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SCARCITY, SPECIALIZATION, AND SQUISHEES

The Simpsons as *Homo Economicus*

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THROUGHOUT THE PAST TWENTY-ODD YEARS we have turned to *The Simpsons* for irreverent humor, mindful distraction, inside jokes, and, it turns out, lessons in basic economics. *The Simpsons* is a perfect vehicle for illustrating basic economic concepts. Economics is the study of choice and its consequences, both intended and unintended. Of course, dealing with human beings unraveling the complexity of these consequences can be daunting. While there is *never* any doubt about Homer's intentions, *ever* ("Mmm . . . beer" or "Mmm . . . donuts" or "Mmm . . . porkchops"), somehow, Homer can't ever seem to anticipate or predict the longer-term consequences of his choices. In fact, no matter how many times he's been burned, Homer doesn't even consider that there might be unintended consequences to his choices, yet there always are. It wouldn't surprise us, as viewers, to see Homer sit down at Moe's one night to enjoy a Duff Beer, somehow resulting in Maggie not going to college. As the nineteenth-century French political economist, statesman, and author Frederic Bastiat taught us, economics is about the seen and the unseen; good economics traces out not just the seen but also the unseen consequences of any choice.[1]

Bastiat demonstrates the lesson of the seen and the unseen by using the famous example of the broken window.[2] Suppose Bart dares Milhouse to throw a brick through the window of the Kwik-E-Mart. Imagine that as Apu rushes out to catch the boys, a crowd gathers. As the crowd laments the terrible act of vandalism, Mayor Quimby instead extols the boys' virtue. Far from being hooligans, Milhouse and Bart are, in fact, heroes because they have created a series of jobs for Springfield. Mayor Quimby assures the townspeople by reasoning that the broken window will create economic benefits for the community, because a glazier must be hired to fix the window and will earn an income from the repair of the window, which he will in turn use to buy a new pair of shoes from the cobbler, thereby creating work for the cobbler. The cobbler will receive an income and perhaps buy a new suit, thereby generating income for the tailor. The tailor will use the income to . . . and so on and so on. . . .[3] However, Apu had intended to purchase a new Squishee machine, not a new window, and as he listens to this dramatic reversal of his fortunes, he knows that he will not be able to purchase both. The Squishee machine salesman has lost his commission, which he had planned to celebrate with a Duff Beer at Moe's; Moe loses the income he would have earned from selling the beer, Duff produces less beer and therefore hires fewer employees.[4] In the end, what really happens is that Apu has just a window instead of a window *and* a new Squishee machine.

The lesson is that a good economist looks at not only the short-run consequences but also the long-run consequences of actions; at not only the visible effects of actions but the subtle invisible effects of actions. "In the economic sphere an act, a habit, an institution, a law produces not only one effect, but a series of effects. Of these effects, the first alone is immediate; it appears simultaneously with its cause; *it is seen*. The other effects emerge only subsequently; *they are not seen*; we are fortunate if we *foresee* them. There is only one difference between a bad economist and a good one: the bad economist confines himself to the *visible* effect; the good economist takes into account both the effect that can be seen and those effects that must be *foreseen*."[5] *The Simpsons* does that, exactly. Every episode shows us what Homer sees and what he doesn't see. *The Simpsons* offers a humorous look at the choices its characters make and the consequences that follow wherever they may lead. Economics, like *The Simpsons*, is about everyday life.

The intended consequences are, of course, less interesting in many ways than the unintended. When Homer chooses a Duff Beer at Moe's we know his intentions: "Mmm . . . beer!" Mr. Burns intends to produce nuclear power. The intended consequences are interesting because it is the intended action of the individuals that leads to the more interesting and nuanced unintended consequences. Homer doesn't intend to forget Marge's birthday when he is drinking Duff Beer, nor does he intend to provide Moe with a living. Mr. Burns doesn't intend to make it easier for Apu to make a living by providing cheap reliable electricity to the Squishee machine, but he does. *The Simpsons* is an exercise in exploring the consequences of the decisions made every day by the people of Springfield; *The Simpsons* is about economics because economics is about, well—everything. The purpose of this chapter is develop some simple economic concepts with the help of Homer, Marge, Mr. Burns, Apu, Lisa, Lenny, and, of course, Bart.

