4 SELF-INTEREST, ALTRUISM, AND THE COMMON GOOD

We have referred to the neoclassical model of economic behavior that is deduced from the axiom: “Rational economic man acts so as to maximize his utility.” This could be—and often has been—interpreted by teachers, students, and practitioners of economics to mean: “Rational people try to get what they want.” That in turn was often understood as saying, “Rational people are only self-interested—*any non-self-interested acts are irrational.*”

Many students found this approach so unappealing that they dropped economics as their major, while others who stayed with these courses more or less bought in to the lesson that “Only self-interested behavior is rational.” This probably explains a good deal of why economics students (and economics faculty) have frequently been shown, in tests, to be less altruistic than others (see Box 7.2).

altruistic behavior:
actions focused on the well-being of others, with no thought about oneself

The opposite of pure self-interest is **altruism**, which means a concern for the well-being of others, with no thought about oneself. Although it would be excessively idealistic to assume that altruism is the prime mover in human behavior, it is reasonable to assert that some elements of altruism enter into most people’s decision making—contrary to the simple neoclassical model of “rational” selfishness.

Box 7.2 ECONOMICS AND SELFISHNESS

Are people who have studied economics more likely than other individuals to behave selfishly? For more than 30 years, various research studies have explored this question. In one example, economics students expressed a lower willingness than other students to contribute money to pay for public goods. The same was found of economics faculty, though their average pay was higher than that of the faculty in the other disciplines to which they were compared.

Another study found that economics students offered less to others in the Ultimatum Game (see Box 7.3 for a description of the Ultimatum Game). Although most studies have found that economics students tend to be relatively more selfish, one study found that students in upper-level economics classes were more likely than students in other upper-level classes to return a lost envelope containing cash. According to the authors of one research study, “We . . . found evidence that the giving behavior of students who became economics majors was driven by nature, not nurture: Taking economics classes did not have a significant negative effect on later giving by economics majors.”

The same study did find, however, that taking economics classes did reduce the generosity of students who did not go on to become economics majors. These non-majors may have experienced a “loss of innocence” as a result of being exposed to economic theories such as efficiency and profit maximization. The authors conclude:

Our research suggests that economics education could do a better job of providing balance. Learning about the shortcomings as well as the successes of free markets is at the heart of any good economics education, and students—especially those who are not destined to major in the field—deserve to hear both sides of the story.

Source: Yoram Bauman and Elaina Rose, “Selection or Indoctrination: Why Do Economics Students Donate Less Than the Rest?” *Journal of Economic Behavior and Organization* 79(3) (August 2011): 318–327; Yoram Bauman, “The Dismal Education,” *New York Times*, December 16, 2011.

the common good:
the general well-being
of society, including
one's own well-being

Especially relevant to economics is the fact that much economic behavior may be motivated by a desire to advance **the common good**—the general good of society, of which one's own interests are only a part. Striving to advance the common good means seeing your own well-being as connected to the larger well-being of society. That is, people are often willing to participate in the creation of social benefits as long as they feel that others are also contributing.

Economists are increasingly realizing that a well-functioning economy cannot rely only on self-interest. Without such values as honesty, for example, even the simplest transaction would require elaborate safeguards or policing. Imagine if you were afraid to put down your money before having in your hands the merchandise that you wished to purchase—and the merchant was afraid that as soon as you had what you wanted, you would run out of the store without paying. Such a situation would require police in every store—but what if the police themselves operated with no ethic of honesty? Without ethical values that promote trust, inefficiencies would overwhelm any economic system.

If all those in business cheated whenever they thought they could get away with it, business would grind to a halt. If everyone in the government worked only for bribes, meaningful governance would disappear. In addition, people have to work together to overcome problems from externalities. And it is hard to imagine how the human race could survive if altruism was not common enough that people would be willing to make sacrifices of time, convenience, and resources to meet the needs of those who cannot take care of themselves, such as children or sick people.

Fortunately, recent experiments on human behavior demonstrate that people really *do* pay attention to social norms, and they are willing to reward those who follow these norms and to punish people who violate them, even when this has a cost in terms of their narrow self-interest. (See Box 7.3.)

