Society of Actuaries

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Predictably Irrational, by Dan Ariely
The Hidden Forces that Shape our Decisions

Reviewed by Ben Wolzenski

This is considered a seminal work in the development of Behavioral Science. I found *Predictably Irrational* to be both interesting and illuminating, even if I did not always agree with the author's extrapolation of his findings to society at large.

I have included a brief summary chapter by chapter and described several of the author's experiments, almost all of which involved college students. It is worth reading the book to see them all, as well as his many engaging anecdotes.

INTRODUCTION – HOW AN INJURY LED ME TO IRRATIONALITY AND TO THE RESEARCH DESCRIBED HERE

The author describes how, after third-degree burns over 70 percent of his body, his rehabilitation treatment and limited ability to interact with others led to his scientific study of the reasons for human behavior. He posits that humans do not always behave rationally, and that therefore economic theory based on such rational evaluation of alternatives is flawed. In fact, he posits—and says he will demonstrate by results of scientific experiments chapter by chapter—that the irrational behavior is predictable.

CHAPTER 1 – THE TRUTH ABOUT RELATIVITY

Experiments show that humans evaluate options in relative, not absolute terms; that propensity can be used to manipulate decisions. In general, given a choice of options, we tend to choose one that is clearly better than another comparable one (which may be a decoy) rather than one which is hard to compare to other choices.

One of several experimental results is often cited: when a magazine offers an online-only subscription for $X, a print-only subscription for $Y (about twice $X) and a combination of online and print also for $Y, the combination was chosen by a large majority. The print-only subscription is effectively a decoy to make the combination look very good relatively. However, when only the online and combination subscriptions are offered at $X and $Y respectively, a large majority chose the cheaper online subscription; there was no print-only decoy to make the combination look more attractive.

CHAPTER 2 – THE FALLACY OF SUPPLY AND DEMAND

Arbitrary coherence, or anchoring, is described. "In life, we are bombarded by prices. … But price tags by themselves are not necessarily anchors. They become anchors when we contemplate buying a product or service at that particular price." As an example, a group of students were asked to write down the last two digits of their Social Security number. They were then to write down whether they would buy each of several items for that amount in dollars (yes or no) and then write down how much they would be willing to pay for each item. Those with the last two digits of their S.S. final digits from 00-20 were willing to pay far less than those with final digits from 80-99, despite the arbitrary nature of the different anchors provided to each group.

From price anchoring, the author moves on to behavior herding or self-herding. What's that about? We get in line for a restaurant because others are in line (so it must be good) or we repeat a purchase because we found it rewarding the first time, without comparing it to other substitutes.

The conclusion is that arbitrary coherence is a powerful influence affecting prices we are willing to pay, and that a purely rational valuation based on supply and demand is not as important as classical economics would postulate.

CHAPTER 3 – THE COST OF ZERO COST

This chapter described experiments in which items of little value were offered for free and were chosen over other items of much greater value that were offered at a small cost. Classical economics would have predicted that the better value would have been chosen. When we consider a purchase, we evaluate the upside and downside, but when something is free we feel there is no risk of loss, and since humans have an intrinsic fear of loss, there is an emotional reaction to free items that is not there at any other price.

CHAPTER 4 – THE COST OF SOCIAL NORMS

The author distinguishes between the worlds of social norms (friendly help, not compensated) and market norms (you get what you pay for). Kept separate, all's fine; when the two

collide or get mixed up, it can produce undesirable results. Lawyers asked to help the needy for $30 per hour refused, but when asked to provide free services for the needy, they agreed. The offer was insufficient under market norms, but accepted under social norms.

Companies are advised that they cannot have it both ways with their customers. They cannot treat customers like family (social norms) one moment but then impersonally (market norms) the next. They are cautioned not to diminish elements of social norms with respect to their employees, such as flex time, cafeterias, and health benefits.

CHAPTER 5 – THE POWER OF A FREE COOKIE

In an experiment, pieces of candy were either sold for a penny or given away free. More students took the free candy, as expected, but the number they took was less (1.1 if free, 3.5 if purchased). From this, the author concludes "that when price is not a part of the exchange, we become less selfish maximizers and start caring more about the welfare of others." By extension, this helps explain why everyone is reluctant to take the last of shared food items in a group meal setting.

CHAPTER 6 – THE INFLUENCE OF AROUSAL

To measure the effect of emotional state on judgment, a state of sexual arousal was chosen for the next experiments. Participants (men in college) were asked to answer a series of questions about potential sexual activities under two different conditions—what they thought they would do if they were aroused (but were not) and what they thought when they actually were aroused. The study clearly showed a wide and consistent difference in the answers. For example, when actually aroused, the desire to participate in odd sexual activities was 72 percent higher than estimated when not aroused. In a footnote, the author states "we can also assume that other emotional states work in similar ways."

CHAPTER 7 – THE PROBLEM OF PROCRASTINATION AND SELF CONTROL

Americans save less, borrow more. Why can't we save like we used to? Why don't we follow through on good intentions—saving, dieting, exercising—instead of putting them off? When groups of students were allowed different degrees of flexibility in setting deadlines for turning in multiple papers, those who had well-spaced deadlines did best. Those who gave themselves the maximum time to turn in all papers did least well. Everyone has a tendency to procrastinate, but those who recognize it and use available tools to commit themselves are most likely to succeed.