Economics is based on the simple premise that individuals choose or act; that is, they apply means (resources) to ends (goals) according to ideas. When Homer wants dinner, he knows (has the idea) that pork chops (his means) will alleviate his hunger (his end). The limits to Homer's ends seldom reveal themselves, but his ability to use means to satisfy his goals is limited by the scarcity of the means and by Homer's ideas about how the means can be connected to the ends. Homer's ends are rarely in doubt, but his choice of means often doesn't prove an effective or efficient way of bringing about his ends. Frequently, Homer finds his access to means limited by his budget, whether it be monetary means or physical ability or mental ability (nah . . .) or lack of foresight or whatever. At its most basic level, every episode of *The Simpsons* is about economics; the consequences of choice within some sort of constraints. The foibles of Homer and Bart are basically about choice and its consequences within the confines of a budget constraint, which is just fancy economist talk for whatever people have to spend.[6] Homer makes decisions in reaction to the trade-offs he perceives within the context of the constraints he faces. The brilliance of *The Simpsons* is in the tracing out of the consequence of their choices, both intended and unintended. Unlike some other animated shows, they rarely let the fact that they are not "real" prevent them from being "realistic."

Ten Basic Concepts

The Simpsons is a great device for demonstrating the basic introductory ideas in economics. While economics really is a way of thinking as opposed to a list of concepts to be memorized, there nonetheless are some basic concepts that make up the core of the economic way of thinking, and *The Simpsons* provides many examples to demonstrate all of these concepts.[7] I will list ten basic concepts that all students of introductory economics should appreciate, briefly explain each one, and provide examples from *The Simpsons* for each concept. The basic concepts are

- Scarcity necessitates choice.
- The opportunity cost of an action is the value of the next-best alternative that must be sacrificed to take the action.
- Efficiency is best understood as a relationship between ends and means.

- To economize means to allocate available resources in a way that yields the most value to the economizer.
- Pursuing comparative advantage means sacrificing that which is less valuable for the sake of something more valuable.
- Specialization is another word for
  - pursuing one's comparative advantage.
  - the division of labor.
  - producing at a comparably lower opportunity cost.
- The "law of demand" in economic theory asserts that people will purchase less of a good when its price rises, and vice versa.
- A market is a process of competing bids and offers.
- In an informed and uncoerced exchange, both parties receive more in value than they give up.
- Economic growth entails an increase in the rate of production of wealth, and wealth is what we value.

Nearly all introductory or principles of economics texts have similar lists. For example, Mankiw includes, among others, people face trade-offs, the cost of something is what you give up to get it, rational people think at the margin, people respond to incentives, trade can make everyone better off, markets are usually a good way to organize economic activity, and so on.[8] Gwartney and colleagues have "Eight Guideposts to Economic Thinking," which are trade-offs must be made, individuals choose purposefully, incentives matter, individuals make decisions at the margin, information is costly, beware of secondary effects, value is subjective, and the test of a theory is its ability to predict.[9] Frank and Bernanke call their first chapter "Thinking Like an Economist" and include the scarcity principle and the cost-benefit principle as two of the basic building blocks of economics.[10] Again, economics is the science of choice and its consequences, both intended and unintended. While each author has his unique approach, they all focus on the choices made by individuals in the face of scarcity.