3.5 THE MODEL OF ECONOMIC BEHAVIOR IN CONTEXTUAL ECONOMICS

Many real-world problems would be difficult, if not impossible, to solve in the absence of a reasonable number of people willing to work for the common good. These people are often especially concentrated in the public purpose sphere, while individual altruism is most often evident in the core sphere of the economy. Does that mean that business is the sphere that operates only on self-interest? From about 1970 to the end of the twentieth century, economists, especially from

Box 7.3 THE ULTIMATUM GAME

A famous behavioral economics experiment is known as the “Ultimatum Game.” In this game, two people (who are in situations in which they cannot communicate with each other) are told that they will be given a sum of money, say \$20, to share. The first person gets to propose a way of splitting the sum. This person may offer to give \$10 to the second person or only \$8 or \$1 and plan to keep the rest. The second person cannot offer any input to this decision but can only decide whether to accept the offer or reject it. If the second person rejects the offer, both people will walk away empty-handed. If the offer is accepted, they get the money and split it as the first person indicated.

If the two individuals act only from narrow financial self-interest, then the first person should offer the

second person the smallest possible amount—say \$1—in order to keep the most for himself or herself. The second person should accept this offer because, from the point of view of pure financial self-interest, \$1 is better than nothing.

In fact, researchers find that deals that vary too far from a 50–50 split tend to be rejected. People would rather walk away with nothing than be treated in a way that they perceive as unfair. Also, whether out of a sense of fairness or a fear of rejection, individuals who propose a split often offer something close to 50–50. In the context of social relations, even the most selfish person will gain by serving the common good and thus walking away with somewhere around \$10, rather than just looking at his or her own potential personal gain and quite possibly ending up with nothing.

what was known as the “Chicago School,” pressed this case. Even early in this period concern arose that individuals who acted solely to achieve their *personal* goals could not be counted on to operate a business in ways that would be good for the business itself. This concern resulted in various efforts to reward business leaders for the success of their business.

These efforts had the unintended consequences of escalating compensation of top management in the United States to levels that were many times greater than anything that had previously been considered normal (or were normal in other countries). They also resulted in an increasingly short-term vision on the part of business leaders, whose compensation was set up to provide large rewards for quick profits. Large-scale frauds, Ponzi schemes, tax evasion, and environmental and human costs that businesses externalized during this period have made it increasingly evident that society cannot afford to encourage a definition of economic activity in which normal human motivations are stripped down to selfish pursuit of personal gain.

Modern research in behavioral economics suggests that the neoclassical rationality axiom does not stand up to tests of logic, experience, or the needs of society. (And some feminist economists have pointed out that the reference to “rational economic *man*” may be related to this one-dimensional view of human nature.)⁹ With that said, the following statements concerning motivations and behavior may provide a better grounding for economic theory.

- We start with a definition of rationality that includes
 1. *choosing goals* such that (a) when the actor achieves the goals, she or he will be glad to have done so; or (b) the pursuit of the goal itself contributes to well-being; and
 2. *pursuing those goals* in a manner that the actor expects will lead toward their achievement.
- This definition does not insist that the goals be either entirely *self-interested* or entirely *altruistic*. Rather, based on common experience and observation, it appears that most people operate with some mixture of these kinds of goals.
- Our model then posits that *most adults attempt to act rationally*. However, sometimes lack of information, the influence of conflicting emotions, or influence from others who are pursuing different goals may cause rational actors to choose goals that are not consistent with well-being or to do things that lead away from their goals.

Although, compared to the rationality axiom, these statements are obviously much more inclusive, and closer to reality, they are also much looser and cannot be used in the same, deterministic manner. For example, because they do not claim that people optimize or maximize, they provide less opportunity for developing mathematical models based on simple axioms about behavior. Nor is there any claim that these statements are all that the economist needs to know about human behavior. Explanations or predictions of economic phenomena sometimes require individual judgment, experience, or inputs from other social sciences. Thus they do not conform to the ideal of “scientific” social science pursued by neoclassical economists.

However, many people have come to believe that neoclassical economics, which achieved many fruitful insights in its early decades, has explored all the territory that it initially opened up and has contributed less and less value as time has gone on. Moreover, its narrow view of human nature and lack of contextual awareness are criticized for leading to some of today’s problems. Neoclassical economists almost uniformly failed to see the growth of the financial and real estate bubbles that led to the Great Recession, beginning in 2007. More broadly, some people believe the emphasis on selfishness has been used to justify a “culture of greed” (see Chapter 8), the dramatic increase in income and wealth inequality in recent decades (see Chapter 10), and ever greater concentration of economic and political power in ever larger corporations (see Chapter 17).