CHAPTER 8 – THE HIGH PRICE OF OWNERSHIP

Once we own something, we generally place a higher value on it. Why? The author posits three "irrational quirks" in human nature, and as usual gives interesting supporting anecdotes.

- We fall in love with what we already have.
- We focus on what we may lose, rather than on what we may gain.
- We assume other people will see the transaction from the same perspective as we do.

There is also the "Ikea effect"—the pride of ownership is directly proportional to the effort required to make or acquire something. And ownership can apply to ideas or opinions, too.

CHAPTER 9 – KEEPING DOORS OPEN

Subtitled (Why Options Distract Us from Our Main Objective), in this chapter experiments demonstrated that it is hard for us to give up options, even when we risk losing a lot by refusing to give up those options. By the "irrational impulse to chase worthless options," the author says, "we

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fail to realize that some [valuable] things really are disappearing." This is one of the "consequences of not deciding."

CHAPTER 10 – THE EFFECT OF EXPECTATIONS

Experiments involving beer and coffee showed that expectations definitely influence choices and perception. "When we believe beforehand that something will be good … it generally will be [perceived to be] good, and when we think it will be bad, it will be [perceived to be] bad." Further experiments (with Coke and Pepsi) used an MRI to show that brain chemistry was actually different if they knew the brand in advance.

"Expectations also shape stereotypes." And stereotypes can affect behavior … including that of those who are not part of a stereotyped group. A group of undergraduate students who took part in a scrambled-sentence experiment loaded with words such as Florida, bingo, and ancient, walked down the hall as they left the building slower than those whose scrambled-sentence test did not have words suggestive of the elderly!

CHAPTER 11 – THE POWER OF PRICE

In two studies about surgical procedures, volunteers who had only simulated surgery (it looked like the surgery had been done, but it hadn't) showed the same improvement as those who had the full procedure. These and other medical or pseudo-medical treatments were examples of how expectations influence physical experience, and the placebo effect.

Furthermore, an experiment involved giving two groups of volunteers a placebo that was supposed to be a new painkiller. One group was told the painkiller cost $2.50 per dose; the second group was told it cost $0.10. You can guess the result: the $2.50 group almost all reported pain relief, whereas only about half the $0.10 group did. The "new painkiller" was just a vitamin C tablet.

What do we think about the use of placebos? What if they work? Does cost saving by the use of generics produce poorer outcomes because of the price effect? Are placebo experiments that withhold treatment ethical?

CHAPTER 12 – THE CYCLE OF DISTRUST

This chapter was subtitled, "(Why We Don't Believe What Marketers Tell Us)." What better to exemplify that than to set up a table with a "Free Money" sign (and it really was), and see how many people stopped to pick it up? The answer: 19 percent stopped for a $50 bill, only 1 percent for a $1 bill. The typical comment was, "there must be a catch." There wasn't. In society, we can see how false marketing and other forms of dishonesty cause the erosion of trust over time. Another experiment showed that people's distrust is so deep that even statements such as "the sun is yellow" were mistrusted if attributed to corporations or political parties.

CHAPTER 13 – THE CONTEXT OF OUR CHARACTER, PART I

Through experiments and citations, the author concludes that there's a little bit of dishonesty in almost all of us (but not too much—stopped by our superego). Students who had a chance to self-report better test results than they actually earned did inflate their results a bit, but not when they were first asked to write down as many of the Ten Commandments as they could remember. That salutary effect was the same when the students were asked to sign a statement that the study fell under the university honor code.

CHAPTER 14 – THE CONTEXT OF OUR CHARACTER, PART II

Anecdotal evidence and one simple experiment showed that people find it easier to cheat or steal when their activity is one step removed from cash (e.g., take someone's soda but not their cash to buy a soda). After other examples, the author concludes: "None of this makes logical sense, but when the medium of exchange is nonmonetary, our ability to rationalize [dishonesty] increases by leaps and bounds!"

Ben Wolzenski

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CHAPTER 15 – BEER AND FREE LUNCHES

In this final chapter, the author presents one more experiment that exemplifies the predictable irrationality of humans. He then concludes by contrasting personal and public policy decision-making based on traditional (rational) economics, with that based on behavioral economics, which offers the opportunity for "free lunches" that traditional economics says do not exist.

In an experiment, individuals' choice of (free) beer was influenced by how others would perceive them as well as by how much they thought they would like the beer chosen. The author considers this further evidence of irrational behavior, i.e., not maximizing personal enjoyment. (An alternative view is that an individual might rationally weigh his or her perception by others as more important than how much he or she would enjoy the beer.)

ANECDOTAL EVIDENCE AND ONE SIMPLE EXPERIMENT SHOWED THAT PEOPLE FIND IT EASIER TO CHEAT OR STEAL WHEN THEIR ACTIVITY IS ONE STEP REMOVED FROM CASH.

As an introduction to Behavioral Economics, *Predictably Irrational* is an excellent place to start. ▼