Scarcity Necessitates Choice

Homer's wants are limitless, but his means to attain them are not, so he cannot have everything he wants and he must choose which ends to satisfy. Life is full of trade-offs—that is, forsaking one thing to choose another—and Homer runs into this brute reality over and over again. In "The Tell Tale Head," Homer talks to Maggie about a bowling ball from the *Bowl Earth Catalog* being the best use of his $50 of gambling winnings. In "There's No Disgrace Like Home," Homer decides the family needs to go to counseling and, after looking at all the counselor commercials on television, decides Dr. Marvin Monroe is the best (and at only $250!). The scene is an economic lesson on trade-offs (and how value is subjective), since Marge is concerned about the cost of therapy while Homer is willing to give up the kids' college fund. Then after realizing the college fund only had $88.50 in it, Homer is willing to make the ultimate sacrifice and pawn the family TV. Unwilling to give up the TV, Marge offers her engagement ring, only to be reminded by Homer that they need to pawn something worth at least $250.

Opportunity Cost

Trade-offs imply opportunity cost. The act of choosing is, at the same time, the act of setting aside. Homer can't have his donuts and eat them too. The cost of choosing is the value of what has been set aside or not chosen. That is, the value of what has been traded off by choosing one thing over another is the opportunity cost. Closely related to opportunity is the concept of sunk cost; a sunk cost is a cost that cannot be affected by the individual's choice and should therefore be ignored. While the concepts of opportunity cost and its evil twin sunk cost may appear to be straightforward, together they are most often the most difficult concepts in economics to apply consistently.[11] The difficulty in applying opportunity cost theory is that it lies squarely in Bastiat's realm of the unseen; the opportunity cost of any action or choice is the value of what is not chosen and therefore not experienced or seen. Opportunity cost represents a hurdle to choice, but once the choice is made the "loss" cannot be experienced.[12] The misapplication most often manifests itself as the denial of the most basic tenant of scarcity: "There ain't no such thing as a free lunch."

Since cost is related to action and choice, if there is no action or choice there is no cost. Or, more succinctly, "no verb, no cost." Different actions toward the same object have different costs; in other words, "different verb, different cost." So the cost of holding something is different from the cost of obtaining it and is different from the cost of using it. Since only one action or choice can be made at the same time, the opportunity cost of action is the value of the action not taken.

Typically, the confusion lies in misunderstanding the relevant choices. Imagine Marge gives Homer a ticket to the Springfield Isotopes versus Shelbyville Shelbyvillians game for his birthday; does it cost him nothing to go the game? The answer, of course, is no, Homer does in fact have to bear a cost to attend the game. Suppose the game was for the coveted Lemon Tree Trophy, and when Homer shows up to the game, Fat Tony, who is scalping tickets, offers Homer $1,000 for the ticket. If Homer goes to the game, he just paid $1,000 for the ticket; as he mulled over his decision, Homer had one hand on the $1,000 and one hand on the ticket—he had to let go of one of them. The cost of attending (verb) the game was $1,000 (plus the value he places on not disappointing Marge because the $1,000 would have helped pay for Lisa's braces). It doesn't matter what he paid to obtain the ticket because that is not the relevant decision now, the relevant choice is attend or not attend the game.

The opportunity cost of the therapy with Dr. Marvin Monroe is the value of receiving the education that will be foregone because Homer has raided the college fund. The concept of time preference is also present in this decision. Homer, like everyone else, has a positive rate of time preference; he would, other things equal, prefer to have things now rather than later. A significant part of the charm of Homer is his very high (childlike) rate of time preference. Homer regularly discounts the future very heavily, meaning he places very little value on it and therefore places a high value on the present.

Homer's motto is *carpe diem*. In "The Way We Was," when Homer joins the debate team he is faced with the resolution, "The national speed limit should be lowered to fifty-five miles per hour." Homer's response recognizes immediately the opportunity cost of such a proposal when he notes that while there will be fewer deaths, millions of people will be late. In "Tree House of Horror," while Homer is trying to convince Marge that the haunted house is worth the purchase by telling her it's a fixer-upper and therefore worth the low price, Marge counters that the savings are not worth living in a house of evil. The exchange recognizes that value is subjective. To Homer, trading a little evil is worth the money; to Marge, the opportunity cost is too high.[13] Opportunity costs are the constant obstacles to Homer's choices that not even he can ignore.