Once again, we face tradeoffs. If we are to develop economic theories equipped to deal with the critical issues of the twenty-first century, we probably need to give up a degree of tidiness, amenability to mathematical modeling techniques, and the appearance of completely value-free objectivity. As you proceed through this book, you will be the judge of how well the view of human nature developed in this chapter supports a useful approach to understanding the economy.

Discussion Questions

1. Under what circumstances can you imagine making poor decisions because of lack of information? Which economic actors might affect your decision making, and how?
2. Is “satisficing” always a rational way of behaving? What about “meliorating”? For example, recall the example of the fisherman who compares each fish that he catches to the one in the boat, keeping the larger one and throwing the others back into the water. What might be wrong with an attempt to perform the same exercise with choosing friends, instead of fish? Have you ever heard of anyone who selected a spouse in this manner?

REVIEW QUESTIONS

1. What is the invisible hand?
2. What is the neoclassical model?
3. What is the rationality axiom?
4. How does “framing” affect decision making?
5. What is the anchoring effect?
6. What is the effect of time discounting?
7. Do people typically engage in optimizing behavior?
8. Explain the concept of bounded rationality.
9. Why is self-interest not sufficient as a social organizing principle?
10. Discuss various ways of defining rationality. Which do you think is best as a basis for economic theory?

EXERCISES

1. Which of the following is consistent with the view of human behavior as purely self-interested? Which may indicate broader motivations?
 - a. Michael sells his car on eBay.
 - b. Jane joins a community clean-up group.
 - c. Ramon studies to become a doctor.
 - d. Joe buys a birthday present for his daughter.
 - e. Susan buys a new pair of shoes for herself.
2. Consider the process of applying to college and choosing a college to attend if admitted. Would you say that this process involves:
 - a. Optimizing behavior
 - b. Satisficing behavior
 - c. Meliorating behavior
 - d. Path dependence
 - e. Bounded rationality
 Could it involve a combination of them? Could this differ from person to person?
3. How does time discounting affect your own decision making? Do you do things today with a view toward future benefits, or do you look mainly for short-term satisfaction? Does your time discount rate differ in different areas of your life?
4. Consider a rational, profit-maximizing business firm. What motivations might the firm have that are not directly related to making a profit? For example, what if the firm made a donation to a community organization or voluntarily cleaned up

pollution resulting from its production process? Why might it do this? How about if it offered employees a good health-care plan or subsidized day care? Are these actions all ultimately directed at making more profit, or could there be something else involved?

5. Match each concept in Column A with an example in Column B.

Column A	Column B
a. Self-interest	1. Finding a restaurant that is close by and has food that is “good enough”
b. Altruism	2. Carefully examining all available automobile models to select the one that is best for you
c. Satisficing	3. Seeking the highest-paying job possible
d. Path dependence	4. Looking for a job that’s better than your current job
e. Meliorating	5. Volunteering at a homeless shelter
f. Utility-maximizing	6. Choosing a college because your older brother or sister went there
g. Optimizing	7. How households act in the neoclassical model

NOTES

1. A. Smith, *Correspondence of Adam Smith (Glasgow Edition of the Works and Correspondence of Adam Smith)*, (Oxford: Oxford University Press, 1982), vol. 2a, p. 456.
2. Material from this section is drawn from Barry Schwartz, *The Paradox of Choice* (New York: HarperCollins, 2005).
3. Brigitte C. Madrian and Dennis F. Shea, “The Power of Suggestion: Inertia in 401(k) Participation and Savings Behavior,” *Quarterly Journal of Economics* 16(4) (November 2001): 1149–1187.
4. Example from Dan Ariely, *Predictably Irrational: The Hidden Forces That Shape Our Decisions* (New York: Harper Perennial, 2010).
5. Lorrin M. Korna et al., “Estimated Prevalence of Compulsive Buying Behavior in the United States,” *American Journal of Psychiatry* 163 (2006): 1806–1812.
6. Ap Dijksterhuis, Maarten W. Bos, Loran F. Nordgren, and Rick B. van Baaren, “On Making the Right Choice: The Deliberation-Without-Attention Effect,” *Science* 311(5763) (February 17, 2006): , p. 1005.
7. Example from Jonah Lehrer, *How We Decide* (Boston: Mariner/Houghton-Mifflin, 2009).
8. *Ibid.*, pp. 142–143.
9. See Marianne A. Ferber and Julie A. Nelson, ed., *Beyond Economic Man: Feminist Theory and Economics* (Chicago: University of Chicago Press, 1993).