Efficiency

Efficiency is best understood as a relationship between ends and means. The idea of efficiency means nothing absent a goal, which is to say that *things* cannot be more or less efficient. Choices can be more or less efficient. Given a set of means, efficiency is choosing the most valuable ends, or, given an end, efficiency is choosing the cheapest means to bring about that end. Even physicists recognize that efficiency is inherently an evaluative term when they define it as work out divided by work in; that is, how much of the energy put in comes back out as *useful* energy. Since *useful* means the extent to which the end is accomplished, efficiency is an evaluative term. A choice is efficient if the benefit from the decision is greater than the cost in prospect. To put it another way, a decision is more efficient if, given a cost, that choice yields a greater benefit than the original or if, given a benefit, the cost is lower than the original choice.

Homer's choices are ripe with implications about efficiency. Someone who has a rate of time preference as high as Homer's frequently makes choices that don't appear to be efficient. This is especially the case after he experiences *ex post* regret; that is, he discovers that he was wrong in his estimation about the future cost or benefit. In the opening scene of "One Fish, Two Fish, Blowfish, Bluefish," Homer's incredibly high rate of time preference is on display when Marge tells him his meatloaf will be ready in eight seconds and he wonders if there is any way it can be cooked faster. It is further displayed when, disappointed that it is meatloaf night again, Lisa tells Homer that he is always trying to get them to be adventurous and live richer lives, to which he responds that she doesn't know what she's talking about as no one in the family is trying to teach that lesson. Homer can't be troubled to think far enough ahead, that is, to lower his time preference enough, to think about his daughter's future.

Marge urges Homer to try something new for her sake and Lisa's sake. The Simpsons decide to try sushi, which of course Homer is against because he perceives a low benefit for a high cost—giving up Friday night pork chop night. For Homer, pork chops are more efficient than sushi. Reluctantly, Homer agrees, and the family goes to the Happy Sumo restaurant for sushi. Homer discovers that he loves sushi and orders everything on the menu except fugu (blowfish). Homer then decides that he must have the fugu, even when told that it will kill him if prepared improperly, which naturally the apprentice chef does.[14] When Homer is informed that he is poisoned and now has twenty-four hours to live (in other words, his means are now severely limited), he tries to use those twenty-four hours as efficiently as possible (that is, apply those means to the most valuable ends he can imagine). He makes a list of fourteen things to do with his final day that include making the list, eating a hearty breakfast, and being intamit [sic] with Marge.

As he attempts to move through the list, he discovers that his means are more limited than he thought (and he oversleeps on his last day on earth so he misses the sunrise), so he has to cut down on the ends he is capable of attaining. While making peace with his father he discovers that he has underestimated the cost of making that peace, so he has to give up a few more things on his list (opportunity cost). Homer crosses out beer with the boys, plant a tree, and go hang gliding. He is anxious to get to being "intamit" with Marge, so the cost of spending time with his father has risen above the benefit, such that it is now inefficient to spend time with his father. Later, as he moves further down the list, a low-cost opportunity to tell off his boss presents itself. While driving home with Barney, Homer spots Mr. Burns and Smithers sitting in the park ogling women's ankles. He has Barney slow down so he can tell Mr. Burns to eat his shorts. Homer recognized that serendipity made another item on his list become efficient to do, and thus clearly even Homer recognizes that some decisions are more efficient than others.

Economizing

To economize means to allocate available resources in a way that yields the most value to the economizer or chooser. That is, all choice is aimed at maximizing profit, properly understood. Profit is merely the excess benefit over cost, so all choice is made with the goal of maximizing profit in mind. In "Homer vs. Lisa and the 8th Commandment," both Bart and Homer make attempts at economizing (maximizing profit). Homer can't afford to pay for cable TV, so he takes a $50 offer to hook up cable for free. When Marge asks him about how they could afford it, Homer tells her they can swing nothing a month. Later, Bart discovers some of the other channels available on cable, such as Top Hat Entertainment adult programming. This is an entrepreneurial discovery for Bart, as he now has access to something valuable. He then uses the resources he has at his disposal to yield something very valuable to him—fifty cents per ticket. Bart invites his schoolmates to watch the most beautiful women in the world for just fifty cents.

In the "Simpsons Roasting on an Open Fire," Marge economizes after she discovers that Bart has a tattoo of a heart with "Moth" written in the middle. She doesn't want Bart to have a tattoo, so she takes the Christmas money and applies it to a more highly valued end—removing Bart's tattoo. It is important to understand that economizing does not mean to "be cheap," but only to use available resources in the most valuable way or to attain an end in the least costly way while understanding that the cost is the value of the foregone alternative.

Comparative Advantage

Pursuing comparative advantage means sacrificing that which is less valuable for the sake of something more valuable. Comparative advantage is not just for countries; it applies to individuals as well. That's why the husky kid catches and the skinny kid plays centerfield even if the skinny kid is a better catcher. An individual has a comparative advantage when he can do something relatively more cheaply than someone else. An individual who has the lowest cost of pursuing any activity has a comparative advantage in that activity. No one can have a comparative advantage at all activities, and everyone has a comparative advantage at something. Which is a lucky thing for Homer.

An individual discovers her comparative advantage in her everyday interactions within the market; she learns through repeated interaction about what she is relatively best at. Every time Homer ventures away from the Springfield Nuclear Power Plant (SNPP), he finds his way back because that is where his comparative advantage is. In "Homer's Odyssey," Homer is fired for an accident at the plant, which leads him to look for another job with some help from Lisa. When Lisa finds him a job at the fireworks factory, Homer isn't interested because the folks at the fireworks factory are perfectionists. We know (and Homer knows) he does not have a comparative advantage at being perfect. With no success in his job hunting, Homer decides to kill himself by throwing himself off a bridge. However, on his way to do so he is nearly killed at a busy intersection. After his family catches up with him he informs them that the intersection is dangerous and needs a sign. With that, Homer thinks he has discovered his comparative advantage, making Springfield safe from all manner of dangers.[15] As only Homer can, he lets his success go to his head and takes on the SNPP. In doing so, he ends up getting his old job back.

In "Simpson and Delilah," Homer attempts to pursue an occupation in which he doesn't have a comparative advantage. Mr. Burns confuses Homer with a young go-getter and promotes him to an executive position after Homer has managed to scam himself some Dimoxinil—a miracle cure for baldness—and grow some hair. While Mr. Burns is convinced that Homer is a management genius because of his full head of hair, Homer understands that his comparative advantage is built on sand. Throughout the episode we can feel Homer's discomfort because he knows his stint as an executive is doomed because he is out of his league.

In the end, Homer always sacrifices that which is less valuable to him for that which is more valuable; in other words, he follows his comparative advantage. Marge reminds Homer that his safety inspector job has always brought food to the table. It's when Homer strays from his comparative advantage of safety inspector at the SNPP that he fails to put food on the table, whether it is to be an executive, a safety crusader, a tow truck operator, an astronaut, a monorail conductor, a sanitation commissioner, a singer (in the Be Sharps), a Krusty Impersonator, a sideshow freak, a snowplow driver, a beer baron, or an inventor. In what seems likes hundreds of jobs Homer has had, it always turns out that he is relatively better at being a nuclear safety inspector. His many failed attempts at other jobs show us that while Homer is bad at all jobs he is the least bad at being a nuclear safety inspector relative to the others, so that gives him a comparative advantage. Homer can't be worse than everybody at everything, therefore he must have a comparative advantage at something, whether Frank Grimes likes it or not!

Specialization and the Division of Labor

Specialization and the division of labor follow directly from the pursuit of comparative advantage.[16] To specialize means to concentrate one's efforts in certain aspects of production.[17] Division of labor is the act of splitting up a task to allow for specialization. The division of labor is on constant display in Springfield, where everyone specializes right down to the town drunk and the schoolyard bully. We can't imagine many of the characters in any other occupations than those they are in because they just "seem" to have a comparative advantage. Try imagining Otto as anything other than a bus driver, or Chief Wiggum as other than the police chief, or Moe as other than a bartender, or the Reverend Lovejoy as manager of the Kwik-E-Mart, or Apu as the reverend. The reason we can't is because these individuals are pursuing their comparative advantages. The cast of characters themselves are a kind of division of labor. Each character specializes in *something*. For example, Ned Flanders specializes in being the goody two shoes, Mrs. Krabappel *is* an elementary school teacher, and Willie *is* a groundskeeper. It's through this specialization and division of labor that Springfield functions and prospers. As the founder of economics, Adam Smith, puts it, "It is the great multiplication of the productions of all the different arts, in consequence of the division of labour, which occasions, in a well-governed society, that universal opulence which extends itself to the lowest ranks of the people."[18]

The Law of Demand

Economics is about choice, and the concept of demand relates choice and cost. Economists use the concept of demand to represent how much of something someone would choose to acquire as the amount that he must sacrifice to acquire that thing changes. Demand represents the plans of buyers. If Bart and Milhouse are headed to the Kwik-E-Mart to buy a Squishee, each has some idea of the price (sacrifice) of the Squishee and therefore each has an idea (plan) about how many Squishees he will buy. If that sacrifice changes, each will change his plans.

A second way in which plans can change is that resources available for the sacrifice change. In "Three Men and a Comic Book," Bart finds the original issue of *Radioactive Man* for sale and plans to not buy it because he can't afford it, that is, he doesn't have enough resources. He convinces Martin and Milhouse to combine their money with his to buy the comic book. Clearly when he accumulated more resources his plans changed. A third way plans may change is if the sacrifice for a related good changes. If the price of Krusty-O's changes, then the plans to obtain Krusty-O's changes, and that in turn will change Bart's plans to buy Squishees.[19]

The "law of demand" in economic theory asserts that people will purchase less of a good when its price rises, and vice versa. Individuals will do more of something the smaller the sacrifice and less of something the greater the sacrifice, other things equal. We already saw this earlier in "One Fish, Two Fish, Blowfish, Blue Fish," when the "price" of telling Mr. Burns to eat his shorts fell; because Barney was driving Homer by Mr. Burns in the park, Homer chose more harassing of Mr. Burns. In "Simpson and Delilah," after Homer sees a commercial for Dimoxinil, a hair restoration product, he learns the price of it is $1,000 by visiting the store selling it. Homer breaks down in tears and leaves because the price is too high. Later, back at the power plant, Lenny and Carl suggest that with some creative paperwork Homer can have insurance pay for the Dimoxinil. With the new price of zero, Homer purchases the Dimoxinil. As the price falls, the law of demand even works for Homer!

The law of demand applies to all choosing beings, including aliens. In "Treehouse of Horror," the aliens are showing the Simpsons their entertainment center, noting that they get over one million channels from around the galaxy. In response to a question from Bart, however, they note that they do not get HBO because that would be extra. That is, as the price rises the quantity demanded is lower; even aliens react to incentives.

The law of demand derives from the law of diminishing marginal value; the more of something we have the less we value having one more of it. This principle is on display in "New Kid on the Block" when Homer discovers The Frying Dutchman all-you-can-eat restaurant. Homer eagerly orders the all-you-can-eat dinner, and even before the waiter can give him his plate, Homer is at the buffet car, carting away an entire tray of shrimp. Once Homer has decided to pay for the buffet, the price of additional food is zero, so Homer tries to eat until the marginal benefit (value) is equal to zero.